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June 21, 2024

Honorable Debbie-Anne A. Reese  
Acting Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426-0001

*Re: PJM Interconnection, L.L.C., Docket No. ER24-2338-000  
Facilitating PJM Independent 205 Filing Rights Over Transmission Planning*

Dear Acting Secretary Reese,

Pursuant to section 205 of the Federal Power Act (“FPA”),<sup>1</sup> PJM Interconnection, L.L.C. (“PJM”) hereby proposes revisions to the PJM Open Access Transmission Tariff (“Tariff”)<sup>2</sup> to effectuate PJM’s ability to make independent proposals to the Federal Energy Regulatory Commission (“FERC” or the “Commission”) under FPA section 205<sup>3</sup> regarding transmission planning in the PJM Region—a right currently enjoyed by every other Regional Transmission Organization (“RTO”),<sup>4</sup> and virtually every other transmission planning public utility, in the United States.<sup>5</sup>

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<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> The Tariff is currently located under PJM’s “Intra-PJM Tariffs” eTariff title, available here: <https://etariff.ferc.gov/TariffBrowser.aspx?tid=1731>. Terms not otherwise defined herein shall have the same meaning as set forth in the Tariff, the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”), and the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”).

<sup>3</sup> 16 U.S.C. § 824d.

<sup>4</sup> In particular, the Midcontinent Independent System Operator, Inc. (“MISO”), the Southwest Power Pool, Inc. (“SPP”), and ISO New England Inc. (“ISO-NE”) all currently have the ability to submit independent proposals to the Commission under FPA section 205 regarding regional transmission planning. *See infra* at Section II.B., Figure PJM-5.

<sup>5</sup> In this filing, PJM is submitting proposed revisions to the Tariff pursuant to FPA section 205. PJM is separately submitting in a parallel filing proposed revisions to the Operating Agreement implementing this proposal pursuant to FPA section 206. PJM acknowledges that, when it makes a section 206 proposal to change its Operating Agreement accompanied by a section 205 filing to revise related provisions of its Tariff, it cannot put the section 205 filing to

As discussed herein, the current location of PJM’s Regional Transmission Expansion Planning (“RTEP”) Protocol in the Operating Agreement<sup>6</sup> means that PJM is *required* to obtain the approval of the PJM Members Committee prior to proposing *any* change in its planning rules to the Commission using the normal FPA section 205 filing process.<sup>7</sup> In the absence of such Members Committee approval, PJM may *only* propose a change to its planning rules for the Commission’s consideration using FPA section 206, thereby: (i) requiring PJM to first meet the higher statutory burden of demonstrating that an existing provision (or absence of a provision) is “unjust and unreasonable,” prior to actually proposing the rule change for consideration; and (ii) creating an indeterminate period of time for Commission action on PJM’s proposed rule change. On the other hand, if the RTEP Protocol were relocated to the PJM Tariff, PJM would have the exclusive right to submit independent FPA section 205 filings regarding its regional planning rules, by virtue of Tariff, Section 9.2(a).<sup>8</sup>

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revise its Tariff into effect until after the Commission has completed action on the section 206 filing. *See, e.g., PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,091, at P 1, n.4 (2014). PJM is filing this package separately under section 205 and 206 consistent with the Commission’s eTariff filing rules. *Id.*

<sup>6</sup> Currently, the RTEP Protocol is contained in Operating Agreement, Schedules 6, 6-A, and 6-B.

<sup>7</sup> *See* Operating Agreement, section 18.6(a) (“Except as provided by law or otherwise set forth herein, **this Agreement, including any Schedule hereto, may be amended**, or a new Schedule may be created, **only upon**: (i) submission of the proposed amendment to the PJM Board for its review and comments; **(ii) approval of the amendment or new Schedule by the Members Committee**, after consideration of the comments of the PJM Board, in accordance with Operating Agreement, section 8.4, or written agreement to an amendment of all Members not in default at the time the amendment is agreed upon; and (iii) approval and/or acceptance for filing of the amendment by FERC and any other regulatory body with jurisdiction thereof as may be required by law.” (emphasis added)).

<sup>8</sup> *See* Tariff, Section 9.2(a) (“PJM shall have the exclusive and unilateral right to file pursuant to Section 205 of the Federal Power Act and the FERC’s rules and regulations thereunder to make changes in or relating to the terms and conditions of the PJM Tariff (including but not limited to provisions relating to creditworthiness, billing, and defaults) as well as all charges for recovery of PJM costs.”). As discussed further below, PJM does not propose to make any changes to the stakeholder processes (nor PJM’s commitment to those processes) that PJM uses to obtain stakeholder feedback and gauge stakeholder support through voting. These processes have been the hallmark of PJM decision-making since its inception.

As discussed herein in Sections II.A – II.C, PJM, in consultation with its independent Board of Managers (“PJM Board”),<sup>9</sup> has determined that this historic regulatory paradigm for transmission planning in the PJM Region is no longer just and reasonable going forward, as PJM plans for the energy transition and looks to implement the long-term planning reforms of Order No. 1920.<sup>10</sup> In particular, the location of the RTEP Protocol in the Operating Agreement – and the associated higher filing burden and indeterminate timeframe for Commission action – is no longer just and reasonable for three specific reasons, each of which is described below in seriatim, in Sections II.A – II.C:

- A. By inhibiting PJM’s ability to independently propose planning rule changes to the Commission pursuant to FPA section 205, and receive a timely (within 60 days) reaction from the Commission to those proposals, the current paradigm unreasonably hampers PJM in meeting its legal responsibilities to plan its system to provide efficient, reliable, and non-discriminatory open access transmission service for all customers, as required by the Commission’s regulations, orders, and the RTEP Protocol itself;
- B. The current paradigm unduly discriminates against PJM by requiring PJM to meet a higher legal standard when proposing independent planning rule changes to the Commission than all other RTOs subject to the exact same planning regulations (ISO-NE, MISO, and SPP), without justification;
- C. The current paradigm limits the Commission’s ability to ensure comparability in its consideration of planning proposals from various RTOs and transmission planners, as PJM proposals are subject to a higher burden that limits the Commission’s ability to analyze such proposals consistently across the nation.

Accordingly, through this filing, PJM respectfully requests that the Commission, pursuant to FPA section 206, find that the location of the PJM RTEP Protocol in Operating Agreement,

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<sup>9</sup> Note that Operating Agreement, section 7.7(vi) specifically empowers the PJM Board to “[p]etition FERC to modify any provision of this Agreement or any Schedule or practice hereunder that the PJM Board believes to be unjust, unreasonable, or unduly discriminatory under section 206 of the Federal Power Act, subject to the right of any Member or the Members to intervene in any resulting proceedings.”

<sup>10</sup> *Building for the Future Through Regional Transmission Planning and Cost Allocation*, 187 FERC ¶ 61,068 (2024) (“Order No. 1920”).

Schedules 6, 6-A, and 6-B is unjust, unreasonable, unduly discriminatory and preferential, and adopt as the just and reasonable replacement rate<sup>11</sup> new Tariff, Schedules 19, 19-A, and 19-B, and several conforming revisions described herein,<sup>12</sup> to effectuate the transfer of the RTEP Protocol to the Tariff, thereby providing PJM with the ability to make independent FPA section 205 planning proposals to the Commission.<sup>13</sup>

PJM respectfully requests that the Commission establish an effective date for the revisions proposed herein of September 20, 2024.

PJM is submitting this filing in connection with the proposed revisions to the Consolidated Transmission Owners Agreement (“CTOA”),<sup>14</sup> the rights and commitments of which have been negotiated and agreed to by the PJM Transmission Owners and PJM, and were submitted to the Commission by the PJM Transmission Owners on June 21, 2024, in Docket No. ER24-2336-000. This process for amending the CTOA is mandated under CTOA, section 8.5.1. Because the rights to plan the PJM Transmission Owners’ facilities, and any accompanying filing rights, ultimately reside with the PJM Transmission Owners and require PJM to obtain the Transmission Owners’

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<sup>11</sup> 16 U.S.C. § 824e(a) (“Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order. Any complaint or motion of the Commission to initiate a proceeding under this section shall state the change or changes to be made in the rate, charge, classification, rule, regulation, practice, or contract then in force, and the reasons for any proposed change or changes therein.”).

<sup>12</sup> PJM notes that for administrative convenience, it is also submitting proposed revisions to the parts of the Tariff that are subject to the filing rights of the PJM Transmission Owners, with the permission and authorization of the PJM Transmission Owners.

<sup>13</sup> See Tariff, Section 9.2(a) (“PJM shall have the exclusive and unilateral right to file pursuant to Section 205 of the Federal Power Act and the FERC’s rules and regulations thereunder to make changes in or relating to the terms and conditions of the PJM Tariff (including but not limited to provisions relating to creditworthiness, billing, and defaults) as well as all charges for recovery of PJM costs.”).

<sup>14</sup> The CTOA is PJM Rate Schedule FERC No. 42 and currently located under PJM’s “Rate Schedules” eTariff title, available here: <https://etariff.ferc.gov/TariffBrowser.aspx?tid=1733>.

agreement to transfer,<sup>15</sup> the changes proposed in this filing are ultimately necessary to ensure regulatory alignment between the grantors of these rights (the PJM Transmission Owners) and the grantee (PJM), as well as regulatory alignment among the CTOA, the Operating Agreement, and the Tariff. Absent such alignment among the CTOA, the Operating Agreement, and the Tariff, and harmonization of the two agreements, the ultimate effectuation of the transfer is not possible, legally or practicably. This filing is being submitted with the mutual understanding that it reflects PJM and the PJM Transmission Owners' agreement to the CTOA amendments as a whole, and without acceptance of those amendments that include the PJM Transmission Owners' agreement to grant PJM with Tariff filing rights, PJM does not have the legal authority to effectuate the changes proposed in this filing. PJM and the PJM Transmission Owners have fully complied with the process for amending the CTOA, and accordingly PJM respectfully requests that the Commission also accept the proposed amendments to the CTOA in Docket No. ER24-2336-000, as well as the proposed amendments to the Tariff submitted in this filing.

PJM underscores that stakeholder involvement and respect for the established stakeholder processes as detailed in PJM Manual 34<sup>16</sup> is a key component that improves PJM decision-making and separates RTOs from non-RTO entities that do not have similar commitments to stakeholders. Nothing in this filing changes the processes (nor PJM's commitment to those processes) that PJM has employed to obtain stakeholder feedback and gauge stakeholder support through voting. Indeed these features have been the hallmark of PJM decision-making since its inception. Rather,

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<sup>15</sup> *Atl. City Elec. Co. v. FERC*, 295 F.3d 1 (DC Cir. 2002) (“*Atlantic City*”).

<sup>16</sup> Market Services Division, *PJM Manual 34: PJM Stakeholder Process*, PJM Interconnection, L.L.C. (Nov. 15, 2023), <https://www.pjm.com/-/media/documents/manuals/m34.ashx>.

this filing solely focuses on whether, after receiving stakeholder input, PJM as an independent entity is able to exercise its independent judgment and propose changes to its planning rules pursuant to FPA section 205, in a manner similar to every other RTO in the nation. By the same token, this filing allows the Commission to analyze those proposed rule changes using the same standard of review that it would employ if the identical planning rule were proposed by one of PJM's sister RTOs. Such a result would promote the consistency in review of planning rules across the nation and ensure that PJM is able to move forward in a nimble manner to effectuate improvements to its planning process.

## I. BACKGROUND

### A. PJM's Role in Transmission Planning

PJM, in coordination with its Member Transmission Owners, is responsible under federal law for planning a transmission system that serves all or part of thirteen states and the District of Columbia, and approximately sixty-five million Americans therein. PJM is currently designated as the North American Electric Reliability Corporation (“NERC”)-registered Planning Authority/Planning Coordinator (PA/PC), Transmission Planner (TP), Reliability Coordinator (RC), Transmission Operator (TOP), Balancing Authority (BA), Resource Planner (RP), and Transmission Service Provider (TSP) for the PJM Region.<sup>17</sup> Under the CTOA, PJM is required to “[a]dminister the Regional Transmission Expansion Planning Protocol,”<sup>18</sup> and “[c]onduct its planning for the expansion and enhancement of transmission facilities based on a planning horizon

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<sup>17</sup> PJM is currently registered under NCR00879 in the NERC Compliance Registry. See *Organization Registration and Organization Certification*, North American Electric Reliability Corp., <https://www.nerc.com/pa/comp/Pages/Registration.aspx> (last visited June 17, 2024).

<sup>18</sup> CTOA, section 6.3.3.

of at least ten years.”<sup>19</sup> Under the RTEP, PJM is similarly required to “[p]repare a plan for the enhancement and expansion of the Transmission Facilities in order to meet the demands for firm transmission service, and to support competition, in the PJM Region”<sup>20</sup> and conform the RTEP to “the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals.”<sup>21</sup>

*B. How the RTEP Protocol Came to Reside in the Operating Agreement*

In its 1996 Guidance Order,<sup>22</sup> the Commission evaluated a proposal from nine of the ten original PJM Transmission Owners to comprehensively restructure the PJM power pool, as well as a competing restructuring proposal from PECO Energy Company. As relevant here, the Commission in the 1996 Guidance Order expressed concern that the Transmission Owners’ proposals did not provide PJM with sufficient independence regarding regional planning.<sup>23</sup>

In response to the 1996 Guidance Order, the PJM Transmission Owners submitted a revised proposal on June 2, 1997, in Docket No. EC97-38-000.<sup>24</sup> In order to address the

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<sup>19</sup> *Id.*, section 6.3.4.

<sup>20</sup> Operating Agreement, Schedule 6, section 1.1.

<sup>21</sup> *Id.*, Schedule 6, section 1.2.

<sup>22</sup> *Atl. City Elec. Co.*, 77 FERC ¶ 61,148 (1996) (“1996 Guidance Order”).

<sup>23</sup> *See, e.g., id.* at 61,578 (“While the ISO’s role with respect to planning and reliability would be well defined, the ISO would be unable to exercise primary responsibility in these areas; rather, primary responsibility for planning and reliability would be vested in the PJM-dominated administrative committees under the related agreements. More specifically, transmission planning would be conducted by an advisory committee under the Transmission Owners Agreement.”); *id.* at 61,580-81 (“Under PECO’s proposal, the ISO would prepare the recommended regional transmission expansion plan in accordance with the regional transmission procedures of PECO’s proposed transmission tariff, and forward it to the MAAC executive board for approval . . . While this proposal appears to permit the ISO to direct needed expansion of the transmission grid, the Commission is concerned that PECO has not explained how MAAC executive board review would not compromise the independence of the ISO’s transmission planning authority.”).

<sup>24</sup> *Atl. City Elec. Co.*, Tariff Filing of PJM Supporting Companies, Docket No. EC97-38-000 (June 2, 1997) (“PJM Supporting Companies’ Revised Proposal”).

Commission's concerns regarding PJM's independence to conduct regional planning, the PJM Transmission Owners did *not* propose that the RTEP Protocol become a schedule to the Tariff. This was because the Transmission Owners Agreement at the time did not permit PJM to independently propose changes to the Tariff, absent the Transmission Owners' consent.<sup>25</sup>

Instead, the PJM Transmission Owners proposed that the RTEP Protocol become a schedule to the Operating Agreement, which, in conjunction with the other proposed changes to the Operating Agreement, would in their words "establish[] an ISO with responsibility for system operations, administration of the PJM Tariff, *and regional transmission planning.*"<sup>26</sup> The PJM Transmission Owners explained that this arrangement would ensure that "[n]o stakeholder or industry segment has the ability to control the ISO's functions or to prevent the ISO from acting," and that "for those few matters that come before the members for action, the voting rights continued to be structured so that no one industry segment can either force or block action."<sup>27</sup> The PJM Transmission Owners further stated that "*the combination of an independent Board of Managers and the limitations on the Members Committee's responsibilities will ensure that the Office of Interconnection can perform its operating responsibilities without undue influence from the Members, individually or as a whole.*"<sup>28</sup>

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<sup>25</sup> Specifically, the Transmission Owners Agreement submitted in the PJM Supporting Companies' Revised Proposal in Docket No. EC97-38-000, dated June 2, 1997, contained a provision in section 5.2.1 that stated ("If (i) the Parties agree upon proposed changes to the non-rate terms and conditions of the PJM Tariff by vote in accordance with Section 6.5.2, and (ii) such proposed changes are not rejected by a majority of the members of the PJM Board, such proposal shall be filed with FERC on behalf of the Parties pursuant to Section 205 of the Federal Power Act."). See *also id.*, section 5.1.2.

<sup>26</sup> PJM Supporting Companies' Revised Proposal at 3 (emphasis added).

<sup>27</sup> *Id.* (emphasis added).

<sup>28</sup> *Id.*, Attachment B at 1 (emphasis added).



In an order issued November 25, 1997,<sup>29</sup> the Commission accepted the proposed RTEP Protocol as a component of the Operating Agreement.<sup>30</sup>

*C. PJM Board and Stakeholder Processes*

At the February 22, 2024 meeting of the PJM Members Committee, stakeholders engaged in a wide-ranging discussion regarding revisions to the CTOA proposed by the PJM Transmission Owners that would, among other things, effectuate the transfer of FPA section 205 filing rights of the RTEP Protocol to PJM.<sup>31</sup> On March 12, 2024, the PJM Board responded to various correspondences from stakeholders, both in favor and opposed to, the proposed CTOA amendments.<sup>32</sup> The Board stated that, in light of the varied stakeholder input it had received on the topic, it required more time to evaluate the different perspectives and policy implications, and would grant a request from the Organization of PJM States, Inc. (“OPSI”) to delay action on the proposed CTOA amendments until after March 31, 2024.

On April 3, 2024, OPSI sent a letter to the PJM Board,<sup>33</sup> stating that “OPSI agrees with the Sponsors that the PJM Board should have exclusive authority to amend the regional transmission planning rules commensurate with its responsibility to ensure the reliability of the grid,” but also expressing concerns regarding the other proposed revisions to the CTOA, and the interaction of

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<sup>29</sup> *Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257 (1997), *order on reh’g*, 92 FERC ¶ 61,282 (2000), *modified sub nom. Atl. City Elec. Co. v. FERC*, 295 F.3d 1 (D.C. Cir. 2002).

<sup>30</sup> *Id.* at 62,275.

<sup>31</sup> See Minutes of the February 22, 2024 Members Committee Meeting, available here: <https://pjm.com/-/media/committees-groups/committees/mc/2024/20240320/20240320-consent-agenda-a---draft-mc-minutes---02222024.ashx>.

<sup>32</sup> The PJM Board’s March 12, 2024 correspondence is available here: <https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/2024/20240312-board-response-to-several-transmission-owners-letter-re-ctoa-amendments-proposed-by-aep--aes-oh-exelon-ppl.ashx>.

<sup>33</sup> OPSI’s April 3, 2024 correspondence is available here: <https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/2024/20240403-opsi-letter-re-proposed-ctoa-revisions.ashx>.

the proposed CTOA amendments with the processes for amending the Operating Agreement. On April 17, 2024, the Board responded to the OPSI April 3, 2024 correspondence,<sup>34</sup> stating that it “shares OPSI’s concerns about following a defined process to amend the OA.” The Board acknowledged that “[w]hile the CTOA is a foundational governing document, the OA is also a foundational governing document,” and “[a]s such, an attempt should be made to amend the OA by a vote of the Members Committee.” To this end, the Board announced that it was invoking Operating Agreement, section 7.7(v),<sup>35</sup> and submitting to the Members Committee proposed amendments to the Operating Agreement that would serve to move Schedule 6 (including Schedules 6-A and 6-B) out of the Operating Agreement and into the Tariff, along with any necessary conforming Operating Agreement and Tariff changes.

In accordance with the Board’s April 17, 2024 correspondence, PJM brought proposed amendments to the Operating Agreement and Tariff to the May 6, 2024 Members Committee meeting for consideration. After discussion, the Members Committee failed to endorse the proposed amendments to the Operating Agreement and Tariff.<sup>36</sup>

On May 31, 2024, the PJM Board issued a correspondence acknowledging the extensive stakeholder feedback it had received on the proposed CTOA amendments and the concept of PJM

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<sup>34</sup> The Board’s April 17, 2024 correspondence is available here: <https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/2024/20240417-pjm-board-response-to-opsi-letter-re-proposed-ctoa-revisions.ashx>.

<sup>35</sup> Operating Agreement, Section 7.7(v) states that the Board may “[o]n its own initiative or at the request of a User Group as specified herein, submit to the Members Committee such proposed amendments to this Agreement or any Schedule hereto, or a proposed new Schedule, as it may deem appropriate.”

<sup>36</sup> See Minutes from May 6, 2024 Members Committee meeting, available here: <https://pjm.com/-/media/committees-groups/committees/mc/2024/20240522/20240522-consent-agenda-a---draft-mc-minutes---05062024.ashx>.

having FPA section 205 filing rights over the RTEP Protocol.<sup>37</sup> The Board noted (i) the scale and complexity of the energy transition facing the PJM Region, (ii) the need for PJM to be “more proactive and nimble in its planning efforts” in light of that transition, and (iii) the fact that PJM’s sister RTOs and other transmission planning public utilities in the United States have FPA section 205 filing rights over transmission planning. The Board also stated that it viewed the ability of PJM to propose changes to its planning rules, and receive a reaction from the Commission, whether positive or negative, within 60 days, as “strategically important in determining how best to plan the PJM system for the energy transition in the coming years.” The Board also described the extensive due diligence it had done independently, and through requests to PJM Staff, in considering the matter, including considerations of potential interactions with the then recently-released Order No. 1920. The Board stated that, after its independent consideration, it had concluded that the proposed CTOA amendments were reasonable, and instructed PJM to proceed with the effort of moving the RTEP protocol out of the Operating Agreement and into the Tariff.

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<sup>37</sup> The Board’s May 31, 2024 correspondence is available here: <https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/2024/20240531-board-comm-moving-planning-protocol-from-oa-to-tariff-and-ctoa-revisions.ashx>.

## II. THE LOCATION OF THE PJM RTEP PROTOCOL IN THE OPERATING AGREEMENT IS NO LONGER JUST AND REASONABLE

A. *By inhibiting PJM's ability to independently propose planning rule changes to the Commission pursuant to FPA section 205, and receive a timely (within 60 days) reaction from the Commission to those proposals, the current paradigm unreasonably hampers PJM in meeting its legal responsibilities to plan its system to provide efficient, reliable, and non-discriminatory open access transmission service for all customers, as required by the Commission's regulations, orders, and the RTEP Protocol itself.*

i. The "Integral and Essential" Link Between Transmission Planning and Transmission Service

The link between transmission *planning* and transmission *service* has long been memorialized in the Commission's regulations and orders. For example, section 35.34(k) of the Commission's regulations, which establishes the "*Required Functions of a Regional Transmission Organization*," states in relevant part:

(7) ***Planning and expansion.*** The Regional Transmission Organization must be responsible for planning, and for directing or arranging, necessary transmission expansions, additions, and upgrades *that will enable it to provide efficient, reliable and non-discriminatory transmission service and coordinate such efforts with the appropriate state authorities.*<sup>38</sup>

In Order No. 888-A, the Commission found that "the transmission provider is responsible for planning and maintaining sufficient transmission capacity *to safely and reliably serve its native load.*"<sup>39</sup> Similarly, in Order No. 890, the Commission explicitly predicated its reforms to regional planning processes on the need to provide customers with non-discriminatory transmission service,

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<sup>38</sup> 18 C.F.R. § 35.34(k)(7) (emphasis added).

<sup>39</sup> *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888-A, 78 FERC ¶ 61,220, 1996–2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,048, at 30,279 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000) (emphasis added).

stating that “[t]o ensure that truly comparable transmission service is provided by all public utility transmission providers, including RTOs and ISOs, we amend the *pro forma* OATT to require coordinated, open, and transparent transmission planning on both a sub-regional and regional level.”<sup>40</sup>

Several years later, in Order No. 1000-A, the Commission again reiterated this “integral and essential” link between transmission planning and transmission service, stating:

*[W]e reiterate that both transmission planning and cost allocation are integral and essential components of the provision of transmission service. The transmission planning and cost allocation reforms adopted in Order No. 1000 are intended to facilitate the development of a robust transmission system capable of providing improved open access transmission service and to help ensure that transmission rates are just and reasonable and not unduly discriminatory or preferential.*<sup>41</sup>

Moreover, in Order No. 2000-A,<sup>42</sup> the Commission underlined a basic premise of Order No. 2000—that “the RTO must have ultimate responsibility for planning, and for directing or arranging, necessary transmission expansions, additions and upgrades within its region *that will enable the RTO to provide efficient, reliable and non-discriminatory service.*”<sup>43</sup>

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<sup>40</sup> *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 118 FERC ¶ 61,119, at P 84, *order on reh’g*, Order No. 890-A, 121 FERC ¶ 61,297 (2007), *order on reh’g & clarification*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh’g & clarification*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009) (emphasis added).

<sup>41</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000-A, 139 FERC ¶ 61,132, at P 777, *order on reh’g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff’d sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014) (emphasis added).

<sup>42</sup> *See Regional Transmission Organizations*, Order No. 2000, 89 FERC ¶ 61,285, 1996–2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,089 (1999), *order on reh’g*, Order No. 2000-A, 90 FERC ¶ 61,201, 1996–2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,092 (2000), *aff’d sub nom. Pub. Util. Dist. No. 1 v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

<sup>43</sup> Order No. 2000-A at 31,380-81 (emphasis added).

And as recently as last month, the Commission in Order No. 1920 reemphasized the direct and inextricable connection between transmission planning and transmission service, beginning its order by stating:

*The reforms herein will remedy deficiencies in the Commission’s existing regional and local transmission planning and cost allocation requirements to ensure that the rates, terms, and conditions for transmission service provided by public utility transmission providers (transmission providers) remain just and reasonable and not unduly discriminatory or preferential.*<sup>44</sup>

Finally, the link between transmission planning and transmission service is codified in the RTEP Protocol itself, where PJM is required to “[p]repare a plan for the enhancement and expansion of the Transmission Facilities *in order to meet the demands for firm transmission service*, and to support competition, in the PJM Region”<sup>45</sup>

ii. Macro-Trends In the PJM Region Regarding Resource Mix and Load Growth

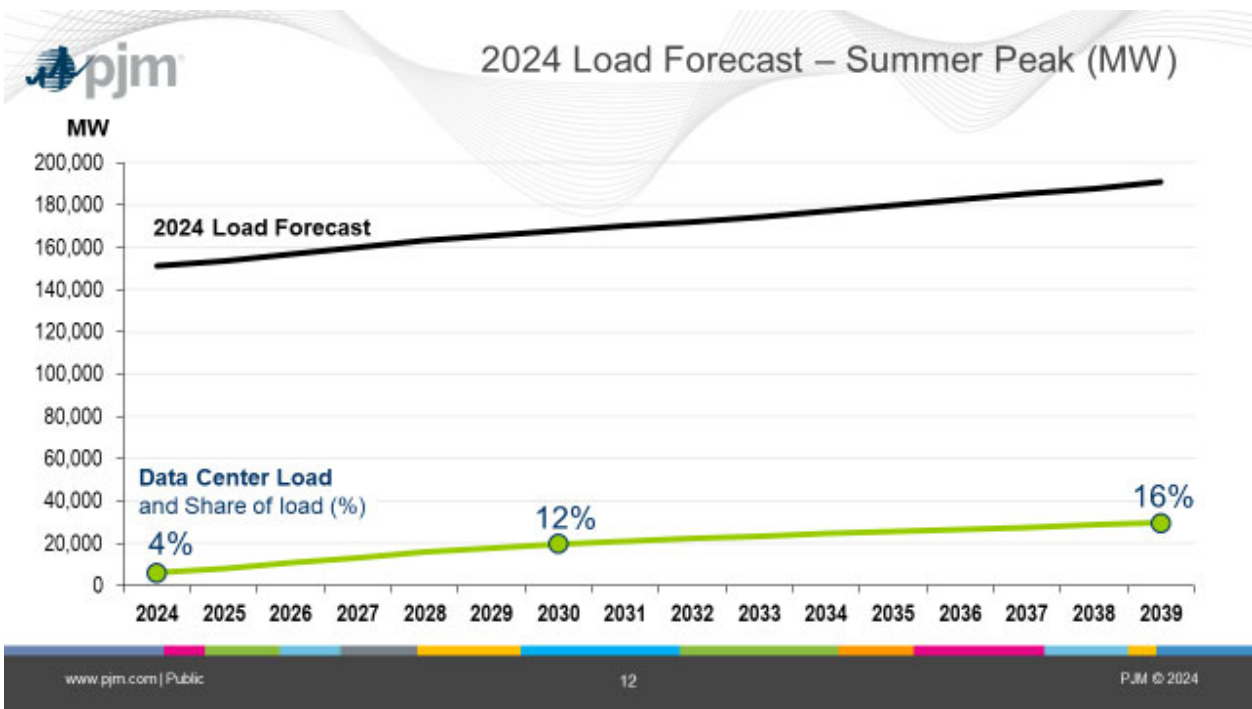
PJM’s ability to meet its requirements to plan its system to facilitate efficient, reliable, and non-discriminatory open access transmission service for all customers is currently being challenged by major changes in resource mix and load growth in the PJM Region, the pace of which is expected to significantly accelerate in the coming years. By way of example, PJM’s current summer peak load forecast shows a significant increase in load growth, with the share of total load attributable to data centers (currently 4%) expected to rise to 12% by 2030, and 16% by 2039.

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<sup>44</sup> Order No. 1920 at P 1 (emphasis added) (footnote omitted).

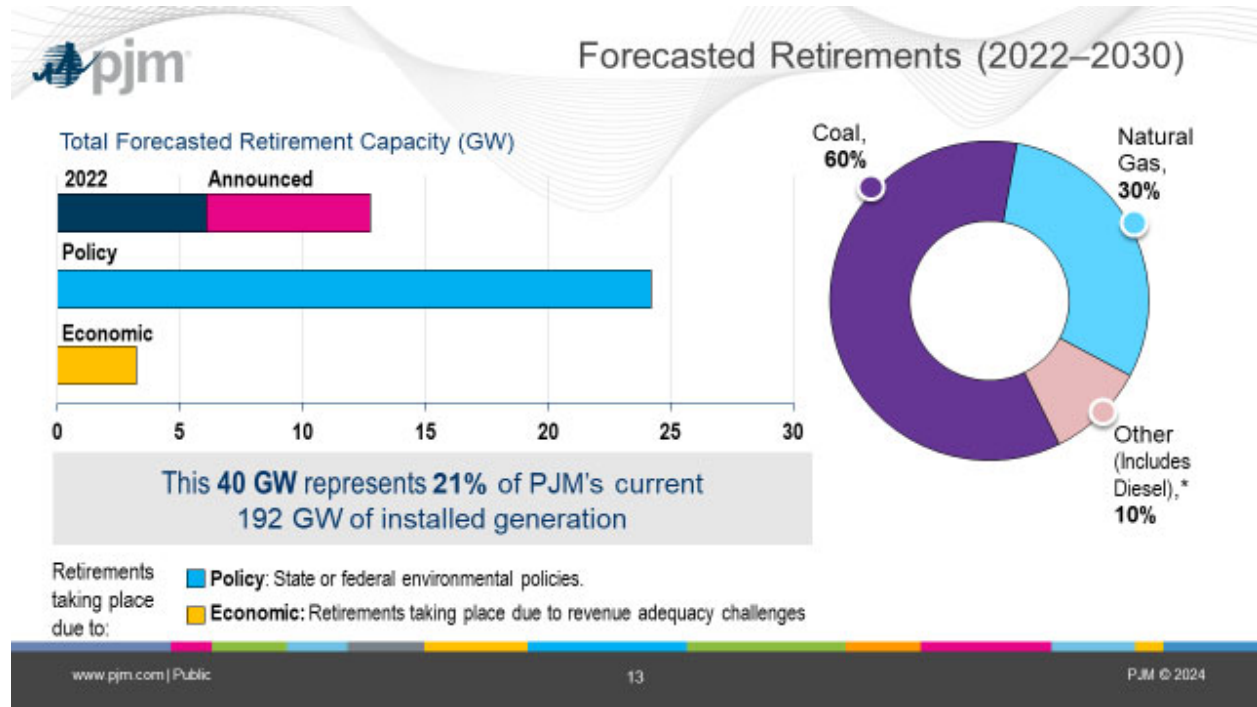
<sup>45</sup> Operating Agreement, Schedule 6, section 1.1 (emphasis added).

Figure PJM-1



PJM resource adequacy analysis simultaneously indicates significant retirements of existing fossil fuel capacity, with PJM currently projecting the retirement of 40,000 MWs, or 21% of PJM’s current 192,000 MW installed capacity margin, between 2022 and 2030.

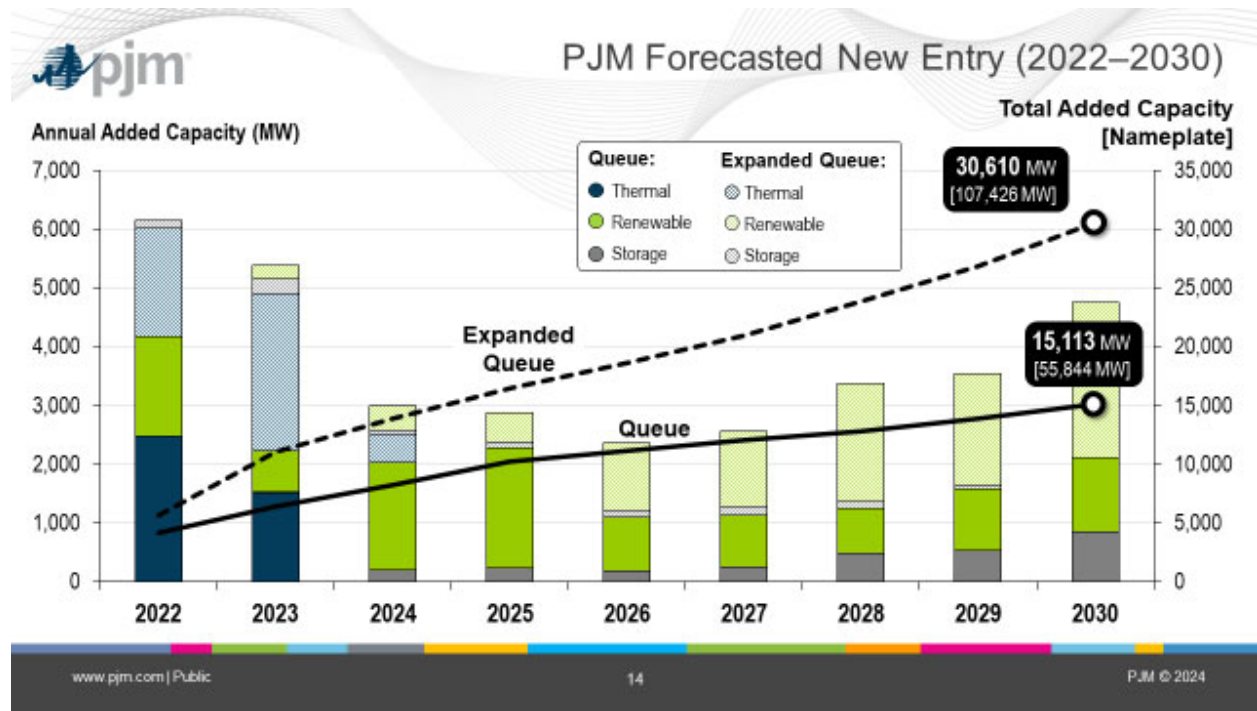
Figure PJM-2



Adding to this challenge is the pace of replacement capacity being built and brought into service. Based on the historic pace of resources transitioning from the interconnection queue to commercial operation, as well as current renewable development complexities associated with supply chain, financing, and state and local siting, PJM currently projects a shortfall in supply by the end of this decade.

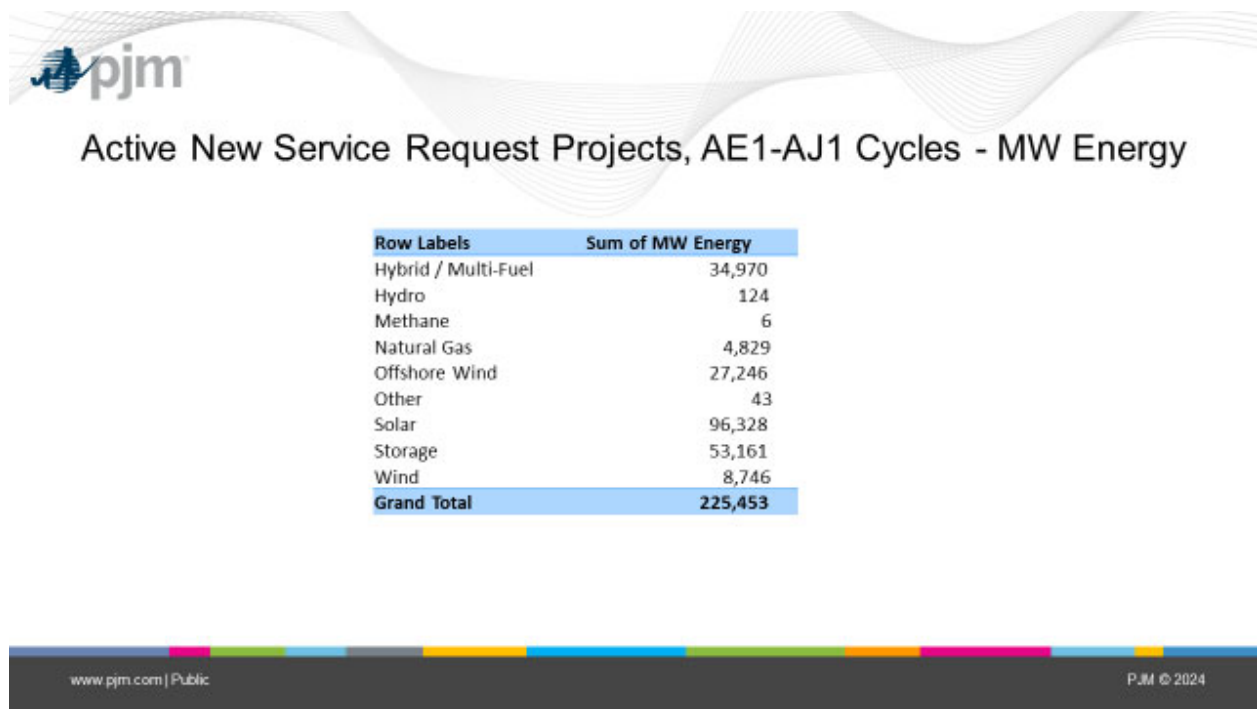


Figure PJM-3



Finally, the replacement capacity currently comprising the PJM interconnection queue is overwhelmingly non-traditional, and often intermittent, resources. Due to the reduced Effective Load Carrying Capacity of these non-traditional resources, more of these resources are required to replace the retiring capacity, resulting in an ever greater need for transmission planning and expansion.

**Figure PJM-4**



iii. The Need for Reform

These macro-trends, in conjunction with important recent developments in long-term transmission planning such as Order No. 1920, warrant a reconsideration of the regulatory paradigm within which the RTEP Protocol has historically functioned. PJM is an independent Commission-designated RTO, institutionally structured to have no financial interest in any particular planning outcome, and as described above, is legally required to plan its system to facilitate efficient, reliable, and non-discriminatory open access transmission service for all customers. Yet by virtue of the RTEP’s location in the Operating Agreement, PJM Members or sectors that *have* a financial interest in a particular planning outcome, and are *not* legally required to plan to facilitate efficient, reliable, and non-discriminatory open access transmission service for all customers, can prevent PJM from making independent submissions to the Commission using

the normal FPA section 205 process. Given that PJM currently has over 1,100 members with radically divergent individual and narrow financial interests, this structure needlessly inhibits PJM's ability to exercise its independent perspective, judgement, and expertise in proposing solutions to the critical planning challenges facing the Region in the coming years. It also runs counter to the initial rationale put forward in the June 2, 1997 PJM Supporting Companies' Revised Proposal, which was that locating the RTEP Protocol in the Operating Agreement would ensure that "*[n]o stakeholder or industry segment has the ability to control the ISO's functions or to prevent the ISO from acting,*" and that "*for those few matters that come before the members for action, the voting rights continued to be structured so that no one industry segment can either force or block action.*"<sup>46</sup> The PJM Supporting Companies Revised Proposal also reasoned that "*the combination of an independent Board of Managers and the limitations on the Members Committee's responsibilities will ensure that the Office of Interconnection can perform its operating responsibilities without undue influence from the Members, individually or as a whole.*"<sup>47</sup>

Equally as important, the current structure prevents PJM from receiving a timely (within 60 days) reaction from the Commission on a particular planning proposal, which in turn: (i) needlessly delays informing PJM and its Members of the Commission's view on a particular proposal, and by extension, the exploration and discussion of alternative proposals to address the issue; (ii) needlessly delays the rehearing, clarification, and appeals process for interveners, both for and against a particular proposal; and (iii) needlessly delays PJM's budgeting, development,

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<sup>46</sup> *Supra* n.26.

<sup>47</sup> *Supra* n.28.

and preparation to implement a particular proposal. Given the scale of the planning challenges facing the PJM Region, this historic paradigm will unreasonably hamper PJM's ability to react quickly to plan its system going forward, and by extension meet PJM's legal requirements to provide efficient, reliable, and non-discriminatory open access transmission service for all customers. Accordingly, this historic regulatory paradigm is unjust and unreasonable under FPA section 206.

Some interveners may argue that Members Committee approval as a precondition to a PJM FPA section 205 filing has value, because it ensures that PJM only submits proposals to the Commission that have sufficient Member support. Yet this perspective is fundamentally undermined by the Operating Agreement itself. Because the PJM Board has the authority under the Operating Agreement to make submissions under FPA section 206,<sup>48</sup> PJM's proposal can *still* be presented to the Commission via an FPA section 206 filing, even *without* Members Committee endorsement. In other words, there is no Member right to completely prevent the proposal from getting to the Commission, and theoretically protect the narrow financial interests of individual Members or sectors (even at the expense of planning a transmission system for sixty-five million Americans). The only "right" that the current paradigm functionally grants to PJM Members is the ability to require PJM to make the *same* submission PJM would otherwise make under FPA section 206, rather than FPA section 205, thereby removing *any* timing parameters for facilitating

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<sup>48</sup> Operating Agreement, section 7.7(vi) (establishing that the PJM Board may "Petition FERC to modify any provision of this Agreement or any Schedule or practice hereunder that the PJM Board believes to be unjust, unreasonable, or unduly discriminatory under section 206 of the Federal Power Act, subject to the right of any Member or the Members to intervene in any resulting proceedings.").

a Commission reaction to the proposal.<sup>49</sup> It is unclear how any PJM Member would benefit from this procedural dynamic, as it simply creates an elongated period of regulatory uncertainty.

Critically, permitting PJM to make independent proposals to the Commission using the normal FPA section 205 process *will not in any way* diminish, reduce, or otherwise change the current PJM stakeholder process as it exists today. Nor will it prevent or inhibit in any way the participation of any intervener in a proceeding once the proposal is filed with the Commission and docketed. Diverse stakeholder feedback has always been and will remain an essential component of PJM’s decision making process on any issue. Yet such feedback should not serve as a procedural bar to PJM exercising its independent perspective, judgement, and expertise in ultimately, after stakeholder deliberation, making proposals to the Commission through the normal FPA section 205 filing process. The Commission has explained that “the principle of independence is the bedrock upon which the ISO must be built,” and that “this principle must apply to all RTOs, transcos or variants of the two.”<sup>50</sup> To this end, “[a]n RTO needs to be independent in both reality and perception,”<sup>51</sup> and granting the relief requested herein will solidify this “bedrock” principle of independence, as PJM looks to meet the major challenges of regional planning in the coming years.

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<sup>49</sup> As discussed below *infra* Section II.B, this paradigm also requires PJM to first meet the higher “unjust and unreasonable” standard *prior* to proposing its ideas around regional planning to the Commission, which inverts the statutory purpose and protections of the FPA and serves no practical benefit to PJM, customers, or the Commission.

<sup>50</sup> Order No. 2000 at 31,061.

<sup>51</sup> *Id.*

*B. The paradigm unduly discriminates against PJM by requiring PJM to meet a higher legal standard when independently proposing planning rule changes to the Commission than all other RTOs subject to the exact same planning regulations (ISO-NE, MISO, and SPP), without justification.*

RTOs constitute a unique and defined class of public utilities under the Commission’s regulations, and accordingly have to comply with a unique and defined set of requirements. Specifically, as an RTO, PJM is subject to section 35.34(k) of the Commission’s regulations, which establishes the “*Required Functions of a Regional Transmission Organization*,” and states in relevant part:

(7) ***Planning and expansion.*** The Regional Transmission Organization must be responsible for planning, and for directing or arranging, necessary transmission expansions, additions, and upgrades that will enable it to provide efficient, reliable and non-discriminatory transmission service and coordinate such efforts with the appropriate state authorities.<sup>52</sup>

In conjunction with the required “planning and expansion” function that all RTOs must perform, the Commission’s regulations also establish the “*Required Characteristics of a Regional Transmission Organization*” in section 35.34(j). As relevant here, these regulations state at section 35.34(j)(1)(iii) that:

The Regional Transmission Organization must have exclusive and independent authority under section 205 of the Federal Power Act (16 U.S.C. § 824d), to propose rates, terms and conditions of transmission service provided over the facilities it operates.<sup>53</sup>

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<sup>52</sup> 18 C.F.R. § 35.34(k)(7).

<sup>53</sup> 18 C.F.R. § 35.34(j)(1)(iii). This regulation is interpreted in consideration of the CTOA, and the *Atlantic City* decision, *supra* n.15.

Section 35.34(j)(1)(iii) is a critical component of RTO independence, because it requires that an RTO have “exclusive and independent” FPA section 205 filing rights over the rates, terms, and conditions of transmission service. In Order No. 2000-A, the Commission emphasized the importance of this concept. Specifically, the Commission reasoned that “[t]he tariff establishes the rates, terms, and conditions under which the RTO will provide transmission service to transmission customers,” and “[if] the RTO does not have the independent right to seek appropriate changes to its tariff, it is difficult to see how that RTO could be viewed as providing a transmission service that is independent from market participants.”<sup>54</sup> The Commission concluded that, in the context of transmission service, “[b]ecause the RTO is providing the jurisdictional service, it is clearly within the parameters of section 205 for the RTO to have on file a rate schedule for the services it provides, and that it have the exclusive authority to propose changes to that rate schedule.”<sup>55</sup> As described above in Section II.A.i, transmission planning is *intimately linked* with transmission service, both as a practical matter and under the Commission’s regulations and orders, and accordingly the same rationale used by the Commission in Order No. 2000 for RTO independent FPA section 205 authority over transmission *service* should apply to transmission *planning* as well.

PJM and its sister RTOs—MISO, SPP, and ISO-NE—are all subject to these same regulations (35.34(k) and 35.34(j)(1)(iii)). Yet MISO, SPP, and ISO-NE all have an ability that PJM does not—the ability to submit independent FPA section 205 filings to the Commission to

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<sup>54</sup> Order No. 2000-A at 31,370.

<sup>55</sup> *Id.* at 31,371.

propose changes to their regional transmission planning rules. This significant discrepancy is illustrated by the following figure.

**Figure PJM-5**

**Status of Independent Filing Rights Over Regional Planning Among RTOs**

RTO	Independent 205 Filing Right Over Regional Planning	Governing Document Citation	Stakeholder Involvement
<b>MISO</b>	Yes	Transmission Owners Agreement, Appendix K, section II(L); Tariff, Attachment FF	The Planning Advisory Committee (PAC) provides input on MTEP Protocol-related matters to the Advisory Commission (AC)  MISO AC provides stakeholder feedback to MISO Board, but does not exercise control over MISO or MISO Board.
<b>SPP</b>		Membership Agreement, section 2.1.1(h); Tariff, Attachment O	The Markets and Operations Policy Committee (MOPC) votes on proposed changes to the SPP TPP Protocol, but SPP is not constrained by the vote when exercising its FPA section 205 filing rights.
<b>ISO-NE</b>		Transmission Operating Agreement, section 3.04(c); Tariff, Attachment K	The Planning Advisory Committee (PAC) provides input on issues related to the Regional System Plan (RSP), but no voting occurs in this committee.  The New England Power Pool (NEPOOL) Participants Committee (PC) stakeholder process must be held, but an affirmative NEPOOL vote is not required for ISO-NE to exercise its section 205 rights.
<b>PJM</b>	No	Operating Agreement, section 18.6(a)	Absent Members Committee Approval, PJM may not submit an FPA section 205 filing to change any planning rule in the RTEP Protocol.

In light of the planning challenges facing the PJM region in the coming years, this historic discrepancy is unduly discriminatory under FPA section 206. The Commission has explained that



“undue discrimination can only occur when two similarly situated customers are treated differently, and there is no justification for the differing treatment.”<sup>56</sup> More specifically, “a finding of undue discrimination requires a showing that (1) two classes of customers are treated differently; and (2) the two classes of customers are similarly situated.”<sup>57</sup> As an RTO subject to the *exact same* regulations regarding system planning and filing rights over transmission service (18 C.F.R. §§ 35.34(k)(7) & 35.34(j)(1)(iii)), PJM is unquestionably similarly situated to MISO, SPP, and ISO-NE. Yet, as illustrated above, PJM is also unquestionably treated differently, in that it is restricted in its ability to make independent planning proposals to the Commission using the normal FPA section 205 filing process, and must instead submit its independent proposals under FPA section 206. This is unjust, unreasonable, and unduly discriminatory and preferential, because it functionally requires PJM to first meet the higher “unjust and unreasonable” legal standard under FPA section 206, *before* the Commission can consider whether or not PJM’s proposal is just and reasonable.<sup>58</sup>

There is no “justification” for requiring PJM to meet this higher legal standard than its sister RTOs. ISO-NE, MISO, and SPP are large, multi-state RTOs with active, diverse, and robust stakeholder communities, just like PJM, and are similarly responsible under the *exact same* Commission regulations applicable to RTOs for planning their systems to ensure efficient, reliable, and non-discriminatory transmission service. There is no reason why PJM should be treated

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<sup>56</sup> *PacifiCorp Elec. Operations*, 54 FERC ¶ 61,296, at 61,855 (1991).

<sup>57</sup> *TranSource, LLC v. PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,119, at P 240 (2019).

<sup>58</sup> 16 U.S.C. 824e(a) (“Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order.”).

differently, and required to meet a higher legal standard in submitting independent proposals to the Commission for consideration. Moreover, FPA section 206, and its corresponding higher burden of proof, was never intended to be the statutory vehicle through which a public utility proposes changes *to its own rates*—that is the purpose of FPA section 205. As the United States Court of Appeals for the District of Columbia Circuit explained in 2017:

Sections 205 and 206 are related but distinct provisions of the FPA. The purpose of section 206 is quite different from that of section 205. *Section 205 enables a utility to propose changes in its own rates. Section 206 empowers FERC to modify existing rates upon complaint or on FERC’s own initiative. In contrast to section 206, section 205 is intended for the benefit of the utility, and FERC plays an essentially passive and reactive role under section 205. Section 206’s procedures are entirely different and stricter than those of section 205.*<sup>59</sup>

As the court acknowledged in *Emera Maine*, “[t]he FPA, by requiring FERC to show that an existing rate is unlawful before ordering a new rate under section 206, provides a form of statutory protection to a utility.”<sup>60</sup> In other words, FPA section 206 is designed to be used by an entity *other than* the applicable public utility to effectuate a change *against* the applicable public utility’s rates. This dynamic is precisely why text of FPA section 206 contains extensive refund protections *for customers*, including the ability for the Commission to order full refunds beyond the applicable fifteen month period upon a finding of “dilatory behavior *by the public utility*.”<sup>61</sup> It is also why the United States Supreme Court has observed “[h]at the purpose of the power given the Commission by s[ection] 206(a) is the protection of the public interest, as distinguished from the

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<sup>59</sup> *Emera Maine v. FERC*, 854 F.3d 9, 24 (D.C. Cir. 2017) (emphasis added) (internal citations and quotation marks omitted) (“*Emera Maine*”).

<sup>60</sup> *Id.* (internal citations and quotations omitted).

<sup>61</sup> 16 U.S.C. § 824e(b) (emphasis added).

private interests of the utilities, is evidenced by the recital in s[ection] 201 of the Act that the scheme of regulation imposed ‘is necessary in the public interest.’”<sup>62</sup> By only permitting PJM to submit its independent proposals to the Commission through FPA section 206, the current paradigm requires the public utility (PJM) to first argue a case against *itself*, dismantle from within the “statutory protection” that FPA section 206 affords *to public utilities* through its higher legal standard, and only then (finally) propose its independent ideas concerning regional planning to the Commission. This procedurally bizarre inversion of the statutory purpose and protections of the FPA serves no practical benefit to PJM, customers, or the Commission, and provides no legal justification for treating PJM differently than its sister RTOs.

*C. The current paradigm limits the Commission’s ability to ensure comparability in its consideration of planning proposals from various RTOs and transmission planners, as PJM proposals are subject to a higher burden that limits the Commission’s ability to analyze such proposals consistently across the nation.*

The present paradigm not only limits *PJM’s* ability to present proposed improvements to its planning process under a normal FPA section 205 “just and reasonable” standard, but also limits *the Commission’s* ability to have a rational and consistent regulatory review of similar proposals across the nation. For example, assume that identical independent planning protocol improvements were submitted to the Commission by PJM and MISO, its neighboring RTO. The Commission would have to judge that exact same independent proposals not just on the respective records before it, but separately on entirely different standards of review. This cannot help to advance a rational regulatory program, such as that contemplated in Order No. 1920, across the planning entities subject to the Commission’s jurisdiction. The issue of different legal standards

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<sup>62</sup> *FPC v. Sierra Pac. Power Co.*, 350 U.S. 348, 354 (1956).

of review becomes even more problematic when considering how the Commission might look to address seams issues and interregional transfer capability, where proposals from PJM and its neighbors would have to be judged under very different legal standards of review. In short, the current paradigm is an artifact of history, that is no longer sustainable as a just and reasonable dichotomy between PJM and its neighbors, and unduly hinders the Commission's ability to carry out its regulatory objectives in a consistent manner across the nation.

### **III. PJM PROPOSES JUST AND REASONABLE REVISIONS TO THE TARIFF THAT DIRECTLY ADDRESS THE UNJUST AND UNREASONABLE LOCATION OF THE RTEP PROTOCOL**

When the Commission finds that existing rates, terms, or conditions are unjust, unreasonable, unduly discriminatory or preferential under FPA section 206, it must establish just and reasonable replacement rate, terms, or conditions.<sup>63</sup> To ensure just and reasonable rates, PJM proposes several revisions to the PJM Tariff in order to effectuate the move of the RTEP Protocol from the Operating Agreement to the Tariff.<sup>64</sup> The revisions, which are inventoried more precisely in the table included in Attachment A to this filing, can be grouped into the following categories of changes:

- (i) Adding new Schedules 19, 19-A, and 19-B to the Tariff;
- (ii) Replacing references to Operating Agreement, Schedules 6, 6-A and 6-B with references to Tariff, Schedules 19, 19-A and 19-B throughout other sections of the Tariff;

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<sup>63</sup> 16 U.S.C. § 824e.

<sup>64</sup> As discussed above *supra* n.5, in this filing, PJM is submitting proposed revisions to the Tariff pursuant to FPA section 205. PJM is separately submitting in a parallel filing proposed revisions to the Operating Agreement implementing this proposal pursuant to FPA section 206.

- (iii) Adding the definition of terms that are used either exclusively or primarily in the RTEP Protocol to the Tariff, by adding the definition of such terms to the definitions section of the Tariff;
- (iv) Replacing references to disputes regarding RTEP processes being subject to the dispute resolution procedures of the Operating Agreement with reference to disputes regarding RTEP processes being subject to the dispute resolution procedures of the Tariff or CTOA, as appropriate; and
- (v) Other clean-up, clarifying, or ministerial changes as more fully described in Attachment A.

PJM emphasizes that it is not proposing *any* substantive changes to the RTEP Protocol or any other Tariff or Operating Agreement provisions. Rather, PJM is proposing to move the RTEP Protocol from the Operating Agreement to the Tariff for the reasons set forth above, as well as other changes that are necessary to effectuate the move or recognize the new location of the RTEP Protocol in the Tariff.

These proposed revisions are just and reasonable under FPA section 205. By relocating the RTEP Protocol to the PJM Tariff, PJM will gain the ability to submit independent FPA section 205 filings to the Commission regarding its regional planning rules, by virtue of Tariff, Section 9.2(a),<sup>65</sup> thereby remedying the unjust and unreasonable historic paradigm described above in Section II.

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<sup>65</sup> Tariff, section 9.2(a) (“PJM shall have the exclusive and unilateral right to file pursuant to Section 205 of the Federal Power Act and the FERC’s rules and regulations thereunder to make changes in or relating to the terms and conditions of the PJM Tariff (including but not limited to provisions relating to creditworthiness, billing, and defaults) as well as all charges for recovery of PJM costs.”).

Doing so will also effectuate two important policy outcomes. First, PJM will gain the ability to facilitate a Commission reaction to its planning proposals within the normal 60 day period, thereby: (i) timely informing PJM and its Members of the Commission's view on a particular proposal, and by extension, providing essential clarity on the need to explore alternative proposals to address the issue; (ii) hastening the rehearing, clarification, and appeals process for interveners, both for and against a particular proposal, and in turn hastening the resolution of legal uncertainty surrounding a particular proposal; and (iii) helping to better inform PJM's budgeting, development, and preparation to implement a particular proposal. These benefits will, by definition, enhance the speed by which PJM is able to react to plan its system to provide efficient, reliable, and non-discriminatory open access transmission service for all customers, in light of the significant challenges surrounding generation retirements, resource mix, and load growth described above in Section II.A.ii.

Second, PJM will obtain equal footing with its sister RTOs, creating structural parity regarding the procedural and statutory mechanism used to comply with the Commission's requirements governing RTO planning, expansion, and transmission filing rights under 18 C.F.R. §§ 35.34(k) and 35.34(j)(1)(iii). This parity will further alignment among a uniquely defined and an important class of public utilities under the Commission's regulations that play a critical role in administering the Commission's policy objectives. It will also assist the Commission in advancing a rational regulatory program across the planning entities subject to its jurisdiction as the Commission looks to address important issues like interregional transfer capability, Order No. 1920 implementation, and inter-seam dynamics.

#### **IV. PROPOSED EFFECTIVE DATE**

PJM respectfully requests that the Commission accept the proposed Tariff revisions described herein, and grant an effective date of September 20, 2024.

#### **V. DESCRIPTION OF SUBMITTAL**

This filing consists of the following:

1. This transmittal letter;
2. Attachment A – Table describing all revisions to the Tariff necessary to effectuate the move of the RTEP Protocol from the Operating Agreement to the Tariff;
3. Attachment B - Revised sections of the Tariff (redlined version);
4. Attachment C - Revised sections of the Tariff (clean version); and<sup>66</sup>
5. Attachment D – A document showing the changes proposed to new Tariff, Schedule 19 to recognize the proposed new location of the RTEP Protocol in the Tariff.<sup>67</sup>

#### **VI. CORRESPONDENCE**

The following individuals are designated for inclusion on the official service list in this proceeding and for receipt of any communications regarding this filing:

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<sup>66</sup> To the extent necessary, PJM respectfully requests waiver of any of part of Commission's regulations necessary to process this filing, including but not limited to Section 35.13 of the Commission's regulations. 18 C.F.R. § 35.13.

<sup>67</sup> Because PJM is proposing to locate the RTEP Protocol in an entirely new schedule in the Tariff, the eTariff record for proposed Tariff, Schedule 19 shows all provisions of the RTEP Protocol as new provisions. However, as PJM describes above, PJM is not proposing any substantive changes to the RTEP Protocol or any other Tariff or Operating Agreement provisions. Rather, PJM is proposing to move the RTEP Protocol from the Operating Agreement to the Tariff for the reasons set forth above, as well as other changes that are necessary to effectuate the move or recognize the new location of the RTEP Protocol in the Tariff. PJM therefore provides in Attachment D for informational purposes a mark-up showing the changes that were made to the RTEP Protocol to reflect the new location of the RTEP Protocol in Tariff, Schedule 19.

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## VII. SERVICE

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,<sup>68</sup> PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <https://www.pjm.com/library/filing-order> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region<sup>69</sup> alerting them that this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

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<sup>68</sup> See 18 C.F.R §§ 35.2(e) and 385.2010(f)(3).

<sup>69</sup> PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.



## VIII. CONCLUSION

In accordance with the foregoing, PJM respectfully requests that the Commission accept PJM's proposed revisions to the Tariff, as well as other necessary effectuating changes, effective September 20, 2024, as discussed herein.

Respectfully submitted,

*/s/ Thomas DeVita*

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**Attachment A:  
Proposed Tariff Revisions to Effectuate the Transfer of the RTEP Protocol from the  
Operating Agreement to the Tariff**

<b>Governing Document Section</b>	<b>Description</b>
Tariff, Table of Contents	<p>Added Schedule 18, IROL Critical Resource Cost Recovery, to Table of Contents. Note, PJM is not proposing any substantive changes to the section and is only proposing to add the title which was missing from the Table of Contents (“TOC”).</p> <p>Added Schedules 19, 19-A and 19-B to the TOC.</p>
Tariff, Definitions C-D	<p>Added the definition of “Designated Entity” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>
Tariff, Definitions E-F	<p>Added the definition of “Economic-based Enhancement or Expansion” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Form 715 Planning Criteria” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>
Tariff, Definitions I-J-K	<p>Added the definition of “Immediate-need Reliability Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Incremental Multi-Driver Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>

<b>Governing Document Section</b>	<b>Description</b>
Tariff, Definitions L-M-N	<p>Added the definition of “Local Plan” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “Long-lead Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Multi-Driver Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “NERC Reliability Standards” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “Nonincumbent Developer” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p>
Tariff, Definitions O-P-Q	<p>Added the definition of “PJM Region” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “Proportional Multi-Driver Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Public Policy Objectives” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “Public Policy Requirements” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p>
Tariff, Definitions R-S	<p>Added the definition of “Regional RTEP Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p>

<b>Governing Document Section</b>	<b>Description</b>
	<p>In the definition of Regional Transmission Expansion Plan, replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>In the definition of Required Transmission Enhancements, replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>In the definition of Residual Auction Revenue Rights, replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Short-term Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Added the definition of “Subregional RTEP Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>Added the definition of “Supplemental Project” as set forth in the currently-effective Operating Agreement to the Tariff definitions section, and replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>
Tariff, Definitions T-U-V	<p>Added the definition of “Transmission Facilities” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>In the definition of Transmission Interconnection Customer, replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>In the definition of “Transmission Owner,” corrected the name of the Consolidated Transmission Owners Agreement.</p>

Governing Document Section	Description
	<p>Added the definition of “Transmission Owner Upgrade” as set forth in the currently-effective Operating Agreement to the Tariff definitions section.</p> <p>In the definition of “Transmission Provider,” there is a reference to the “Designated Facilities List contained in the PJM Manual on Transmission Operations.” Although PJM maintains a list of transmission facilities, it is not included in any manual, and there is no defined term “Designated Facilities List.” PJM corrected the description in the definition.</p>
Tariff, Section 15.4	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 16.1	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 17.2	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 28.2	Replaced reference to “Operating Agreement, Schedule 6” with reference to “the Tariff.”
Tariff, Section 29.2	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 31.6	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 36.1.03A	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 212.3	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 212.4	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 212.6	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the

Governing Document Section	Description
	RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 213.3	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 213.4	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 216	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 217.4	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 217.5	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 221.1	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 221.2	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 230.1	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 236.2	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 237.4	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or

Governing Document Section	Description
	the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 300, Definitions R	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 300, Definitions U	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 314	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 323	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 324	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 326	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 328	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 330	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 336	Replaced references to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 337	Replaced references to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the

Governing Document Section	Description
	<p>RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”</p> <p>Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>
Tariff, Section 400, Definitions R	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 400, Definitions U	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 411	Replaced references to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 421	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 422	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 424	<p>Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”</p>
Tariff, Section 426	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”



<b>Governing Document Section</b>	<b>Description</b>
Tariff, Section 428	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Section 434	Replaced references to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section 435	<p>Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”</p> <p>Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p>
Tariff, Section 500	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section IX, Subpart B	Replaced references to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Section IX, Subpart B – Appendix 2, Section 22	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”

Governing Document Section	Description
Tariff, Section IX, Subpart H – Appendix 2	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Attachment P – Appendix 2, Section 21.1	Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”
Tariff, Attachment U	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Attachment GG – Appendix II	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Attachment KK	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Attachment LL	<p>Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”</p>
Tariff, Schedule 12*	<p>Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Deleted phrase “pursuant to Operating Agreement, section 1.6.”</p>
Tariff, Schedule 12 – Appendix A*	Deleted phrase “pursuant to Section 1.6 of the PJM Operating Agreement.”
Tariff, Schedule 12 – Appendix B*	Updated the list of currently-effective Joint Planning or Coordination Agreements Between PJM and Other Regions or

\* PJM notes that for administrative convenience, it is also submitting in this filing proposed revisions to the parts of the Tariff that are subject to the filing rights of the PJM Transmission Owners, with the permission and authorization of the PJM Transmission Owners.

Governing Document Section	Description
	Transmission Planning Authorities, and provided references to such agreement.
Tariff, Schedule 12 – Appendix C*	Replaced reference to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”
Tariff, Schedule 12-B*	<p>Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Replaced references to “Operating Agreement, Schedule 6-A” or “Schedule 6-A of the Operating Agreement” with reference to “Tariff, Schedule 19-A.”</p>
Tariff, Schedules 19, 19-A and 19-B	Created new Tariff, Schedules 19, 19-A and 19-B, and pasted the RTEP Protocol into this new schedule and made limited effectuated changes as further described below.
Tariff, Schedule 19, Section 1.1	Added defined term (“Protocol”) since the term “Protocol” is used elsewhere in the Tariff.
Tariff, Schedule 19, § 1.4(d)(iv)	Deleted extra space between words “relieve” and “transmission.”
Tariff, Schedule 19, § 1.5.1(a)(iii)	Deleted extra space between words “more” and “stringent.”
Tariff, Schedule 19, § 1.5.7(b)(i)	Added missing word “Expansion” to phrase “Regional Transmission Expansion Plan.”
Tariff, Schedule 19, § 1.5.7(c)(iii)	Added missing word “Expansion” to phrase “Regional Transmission Expansion Plan.”
Tariff, Schedule 19, § 1.9	Clarified relationship between RTEP Protocol and other provisions of the Tariff.
Tariff, Attachment M-3*	<p>Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”</p> <p>Deleted reference to specific Definition sections in the Operating Agreement and replaced with references to Definition sections of the Tariff.</p> <p>Replaced reference to dispute resolution concerning the RTRP being brought under “Operating Agreement, Schedule 5” with reference to dispute resolution concerning the RTRP being brought under “the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.”</p>

\* PJM notes that for administrative convenience, it is also submitting in this filing proposed revisions to the parts of the Tariff that are subject to the filing rights of the PJM Transmission Owners, with the permission and authorization of the PJM Transmission Owners.

<b>Governing Document Section</b>	<b>Description</b>
Tariff, Attachment M-4*	Replaced references to “Operating Agreement, Schedule 6” with reference to “Tariff, Schedule 19.”

\* PJM notes that for administrative convenience, it is also submitting in this filing proposed revisions to the parts of the Tariff that are subject to the filing rights of the PJM Transmission Owners, with the permission and authorization of the PJM Transmission Owners.

# Attachment B

Revisions to the PJM Open Access Transmission Tariff

(Marked Format)

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## **Definitions – C - D**

### **Canadian Guaranty:**

“Canadian Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in Canada, and meets all of the provisions of Tariff, Attachment Q.

### **Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Tariff, Part IV and/or Tariff, Part VI.

### **Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

### **Capacity Emergency Transfer Limit:**

“Capacity Emergency Transfer Limit” or “CETL” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Emergency Transfer Objective:**

“Capacity Emergency Transfer Objective” or “CETO” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Export Transmission Customer:**

“Capacity Export Transmission Customer” shall mean a customer taking point to point transmission service under Tariff, Part II to export capacity from a generation resource located in the PJM Region that has qualified for an exception to the RPM must-offer requirement as described in Tariff, Attachment DD, section 6.6(g).

### **Capacity Import Limit:**

“Capacity Import Limit” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

**Capacity Market Buyer:**

“Capacity Market Buyer” shall mean a Member that submits bids to buy Capacity Resources in any Incremental Auction.

**Capacity Market Seller:**

“Capacity Market Seller” shall mean a Member that owns, or has the contractual authority to control the output or load reduction capability of, a Capacity Resource, that has not transferred such authority to another entity, and that offers such resource in the Base Residual Auction or an Incremental Auction.

**Capacity Performance Resource:**

“Capacity Performance Resource” shall mean a Capacity Resource as described in Tariff, Attachment DD, section 5.5A(a).

**Capacity Performance Transition Incremental Auction:**

“Capacity Performance Transition Incremental Auction” shall have the meaning specified in Tariff, Attachment DD, section 5.14D.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Capacity Resource with State Subsidy:**

“Capacity Resource with State Subsidy” shall mean (1) a Capacity Resource that is offered into an RPM Auction or otherwise assumes an RPM commitment for which the Capacity Market Seller receives or is entitled to receive one or more State Subsidies for the applicable Delivery Year; (2) a Capacity Resource that has not cleared an RPM Auction for the Delivery Year for which the Capacity Market Seller last received a State Subsidy (or any subsequent Delivery Year) shall still be considered a Capacity Resource with State Subsidy upon the expiration of such State Subsidy until the resource clears an RPM Auction; (3) a Capacity Resource that is the subject of a bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6) shall be deemed a Capacity Resource with State Subsidy to the extent an owner of the facility supporting the Capacity Resource is entitled to a State Subsidy associated with such facility even if the Capacity Market Seller is not entitled to a State Subsidy; and (4) any Jointly Owned Cross-Subsidized Capacity Resource.

**Capacity Resource Clearing Price:**

“Capacity Resource Clearing Price” shall mean the price calculated for a Capacity Resource that offered and cleared in a Base Residual Auction or Incremental Auction, in accordance with Tariff, Attachment DD, section 5.

**Capacity Storage Resource:**

“Capacity Storage Resource” shall mean any Energy Storage Resource that participates in the Reliability Pricing Model or is otherwise treated as capacity in PJM’s markets such as through a Fixed Resource Requirement Capacity Plan.

**Capacity Transfer Right:**

“Capacity Transfer Right” shall mean a right, allocated to LSEs serving load in a Locational Deliverability Area, to receive payments, based on the transmission import capability into such Locational Deliverability Area, that offset, in whole or in part, the charges attributable to the Locational Price Adder, if any, included in the Zonal Capacity Price calculated for a Locational Delivery Area.

**Capacity Transmission Injection Rights:**

“Capacity Transmission Injection Rights” shall mean the rights to schedule energy and capacity deliveries at a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

**Charge Economic Maximum Megawatts:**

“Charge Economic Maximum Megawatts” shall mean the greatest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Continuous Mode or in Charge Mode. Charge Economic Maximum Megawatts shall be the Economic Minimum for an Energy Storage Resource or solar-storage Open-Loop Hybrid Resource in Charge Mode or in Continuous Mode.

**Charge Economic Minimum Megawatts:**

“Charge Economic Minimum Megawatts” shall mean the smallest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Charge Mode. Charge Economic

Minimum Megawatts shall be the Economic Maximum for an Energy Storage Resource or solar-storage Open-Loop Hybrid Resource in Charge Mode.

**Charge Mode:**

“Charge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource that only includes negative megawatt quantities (i.e., the Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource is only withdrawing megawatts from the grid).

**Charge Ramp Rate:**

“Charge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Charge Mode.

**Cleared Capacity Resource with State Subsidy:**

“Cleared Capacity Resource with State Subsidy” shall mean a Capacity Resource with State Subsidy that has cleared in an RPM Auction for a Delivery Year that is prior to the 2022/2023 Delivery Year or, starting with 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have cleared an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price and since then, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy have been, the subject of a Sell Offer into the Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for the relevant Delivery Year.

**Closed-Loop Hybrid Resource:**

“Closed-Loop Hybrid Resource” shall mean a Hybrid Resource that is physically or contractually incapable of charging from the grid.

**Cold/Warm/Hot Notification Time:**

“Cold/Warm/Hot Notification Time” shall mean the time interval between PJM notification and the beginning of the start sequence for a generating unit that is currently in its cold/warm/hot temperature state. The start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc.

**Cold/Warm/Hot Start-up Time:**

For all generating units that are not combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval, measured in hours, from the beginning of the start sequence to the point after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero for a generating unit in its cold/warm/hot temperature state. For combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval

from the beginning of the start sequence to the point after first combustion turbine generator breaker closure in its cold/warm/hot temperature state, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For all generating units, the start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc. Other more detailed actions that could signal the beginning of the start sequence could include, but are not limited to, the operation of pumps, condensers, fans, water chemistry evaluations, checklists, valves, fuel systems, combustion turbines, starting engines or systems, maintaining stable fuel/air ratios, and other auxiliary equipment necessary for startup.

**Cold Weather Alert:**

“Cold Weather Alert” shall mean the notice that PJM provides to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for expected extreme cold weather conditions.

**Collateral:**

“Collateral” shall be a cash deposit, including any interest thereon, or a Letter of Credit issued for the benefit of PJM or PJMSettlement, in an amount and form determined by and acceptable to PJM or PJMSettlement, provided by a Participant to PJM or PJMSettlement as credit support in order to participate in the PJM Markets or take Transmission Service. “Collateral” shall also include surety bonds, except for the purpose of satisfying the FTR Credit Requirement, in which case only a cash deposit or Letter of Credit will be acceptable.

**Collateral Call:**

“Collateral Call” shall mean a notice to a Participant that additional Collateral, or possibly early payment, is required in order to remain in, or to regain, compliance with Tariff, Attachment Q.

**Co-Located Resource:**

“Co-Located Resource” shall mean a component of a Mixed Technology Facility that operates in the capacity, energy, and/or ancillary services market(s) as a separate resource from the other components of such facility.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**Committed Offer:**

The “Committed Offer” shall mean 1) for pool-scheduled resources, an offer on which a resource was scheduled by the Office of the Interconnection for a particular clock hour for an Operating Day, and 2) for self-scheduled resources, either the offer on which the Market Seller has elected



to schedule the resource or the applicable offer for the resource determined pursuant to Operating Agreement, Schedule 1, section 6.4, and the parallel provisions of Tariff, Attachment K-Appendix, section 6.4, or Operating Agreement, Schedule 1, section 6.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 6.6, for a particular clock hour for an Operating Day.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Compliance Aggregation Area (CAA):**

“Compliance Aggregation Area” or “CAA” shall mean a geographic area of Zones or sub-Zones that are electrically-contiguous and experience for the relevant Delivery Year, based on Resource Clearing Prices of, for Delivery Years through May 31, 2018, Annual Resources and for the 2018/2019 Delivery Year and subsequent Delivery Years, Capacity Performance Resources, the same locational price separation in the Base Residual Auction, the same locational price separation in the First Incremental Auction, the same locational price separation in the Second Incremental Auction, the same locational price separation in the Third Incremental Auction.

**Composite Energy Offer:**

“Composite Energy Offer” for generation resources shall mean the sum (in \$/MWh) of the Incremental Energy Offer and amortized Start-Up Costs and amortized No-load Costs, and for Economic Load Response Participant resources the sum (in \$/MWh) of the Incremental Energy Offer and amortized shutdown costs, as determined in accordance with Tariff, Attachment K-Appendix, section 2.4 and Tariff, Attachment K-Appendix, section 2.4A and the PJM Manuals.

**Conditional Incremental Auction:**

“Conditional Incremental Auction” shall mean an Incremental Auction conducted for a Delivery Year if and when necessary to secure commitments of additional capacity to address reliability criteria violations arising from the delay in a Backbone Transmission upgrade that was modeled in the Base Residual Auction for such Delivery Year.

**Conditioned State Support:**

“Conditioned State Support” shall mean any financial benefit required or incentivized by a state, or political subdivision of a state acting in its sovereign capacity, that is provided outside of PJM Markets and in exchange for the sale of a FERC-jurisdictional product conditioned on clearing in any RPM Auction, where “conditioned on clearing in any RPM Auction” refers to specific directives as to the level of the offer that must be entered for the relevant Generation Capacity Resource in the RPM Auction or directives that the Generation Capacity Resource is required to clear in any RPM Auction. Conditioned State Support shall not include any Legacy Policy.

**CONE Area:**

“CONE Area” shall mean the areas listed in Tariff, Attachment DD, section 5.10(a)(iv)(A) and any LDAs established as CONE Areas pursuant to Tariff, Attachment DD, section 5.10(a)(iv)(B).

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

**Congestion Price:**

“Congestion Price” shall mean the congestion component of the Locational Marginal Price, which is the effect on transmission congestion costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource, based on the effect of increased generation from or consumption by the resource on transmission line loadings, calculated as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constraint Relaxation Logic:**

“Constraint Relaxation Logic” shall mean the logic applied in the market clearing software where the transmission limit is increased to prevent the Transmission Constraint Penalty Factor from setting the Marginal Value of a transmission constraint.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Tariff, Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement. “Construction Parties” shall mean all of the Parties to a Construction Service Agreement.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Continuous Mode:**

“Continuous Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource that includes both negative and positive megawatt quantities (i.e., the Energy Storage Resource Model Participant or Open-Loop Hybrid Resource is capable of continually and immediately transitioning from withdrawing megawatt quantities from the grid to injecting megawatt quantities onto the grid or injecting megawatts to withdrawing megawatts). Energy Storage Resource Model Participants or Open-Loop Hybrid Resource operating in Continuous Mode are considered to have an unlimited ramp rate. Continuous Mode requires Discharge Economic Maximum Megawatts to be zero or correspond to an injection, and Charge Economic Maximum Megawatts to be zero or correspond to a withdrawal.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Control Zone:**

“Control Zone” shall have the meaning given in the Operating Agreement.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Tariff, Part IV and Tariff, Part VI.

**Coordinated External Transaction:**

“Coordinated External Transaction” shall mean a transaction to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Coordinated Transaction Scheduling:**

“Coordinated Transaction Scheduling” or “CTS” shall mean the scheduling of Coordinated External Transactions at a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Corporate Guaranty:**

“Corporate Guaranty” shall mean a legal document, in a form acceptable to PJM and/or PJMSettlement, used by a Credit Affiliate of an entity to guaranty the obligations of another entity.

**Cost of New Entry:**

“Cost of New Entry” or “CONE” shall mean the nominal levelized cost of a Reference Resource, as determined in accordance with Tariff, Attachment DD, section 5.

**Costs:**

As used in Tariff, Part IV, Tariff, Part VI and related attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Counterparty:**

“Counterparty” shall mean PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a Market Participant or other entities, including the agreements and transactions with customers regarding transmission service and other transactions under the PJM Tariff and the Operating Agreement. PJMSettlement shall not be a counterparty to (i) any bilateral transactions between Members, or (ii) any Member’s self-supply of energy to serve its load, or (iii) any Member’s self-schedule of energy reported to the Office of the Interconnection to the extent that energy serves that Member’s own load.

**Credit Affiliate:**

“Credit Affiliate” shall mean Principals, corporations, partnerships, firms, joint ventures, associations, joint stock companies, trusts, unincorporated organizations or entities, one of which directly or indirectly controls the other or that are both under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity.

**Credit Available for Export Transactions:**

“Credit Available for Export Transactions” shall mean a designation of credit to be used for Export Transactions that is allocated by each Market Participant from its Credit Available for Virtual Transactions, and which reduces the Market Participant’s Credit Available for Virtual Transactions accordingly.

**Credit Available for Virtual Transactions:**

“Credit Available for Virtual Transactions” shall mean the Market Participant’s Working Credit Limit for Virtual Transactions calculated on its credit provided in compliance with its Peak Market Activity requirement plus available credit submitted above that amount, less any unpaid billed and unbilled amounts owed to PJMSettlement, plus any unpaid unbilled amounts owed by PJMSettlement to the Market Participant, less any applicable credit required for Minimum Participation Requirements, FTRs, RPM activity, or other credit requirement determinants as defined in Tariff, Attachment Q.

**Credit Breach:**

“Credit Breach” shall mean (a) the failure of a Participant to perform, observe, meet or comply with any requirements of Tariff, Attachment Q or other provisions of the Agreements, other than a Financial Default, or (b) a determination by PJM and notice to the Participant that a Participant represents an unreasonable credit risk to the PJM Markets; that, in either event, has not been cured or remedied after any required notice has been given and any cure period has elapsed.

**Credit-Limited Offer:**

“Credit-Limited Offer” shall mean a Sell Offer that is submitted by a Market Participant in an RPM Auction subject to a maximum credit requirement specified by such Market Participant.

**Credit Support Default:**

“Credit Support Default,” shall mean (a) the failure of any Guarantor of a Market Participant to make any payment, or to perform, observe, meet or comply with any provisions of the applicable Guaranty or Credit Support Document that has not been cured or remedied, after any required notice has been given and an opportunity to cure (if any) has elapsed, (b) a representation made or deemed made by a Guarantor in any Credit Support Document that proves to be false, incorrect or misleading in any material respect when made or deemed made, (c) the failure of a Guaranty or other Credit Support Document to be in full force and effect prior to the satisfaction of all obligations of such Participant to PJM, without PJM’s consent, or (d) a Guarantor repudiating, disaffirming, disclaiming or rejecting, in whole or in part, its obligations under the Guaranty or challenging the validity of the Guaranty.

**Credit Support Document:**

“Credit Support Document” shall mean any agreement or instrument in any way guaranteeing or securing any or all of a Participant’s obligations under the Agreements (including, without limitation, the provisions of Tariff, Attachment Q), any agreement entered into under, pursuant to, or in connection with the Agreements or any agreement entered into under, pursuant to, or in connection with the Agreements and/or any other agreement to which PJM, PJMSettlement and the Participant are parties, including, without limitation, any Corporate Guaranty, Letter of Credit, or agreement granting PJM and PJMSettlement a security interest.

**Critical Natural Gas Infrastructure:**

“Critical Natural Gas Infrastructure” shall mean locations with electrical loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility as defined by NERC/FERC standard(s); and until such NERC/FERC standard(s) is developed, is defined as electric loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility, which if curtailed, will impact the delivery of natural gas to bulk-power system natural gas-fired generation.

**Cross-Border:**

When used to describe Network Integration Transmission Service, Network External Designated Transmission Service or Point-to-Point Transmission Service, “Cross-Border” shall mean transmission service where the capacity and/or energy is delivered from a resource that is not part of the PJM Transmission System and/or to load that is not part of the PJM Transmission System.

**CTS Enabled Interface:**

“CTS Enabled Interface” shall mean an interface between the PJM Control Area and an adjacent Control Area at which the Office of the Interconnection has authorized the use of Coordinated Transaction Scheduling (“CTS”). The CTS Enabled Interfaces between the PJM Control Area and the New York Independent System Operator, Inc. Control Area shall be designated in the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C., Schedule A (PJM Rate Schedule FERC No. 45). The CTS Enabled Interfaces between the PJM Control Area and the Midcontinent Independent System Operator, Inc. shall be designated consistent with Attachment 3, section 2 of the Joint Operating Agreement between Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C.

**CTS Interface Bid:**

“CTS Interface Bid” shall mean a unified real-time bid to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Curtailement:**

“Curtailement” shall mean a reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

**Curtailement Service Provider:**

“Curtailement Service Provider” or “CSP” shall mean a Member or a Special Member, which action on behalf of itself or one or more other Members or non-Members, participates in the PJM Interchange Energy Market, Ancillary Services markets, and/or Reliability Pricing Model by causing a reduction in demand.

**Customer Facility:**

“Customer Facility” shall mean Generation Facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Tariff, Part IV.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Tariff, Part VI, section 217, or (ii) is voluntarily undertaken by a New Service Customer in fulfillment of an Upgrade Request. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Customer Interconnection Facilities:**

“Customer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer’s side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

**Daily Deficiency Rate:**

“Daily Deficiency Rate” shall mean the rate employed to assess certain deficiency charges under Tariff, Attachment DD, section 7, Tariff, Attachment DD, section 8, Tariff, Attachment DD, section 9, or Tariff, Attachment DD, section 13.

**Daily Unforced Capacity Obligation:**

“Daily Unforced Capacity Obligation” shall mean the capacity obligation of a Load Serving Entity during the Delivery Year, determined in accordance with Reliability Assurance Agreement, Schedule 8, or, as to an FRR entity, in Reliability Assurance Agreement, Schedule 8.1.

**Day-ahead Congestion Price:**

“Day-ahead Congestion Price” shall mean the Congestion Price resulting from the Day-ahead Energy Market.

**Day-ahead Energy Market:**

“Day-ahead Energy Market” shall mean the schedule of commitments for the purchase or sale of energy and payment of Transmission Congestion Charges developed by the Office of the Interconnection as a result of the offers and specifications submitted in accordance with Operating Agreement, Schedule 1, section 1.10 and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.

**Day-ahead Energy Market Injection Congestion Credits:**



“Day-ahead Energy Market Injection Congestion Credits” shall mean those congestion credits paid to Market Participants for supply transactions in the Day-ahead Energy Market including generation schedules, Increment Offers, Up-to Congestion Transactions, import transactions, and Day-Ahead Pseudo-Tie Transactions.

**Day-ahead Energy Market Transmission Congestion Charges:**

“Day-ahead Energy Market Transmission Congestion Charges” shall be equal to the sum of Day-ahead Energy Market Withdrawal Congestion Charges minus [the sum of Day-ahead Energy Market Injection Congestion Credits plus any congestion charges calculated pursuant to the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38), plus any congestion charges calculated pursuant to the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 45), plus any congestion charges calculated pursuant to agreements between the Office of the Interconnection and other entities, as applicable].

**Day-ahead Energy Market Withdrawal Congestion Charges:**

“Day-ahead Energy Market Withdrawal Congestion Charges” shall mean those congestion charges collected from Market Participants for withdrawal transactions in the Day-ahead Energy Market from transactions including Demand Bids, Decrement Bids, Up-to Congestion Transactions, Export Transactions, and Day-Ahead Pseudo-Tie Transactions.

**Day-ahead Loss Price:**

“Day-ahead Loss Price” shall mean the Loss Price resulting from the Day-ahead Energy Market.

**Day-ahead Prices:**

“Day-ahead Prices” shall mean the Locational Marginal Prices resulting from the Day-ahead Energy Market.

**Day-Ahead Pseudo-Tie Transaction:**

“Day-Ahead Pseudo-Tie Transaction” shall mean a transaction scheduled in the Day-ahead Energy Market to the PJM-MISO interface from a generator within the PJM balancing authority area that Pseudo-Ties into the MISO balancing authority area.

**Day-ahead Settlement Interval:**

“Day-ahead Settlement Interval” shall mean the interval used by settlements, which shall be every one clock hour.

**Day-ahead System Energy Price:**

“Day-ahead System Energy Price” shall mean the System Energy Price resulting from the Day-ahead Energy Market.

**Deactivation:**

“Deactivation” shall mean the retirement or mothballing of a generating unit governed by Tariff, Part V.

**Deactivation Avoidable Cost Credit:**

“Deactivation Avoidable Cost Credit” shall mean the credit paid to Generation Owners pursuant to Tariff, Part V, section 114.

**Deactivation Avoidable Cost Rate:**

“Deactivation Avoidable Cost Rate” shall mean the formula rate established pursuant to Tariff, Part V, section 115.

**Deactivation Date:**

“Deactivation Date” shall mean the date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

**Decrement Bid:**

“Decrement Bid” shall mean a type of Virtual Transaction that is a bid to purchase energy at a specified location in the Day-ahead Energy Market. A cleared Decrement Bid results in scheduled load at the specified location in the Day-ahead Energy Market.

**Default:**

As used in the Interconnection Service Agreement and Construction Service Agreement, “Default” shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

**Delivering Party:**

“Delivering Party” shall mean the entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

**Delivery Year:**

“Delivery Year” shall mean the Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Tariff, Attachment DD, or pursuant to an FRR Capacity Plan under Reliability Assurance Agreement, Schedule 8.1.

**Demand Bid:**

“Demand Bid” shall mean a bid, submitted by a Load Serving Entity in the Day-ahead Energy Market, to purchase energy at its contracted load location, for a specified timeframe and megawatt quantity, that if cleared will result in energy being scheduled at the specified location in the Day-ahead Energy Market and in the physical transfer of energy during the relevant Operating Day.

**Demand Bid Limit:**

“Demand Bid Limit” shall mean the largest MW volume of Demand Bids that may be submitted by a Load Serving Entity for any hour of an Operating Day, as determined pursuant to Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**Demand Bid Screening:**

“Demand Bid Screening” shall mean the process by which Demand Bids are reviewed against the applicable Demand Bid Limit, and rejected if they would exceed that limit, as determined pursuant to Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**Demand Resource:**

“Demand Resource” shall mean a resource with the capability to provide a reduction in demand.

**Demand Resource Factor or DR Factor:**

“Demand Resource Factor” or (“DR Factor”) shall have the meaning specified in the Reliability Assurance Agreement.

**Designated Agent:**

“Designated Agent” shall mean any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

**Designated Entity:**

“Designated Entity” shall mean an entity, including an existing Transmission Owner or Nonincumbent Developer, designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain, and finance Immediate-need Reliability Projects, Short-term Projects, Long-lead Projects, or Economic-based Enhancements or Expansions pursuant to Tariff, Schedule 19, section 1.5.8.~~have the same meaning provided in the Operating Agreement.~~

**Direct Assignment Facilities:**

“Direct Assignment Facilities” shall mean facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

**Direct Charging Energy:**

“Direct Charging Energy” shall mean the energy that an Energy Storage Resource or Open-Loop Hybrid Resource purchases from the PJM Interchange Energy Market and (i) later resells to the PJM Interchange Energy Market; or (ii) is lost to conversion inefficiencies, provided that such inefficiencies are an unavoidable component of the conversion, storage, and discharge process that is used to resell energy back to the PJM Interchange Energy Market.

**Direct Load Control:**

“Direct Load Control” shall mean load reduction that is controlled directly by the Curtailment Service Provider’s market operations center or its agent, in response to PJM instructions.

**Discharge Economic Maximum Megawatts:**

“Discharge Economic Maximum Megawatts” shall mean the maximum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Continuous Mode or in Discharge Mode. Discharge Economic Maximum Megawatts shall be the Economic Maximum for an Energy Storage Resource or Open-Loop Hybrid Resource in Discharge Mode or in Continuous Mode.

**Discharge Economic Minimum Megawatts:**

“Discharge Economic Minimum Megawatts” shall mean the minimum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Discharge Mode. Discharge Economic Minimum Megawatts shall be the Economic Minimum for an Energy Storage Resource or Open-Loop Hybrid Resource in Discharge Mode.

**Discharge Mode:**

“Discharge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource that only includes positive megawatt quantities (i.e., the Energy Storage Resource Model Participant or Open-Loop Hybrid Resource is only injecting megawatts onto the grid).

**Discharge Ramp Rate:**

“Discharge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Discharge Mode.

**Dispatch Rate:**

“Dispatch Rate” shall mean the control signal, expressed in dollars per megawatt-hour, calculated and transmitted continuously and dynamically to direct the output level of all generation resources dispatched by the Office of the Interconnection in accordance with the Offer Data.

**Dispatched Charging Energy:**

“Dispatched Charging Energy” shall mean Direct Charging Energy that an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource receives from the electric grid pursuant to PJM dispatch while providing one of the following services in the PJM markets: Energy Imbalance Service pursuant to Tariff, Schedule 4; Regulation; Tier 2 Synchronized Reserves; or Reactive Service. Energy Storage Resource Model Participants and Open-Loop Hybrid Resource shall be considered to be providing Energy Imbalance Service when they are dispatchable by PJM in real-time.

**Dynamic Schedule:**

“Dynamic Schedule” shall have the same meaning provided in the Operating Agreement.

**Dynamic Transfer:**

“Dynamic Transfer” shall have the same meaning provided in the Operating Agreement.

## Definitions – E - F

### **Economic-based Enhancement or Expansion:**

“Economic-based Enhancement or Expansion” shall mean an enhancement or expansion described in Tariff, Schedule 19, section 1.5.7(b) (i) – (iii) that is designed to relieve transmission constraints that have an economic impact~~have the same meaning provided in the Operating Agreement.~~

### **Economic Load Response Participant:**

“Economic Load Response Participant” shall mean a Member or Special Member that qualifies under Operating Agreement, Schedule 1, section 1.5A, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A, to participate in the PJM Interchange Energy Market and/or Ancillary Services markets through reductions in demand.

### **Economic Maximum:**

“Economic Maximum” shall mean the highest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

### **Economic Minimum:**

“Economic Minimum” shall mean the lowest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

### **Effective FTR Holder:**

“Effective FTR Holder” shall mean:

- (i) For an FTR Holder that is either a (a) privately held company, or (b) a municipality or electric cooperative, as defined in the Federal Power Act, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other entity that is under common ownership, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (ii) For an FTR Holder that is a publicly traded company including a wholly owned subsidiary of a publicly traded company, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other PJM Member has over 10% common ownership with the FTR Holder, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (iii) an FTR Holder together with any other PJM Member, including also any Affiliate, subsidiary or parent of such other PJM Member, with which it shares common ownership,

wholly or partly, directly or indirectly, in any third entity which is a PJM Member (e.g., a joint venture).

**EFORd:**

“EFORd” shall have the meaning specified in the PJM Reliability Assurance Agreement.

**Electrical Distance:**

“Electrical Distance” shall mean, for a Generation Capacity Resource geographically located outside the metered boundaries of the PJM Region, the measure of distance, based on impedance and in accordance with the PJM Manuals, from the Generation Capacity Resource to the PJM Region.

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VI, Eligible Customer shall mean only those Eligible Customers that have submitted a Completed Application.

**Eligible Fast-Start Resource:**

“Eligible Fast-Start Resource” shall mean a Fast-Start Resource that is eligible for the application of Integer Relaxation during the calculation of Locational Marginal Prices as set forth in Tariff, Attachment K-Appendix, section 2.2.

**Emergency Action:**

“Emergency Action” shall mean (1) any megawatt shortage of the Primary Reserve Requirement (as specified in the PJM Manuals) in a Reserve Zone or Reserve Sub-zone, inclusive of any adjustments to such requirement to account for system conditions, as determined by the dispatch run from the security constrained economic dispatch and where, as specified in the PJM

Manuals, there is also a Voltage Reduction Warning and reduction of non-critical plant load, Manual Load Dump Warning, Maximum Generation Emergency Action, or the curtailment of non-essential building loads and Voltage Reduction Warning that encompasses such Reserve Zone or Reserve Sub-zone or (2) anytime the Office of Interconnection identifies an emergency and issues a load shed directive, Manual Load Dump Action, Voltage Reduction Action, or deploy all resources action for an entire Reserve Zone or Reserve Sub-zone.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Interconnected Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not obligated by an Interconnection Service Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Emergency Load Response Program:**

“Emergency Load Response Program” shall mean the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix, section 8.

**Energy Efficiency Resource:**

“Energy Efficiency Resource” shall have the meaning specified in the PJM Reliability Assurance Agreement.

**Energy Market Opportunity Cost:**

“Energy Market Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of available run hours due to limitations imposed on the unit by Applicable Laws and Regulations, and (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Energy Market Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same compliance period, which compliance period is determined by the applicable regulatory authority and is reflected in the rules set forth in PJM Manual 15.



Energy Market Opportunity Costs shall be limited to those resources which are specifically delineated in Operating Agreement, Schedule 2.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Settlement Area:**

“Energy Settlement Area” shall mean the bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open-Loop Hybrid Resources are not Energy Storage Resources.

**Energy Storage Resource Model Participant:**

“Energy Storage Resource Model Participant” shall mean an Energy Storage Resource utilizing the Energy Storage Resource Participation Model.

**Energy Storage Resource Participation Model:**

“Energy Storage Resource Participation Model” shall mean the participation model accepted by the Commission in Docket No. ER19-469-000.

**Energy Transmission Injection Rights:**

“Energy Transmission Injection Rights” shall mean the rights to schedule energy deliveries at a specified point on the Transmission System. Energy Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Deliveries scheduled using Energy Transmission Injection Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**Entity Providing Supply Services to Default Retail Service Provider:**

“Entity Providing Supply Services to Default Retail Service Provider” shall mean any entity, including but not limited to a load aggregator or power marketer, providing supply services to an electric distribution company when that electric distribution company is serving as the default retail service provider, and that enters into a contract or similar obligation with such electric distribution company to serve retail customers who have not selected a competitive retail service provider.

**Environmental Laws:**

“Environmental Laws” shall mean applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

**Environmentally-Limited Resource:**

“Environmentally-Limited Resource” shall mean a resource which has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited by a governmental authority to operating only during declared PJM capacity emergencies.

**Equivalent Load:**

“Equivalent Load” shall mean the sum of a Market Participant’s net system requirements to serve its customer load in the PJM Region, if any, plus its net bilateral transactions.

**Event of Default:**

“Event of Default,” as that term is used in Tariff, Attachment Q, shall mean a Financial Default, Credit Breach, or Credit Support Default.

**Exercise of Buyer-Side Market Power:**

“Exercise of Buyer-Side Market Power” shall mean anti-competitive behavior of a Capacity Market Seller with a Load Interest, or directed by an entity with a Load Interest, to uneconomically lower RPM Auction Sell Offer(s) in order to suppress RPM Auction clearing prices for the overall benefit of the Capacity Market Seller’s (and/or affiliates of Capacity Market Seller) portfolio of generation and load or that of the directing entity with a Load Interest as determined pursuant to Tariff, Attachment DD, section 5.14(h-2)(2)(B). A bilateral contract between the Capacity Market Seller and an entity with a Load Interest with the express purpose of lowering capacity market clearing prices shall be evidence of the Exercise of Buyer-Side Market Power.

**Existing Generation Capacity Resource:**

“Existing Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Export Credit Exposure:**

“Export Credit Exposure” is determined for each Market Participant for a given Operating Day, and shall mean the sum of credit exposures for the Market Participant’s Export Transactions for that Operating Day and for the preceding Operating Day.

**Export Nodal Reference Price:**

“Export Nodal Reference Price” at each location is the 97th percentile, shall be, the real-time hourly integrated price experienced over the corresponding two-month period in the preceding calendar year, calculated separately for peak and off-peak time periods. The two-month time periods used in this calculation shall be January and February, March and April, May and June, July and August, September and October, and November and December.

**Export Transaction:**

“Export Transaction” shall be a transaction by a Market Participant that results in the transfer of energy from within the PJM Control Area to outside the PJM Control Area. Coordinated External Transactions that result in the transfer of energy from the PJM Control Area to an adjacent Control Area are one form of Export Transaction.

**Export Transaction Price Factor:**

“Export Transaction Price Factor” for a prospective time interval shall be the greater of (i) PJM’s forecast price for the time interval, if available, or (ii) the Export Nodal Reference Price, but shall not exceed the Export Transaction’s dispatch ceiling price cap, if any, for that time interval. The Export Transaction Price Factor for a past time interval shall be calculated in the same manner as for a prospective time interval, except that the Export Transaction Price Factor may use a tentative or final settlement price, as available. If an Export Nodal Reference Price is not available for a particular time interval, PJM may use an Export Transaction Price Factor for that time interval based on an appropriate alternate reference price.

**Export Transaction Screening:**

“Export Transaction Screening” shall be the process PJM uses to review the Export Credit Exposure of Export Transactions against the Credit Available for Export Transactions, and deny or curtail all or a portion of an Export Transaction, if the credit required for such transactions is greater than the credit available for the transactions.

**Export Transactions Net Activity:**

“Export Transactions Net Activity” shall mean the aggregate net total, resulting from Export Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Operating Agreement, Schedule 1 and the parallel provisions of Tariff, Attachment K-Appendix. Export Transactions Net Activity may be positive or negative.

**Extended Primary Reserve Requirement:**

“Extended Primary Reserve Requirement” shall equal the Primary Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under

emergency conditions necessary to address operational uncertainty. The Extended Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

**Extended Summer Demand Resource:**

“Extended Summer Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Extended Synchronized Reserve Requirement:**

“Extended Synchronized Reserve Requirement” shall equal the Synchronized Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals.

**Extended 30-minute Reserve Requirement:**

“Extended 30-minute Reserve Requirement” shall equal the 30-minute Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended 30-minute Reserve Requirement is calculated in accordance with the PJM Manuals.

**External Market Buyer:**

“External Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for consumption by end-users outside the PJM Region, or for load in the PJM Region that is not served by Network Transmission Service.

**External Resource:**

“External Resource” shall mean a generation resource located outside the metered boundaries of the PJM Region.

**Facilities Study:**

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider’s Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses documented in the System Impact Study or required by PJM Manuals, and determine the required modifications to the Transmission Provider’s Transmission System based on the conclusions of such additional studies. The Facilities Study shall include the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate a New Service Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design

and specification of the Customer Funded Upgrades necessary to accommodate the New Service Customer's New Service Request in accordance with Tariff, Part VI, section 207.

**Fast-Start Resource:**

"Fast-Start Resource" shall have the meaning set forth in Tariff, Attachment K-Appendix, section 2.2A

**Federal Power Act:**

"Federal Power Act" shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

**FERC or Commission:**

"FERC" or "Commission" shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

**FERC Market Rules:**

"FERC Market Rules" mean the market behavior rules and the prohibition against electric energy market manipulation codified by the Commission in its Rules and Regulations at 18 CFR §§ 1c.2 and 35.37, respectively; the Commission-approved PJM Market Rules and any related proscriptions or any successor rules that the Commission from time to time may issue, approve or otherwise establish.

**Final Offer:**

"Final Offer" shall mean the offer on which a resource was dispatched by the Office of the Interconnection for a particular clock hour for the Operating Day.

**Final RTO Unforced Capacity Obligation:**

"Final RTO Unforced Capacity Obligation" shall mean the capacity obligation for the PJM Region, determined in accordance with RAA, Schedule 8.

**Financial Close:**

"Financial Close" shall mean the Capacity Market Seller has demonstrated that the Capacity Market Seller or its agent has completed the act of executing the material contracts and/or other documents necessary to (1) authorize construction of the project and (2) establish the necessary funding for the project under the control of an independent third-party entity. A sworn, notarized certification of an independent engineer certifying to such facts, and that the engineer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration. For resources that do not have external financing, Financial Close shall mean the project has full funding available, and that the project has been

duly authorized to proceed with full construction of the material portions of the project by the appropriate governing body of the company funding such project. A sworn, notarized certification by an officer of such company certifying to such facts, and that the officer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration.

**Financial Default:**

“Financial Default” shall mean (a) the failure of a Member or Transmission Customer to make any payment for obligations under the Agreements when due, including but not limited to an invoice payment that has not been cured or remedied after notice has been given and any cure period has elapsed, (b) a bankruptcy proceeding filed by a Member, Transmission Customer or its Guarantor, or filed against a Member, Transmission Customer or its Guarantor and to which the Member, Transmission Customer or Guarantor, as applicable, acquiesces or that is not dismissed within 60 days, (c) a Member, Transmission Customer or its Guarantor, if any, is unable to meet its financial obligations as they become due, or (d) a Merger Without Assumption occurs in respect of the Member, Transmission Customer or any Guarantor of such Member or Transmission Customer.

**Financial Transmission Right:**

“Financial Transmission Right” or “FTR” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2 and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2.

**Financial Transmission Right Obligation:**

“Financial Transmission Right Obligation” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(b), and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2(b).

**Financial Transmission Right Option:**

“Financial Transmission Right Option” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(c), and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2(c).

**Firm Point-To-Point Transmission Service:**

“Firm Point-To-Point Transmission Service” shall mean Transmission Service under the Tariff, Part II, section 13 that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Tariff, Part II.

**Firm Transmission Feasibility Study:**

“Firm Transmission Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part II, section 19.3 and Tariff, Part III, section 32.3.

**Firm Transmission Withdrawal Rights:**

“Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy and capacity withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System with another control area. Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.

**First Incremental Auction:**

“First Incremental Auction” shall mean an Incremental Auction conducted 20 months prior to the start of the Delivery Year to which it relates.

**Flexible Resource:**

“Flexible Resource” shall mean a generating resource that must have a combined Start-up Time and Notification Time of less than or equal to two hours; and a Minimum Run Time of less than or equal to two hours.

**Forecast Pool Requirement:**

“Forecast Pool Requirement” shall have the meaning specified in the Reliability Assurance Agreement.

**Foreign Guaranty:**

“Foreign Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in a foreign country, and meets all of the provisions of Tariff, Attachment Q.

**Form 715 Planning Criteria:**

“Form 715 Planning Criteria” shall mean individual Transmission Owner FERC-filed planning criteria as described in Tariff, Schedule 19, section 1.2(e) and filed with FERC Form No. 715 and posted on the PJM website~~have the same meaning provided in the Operating Agreement.~~

**Forward Daily Natural Gas Prices:**

“Forward Daily Natural Gas Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(E).

**Forward Hourly Ancillary Services Prices:**

“Forward Hourly Ancillary Services Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(D).

**Forward Hourly LMPs:**

“Forward Hourly LMPs” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(C).

**FTR Credit Limit:**

“FTR Credit Limit” shall mean the amount of credit established with PJMSettlement that an FTR Participant has specifically designated to be used for FTR activity in a specific customer account. Any such credit so set aside shall not be considered available to satisfy any other credit requirement the FTR Participant may have with PJMSettlement.

**FTR Credit Requirement:**

“FTR Credit Requirement” shall mean the amount of credit that a Participant must provide in order to support the FTR positions that it holds and/or for which it is bidding. The FTR Credit Requirement shall not include months for which the invoicing has already been completed, provided that PJMSettlement shall have up to two Business Days following the date of the invoice completion to make such adjustments in its credit systems. FTR Credit Requirements are calculated and applied separately for each separate customer account.

**FTR Flow Undiversified:**

“FTR Flow Undiversified” shall have the meaning established in Tariff, Attachment Q, section VI.C.6.

**FTR Historical Value:**

For each FTR for each month, “FTR Historical Value” shall mean the weighted average of historical values over three years for the FTR path using the following weightings: 50% - most recent year; 30% - second year; 20% - third year.

**FTR Holder:**

“FTR Holder” shall mean the PJM Member that has acquired and possesses an FTR.

**FTR Monthly Credit Requirement Contribution:**

For each FTR, for each month, “FTR Monthly Credit Requirement Contribution” shall mean the total FTR cost for the month, prorated on a daily basis, less the FTR Historical Value for the month. For cleared FTRs, this contribution may be negative; prior to clearing, FTRs with negative contribution shall be deemed to have zero contribution.



**FTR Net Activity:**

“FTR Net Activity” shall mean the aggregate net value of the billing line items for auction revenue rights credits, FTR auction charges, FTR auction credits, and FTR congestion credits, and shall also include day-ahead and balancing/real-time congestion charges up to a maximum net value of the sum of the foregoing auction revenue rights credits, FTR auction charges, FTR auction credits and FTR congestion credits.

**FTR Participant:**

“FTR Participant” shall mean any Market Participant that provides or is required to provide Collateral in order to participate in PJM’s FTR market.

**FTR Portfolio Auction Value:**

“FTR Portfolio Auction Value” shall mean for each customer account of a Market Participant, the sum, calculated on a monthly basis, across all FTRs, of the FTR price times the FTR volume in MW.

**Fuel Cost Policy:**

“Fuel Cost Policy” shall mean the document provided by a Market Seller to PJM and the Market Monitoring Unit in accordance with PJM Manual 15 and Operating Agreement, Schedule 2, which documents the Market Seller’s method used to price fuel for calculation of the Market Seller’s cost-based offers for a generation resource.

**Full Notice to Proceed:**

“Full Notice to Proceed” shall mean that all material third party contractors have been given the notice to proceed with construction by the Capacity Market Seller or its agent, with a guaranteed completion date backed by liquidated damages.

## Definitions – I – J - K

### **IDR Transfer Agreement:**

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, Part VI, section 237, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

### **Immediate-need Reliability Project:**

“Immediate-need Reliability Project” shall mean a reliability-based transmission enhancement or expansion that the Office of the Interconnection has identified to resolve a need that must be addressed within three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in Tariff, Schedule 19, section 1.5.3~~have the same meaning provided in the Operating Agreement.~~

### **Inadvertent Interchange:**

“Inadvertent Interchange” shall mean the difference between net actual energy flow and net scheduled energy flow into or out of the individual Control Areas operated by PJM.

### **Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

### **Incremental Auction:**

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction shall be held for the purposes of:

(i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORD increase, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a

Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and

(ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Available Transfer Capability Revenue Rights:**

“Incremental Available Transfer Capability Revenue Rights” shall mean the rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

**Incremental Capacity Transfer Right:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” or “IDRs” shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Incremental Energy Offer:**

“Incremental Energy Offer” shall mean the cost in dollars per MWh of providing an additional MWh from a synchronized unit. It consists primarily of the cost of fuel, as determined by the unit’s incremental heat rate (adjusted by the performance factor) times the fuel cost. It also

includes operating costs, Maintenance Adders, emissions allowances, tax credits, and energy market opportunity costs.

**Incremental Multi-Driver Project:**

“Incremental Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h)~~have the same meaning provided in the Operating Agreement.~~

**Incremental Rights-Eligible Required Transmission Enhancements:**

“Incremental Rights-Eligible Required Transmission Enhancements” shall mean Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Tariff, Schedule 12) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

**Increment Offer:**

“Increment Offer” shall mean a type of Virtual Transaction that is an offer to sell energy at a specified location in the Day-ahead Energy Market. A cleared Increment Offer results in scheduled generation at the specified location in the Day-ahead Energy Market.

**Independent Auditor:**

“Independent Auditor” shall mean an external accountant or external accounting firm who is not an employee of, not otherwise related to, not obligated to, has no interest in, and is independent in the performance of professional services for, the entity he/she/it is auditing, its management and/or its owners.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Tariff, Attachment O-Appendix 2, section 1.4 (an Interconnection Service Agreement).

**Integer Relaxation:**

“Integer Relaxation” shall mean the process by which the commitment status variable for an Eligible Fast-Start Resource is allowed to vary between zero and one, inclusive of zero and one, as further described in Tariff, Attachment K-Appendix, section 2.2.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnected Transmission Owner:**

“Interconnected Transmission Owner” shall mean the Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Tariff, Part VI, Subpart B and in the form set forth in Tariff, Attachment P, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

**Interconnection Customer:**

“Interconnection Customer” shall mean a Generation Interconnection Customer and/or a Transmission Interconnection Customer.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

**Interconnection Feasibility Study:**

“Interconnection Feasibility Study” shall mean either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Tariff, Part IV and Tariff, Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

**Interconnection Service Agreement:**

“Interconnection Service Agreement” shall mean an agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Tariff, Part IV and Tariff, Part VI.

**Interconnection Studies:**

“Interconnection Studies” shall mean the Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Tariff, Part IV and Tariff, Part VI.

**Interface Pricing Point:**

“Interface Pricing Point” shall have the meaning specified in Operating Agreement, Schedule 1, section 2.6A, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.6A.

**Intermittent Resource:**

“Intermittent Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources.

**Internal Credit Score:**

“Internal Credit Score” shall mean a composite numerical score determined by PJM Settlement using quantitative and qualitative metrics to estimate various predictors of a credit event happening to a Market Participant that may trigger a credit event.

**Internal Market Buyer:**

“Internal Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for ultimate consumption by end-users inside the PJM Region that are served by Network Transmission Service.

**Interregional Transmission Project:**

“Interregional Transmission Project” shall mean transmission facilities that would be located within two or more neighboring transmission planning regions and are determined by each of those regions to be a more efficient or cost effective solution to regional transmission needs.

**Interruption:**

“Interruption” shall mean a reduction in non-firm transmission service due to economic reasons pursuant to Tariff, Part II, section 14.7.

**IROL Critical Resource:**

“IROL Critical Resource” shall mean a generation resource that the Office of the Interconnection designates, pursuant to NERC Reliability Standards, as having an interconnection reliability operating limit that, if violated, could lead to instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the bulk electric system.

**Jointly Owned Cross-Subsidized Capacity Resource:**

“Jointly Owned Cross-Subsidized Capacity Resource” shall mean a Capacity Resource that is supported by a facility that is jointly owned, where at least one owner is entitled to or receives a State Subsidy associated with such Capacity Resource, and therefore shall be considered a Capacity Resource with State Subsidy; provided however, in the event that the material rights and obligations of such generating facility are in pari passu, meaning that such rights and obligations are allocated among the owners pro rata based on ownership share, only Capacity Resources of those owners entitled to receive or receiving a State Subsidy shall have their share of such resource considered a Capacity Resource with a State Subsidy and Capacity Resources of owners not entitled to a State Subsidy shall not be considered a Capacity Resource with a State Subsidy. Each of these designations may be overcome by either Capacity Market Seller demonstrating to the Office of Interconnection, with advice and input from the Market Monitoring Unit, that there is no cross-subsidization or the Office of the Interconnection, with review and input from the Market Monitor, finds based on sufficient evidence, that there is cross-subsidization.

## **Definitions – L – M – N**

### **Legacy Policy:**

“Legacy Policy” shall mean any legislative, executive, or regulatory action that specifically directs a payment outside of PJM Markets to a designated or prospective Generation Capacity Resource and the enactment of such action predates October 1, 2021, regardless of when any implementing governmental action to effectuate the action to direct payment outside of PJM Markets occurs.

### **Limited Demand Resource:**

“Limited Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

### **Limited Demand Resource Reliability Target:**

“Limited Demand Resource Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of Limited Demand Resources determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity that shall be used to calculate the Minimum Extended Summer Demand Resource Requirement for Delivery Years through May 31, 2017 and the Limited Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years for the PJM Region or such LDA. As more fully set forth in the PJM Manuals, PJM calculates the Limited Demand Resource Reliability Target by first: i) testing the effects of the ten-interruption requirement by comparing possible loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using the cumulative capacity distributions employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) more than ten times over those peak days; ii) testing the six-hour duration requirement by calculating the MW difference between the highest hourly unrestricted peak load and seventh highest hourly unrestricted peak load on certain high peak load days (e.g., the annual peak, loads above the weather normalized peak, or days where load management was called) in recent years, then dividing those loads by the forecast peak for those years and averaging the result; and (iii) (for the 2016/2017 and 2017/2018 Delivery Years) testing the effects of the six-hour duration requirement by comparing possible hourly loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using a Monte Carlo model of hourly capacity levels that is consistent with the capacity model employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will



not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) for more than six hours over any one or more of the tested peak days. Second, PJM adopts the lowest result from these three tests as the Limited Demand Resource Reliability Target. The Limited Demand Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Limited Resource Constraint:**

“Limited Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and Delivery Years, for the PJM Region or each LDA for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Limited Demand Resource Reliability Target for the PJM Region or such LDA, respectively, minus the Short Term Resource Procurement Target for the PJM Region or such LDA, respectively.

**List of Approved Contractors:**

“List of Approved Contractors” shall mean a list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner’s system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

**Load Interest:**

“Load Interest” shall mean, for the purposes of the minimum offer price rule, responsibility for serving load within the PJM Region, whether by the Capacity Market Seller, an affiliate of the Capacity Market Seller, or by an entity with which the Capacity Market Seller is in contractual privity with respect to the subject Generation Capacity Resource.

**Load Management:**

“Load Management” shall mean a Demand Resource (“DR”) as defined in the Reliability Assurance Agreement.

**Load Management Event:**

“Load Management Event” shall mean a) a single temporally contiguous dispatch of Demand Resources in a Compliance Aggregation Area during an Operating Day, or b) multiple dispatches of Demand Resources in a Compliance Aggregation Area during an Operating Day that are temporally contiguous.

**Load Ratio Share:**

“Load Ratio Share” shall mean the ratio of a Transmission Customer’s Network Load to the Transmission Provider’s total load.

**Load Reduction Event:**

“Load Reduction Event” shall mean a reduction in demand by a Member or Special Member for the purpose of participating in the PJM Interchange Energy Market.

**Load Serving Charging Energy:**

“Load Serving Charging Energy” shall mean energy that is purchased from the PJM Interchange Energy Market and stored in an Energy Storage Resource for later resale to end-use load.

**Load Serving Entity (LSE):**

“Load Serving Entity” or “LSE” shall have the meaning specified in the Reliability Assurance Agreement.

**Load Shedding:**

“Load Shedding” shall mean the systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Tariff, Part II or Part III.

**Local Plan:**

“Local Plan” shall include Supplemental Projects as identified by the Transmission Owners within their Zone and Subregional RTEP projects developed to comply with all applicable reliability criteria, including Transmission Owners’ planning criteria or based on market efficiency analysis and in consideration of Public Policy Requirements.

**Local Upgrades:**

“Local Upgrades” shall mean modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

**Location:**

“Location” as used in the Economic Load Response rules shall mean an end-use customer site as defined by the relevant electric distribution company account number.

**LOC Deviation:**

“LOC Deviation,” shall mean, for units other than wind units, the LOC Deviation shall equal the desired megawatt amount for the resource determined according to the point on the Final Offer curve corresponding to the Real-time Settlement Interval real-time Locational Marginal Price at the resource’s bus and adjusted for any reduction in megawatts due to Regulation, Synchronized Reserve, or Secondary Reserve assignments and limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual output of the unit. For wind units, the LOC Deviation shall mean the deviation of the generating unit’s output equal to the lesser of the PJM forecasted output for the unit or the desired megawatt amount for the resource determined according to the point on the Final Offer curve corresponding to the Real-time Settlement Interval integrated real-time Locational Marginal Price at the resource’s bus, and shall be limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual output of the unit.

**Locational Deliverability Area (LDA):**

“Locational Deliverability Area” or “LDA” shall mean a geographic area within the PJM Region that has limited transmission capability to import capacity to satisfy such area’s reliability requirement, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, and as specified in Reliability Assurance Agreement, Schedule 10.1.

**Locational Deliverability Area Reliability Requirement:**

“Locational Deliverability Area Reliability Requirement” shall mean the projected internal capacity in the Locational Deliverability Area plus the Capacity Emergency Transfer Objective for the Delivery Year, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, less the minimum internal resources required for all FRR Entities in such Locational Deliverability Area. Notwithstanding the foregoing, for the 2024/2025 Delivery Year, during the auction process, the Office of Interconnection shall exclude from the Locational Deliverability Area Reliability Requirement any Planned Generation Capacity Resource in an LDA that does not participate in the relevant RPM Auction as projected internal capacity and in the Capacity Emergency Transfer Objective

model where the Locational Deliverability Area Reliability Requirement for the Base Residual Auction increases by more than one percent over the reliability requirement used from the prior Delivery Year's Base Residual Auction (for Incremental Auctions the Locational Deliverability Area Reliability Requirement would be compared with the reliability requirement used in the prior relevant RPM Auction associated with the same Delivery Year) for that LDA due to the cumulative addition of such Planned Generation Capacity Resources.

**Locational Price Adder:**

“Locational Price Adder” shall mean an addition to the marginal value of Unforced Capacity within an LDA as necessary to reflect the price of Capacity Resources required to relieve applicable binding locational constraints.

**Locational Reliability Charge:**

“Locational Reliability Charge” shall have the meaning specified in the Reliability Assurance Agreement.

**Locational UCAP:**

“Locational UCAP” shall mean unforced capacity that a Member with available uncommitted capacity sells in a bilateral transaction to a Member that previously committed capacity through an RPM Auction but now requires replacement capacity to fulfill its RPM Auction commitment. The Locational UCAP Seller retains responsibility for performance of the resource providing such replacement capacity.

**Locational UCAP Seller:**

“Locational UCAP Seller” shall mean a Member that sells Locational UCAP.

**Long-lead Project:**

“Long-lead Project” shall mean a transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion have the same meaning provided in the Operating Agreement.

**Long-Term Firm Point-To-Point Transmission Service:**

“Long-Term Firm Point-To-Point Transmission Service” shall mean firm Point-To-Point Transmission Service under Tariff, Part II with a term of one year or more.

**Loss Price:**

“Loss Price” shall mean the loss component of the Locational Marginal Price, which is the effect on transmission loss costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource based on the effect of increased generation from or consumption by the resource on transmission losses, calculated as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**M2M Flowgate:**

“M2M Flowgate” shall have the meaning provided in the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.

**Maintenance Adder:**

“Maintenance Adder” shall mean an adder that may be included to account for variable operation and maintenance expenses in a Market Seller’s Fuel Cost Policy. The Maintenance Adder is calculated in accordance with the applicable provisions of PJM Manual 15, and may only include expenses incurred as a result of electric production.

**Manual Load Dump Action:**

“Manual Load Dump Action” shall mean an Operating Instruction, as defined by NERC, from PJM to shed firm load when the PJM Region cannot provide adequate capacity to meet the PJM Region’s load and tie schedules, or to alleviate critically overloaded transmission lines or other equipment.

**Manual Load Dump Warning:**

“Manual Load Dump Warning” shall mean a notification from PJM to warn Members of an increasingly critical condition of present operations that may require manually shedding load.

**Marginal Value:**

“Marginal Value” shall mean the incremental change in system dispatch costs, measured as a \$/MW value incurred by providing one additional MW of relief to the transmission constraint.

**Market Monitor:**

“Market Monitor” means the head of the Market Monitoring Unit.

**Market Monitoring Unit or MMU:**

“Market Monitoring Unit” or “MMU” means the independent Market Monitoring Unit defined in 18 CFR § 35.28(a)(7) and established under the PJM Market Monitoring Plan (Attachment M) to the PJM Tariff that is responsible for implementing the Market Monitoring Plan, including the

Market Monitor. The Market Monitoring Unit may also be referred to as the IMM or Independent Market Monitor for PJM

**Market Monitoring Unit Advisory Committee or MMU Advisory Committee:**

“Market Monitoring Unit Advisory Committee” or “MMU Advisory Committee” shall mean the committee established under Tariff, Attachment M, section III.H.

**Market Operations Center:**

“Market Operations Center” shall mean the equipment, facilities and personnel used by or on behalf of a Market Participant to communicate and coordinate with the Office of the Interconnection in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

**Market Participant:**

“Market Participant” shall mean a Market Buyer, a Market Seller, and/or an Economic Load Response Participant, or all three, except when that term is used in or pertaining to Tariff, Attachment M, Tariff, Attachment Q, Operating Agreement, section 15, Tariff, Attachment K-Appendix, section 1.4 and Operating Agreement, Schedule 1, section 1.4. “Market Participant,” when such term is used in Tariff, Attachment M, shall mean an entity that generates, transmits, distributes, purchases, or sells electricity, ancillary services, or any other product or service provided under the PJM Tariff or Operating Agreement within, into, out of, or through the PJM Region, but it shall not include an Authorized Government Agency that consumes energy for its own use but does not purchase or sell energy at wholesale. “Market Participant,” when such term is used in or pertaining to Tariff, Attachment Q, Operating Agreement, section 15, Tariff, Attachment K-Appendix, section 1.4 and Operating Agreement, Schedule 1, section 1.4, shall mean a Market Buyer, a Market Seller, an Economic Load Response Participant, an FTR Participant, a Capacity Market Buyer, or a Capacity Market Seller.

**Market Participant Energy Injection:**

“Market Participant Energy Injection” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Day-ahead generation schedules, real-time generation output, Increment Offers, internal bilateral transactions and import transactions, as further described in the PJM Manuals.

**Market Participant Energy Withdrawal:**

“Market Participant Energy Withdrawal” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Demand Bids, Decrement Bids, real-time load (net of Behind The Meter Generation expected to be operating, but not to be less than zero), internal bilateral transactions and Export Transactions, as further described in the PJM Manuals.

**Market Revenue Neutrality Offset:**

“Market Revenue Neutrality Offset” shall mean the revenue in excess of the cost for a resource from the energy, Synchronized Reserve, Non-Synchronized Reserve, and Secondary Reserve markets realized from an increase in real-time market megawatt assignment from a day-ahead market megawatt assignment in any of these markets due to the decrease in the real-time reserve market megawatt assignment from a day-ahead reserve market megawatt assignment in any of the reserve markets.

**Market Seller Offer Cap:**

“Market Seller Offer Cap” shall mean a maximum offer price applicable to certain Market Sellers under certain conditions, as determined in accordance with Tariff, Attachment DD, section 6 and Tariff, Attachment M-Appendix, section II.E.

**Market Suspension:**

“Market Suspension” shall mean the inability of the Office of the Interconnection to clear the Day-ahead Energy Market prior to 11:59 p.m. on the day before the affected Operating Day due to extraordinary circumstances, as further described in Operating Agreement, Schedule 1, section 1.10.8(d) and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.8(d), or the inability of the Office of the Interconnection to produce Zonal Dispatch Rates for a total of seven (7) or more Real-time Settlement Intervals within a clock hour, for the purposes of the Real-time Energy Market, as further described in Operating Agreement, Schedule 1, section 1.11.6 and the parallel provisions of Tariff, Attachment K-Appendix, section 1.11.6.

**Market Violation:**

“Market Violation” shall mean a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies, as defined in 18 C.F.R. § 35.28(b)(8).

**Material Modification:**

“Material Modification” shall mean any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

**Maximum Daily Starts:**

“Maximum Daily Starts” shall mean the maximum number of times that a generating unit can be started in an Operating Day under normal operating conditions.

**Maximum Emergency:**

“Maximum Emergency” shall mean the designation of all or part of the output of a generating unit for which the designated output levels may require extraordinary procedures and therefore are available to the Office of the Interconnection only when the Office of the Interconnection declares a Maximum Generation Emergency and requests generation designated as Maximum Emergency to run. The Office of the Interconnection shall post on the PJM website the aggregate amount of megawatts that are classified as Maximum Emergency.

**Maximum Facility Output:**

“Maximum Facility Output” shall mean the maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer’s Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

**Maximum Generation Emergency:**

“Maximum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection to address either a generation or transmission emergency in which the Office of the Interconnection anticipates requesting one or more Generation Capacity Resources, or Non-Retail Behind The Meter Generation resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Generation Capacity Resource or Non-Retail Behind The Meter resource in order to manage, alleviate, or end the Emergency.

**Maximum Generation Emergency Alert:**

“Maximum Generation Emergency Alert” shall mean an alert issued by the Office of the Interconnection to notify PJM Members, Transmission Owners, resource owners and operators, customers, and regulators that a Maximum Generation Emergency may be declared, for any Operating Day in either, as applicable, the Day-ahead Energy Market or the Real-time Energy Market, for all or any part of such Operating Day.

**Maximum Run Time:**

“Maximum Run Time” shall mean the maximum number of hours a generating unit can run over the course of an Operating Day, as measured by PJM’s State Estimator.

**Maximum Weekly Starts:**

“Maximum Weekly Starts” shall mean the maximum number of times that a generating unit can be started in one week, defined as the 168 hour period starting Monday 0001 hour, under normal operating conditions.

**Member:**



“Member” shall have the meaning provided in the Operating Agreement.

**Merchant A.C. Transmission Facilities:**

“Merchant A.C. Transmission Facility” shall mean Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

**Merchant D.C. Transmission Facilities:**

“Merchant D.C. Transmission Facilities” shall mean direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Tariff, Part IV and Part VI.

**Merchant Network Upgrades:**

“Merchant Network Upgrades” shall mean additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer’s Upgrade Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

**Merchant Transmission Facilities:**

“Merchant Transmission Facilities” shall mean A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Tariff, Part IV and Part VI and that are so identified in Tariff, Attachment T, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Attachment T to the Tariff, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

**Merchant Transmission Provider:**

“Merchant Transmission Provider” shall mean an Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Tariff, Part IV, section 36, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Tariff, section 38.

**Metering Equipment:**

“Metering Equipment” shall mean all metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

**Minimum Annual Resource Requirement:**

“Minimum Annual Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Annual Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Sub-Annual Resource Reliability Target for the RTO in Unforced Capacity]. For an LDA, the Minimum Annual Resource Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Sub-Annual Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Down Time:**

For all generating units that are not combined cycle units, “Minimum Down Time” shall mean the minimum number of hours under normal operating conditions between unit shutdown and unit startup, calculated as the shortest time difference between the unit’s generator breaker opening and after the unit’s generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For combined cycle units, “Minimum Down Time” shall mean the minimum number of hours between the last generator breaker opening and after first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero.

**Minimum Exposure:**

“Minimum Exposure” shall mean the greater of: (a) \$3,000 and (b) one percent (1%) of the greatest amount invoiced for the Participant’s transaction activity for all PJM Markets and services in any rolling one, two, or three-week period in the prior 52 weeks, rounded up to the nearest multiple of \$100; provided, however, that the Minimum Exposure shall be capped at a maximum of \$100,000.

**Minimum Extended Summer Resource Requirement:**

“Minimum Extended Summer Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Extended Summer Demand Resources and Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Extended Summer Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Limited Demand Resource Reliability Target for the PJM Region in Unforced Capacity]. For an LDA, the Minimum Extended Summer Resource

Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Limited Demand Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Generation Emergency:**

“Minimum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection in which the Office of the Interconnection anticipates requesting one or more generating resources to operate at or below Normal Minimum Generation, in order to manage, alleviate, or end the Emergency.

**Minimum Participation Requirements:**

“Minimum Participation Requirements” shall mean a set of minimum training, risk management, communication and capital or collateral requirements required for Participants in the PJM Markets, as set forth herein and in the Form of Annual Certification set forth as Tariff, Attachment Q, Appendix 1. Participants transacting in FTRs in certain circumstances will be required to demonstrate additional risk management procedures and controls as further set forth in the Annual Certification found in Tariff, Attachment Q, Appendix 1.

**Minimum Run Time:**

For all generating units that are not combined cycle units, “Minimum Run Time” shall mean the minimum number of hours a unit must run, in real-time operations, from the time after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero, to the time of generator breaker opening, as measured by PJM's State Estimator. For combined cycle units, “Minimum Run Time” shall mean the time period after the first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero to the time of the last generator breaker opening as measured by PJM’s State Estimator.

**Minimum Transfer Amount:**

“Minimum Transfer Amount” shall mean the greater of: (a) \$20,000 and (b) five percent (5%) of the greatest amount invoiced for the Participant’s transaction activity for all PJM Markets and services in any rolling one, two, or three-week period in the prior 52 weeks, rounded up to the nearest multiple of \$100; provided, however, that the Minimum Transfer Amount shall be capped at a maximum of \$500,000.

**MISO:**

“MISO” shall mean the Midcontinent Independent System Operator, Inc. or any successor thereto.

**Mixed Technology Facility:**

“Mixed Technology Facility” shall mean a facility composed of distinct generation and/or electric storage technology types behind the same Point of Interconnection. Co-Located Resources and Hybrid Resources form all or part of Mixed Technology Facilities.

**MOPR Floor Offer Price:**

“MOPR Floor Offer Price” shall mean a minimum offer price applicable to certain Market Seller’s Capacity Resources under certain conditions, as determined in accordance with Tariff, Attachment DD, sections 5.14(h), 5.14(h-1), and 5.14(h-2).

**Multi-Driver Project:**

“Multi-Driver Project” shall mean a transmission enhancement or expansion that addresses more than one of the following: reliability violations, economic constraints or State Agreement Approach initiatives~~have the same meaning provided in the Operating Agreement.~~

**Native Load Customers:**

“Native Load Customers” shall mean the wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner’s system to meet the reliable electric needs of such customers.

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**NERC Interchange Distribution Calculator:**

“NERC Interchange Distribution Calculator” shall mean the NERC mechanism that is in effect and being used to calculate the distribution of energy, over specific transmission interfaces, from energy transactions.

**NERC Reliability Standards:**

“NERC Reliability Standards” shall mean those standards that have been developed by NERC and approved by FERC to ensure the reliability of the electric bulk power system.

**Net Benefits Test:**

“Net Benefits Test” shall mean a calculation to determine whether the benefits of a reduction in price resulting from the dispatch of Economic Load Response exceeds the cost to other loads resulting from the billing unit effects of the load reduction, as specified in Operating Agreement, Schedule 1, section 3.3A.4 and the parallel provisions of Tariff, Attachment K-Appendix, section 3.3A.4.

**Net Cost of New Entry:**

“Net Cost of New Entry” shall mean the Cost of New Entry minus the Net Energy and Ancillary Service Revenue Offset.

**Net Obligation:**

“Net Obligation” shall mean the amount owed to PJM Settlement and PJM for purchases from the PJM Markets, Transmission Service, (under Tariff, Parts II and III), and other services pursuant to the Agreements, after applying a deduction for amounts owed to a Participant by PJM Settlement as it pertains to monthly market activity and services. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

**Net Sell Position:**

“Net Sell Position” shall mean the amount of Net Obligation when Net Obligation is negative.

**Network Customer:**

“Network Customer” shall mean an entity receiving transmission service pursuant to the terms of the Transmission Provider’s Network Integration Transmission Service under Tariff, Part III.

**Network External Designated Transmission Service:**

“Network External Designated Transmission Service” shall have the meaning set forth in Reliability Assurance Agreement, Article I.

**Network Integration Transmission Service:**

“Network Integration Transmission Service” shall mean the transmission service provided under Tariff, Part III. There are two types of firm Network Integration Transmission Service: Regional Network Integration Transmission Service and firm Cross-Border Network Integration Transmission Service. Non-firm Network Integration Transmission Service includes Secondary Service.

**Network Load:**

“Network Load” shall mean the load that a Network Customer designates for Network Integration Transmission Service under Tariff, Part III. The Network Customer’s Network Load shall include all load (including losses, Non-Dispatched Charging Energy, and Load Serving Charging Energy) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network

Load, the Eligible Customer is responsible for making separate arrangements under Tariff, Part II for any Point-To-Point Transmission Service that may be necessary for such non-designated load. Network Load shall not include Dispatched Charging Energy.

**Network Operating Agreement:**

“Network Operating Agreement” shall mean an executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Tariff, Part III.

**Network Operating Committee:**

“Network Operating Committee” shall mean a group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Tariff, Part III.

**Network Resource:**

“Network Resource” shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer’s Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

**Network Service User:**

“Network Service User” shall mean an entity using Network Transmission Service.

**Network Transmission Service:**

“Network Transmission Service” shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Tariff, Part III, or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider’s overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that are not part of an Affected System; only serve the Customer Interconnection Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both

Transmission Provider and Interconnection Customer must agree as to what constitutes Direct Connection Network Upgrades and identify them in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Direct Connection Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Direct Connection Network Upgrade within 15 days of its determination.

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

**Neutral Party:**

“Neutral Party” shall have the meaning provided in Tariff, Part I, section 9.3(v).

**New Entry Capacity Resource with State Subsidy:**

“New Entry Capacity Resource with State Subsidy” shall mean (1) starting with the 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have not cleared in an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price or (2) starting with the Base Residual Auction for the 2022/2023 Delivery Year, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that was not included in an FRR Capacity Plan at the time of the Base Residual Auction or the subject of a Sell Offer in a Base Residual Auction occurring for a Delivery Year after it last cleared an RPM Auction and since then has yet to clear an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price. Notwithstanding the foregoing, any Capacity Resource that previously cleared an RPM Auction before it became entitled to receive a State Subsidy shall not be deemed a New Entry Capacity Resource, unless, starting with the Base Residual Auction for the 2022/2023 Delivery Year, the Capacity Resource with State Subsidy was not the subject of a Sell Offer in a Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for a Delivery Year after it last cleared an RPM Auction.

**New PJM Zone(s):**

“New PJM Zone(s)” shall mean the Zone included in the Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

**New Service Customers:**

“New Service Customers” shall mean all customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request, a Completed Application, or an Upgrade Request.

**New Services Queue:**

“New Services Queue” shall mean all Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each six-month period ending on March 31 and September 30 of each year shall collectively comprise a New Services Queue.

**New York ISO or NYISO:**

“New York ISO” or “NYISO” shall mean the New York Independent System Operator, Inc. or any successor thereto.

**Nodal Reference Price:**

The “Nodal Reference Price” at each location shall mean the 97th percentile price differential between day-ahead and real-time prices experienced over the corresponding two-month reference period in the prior calendar year. Reference periods will be Jan-Feb, Mar-Apr, May-Jun, Jul-Aug, Sept-Oct, Nov-Dec. For any given current-year month, the reference period months will be the set of two months in the prior calendar year that include the month corresponding to the current month. For example, July and August 2003 would each use July-August 2002 as their reference period.

**No-load Cost:**

“No-load Cost” shall mean the hourly cost required to theoretically operate a synchronized unit at zero MW. It consists primarily of the cost of fuel, as determined by the unit’s no load heat (adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, and emissions allowances.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Interconnection Customer’s Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer’s Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

**Nominated Demand Resource Value:**



“Nominated Demand Resource Value” shall mean the amount of load reduction that a Demand Resource commits to provide either through direct load control, firm service level or guaranteed load drop programs. For existing Demand Resources, the maximum Nominated Demand Resource Value is limited, in accordance with the PJM Manuals, to the value appropriate for the method by which the load reduction would be accomplished, at the time the Base Residual Auction or Incremental Auction is being conducted.

**Nominated Energy Efficiency Value:**

“Nominated Energy Efficiency Value” shall mean the amount of load reduction that an Energy Efficiency Resource commits to provide through installation of more efficient devices or equipment or implementation of more efficient processes or systems.

**Non-Dispatched Charging Energy:**

“Non-Dispatched Charging Energy” shall mean all Direct Charging Energy that an Energy Storage Resource Model Participant receives from the electric grid that is not otherwise Dispatched Charging Energy.

**Non-Firm Point-To-Point Transmission Service:**

“Non-Firm Point-To-Point Transmission Service” shall mean Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Tariff, Part II, section 14.7. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

**Non-Firm Sale:**

“Non-Firm Sale” shall mean an energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

**Non-Firm Transmission Withdrawal Rights:**

“No-Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**Non-Performance Charge:**

“Non-Performance Charge” shall mean the charge applicable to Capacity Performance Resources as defined in Tariff, Attachment DD, section 10A(e).

**Nonincumbent Developer:**

“Nonincumbent Developer” shall mean: (1) a transmission developer that does not have an existing Zone in the PJM Region as set forth in Tariff, Attachment J; or (2) a Transmission Owner that proposes a transmission project outside of its existing Zone in the PJM Region as set forth in Tariff, Attachment J, have the same meaning provided in the Operating Agreement.

**Non-Regulatory Opportunity Cost:**

“Non-Regulatory Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of starts or available run hours resulting from (i) the physical equipment limitations of the unit, for up to one year, due to original equipment manufacturer recommendations or insurance carrier restrictions, (ii) a fuel supply limitation, for up to one year, resulting from an event of Catastrophic Force Majeure; and, (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Non-Regulatory Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same period of time in which the unit is bound by the referenced restrictions, and is reflected in the rules set forth in PJM Manual 15. Non-Regulatory Opportunity Costs shall be limited to those resources which are specifically delineated in Operating Agreement, Schedule 2.

**Non-Retail Behind The Meter Generation:**

“Non-Retail Behind The Meter Generation” shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

**Non-Synchronized Reserve:**

“Non-Synchronized Reserve” shall mean the reserve capability of non-emergency generation resources that can be converted fully into energy within ten minutes of a request from the Office of the Interconnection dispatcher, and is provided by equipment that is not electrically synchronized to the Transmission System.

**Non-Synchronized Reserve Event:**

“Non-Synchronized Reserve Event” shall mean a request from the Office of the Interconnection to generation resources able and assigned to provide Non-Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes to increase the energy output by the amount of assigned Non-Synchronized Reserve capability.

**Non-Variable Loads:**

“Non-Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.6.

**Non-Zone Network Load:**

“Non-Zone Network Load shall mean Network Load that is located outside of the PJM Region.

**Normal Maximum Generation:**

“Normal Maximum Generation” shall mean the highest output level of a generating resource under normal operating conditions.

**Normal Minimum Generation:**

“Normal Minimum Generation” shall mean the lowest output level of a generating resource under normal operating conditions.

## **Definitions – O – P - Q**

### **Obligation:**

“Obligation” shall mean all amounts owed to PJM Settlement for purchases from the PJM Markets, Transmission Service, (under both Tariff, Part II and Tariff, Part III), and other services or obligations pursuant to the Agreements. In addition, aggregate amounts that will be owed to PJM Settlement in the future for capacity purchases within the PJM capacity markets will be added to this figure. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

### **Offer Data:**

“Offer Data” shall mean the scheduling, operations planning, dispatch, new resource, and other data and information necessary to schedule and dispatch generation resources and Demand Resource(s) for the provision of energy and other services and the maintenance of the reliability and security of the Transmission System in the PJM Region, and specified for submission to the PJM Interchange Energy Market for such purposes by the Office of the Interconnection.

### **Office of the Interconnection:**

“Office of the Interconnection” shall mean the employees and agents of PJM Interconnection, L.L.C. subject to the supervision and oversight of the PJM Board, acting pursuant to the Operating Agreement.

### **Office of the Interconnection Control Center:**

“Office of the Interconnection Control Center” shall mean the equipment, facilities and personnel used by the Office of the Interconnection to coordinate and direct the operation of the PJM Region and to administer the PJM Interchange Energy Market, including facilities and equipment used to communicate and coordinate with the Market Participants in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

### **On-Site Generators:**

“On-Site Generators” shall mean generation facilities (including Behind The Meter Generation) that (i) are not Capacity Resources, (ii) are not injecting into the grid, (iii) are either synchronized or non-synchronized to the Transmission System, and (iv) can be used to reduce demand for the purpose of participating in the PJM Interchange Energy Market.

### **Open Access Same-Time Information System (OASIS) or PJM Open Access Same-Time Information System:**

“Open Access Same-Time Information System,” “PJM Open Access Same-Time Information System” or “OASIS” shall mean the electronic communication and information system and

standards of conduct contained in Part 37 and Part 38 of the Commission’s regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS for the collection and dissemination of information about transmission services in the PJM Region, established and operated by the Office of the Interconnection in accordance with FERC standards and requirements.

**Open-Loop Hybrid Resource:**

“Open-Loop Hybrid Resource” shall mean a Hybrid Resource with a storage component that is physically and contractually capable of charging its storage component from the grid.

**Operating Agreement of the PJM Interconnection, L.L.C., Operating Agreement or PJM Operating Agreement:**

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C., on file with the Commission.

**Operating Day:**

“Operating Day” shall mean the daily 24 hour period beginning at midnight for which transactions on the PJM Interchange Energy Market are scheduled.

**Operating Margin:**

“Operating Margin” shall mean the incremental adjustments, measured in megawatts, required in PJM Region operations in order to accommodate, on a first contingency basis, an operating contingency in the PJM Region resulting from operations in an interconnected Control Area. Such adjustments may result in constraints causing Transmission Congestion Charges, or may result in Ancillary Services charges pursuant to the PJM Tariff.

**Operating Margin Customer:**

“Operating Margin Customer” shall mean a Control Area purchasing Operating Margin pursuant to an agreement between such other Control Area and the LLC.

**Operating Reserve Demand Curve:**

“Operating Reserve Demand Curve” shall mean a curve with prices on the y-axis and megawatts on the x-axis, which defines the relationship between each incremental megawatt of reserves that can be used to meet a given reserve requirement.

**Operationally Deliverable:**

“Operationally Deliverable” shall mean, as determined by the Office of the Interconnection, that there are no operational conditions, arrangements or limitations experienced or required that threaten, impair or degrade effectuation or maintenance of deliverability of capacity or energy from the external Generation Capacity Resource to loads in the PJM Region in a manner comparable to the deliverability of capacity or energy to such loads from Generation Capacity Resources located inside the metered boundaries of the PJM Region, including, without limitation, an identified need by an external Balancing Authority Area for a remedial action scheme or manual generation trip protocol, transmission facility switching arrangements that would have the effect of radializing load, or excessive or unacceptable frequency of regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability dispatch instructions and commitments.

**Opportunity Cost:**

“Opportunity Cost” shall mean a component of the Market Seller Offer Cap calculated in accordance with Tariff, Attachment DD, section 6.

**OPSI Advisory Committee:**

“OPSI Advisory Committee” shall mean the committee established under Tariff, Attachment M, section III.G.

**Option to Build:**

“Option to Build” shall mean the option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

**Optional Interconnection Study:**

“Optional Interconnection Study” shall mean a sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement:**

“Optional Interconnection Study Agreement” shall mean the form of agreement for preparation of an Optional Interconnection Study, as set forth in Tariff, Attachment N-3.

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part V:**

“Part V” shall mean Tariff, Part V, sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Participant:**

“Participant” shall mean a Market Participant and/or Transmission Customer and/or Applicant requesting to be an active Market Participant and/or Transmission Customer.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Peak-Hour Dispatch:**

“Peak-Hour Dispatch” shall mean, for purposes of calculating the Energy and Ancillary Services Revenue Offset under Tariff, Attachment DD, section 5, an assumption, as more fully set forth in the PJM Manuals, that the Reference Resource is committed in the Day-ahead Energy Market in

four distinct blocks of four hours of continuous output for each block from the peak-hour period beginning with the hour ending 0800 EPT through to the hour ending 2300 EPT for any day when the average day-ahead LMP for the area for which the Net Cost of New Entry is being determined is greater than, or equal to, the cost to generate (including the cost for a complete start and shutdown cycle), plus 10% of such costs *only for the 2022/2023 Delivery Year*, for at least two hours during each four-hour block, where such blocks shall be assumed to be committed independently; provided that, if there are not at least two economic hours in any given four-hour block, then the Reference Resource shall be assumed not to be committed for such block; and to the extent not committed in any such block in the Day-ahead Energy Market under the above conditions based on Day-Ahead LMPs, is dispatched in the Real-time Energy Market for such block if the Real-Time LMP is greater than or equal to the cost to generate, plus 10% of such costs *only for the 2022/2023 Delivery Year*, under the same conditions as described above for the Day-ahead Energy Market.

**Peak Market Activity:**

“Peak Market Activity” shall mean a measure of exposure for which credit is required, calculated in accordance with Tariff, Attachment Q, section VII.A.

**Peak Market Activity Shortfall:**

“Peak Market Activity Shortfall” shall mean, for any given week, the amount by which a Participant’s current Peak Market Activity exceeds such Participant’s Peak Market Activity credit requirement from the prior week.

**Peak Market Activity Surplus:**

“Peak Market Activity Surplus” shall mean, for any given week, the amount by which a Participant’s Peak Market Activity credit requirement from the prior week exceeds such Participant’s current Peak Market Activity.

**Peak Season:**

“Peak Season” shall mean the weeks containing the 24th through 36th Wednesdays of the calendar year. Each such week shall begin on a Monday and end on the following Sunday, except for the week containing the 36th Wednesday, which shall end on the following Friday.

**Percentage Internal Resources Required:**

“Percentage Internal Resources Required” shall have the meaning specified in the Reliability Assurance Agreement.

**Performance Assessment Interval:**

“Performance Assessment Interval” shall mean each Real-time Settlement Interval for which an Emergency Action has been declared by the Office of the Interconnection, provided, however,



that Performance Assessment Intervals for a Base Capacity Resource shall not include any intervals outside the calendar months of June through September.

**Permissible Technological Advancement:**

“Permissible Technological Advancement” shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the return of an executed Facilities Study Agreement (or, if a Facilities Study is not required, prior to the return of an executed Interconnection Service Agreement). Provided such change may not: (i) increase the capability of the Generating Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Administrative Service:**

“PJM Administrative Service” shall mean the services provided by PJM pursuant to Tariff, Schedule 9.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, acting pursuant to the Operating Agreement except when such term is being used in Tariff, Attachment M, in which case PJM Board shall mean the Board of Managers of PJM or its designated representative, exclusive of any members of PJM Management.

**PJM Control Area:**

“PJM Control Area” shall mean the Control Area recognized by NERC as the PJM Control Area.

**PJM Entities:**

“PJM Entities” shall mean PJM, including the Market Monitoring Unit, the PJM Board, and PJM’s officers, employees, representatives, advisors, contractors, and consultants.

**PJM Interchange:**

“PJM Interchange” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds, or is exceeded by, the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup; or (c) the interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller; or (e) the interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (f) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Interchange Energy Market:**

“PJM Interchange Energy Market” shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K – Appendix.

**PJM Interchange Export:**

“PJM Interchange Export” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load is exceeded by the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup sales; or (c) the interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller.

**PJM Interchange Import:**

“PJM Interchange Import” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup purchases; or (c) the interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (d) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Liaison:**

“PJM Liaison” shall mean the liaison established under Tariff, Attachment M, section III.I.

**PJM Management:**

“PJM Management” shall mean the officers, executives, supervisors and employee managers of PJM.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Markets:**

“PJM Markets” shall mean the PJM Interchange Energy Market, capacity markets, including the RPM auctions, and any other market operated by PJM, together with all bilateral or other wholesale electric power and energy transactions, capacity transactions, ancillary services transactions (including black start service), transmission transactions, Financial Transmission Rights transactions, or transactions in any other market operated under the Agreements within the PJM Region, wherein Market Participants may incur Obligations to PJM and/or PJMSettlement.

**PJM Market Rules:**

“PJM Market Rules” shall mean the rules, standards, procedures, and practices of the PJM Markets set forth in the PJM Tariff, the PJM Operating Agreement, the PJM Reliability Assurance Agreement, the PJM Consolidated Transmission Owners Agreement, the PJM Manuals, the PJM Regional Practices Document, the PJM-Midwest Independent Transmission System Operator Joint Operating Agreement or any other document setting forth market rules.

**PJM Net Assets:**

“PJM Net Assets” shall mean the total assets per PJM’s consolidated quarterly or year-end financial statements most recently issued as of the date of the receipt of written notice of a claim less amounts for which PJM is acting as a temporary custodian on behalf of its Members, transmission developers/Designated Entities, and generation developers, including, but not limited to, cash deposits related to credit requirement compliance, study and/or interconnection receivables, member prepayments, invoiced amounts collected from Net Buyers but have not yet been paid to Net Sellers, and excess congestion (as described in Operating Agreement, Schedule 1, section 5.2.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.6).

**PJM Region:**

“PJM Region” shall mean the aggregate of the Zones within PJM as set forth in Tariff, Attachment J.~~shall have the meaning specified in the Operating Agreement.~~

**PJM Regional Practices Document:**

“PJM Regional Practices Document” shall mean the document of that title that compiles and describes the practices in the PJM Markets and that is made available in hard copy and on the Internet.

**PJM Region Installed Reserve Margin:**

“PJM Region Installed Reserve Margin” shall mean the percent installed reserve margin for the PJM Region required pursuant to RAA, Schedule 4.1, as approved by the PJM Board.

**PJM Region Peak Load Forecast:**

“PJM Region Peak Load Forecast” shall mean the peak load forecast used by the Office of the Interconnection in determining the PJM Region Reliability Requirement, and shall be determined on both a preliminary and final basis as set forth in Tariff, Attachment DD, section 5.

**PJM Region Reliability Requirement:**

“PJM Region Reliability Requirement” shall mean, for purposes of the Base Residual Auction, the Forecast Pool Requirement multiplied by the Preliminary PJM Region Peak Load Forecast, less the sum of all Preliminary Unforced Capacity Obligations of FRR Entities in the PJM Region; and, for purposes of the Incremental Auctions, the Forecast Pool Requirement multiplied by the updated PJM Region Peak Load Forecast, less the sum of all updated Unforced Capacity Obligations of FRR Entities in the PJM Region.

**PJM Settlement:**

“PJM Settlement” or “PJM Settlement, Inc.” shall mean PJM Settlement, Inc. (or its successor), established by PJM as set forth in Operating Agreement, section 3.3.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Plan:**

“Plan” shall mean the PJM market monitoring plan set forth in Tariff, Attachment M.

**Planned Demand Resource:**

“Planned Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planned External Financed Generation Capacity Resource:**

“Planned External Financed Generation Capacity Resource” shall mean a Planned External Generation Capacity Resource that, prior to August 7, 2015, has an effective agreement that is the equivalent of an Interconnection Service Agreement, has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close, and has

secured at least 50 percent of the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

**Planned External Generation Capacity Resource:**

“Planned External Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planned Financed Generation Capacity Resource:**

“Planned Financed Generation Capacity Resource” shall mean a Planned Generation Capacity Resource that, prior to August 7, 2015, has an effective Interconnection Service Agreement and has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close.

**Planned Generation Capacity Resource:**

“Planned Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planning Period:**

“Planning Period” shall mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

**Planning Period Balance:**

“Planning Period Balance” shall mean the entire period of time remaining in the Planning Period following the month that a monthly auction is conducted.

**Planning Period Quarter:**

“Planning Period Quarter” shall mean any of the following three month periods in the Planning Period: June, July and August; September, October and November; December, January and February; or March, April and May.

**Point(s) of Delivery:**

“Point(s) of Delivery” shall mean the point(s) on the Transmission Provider’s Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Tariff, Part II. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**Point(s) of Receipt:**

“Point(s) of Receipt” shall mean point(s) of interconnection on the Transmission Provider’s Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Tariff, Part II. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point-To-Point Transmission Service:**

“Point-To-Point Transmission Service shall mean the reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Tariff, Part II.

**Power Purchaser:**

“Power Purchaser” shall mean the entity that is purchasing the capacity and energy to be transmitted under the Tariff.

**PRD Curve:**

“PRD Curve” shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Provider:**

“PRD Provider” shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Reservation Price:**

“PRD Reservation” Price shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Substation:**

“PRD Substation” shall have the meaning provided in the Reliability Assurance Agreement.

**Pre-Confirmed Application:**

“Pre-Confirmed Application” shall be an Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

**Pre-Emergency Load Response Program:**

“Pre-Emergency Load Response Program” shall be the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during pre-emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix, section 8.

**Pre-Expansion PJM Zones:**

“Pre-Expansion PJM Zones” shall be zones included in the Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Mid-Atlantic Interstate Transmission, LLC (“MAIT”) (MAIT owns and operates the transmission facilities in the Metropolitan Edison Company Zone and the Pennsylvania Electric Company Zone), PECO Energy Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

**Price Responsive Demand:**

“Price Responsive Demand” shall have the meaning provided in the Reliability Assurance Agreement.

**Primary Reserve:**

“Primary Reserve” shall mean the total reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within ten minutes of a request from the Office of the Interconnection dispatcher, and is comprised of both Synchronized Reserve and Non-Synchronized Reserve.

**Primary Reserve Alert**

“Primary Reserve Alert” shall mean a notification from PJM to alert Members of an anticipated shortage of Operating Reserve capacity for a future critical period.

**Primary Reserve Requirement:**

“Primary Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Primary Reserve absent any increase to account for additional reserves scheduled to address operational uncertainty. The Primary Reserve Requirement is calculated in accordance with the PJM Manuals. The requirement can be satisfied by any combination of Synchronized Reserve or Non-Synchronized Reserve resources.

**Principal:**

“Principal” shall mean (i) the chief executive officer or senior manager that controls or directs strategy for the Participant, (ii) the chief legal officer or general counsel, (iii) the chief financial

officer or senior manager that controls or directs the financial affairs and investments of the Participant, (iv) the chief risk officer or senior manager responsible for managing commodity and derivatives market risks, and (v) the officer or senior manager responsible for or to be responsible for transactions in the applicable PJM Markets. If, due to the Participant's business enterprise, structure or otherwise, the functions attributed to any of such Principals are performed by an individual or entity separate from the Participant (such as a risk management department in an affiliate, or a director or manager at an entity that controls or invests in the Participant), then for that Participant the term Principal shall mean that individual, or the senior officer or manager of that entity, that performs such function.

**Prior CIL Exception External Resource:**

“Prior CIL Exception External Resource” shall mean an external Generation Capacity Resource for which (1) a Capacity Market Seller had, prior to May 9, 2017, cleared a Sell Offer in an RPM Auction under the exception provided to the definition of Capacity Import Limit as set forth in RAA, Article I or (2) an FRR Entity committed, prior to May 9, 2017, in an FRR Capacity Plan under the exception provided in the definition of Capacity Import Limit. In the event only a portion (in MW) of an external Generation Capacity Resource has a Pseudo-Tie into the PJM Region, that portion of the external Generation Capacity Resource, which can include up to the maximum megawatt amount cleared in any prior RPM auction or committed in an FRR Capacity Plan (and no other portion thereof) is eligible for treatment as a Prior CIL Exception External Resource if such portion satisfies the requirements of the first sentence of this definition.

**Project Financing:**

“Project Financing” shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to which Interconnection Customer's obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

**Projected EAS Dispatch:**

“Projected EAS Dispatch” shall mean, for purposes of calculating the Net Energy and Ancillary Services Revenue Offset, a simulated dispatch with the objective of committing and dispatching a resource for the purpose of maximizing its net revenues. The calculation shall take inputs



including Forward Hourly LMPs, Forward Hourly Ancillary Service Prices, and Forward Daily Natural Gas Prices or forecasted fuel prices, as applicable, in addition to the operating parameters and costs of the specific resource, including the cost emission allowances. Using operating parameters, forward or forecasted fuel prices, as applicable and other cost pricing inputs, a composite, cost-based energy offer is created for the resource such that its commitment and dispatch is co-optimized between energy and ancillary services in the Day-Ahead Energy Market and then the Real-Time Energy Market considering the electricity and ancillary service price inputs. In the Real-Time Energy Market co-optimization, the resource is assumed to be operating in the hours it was scheduled in the Day-Ahead Energy Market but is dispatched according to the real-time price inputs. In the hours where the resource was not committed in the Day-Ahead Market, the resource may be committed and dispatched in real-time only subject to the real-time electricity and ancillary service price inputs and the resource's offer and operating parameters. For combustion turbine units only, the cost-based energy offer will include a 10 percent adder *only for the 2022/2023 Delivery Year*.

#### **Projected PJM Market Revenues:**

“Projected PJM Market Revenues” shall mean a component of the Market Seller Offer Cap calculated in accordance with Tariff, Attachment DD, section 6.

#### **Proportional Multi-Driver Project:**

“Proportional Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h)~~have the same meaning provided in the Operating Agreement.~~

#### **Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

#### **Pseudo-Tie:**

“Pseudo-Tie” shall have the same meaning provided in the Operating Agreement.

#### **Public Policy Objectives:**

“Public Policy Objectives” shall refer to Public Policy Requirements, as well as public policy initiatives of state or federal entities that have not been codified into law or regulation but which nonetheless may have important impacts on long term planning considerations~~have the same meaning provided in the Operating Agreement.~~

**Public Policy Requirements:**

“Public Policy Requirements” shall refer to policies pursued by: (a) state or federal entities, where such policies are reflected in duly enacted statutes or regulations, including but not limited to, state renewable portfolio standards and requirements under Environmental Protection Agency regulations; and (b) local governmental entities such as a municipal or county government, where such policies are reflected in duly enacted laws or regulations passed by the local governmental entity~~have the same meaning provided in the Operating Agreement.~~

**Qualifying Transmission Upgrade:**

“Qualifying Transmission Upgrade” shall mean a proposed enhancement or addition to the Transmission System that: (a) will increase the Capacity Emergency Transfer Limit into an LDA by a megawatt quantity certified by the Office of the Interconnection; (b) the Office of the Interconnection has determined will be in service on or before the commencement of the first Delivery Year for which such upgrade is the subject of a Sell Offer in the Base Residual Auction; (c) is the subject of a Facilities Study Agreement executed before the conduct of the Base Residual Auction for such Delivery Year and (d) a New Service Customer is obligated to fund through a rate or charge specific to such facility or upgrade.

**Queue Position:**

“Queue Position” shall mean the priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Tariff, Part VI.

## **Definitions – R - S**

### **Ramping Capability:**

“Ramping Capability” shall mean the sustained rate of change of generator output, in megawatts per minute.

### **Real-time Congestion Price:**

“Real-time Congestion Price” shall mean the Congestion Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Loss Price:**

“Real-time Loss Price” shall mean the Loss Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Energy Market:**

“Real-time Energy Market” shall mean the purchase or sale of energy and payment of Transmission Congestion Charges for quantity deviations from the Day-ahead Energy Market in the Operating Day.

### **Real-time Offer:**

“Real-time Offer” shall mean a new offer or an update to a Market Seller’s existing cost-based or market-based offer for a clock hour, submitted for use after the close of the Day-ahead Energy Market.

### **Real-time Prices:**

“Real-time Prices” shall mean the Locational Marginal Prices resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Settlement Interval:**

“Real-time Settlement Interval” shall mean the interval used by settlements, which shall be every five minutes.

### **Real-time System Energy Price:**

“Real-time System Energy Price” shall mean the System Energy Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Tariff, Part IV or Part VI, an Interconnection Service Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Receiving Party:**

“Receiving Party” shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

**Referral:**

“Referral” shall mean a formal report of the Market Monitoring Unit to the Commission for investigation of behavior of a Market Participant, of behavior of PJM, or of a market design flaw, pursuant to Tariff, Attachment M, section IV.I.

**Reference Resource:**

“Reference Resource” shall mean a combustion turbine generating station, configured with a single General Electric Frame 7HA turbine with evaporative cooling, Selective Catalytic Reduction technology all CONE Areas, dual fuel capability, and a heat rate of 9.134 Mmbtu/MWh.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Network Integration Transmission Service:**

“Regional Network Integration Transmission Service” shall mean firm transmission service taken by Network Customers that involves the delivery of energy and/or capacity from Network Resources physically interconnected to the Transmission Provider’s transmission system to Network Load physically interconnected to the Transmission Provider’s transmission system.

**Regional RTEP Project:**

“Regional RTEP Project” shall mean a transmission expansion or enhancement rated at 230 kV or above which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 for the

enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Regional Transmission Group (RTG):**

“Regional Transmission Group” or “RTG” shall mean a voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

**Regulation:**

“Regulation” shall mean the capability of a specific generation resource or Demand Resource with appropriate telecommunications, control and response capability to separately increase and decrease its output or adjust load in response to a regulating control signal, in accordance with the specifications in the PJM Manuals.

**Regulation Zone:**

“Regulation Zone” shall mean any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

**Relevant Electric Retail Regulatory Authority:**

“Relevant Electric Retail Regulatory Authority” shall mean an entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Reliability Pricing Model Auction:**

“Reliability Pricing Model Auction” or “RPM Auction” shall mean the Base Residual Auction or any Incremental Auction, or, for the 2016/2017 and 2017/2018 Delivery Years, any Capacity Performance Transition Incremental Auction.

**Required Transmission Enhancements:**

“Regional Transmission Enhancements” shall mean enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (“Appendix B Agreement”) designates one or more of the Transmission Owner(s) to construct and own or finance. Required Transmission Enhancements shall also include enhancements and expansions of facilities in another region or planning authority that meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities constructed pursuant to an Appendix B Agreement cost responsibility for which has been assigned at least in part to PJM pursuant to such Appendix B Agreement.

**Reserved Capacity:**

“Reserved Capacity” shall mean the maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider’s Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Tariff, Part II. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

**Reserve Penalty Factor:**

“Reserve Penalty Factor” shall mean the cost, in \$/MWh, associated with being unable to meet a specific reserve requirement in a Reserve Zone or Reserve Sub-zone. A Reserve Penalty Factor will be defined for each reserve requirement in a Reserve Zone or Reserve Sub-zone.

**Reserve Sub-zone:**

“Reserve Sub-zone” shall mean any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Reserve Zone:**

“Reserve Zone” shall mean any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Residual Auction Revenue Rights:**

“Residual Auction Revenue Rights” shall mean incremental stage 1 Auction Revenue Rights created within a Planning Period by an increase in transmission system capability, including the return to service of existing transmission capability, that was not modeled pursuant to Operating Agreement, Schedule 1, section 7.5 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.5 in compliance with Operating Agreement, Schedule 1, section 7.4.2 (h)

and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2(h), and, if modeled, would have increased the amount of stage 1 Auction Revenue Rights allocated pursuant to Operating Agreement, Schedule 1, section 7.4.2 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2; provided that, the foregoing notwithstanding, Residual Auction Revenue Rights shall exclude: 1) Incremental Auction Revenue Rights allocated pursuant to Tariff, Part VI; and 2) Auction Revenue Rights allocated to entities that are assigned cost responsibility pursuant to ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 for transmission upgrades that create such rights.

**Residual Metered Load:**

“Residual Metered Load” shall mean all load remaining in an electric distribution company’s fully metered franchise area(s) or service territory(ies) after all nodally priced load of entities serving load in such area(s) or territory(ies) has been carved out.

**Resource Substitution Charge:**

“Resource Substitution Charge” shall mean a charge assessed on Capacity Market Buyers in an Incremental Auction to recover the cost of replacement Capacity Resources.

**Revenue Data for Settlements:**

“Revenue Data for Settlements” shall mean energy quantities used in accounting and billing as determined pursuant to Tariff, Attachment K-Appendix and the corresponding provisions of Operating Agreement, Schedule 1.

**RPM Seller Credit:**

“RPM Seller Credit” shall mean an additional form of Unsecured Credit defined in Tariff, Attachment Q, section IV.

**Scheduled Incremental Auctions:**

“Scheduled Incremental Auctions” shall refer to the First, Second, or Third Incremental Auction.

**Schedule of Work:**

“Schedule of Work” shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Seasonal Capacity Performance Resource:**

“Seasonal Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Secondary Reserve:**

“Secondary Reserve” shall mean the reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within 30 minutes (less the capability of such resources to provide Primary Reserve), from the request of the Office of the Interconnection, regardless of whether the equipment providing the reserve is electrically synchronized to the Transmission System or not.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Second Incremental Auction:**

“Second Incremental Auction” shall mean an Incremental Auction conducted ten months before the Delivery Year to which it relates.

**Security:**

“Security” shall mean the security provided by the New Service Customer pursuant to Tariff, section 212.4 or Tariff, Part VI, section 213.4 to secure the New Service Customer’s responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Tariff, Part VI, section 217.

**Segment:**

“Segment” shall have the same meaning as described in Operating Agreement, Schedule 1, section 3.2.3(e).

**Self-Supply:**

“Self-Supply” shall mean Capacity Resources secured by a Load-Serving Entity, by ownership or contract, outside a Reliability Pricing Model Auction, and used to meet obligations under this



Attachment or the Reliability Assurance Agreement through submission in a Base Residual Auction or an Incremental Auction of a Sell Offer indicating such Market Seller's intent that such Capacity Resource be Self-Supply. Self-Supply may be either committed regardless of clearing price or submitted as a Sell Offer with a price bid. A Load Serving Entity's Sell Offer with a price bid for an owned or contracted Capacity Resource shall not be deemed "Self-Supply," unless it is designated as Self-Supply and used by the LSE to meet obligations under this Attachment or the Reliability Assurance Agreement.

**Self-Supply Entity:**

"Self-Supply Entity" shall mean the following types of Load Serving Entity that operate under long-standing business models: single customer entity, public power entity, or vertically integrated utility, where "vertically integrated utility" means a utility that owns generation, includes such generation in its regulated rates, and earns a regulated return on its investment in such generation or receives any cost recovery for such generation through bilateral contracts; "single customer entity" means a Load Serving Entity that serves at retail only customers that are under common control with such Load Serving Entity, where such control means holding 51% or more of the voting securities or voting interests of the Load Serving Entity and all its retail customers; and "public power entity" means cooperative and municipal utilities, including public power supply entities comprised of either or both of the same and rural electric cooperatives, and joint action agencies.

**Self-Supply Seller:**

"Self-Supply Seller" shall mean, for purposes of evaluating Buyer-Side Market Power, the following types of Load Serving Entities that operate under long-standing business models: vertically integrated utility or public power entity, where "vertically integrated utility" means a utility that owns generation, includes such generation in its state-regulated rates, and earns a state-regulated return on its investment in such generation; and "public power entity" means electric cooperatives that are either rate regulated by the state or have their long-term resource plan approved or otherwise reviewed and accepted by a Relevant Electric Retail Regulatory Authority and municipal utilities or joint action agencies that are subject to direct regulation by a Relevant Electric Retail Regulatory Authority.

**Sell Offer:**

"Sell Offer" shall mean an offer to sell Capacity Resources in a Base Residual Auction, Incremental Auction, or Reliability Backstop Auction.

**Service Agreement:**

"Service Agreement" shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Service Commencement Date:**

“Service Commencement Date” shall mean the date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Tariff, Part II, section 15.3 or Tariff, Part III, section 29.1.

**Short-Term Firm Point-To-Point Transmission Service:**

“Short-Term Firm Point-To-Point Transmission Service” shall mean Firm Point-To-Point Transmission Service under Tariff, Part II with a term of less than one year.

**Short-term Project:**

“Short-term Project” shall mean a transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion ~~shall have the same meaning provided in the Operating Agreement.~~

**Short-Term Resource Procurement Target:**

“Short-Term Resource Procurement Target” shall mean, for Delivery Years through May 31, 2018, as to the PJM Region, for purposes of the Base Residual Auction, 2.5% of the PJM Region Reliability Requirement determined for such Base Residual Auction, for purposes of the First Incremental Auction, 2% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, for purposes of the Second Incremental Auction, 1.5% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, as to any Zone, an allocation of the PJM Region Short-Term Resource Procurement Target based on the Preliminary Zonal Forecast Peak Load, reduced by the amount of load served under the FRR Alternative. For any LDA, the LDA Short-Term Resource Procurement Target shall be the sum of the Short-Term Resource Procurement Targets of all Zones in the LDA.

**Short-Term Resource Procurement Target Applicable Share:**

“Short-Term Resource Procurement Target Applicable Share” shall mean, for Delivery Years through May 31, 2018: (i) for the PJM Region, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction and, as to the Third Incremental Auction for the PJM Region, 0.6 times such target; and (ii) for an LDA, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction for such LDA and, as to the Third Incremental Auction, 0.6 times such target.

**Site:**

“Site” shall mean all of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

**Small Commercial Customer:**

“Small Commercial Customer,” as used in RAA, Schedule 6 and Tariff, Attachment DD-1, shall mean a commercial retail electric end-use customer of an electric distribution company that participates in a mass market demand response program under the jurisdiction of a RERRA and satisfies the definition of a “small commercial customer” under the terms of the applicable RERRA’s program, provided that the customer has an annual peak demand no greater than 100kW.

**Small Generation Resource:**

“Small Generation Resource” shall mean an Interconnection Customer’s device of 20 MW or less for the production and/or storage for later injection of electricity identified in an Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities. This term shall include Energy Storage Resources and/or other devices for storage for later injection of energy.

**Small Inverter Facility:**

“Small Inverter Facility” shall mean an Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

**Small Inverter ISA:**

“Small Inverter ISA” shall mean an agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under Tariff, Part IV, section 112B.

**Special Member:**

“Special Member” shall mean an entity that satisfies the requirements of Operating Agreement, Schedule 1, section 1.5A.02, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.02, or the special membership provisions established under the Emergency Load Response and Pre-Emergency Load Response Programs.

**Spot Market Backup:**

“Spot Market Backup” shall mean the purchase of energy from, or the delivery of energy to, the PJM Interchange Energy Market in quantities sufficient to complete the delivery or receipt obligations of a bilateral contract that has been curtailed or interrupted for any reason.

**Spot Market Energy:**

“Spot Market Energy” shall mean energy bought or sold by Market Participants through the PJM Interchange Energy Market at System Energy Prices determined as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Start Additional Labor Costs:**

“Start Additional Labor Costs” shall mean additional labor costs for startup required above normal station manning levels.

**Start Fuel:**

For units without a soak process, “Start Fuel” shall consist of fuel consumed from first fire of the start process to first breaker closing, plus any fuel expended from last breaker opening to shutdown.

For units with a soak process, “Start Fuel” is fuel consumed from first fire of the start process (initial reactor criticality for nuclear units) to dispatchable output (including auxiliary boiler fuel), plus any fuel expended from last breaker opening to shutdown, excluding normal plant heating/auxiliary equipment fuel requirements. Start Fuel included for each temperature state from breaker closure to dispatchable output shall not exceed the unit specific soak time period reviewed and approved as part of the unit-specific parameter process detailed in Tariff, Attachment K-Appendix, section 6.6(c) or the defaults below:

- Cold Soak Time =  $0.73 * \text{unit specific Minimum Run Time (in hours)}$
- Intermediate Soak Time =  $0.61 * \text{unit specific Minimum Run Time (in hours)}$
- Hot Soak Time =  $0.43 * \text{unit specific Minimum Run Time (in hours)}$

**Start-Up Costs:**

“Start-Up Costs” shall consist primarily of the cost of fuel, as determined by the unit’s start heat input (adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, emissions allowances/adders, and station service cost. Start-Up Costs can vary with the unit offline time being categorized in three unit temperature conditions: hot, intermediate and cold.

For units with a steam turbine and a soak process (nuclear, steam, and combined cycle), “Start Fuel” is fuel consumed from first fire of start process (initial reactor criticality for nuclear units): Start-Up Costs shall mean the net unit costs from PJM’s notification to the level at which the unit can follow PJM’s dispatch, and from last breaker open to shutdown.

For units without a steam turbine and no soak process (engines, combustion turbines, Intermittent Resources, and Energy Storage Resources): Start-Up Costs shall mean the unit costs from PJM’s notification to first breaker close and from last breaker open to shutdown.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State Commission:**

“State Commission” shall mean any state regulatory agency having jurisdiction over retail electricity sales in any State in the PJM Region.

**State Estimator:**

“State Estimator” shall mean the computer model of power flows specified in Operating Agreement, Schedule 1, section 2.3 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.3.

**State Subsidy:**

“State Subsidy” shall mean a direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is as a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that

- (1) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce; or
- (2) will support the construction, development, or operation of a new or existing Capacity Resource; or
- (3) could have the effect of allowing the unit to clear in any PJM capacity auction.

Notwithstanding the foregoing, State Subsidy shall not include (a) payments, concessions, rebates, subsidies, or incentives designed to incent, or participation in a program, contract or other arrangement that utilizes criteria designed to incent or promote, general industrial development in an area or designed to incent siting facilities in that county or locality rather than another county or locality; (b) state action that imposes a tax or assesses a charge utilizing the parameters of a regional program on a given set of resources notwithstanding the tax or cost having indirect benefits on resources not subject to the tax or cost (e.g., Regional Greenhouse Gas Initiative); (c) any indirect benefits to a Capacity Resource as a result of any transmission project approved as part of the Regional Transmission Expansion Plan; (d) any contract, legally enforceable obligation, or rate pursuant to the Public Utility Regulatory Policies Act or any other state-administered federal regulatory program (e.g., the Cross-State Air Pollution Rule); (e) any revenues from the sale or allocation, either direct or indirect, to an Entity Providing Supply Services to Default Retail Service Provider where such entity’s obligations was awarded through a state default procurement auction that was subject to independent oversight by a consultant or manager who certifies that the auction was conducted through a non-discriminatory and competitive bidding process, subject to the below condition, and provided further that nothing herein would exempt a Capacity Resource that would otherwise be subject to the minimum offer price rule pursuant to this Tariff; (f) any revenues for providing capacity as part of an FRR

Capacity Plan or through bilateral transactions with FRR Entities; or (g) any voluntary and arm's length bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6), such as a power purchase agreement or other similar contract where the buyer is a Self-Supply Entity and the transaction is (1) a short term transaction (one-year or less) or (2) a long-term transaction that is the result of a competitive process that was not fuel-specific and is not used for the purpose of supporting uneconomic construction, development, or operation of the subject Capacity Resource, provided however that if the Self-Supply Entity is responsible for offering the Capacity Resource into an RPM Auction, the specified amount of installed capacity purchased by such Self-Supply Entity shall be considered to receive a State Subsidy in the same manner, under the same conditions, and to the same extent as any other Capacity Resource of a Self-Supply Entity. For purposes of subsection (e) of this definition, a state default procurement auction that has been certified to be a result of a non-discriminatory and competitive bidding process shall:

- (i) have no conditions based on the ownership (except supplier diversity requirements or limits), location (except to meet PJM deliverability requirements), affiliation, fuel type, technology, or emissions of any resources or supply (except state-mandated renewable portfolio standards for which Capacity Resources are separately subject to the minimum offer price rule or eligible for an exemption);
- (ii) result in contracts between an Entity Providing Supply Services to Default Retail Service Provider and the electric distribution company for a retail default generation supply product and none of those contracts require that the retail obligation be sourced from any specific Capacity Resource or resource type as set forth in subsection (i) above; and
- (iii) establish market-based compensation for a retail default generation supply product that retail customers can avoid paying for by obtaining supply from a competitive retail supplier of their choice.

### **State of Charge:**

“State of Charge” shall mean the quantity of physical energy stored in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

### **State of Charge Management:**

“State of Charge Management” shall mean the control of State of Charge of an Energy Storage Resource Market Participant or a storage component of a Hybrid Resource using minimum and maximum discharge (and, as applicable, charge) limits, changes in operating mode (as applicable), discharging (and, as applicable, charging) offer curves, and self-scheduling of non-dispatchable sales (and, as applicable, purchases) of energy in the PJM markets. State of Charge Management shall not interfere with the obligation of a Market Seller of an Energy Storage Resource Model Participant or of a Hybrid Resource to follow PJM dispatch, consistent with all other resources.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Sub-Annual Resource Constraint:**

“Sub-Annual Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and 2018/2019 Delivery Years, for the PJM Region or for each LDA for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources and Extended Summer Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Sub-Annual Resource Reliability Target for the PJM Region or for such LDA, respectively, minus the Short-Term Resource Procurement Target for the PJM Region or for such LDA, respectively.

**Sub-Annual Resource Price Decrement:**

“Sub-Annual Resource Price Decrement” shall mean, for the 2017/2018 Delivery Year, a difference between the clearing price for Extended Summer Demand Resources and the clearing price for Annual Resources, representing the cost to procure additional Annual Resources out of merit order when the Sub-Annual Resource Constraint is binding.

**Sub-Annual Resource Reliability Target:**

“Sub-Annual Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of the combination of Extended Summer Demand Resources and Limited Demand Resources in Unforced Capacity determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity, that shall be used to calculate the Minimum Annual Resource Requirement for Delivery Years through May 31, 2017 and the Sub-Annual Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years. As more fully set forth in the PJM Manuals, PJM calculates the Sub-Annual Resource Reliability Target, by first determining a reference annual loss of load expectation (“LOLE”) assuming no Demand Resources. The calculation for the unconstrained portion of the PJM Region uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast and iteratively shifting the load distributions to result in the Installed Reserve Margin established for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). The calculation for each relevant LDA uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability

distributions developed for the Capacity Emergency Transfer Objective study for the Delivery Year in question). For the relevant LDA calculation, the weekly capacity distributions are adjusted to reflect the Capacity Emergency Transfer Limit for the Delivery Year in question.

For both the PJM Region and LDA analyses, PJM then models the commitment of varying amounts of DR (displacing otherwise committed generation) as interruptible from May 1 through October 31 and unavailable from November 1 through April 30 and calculates the LOLE at each DR level. The Extended Summer DR Reliability Target is the DR amount, stated as a percentage of the unrestricted peak load, that produces no more than a ten percent increase in the LOLE, compared to the reference value. The Sub-Annual Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Sub-meter:**

“Sub-meter” shall mean a metering point for electricity consumption that does not include all electricity consumption for the end-use customer as defined by the electric distribution company account number. PJM shall only accept sub-meter load data from end-use customers for measurement and verification of Regulation service as set forth in the Economic Load Response rules and PJM Manuals.

**Subregional RTEP Project:**

“Subregional RTEP Project” shall mean a transmission expansion or enhancement rated below 230 kV which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Supplemental Project:**

“Supplemental Project” shall mean a transmission expansion or enhancement that is not required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection and is not a state public policy project pursuant to Tariff, Schedule 19, section 1.5.9(a)(ii). Any system upgrades required to maintain the reliability of the system that are driven by a Supplemental Project are considered part of that Supplemental Project and are the responsibility of the entity sponsoring that Supplemental Project.

**Summer-Period Capacity Performance Resource:**

“Summer-Period Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Surplus Interconnection Customer:**



“Surplus Interconnection Customer” shall mean either an Interconnection Customer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Customer is not a New Service Customer.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Interconnection Customer, pursuant to Tariff, Attachment RR, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in an Interconnection Service Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

**Synchronized Reserve:**

“Synchronized Reserve” shall mean the reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within ten minutes from the request of the Office of the Interconnection dispatcher, and is provided by equipment that is electrically synchronized to the Transmission System.

**Synchronized Reserve Event:**

“Synchronized Reserve Event” shall mean a request from the Office of the Interconnection to generation resources and/or Economic Load Response Participant resources able, assigned or self-scheduled to provide Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes, to increase the energy output or reduce load by the amount of assigned or self-scheduled Synchronized Reserve capability.

**Synchronized Reserve Requirement:**

“Synchronized Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Synchronized Reserve, absent any increase to account for additional reserves scheduled to address operational uncertainty. The Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals. This requirement can only be satisfied by Synchronized Reserve resources.

**System Condition:**

“System Condition” shall mean a specified condition on the Transmission Provider’s system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Tariff, Part II, section 13.6. Such conditions must be identified in the Transmission Customer’s Service Agreement.

**System Energy Price:**

“System Energy Price” shall mean the energy component of the Locational Marginal Price, which is the price at which the Market Seller has offered to supply an additional increment of energy from a resource, calculated as specified in Operating Agreement, Schedule 1, section 2 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**System Impact Study:**

“System Impact Study” shall mean an assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii) the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment

and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

## **Definitions – T – U - V**

### **Tangible Net Worth:**

“Tangible Net Worth” shall mean total assets less goodwill and other intangible assets, minus total liabilities.

### **Target Allocation:**

“Target Allocation” shall mean the allocation of Transmission Congestion Credits as set forth in Operating Agreement, Schedule 1, section 5.2.3, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.3, or the allocation of Auction Revenue Rights Credits as set forth in Operating Agreement, Schedule 1, section 7.4.3, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.3.

### **Third Incremental Auction:**

“Third Incremental Auction” shall mean an Incremental Auction conducted three months before the Delivery Year to which it relates.

### **Third-Party Sale:**

“Third-Party Sale” shall mean any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

### **Tie Line:**

“Tie Line” shall mean a circuit connecting two balancing authority areas, Control Areas or fully metered electric system regions. Tie Lines may be classified as external or internal as set forth in the PJM Manuals.

### **Total Lost Opportunity Cost Offer:**

“Total Lost Opportunity Cost Offer” shall mean the applicable offer used to calculate lost opportunity cost credits. For pool-scheduled resources specified in PJM Operating Agreement, Schedule 1, section 3.2.3(f-1), and the parallel provisions of Tariff, Attachment K-Appendix, section 3.2.3(f-1), the Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, as determined by the greater of the Committed Offer or last Real-Time Offer submitted for the offer on which the resource was committed in the Day-ahead Energy Market for each hour in an Operating Day. For all other pool-scheduled resources, the Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, as determined by the offer curve associated with the greater of the Committed Offer or Final Offer for each hour in an Operating Day. For self-scheduled generation resources, the

Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, where for self-scheduled generation resources (a) operating pursuant to a cost-based offer, the applicable offer curve shall be the greater of the originally submitted cost-based offer or the cost-based offer that the resource was dispatched on in real-time; or (b) operating pursuant to a market-based offer, the applicable offer curve shall be determined in accordance with the following process: (1) select the greater of the cost-based day-ahead offer and updated cost-based Real-time Offer; (2) for resources with multiple cost-based offers, first, for each cost-based offer select the greater of the day-ahead offer and updated Real-time Offer, and then select the lesser of the resulting cost-based offers; and (3) compare the offer selected in (1), or for resources with multiple cost-based offers the offer selected in (2), with the market-based day-ahead offer and the market-based Real-time Offer and select the highest offer.

**Total Net Obligation:**

“Total Net Obligation” shall mean all unpaid billed Net Obligations plus any unbilled Net Obligation incurred to date, as determined by PJMSettlement on a daily basis, plus any other Obligations owed to PJMSettlement at the time.

**Total Net Sell Position:**

“Total Net Sell Position” shall mean all unpaid billed Net Sell Positions plus any unbilled Net Sell Positions accrued to date, as determined by PJMSettlement on a daily basis.

**Total Operating Reserve Offer:**

“Total Operating Reserve Offer” shall mean the applicable offer used to calculate Operating Reserve credits. The Total Operating Reserve Offer shall equal the sum of all individual Real-time Settlement Interval energy offers, inclusive of Start-Up Costs (shut-down costs for Demand Resources) and No-load Costs, for every Real-time Settlement Interval in a Segment, integrated under the applicable offer curve up to the applicable megawatt output as further described in the PJM Manuals. The applicable offer used to calculate day-ahead Operating Reserve credits shall be the Committed Offer, and the applicable offer used to calculate balancing Operating Reserve credits shall be lesser of the Committed Offer or Final Offer for each hour in an Operating Day.

**Trade Reference:**

“Trade Reference” shall mean a reference from a contact or firm that had or has a material business relationship with a Participant.

**Transmission Congestion Charge:**

“Transmission Congestion Charge” shall mean a charge attributable to the increased cost of energy delivered at a given load bus when the transmission system serving that load bus is operating under constrained conditions, or as necessary to provide energy for third-party transmission losses which shall be calculated and allocated as specified in Operating Agreement,

Schedule 1, section 5.1 and the parallel provisions of Tariff, Attachment K-Appendix, section 5.1.

**Transmission Congestion Credit:**

“Transmission Congestion Credit” shall mean the allocated share of total Transmission Congestion Charges credited to each FTR Holder, calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.2, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.

**Transmission Constraint Penalty Factor:**

“Transmission Constraint Penalty Factor” shall mean the maximum cost of the re-dispatch incurred to control the flows across a transmission constraint and establishes the maximum limit on the Marginal Value.

**Transmission Customer:**

“Transmission Customer” shall mean any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission a proposed unexecuted Service Agreement, to receive transmission service under Tariff, Part II. This term is used in Tariff, Part I and Tariff, Part VI to include customers receiving transmission service under Tariff, Part II and Tariff, Part III.

Where used in Tariff, Attachment K-Appendix and the parallel provisions of Operating Agreement, Schedule 1, Transmission Customer shall mean an entity using Point-to-Point Transmission Service.

**Transmission Facilities:**

“Transmission Facilities” shall ~~have the meaning set forth in the Operating Agreement~~mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC's Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

**Transmission Forced Outage:**

“Transmission Forced Outage” shall mean an immediate removal from service of a transmission facility by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the transmission facility, as specified in the relevant portions of the PJM Manuals. A removal from service of a transmission facility at the request of the Office of the Interconnection to improve transmission capability shall not constitute a Forced Transmission Outage.

**Transmission Injection Rights:**

“Transmission Injection Rights” shall mean Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

**Transmission Interconnection Customer:**

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to ~~Operating Agreement, Schedule 6~~ [Tariff, Schedule 19](#)).

**Transmission Interconnection Facilities Study:**

“Transmission Interconnection Facilities Study” shall mean a Facilities Study related to a Transmission Interconnection Request.

**Transmission Interconnection Feasibility Study:**

“Transmission Interconnection Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part IV, section 36.2.

**Transmission Interconnection Request:**

“Transmission Interconnection Request” shall mean a request by a Transmission Interconnection Customer pursuant to Tariff, Part IV to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

**Transmission Loading Relief:**

“Transmission Loading Relief” shall mean NERC’s procedures for preventing operating security limit violations, as implemented by PJM as the security coordinator responsible for maintaining transmission security for the PJM Region.

**Transmission Loss Charge:**

“Transmission Loss Charge” shall mean the charges to each Market Participant, Network Customer, or Transmission Customer for the cost of energy lost in the transmission of electricity from a generation resource to load as specified in Operating Agreement, Schedule 1, section 5, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Consolidated Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Transmission Owner Attachment Facilities:**

“Transmission Owner Attachment Facilities” shall mean that portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

**Transmission Owner Interconnection Facilities:**

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Tariff, Attachment P, Appendix 2, section 5.5 to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner’s side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System or interconnected distribution facilities.

**Transmission Owner Upgrade:**

“Transmission Owner Upgrade” shall mean an upgrade to a Transmission Owner’s own transmission facilities, which is an improvement to, addition to, or replacement of a part of, an existing facility and is not an entirely new transmission facility~~have the same meaning provided in the Operating Agreement.~~

**Transmission Planned Outage:**

“Transmission Planned Outage” shall mean any transmission outage scheduled in advance for a pre-determined duration and which meets the notification requirements for such outages specified in Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K-Appendix or the PJM Manuals.

**Transmission Provider:**

The “Transmission Provider” shall be the Office of the Interconnection for all purposes, provided that the Transmission Owners will have the responsibility for the following specified activities:



(a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to direct the operation and maintenance of those transmission facilities that are not listed in the transmission facilities list maintained by PJM ~~Designated Facilities List contained in the PJM Manual on Transmission Operations~~;

(b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and

(c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff, ~~Operating Agreement~~ and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

**Transmission Provider’s Monthly Transmission System Peak:**

“Transmission Provider’s Monthly Transmission System Peak” shall mean the maximum firm usage of the Transmission Provider’s Transmission System in a calendar month.

**Transmission Service:**

“Transmission Service” shall mean Point-To-Point Transmission Service provided under Tariff, Part II on a firm and non-firm basis.

**Transmission Service Request:**

“Transmission Service Request” shall mean a request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

**Transmission System:**

“Transmission System” shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Tariff, Part II and Part III.

**Transmission Withdrawal Rights:**

“Transmission Withdrawal Rights” shall mean Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

**Turn Down Ratio:**

“Turn Down Ratio” shall mean the ratio of a generating unit’s economic maximum megawatts to its economic minimum megawatts.

**Unconstrained LDA Group:**

“Unconstrained LDA Group” shall mean a combined group of LDAs that form an electrically contiguous area and for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10. Any LDA for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10 shall be combined with all other such LDAs that form an electrically contiguous area.

**Unforced Capacity:**

“Unforced Capacity” shall have the meaning specified in the Reliability Assurance Agreement.

**Unsecured Credit:**

“Unsecured Credit” shall mean any credit granted by PJMSettlement to a Participant that is not secured by Collateral.

**Unsecured Credit Allowance:**

“Unsecured Credit Allowance” shall mean Unsecured Credit extended by PJMSettlement in an amount determined by PJMSettlement’s evaluation of the creditworthiness of a Participant. This is also defined as the amount of credit that a Participant qualifies for based on the strength of its own financial condition without having to provide Collateral. See also: “Working Credit Limit.”

**Updated VRR Curve:**

“Updated VRR Curve” shall mean the Variable Resource Requirement Curve for use in the Base Residual Auction of the relevant Delivery Year, updated to reflect any change in the Reliability Requirement from the Base Residual Auction to such Incremental Auction, and for Delivery Years through May 31, 2018, the Short-term Resource Procurement Target applicable to the relevant Incremental Auction.

**Updated VRR Curve Decrement:**

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E, and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**Updated VRR Curve Increment:**

“Updated VRR Curve Increment” shall mean the portion of the Updated VRR Curve to the right of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**Upgrade Construction Service Agreement:**

“Upgrade Construction Service Agreement” shall mean that agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Tariff, Part VI, Subpart B, and in the form set forth in Tariff, Attachment GG.

**Upgrade Customer:**

“Upgrade Customer” shall mean a customer that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Upgrade Feasibility Study:**

“Upgrade Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part IV, section 36.3.

**Upgrade-Related Rights:**

“Upgrade-Related Rights” shall mean Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights.

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Attachment EE, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Up-to Congestion Counterflow Transaction:**

“Up-to Congestion Counterflow Transaction” shall mean an Up-to Congestion Transaction will be deemed an Up-to Congestion Counterflow Transaction if the following value is negative: (a)

when bidding, the lower of the bid price and the prior Up-to Congestion Historical Month's average real-time value for the transaction; or (b) for cleared Virtual Transactions, the cleared day-ahead price of the Virtual Transactions.

**Up-to Congestion Historical Month:**

“Up-to Congestion Historical Month” shall mean a consistently-defined historical period nominally one month long that is as close to a calendar month as PJM determines is practical.

**Up-to Congestion Prevailing Flow Transaction:**

An Up-to Congestion Transaction shall mean an “Up-to Congestion Prevailing Flow Transaction” if it is not an Up-to Congestion Counterflow Transaction.

**Up-to Congestion Reference Price:**

“Up-to Congestion Reference Price” for an Up-to Congestion Transaction, shall be the specified percentile price differential between source and sink (defined as sink price minus source price) for real-time prices experienced over the prior Up-to Congestion Historical Month, averaged with the same percentile value calculated for the second prior Up-to Congestion Historical Month. Up-to Congestion Reference Prices shall be calculated using the following historical percentiles:

- For Up-to Congestion Prevailing Flow Transactions: 30<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when bid: 20<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when cleared: 5<sup>th</sup> percentile

**Up-to Congestion Transaction:**

“Up-to Congestion Transaction” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.10.1A, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1A.

**Variable Loads:**

“Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.6.

**Variable Resource Requirement Curve:**

“Variable Resource Requirement Curve” shall mean a series of maximum prices that can be cleared in a Base Residual Auction for Unforced Capacity, corresponding to a series of varying resource requirements based on varying installed reserve margins, as determined by the Office of the Interconnection for the PJM Region and for certain Locational Deliverability Areas in accordance with the methodology provided in Tariff, Attachment DD, section 5.

**Virtual Credit Exposure:**

“Virtual Credit Exposure” shall mean the amount of potential credit exposure created by a market participant’s bid submitted into the Day-ahead market, as defined in Tariff, Attachment Q.

**Virtual Transaction:**

“Virtual Transaction” shall mean a Decrement Bid, Increment Offer and/or Up-to Congestion Transaction.

**Virtual Transaction Screening:**

“Virtual Transaction Screening” shall be the process of reviewing the Virtual Credit Exposure of submitted Virtual Transactions against the Credit Available for Virtual Transactions. If the credit required is greater than credit available, then the Virtual Transactions will not be accepted.

**Virtual Transactions Net Activity:**

“Virtual Transactions Net Activity” shall mean the aggregate net total, resulting from Virtual Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Tariff, Attachment K-Appendix, and the parallel provisions of Operating Agreement, Schedule 1. Virtual Transactions Net Activity may be positive or negative.

**Voltage Reduction Action:**

“Voltage Reduction Action” shall mean a notification during capacity deficient conditions in which PJM notifies Members to reduce voltage on the distribution system in order to reduce demand and therefore provide a sufficient amount of reserves, maintain tie flow schedules and preserve limited energy sources.

**Voltage Reduction Alert:**

“Voltage Reduction Alert” shall mean a notification from PJM to alert Members that a voltage reduction may be required during a future critical period.

**Voltage Reduction Warning:**

“Voltage Reduction Warning” shall mean a notification from PJM to warn Members that PJM’s available Synchronized Reserve is less than the Synchronized Reserve Requirement and that present operations have deteriorated such that a voltage reduction may be required.

#### **15.4 Obligation to Provide Transmission Service that Requires Expansion or Modification of the Transmission System or Redispatch:**

(a) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on the Transmission System, the Transmission Owners will be obligated and shall use due diligence to expand or modify, the Transmission System to provide the requested Firm Transmission Service consistent with the planning obligations in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, provided the Transmission Customer agrees to compensate the Transmission Provider or the affected Transmission Owner(s) for such costs pursuant to the terms of Tariff, Part II, section 27. The Transmission Provider and the affected Transmission Owners will conform to Good Utility Practice and the planning obligations in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 in determining the need for new facilities and the affected Transmission Owner(s) will conform to Good Utility Practice in the design and construction of such facilities. The obligation applies only to those facilities that the Transmission Owners have the right to expand or modify.

(b) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will use due diligence to provide redispatch until Network Upgrades are completed for the Transmission Customer.

## 16.1 Conditions Required of Transmission Customers:

Point-To-Point Transmission Service shall be provided by the Transmission Provider only if the following conditions are satisfied by the Transmission Customer:

- a. The Transmission Customer has pending a Completed Application for service;
- b. The Transmission Customer meets the creditworthiness criteria set forth in Tariff, Part I, section 11;
- c. The Transmission Customer will have arrangements in place for any other transmission service necessary to effect the delivery from the generating source to the Transmission Provider prior to the time service under Tariff, Part II commences;
- d. The Transmission Customer agrees to pay for any facilities constructed and chargeable to such Transmission Customer under Tariff, Part II, whether or not the Transmission Customer takes service for the full term of its reservation;
- e. The Transmission Customer provides the information required by the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19; and
- f. The Transmission Customer has executed a Point-To-Point Service Agreement or has agreed to receive service pursuant to Tariff, Part II, section 15.3.

## 17.2 Completed Application:

If requested by the Transmission Provider, a Completed Application shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the entity requesting service;
- (ii) A statement that the entity requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) The location of the Point(s) of Receipt and Point(s) of Delivery and the identities of the Delivering Parties and the Receiving Parties;
- (iv) The location of the generating facility(ies) supplying the capacity and energy and the location of the load ultimately served by the capacity and energy transmitted. The Transmission Provider will treat this information as confidential except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice or pursuant to Applicable Regional Entity transmission information sharing agreements. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations;
- (v) A description of the supply characteristics of the capacity and energy to be delivered;
- (vi) An estimate of the capacity and energy expected to be delivered to the Receiving Party;
- (vii) The Service Commencement Date and the term of the requested Transmission Service;
- (viii) The transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission Provider's Transmission System; customers may combine their requests for service in order to satisfy the minimum transmission capacity requirement;
- (ix) A statement indicating that, if the Eligible Customer submits a Pre-Confirmed Application, the Eligible Customer will execute a Service Agreement upon receipt of notification that Transmission Provider can provide the requested Transmission Service; and
- (x) Any additional information required by the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6 Tariff, Schedule 19.~~



The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

## 28.2 Transmission Provider Responsibilities:

In order to provide the Network Customer with Network Integration Transmission Service over the Transmission Provider's Transmission Systems: (a) the Transmission Provider will plan and operate the Transmission System in accordance with Good Utility Practice and its planning obligations in ~~Operating Agreement, Schedule 6~~ the Tariff; and (b) the Transmission Owners will be obligated to construct and maintain the Transmission System in accordance with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice. Each Transmission Owner, on behalf of its Native Load Customers, shall be required to designate resources and loads in the same manner as any Network Customer under Tariff, Part III. This information must be consistent with the information used by the Transmission Provider to calculate available transfer capability. The Transmission Provider shall include the Network Customer's Network Load in the Transmission System planning and the Transmission Owners shall, consistent with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice, endeavor to construct and place into service sufficient transfer capability to deliver the Network Customer's Network Resources to serve its Network Load on a basis comparable to the delivery of each Transmission Owner's own generating and purchased resources to its Native Load Customers.

## 29.2 Application Procedures:

An Eligible Customer requesting service under Tariff, Part III must submit an Application to the Transmission Provider as far as possible in advance of the month in which service is to commence. Unless subject to the procedures in Tariff, Part I, section 2, Completed Applications for Network Integration Transmission Service will be assigned a Project Identifier according to the date and time the Application is received, with the earliest Application receiving the highest priority. For Transmission Service requests that require a Phase I System Impact Study, a Completed Application must be submitted and received by the Transmission Provider by the cycle Application Deadline in order to be assigned a Project Identifier in such cycle. If requested by Transmission Provider, Applications should be submitted by entering the information listed below (except for applications for Network Integration Transmission Service pursuant to state required retail access programs for which Transmission Customers shall provide the information required under the Service Agreement) on the Transmission Provider's OASIS. For applications pursuant to state required retail access programs, the information required under the Service Agreement should be submitted on the Transmission Provider's specified electronic information system established for such programs. Each of these methods will provide a time-stamped record for establishing the service priority of the Application. If requested by Transmission Provider, a Completed Application (other than applications for Network Integration Transmission Service pursuant to a state required retail access program, which shall be governed by Tariff, Attachment F-1 and the specifications thereto) shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the party requesting service;
- (ii) A statement that the party requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) A description of the Network Load at each delivery point. This description should separately identify and provide the Eligible Customer's best estimate of the total loads to be served at each transmission voltage level, and the loads to be served from each Transmission Provider substation at the same transmission voltage level. The description should include a ten (10) year forecast of summer and winter load and resource requirements beginning with the first year after the service is scheduled to commence;
- (iv) The amount and location of any interruptible loads included in the Network Load. This shall include the summer and winter capacity requirements for each interruptible load (had such load not been interruptible), that portion of the load subject to interruption, the conditions under which an interruption can be implemented and any limitations on the amount and frequency of interruptions. An Eligible Customer should identify the amount of interruptible customer load (if any) included in the 10 year load forecast provided in response to (iii) above;

(v) A description of Network Resources (current and 10-year projection). For each on-system Network Resource, such description shall include:

- Unit size and amount of capacity from that unit to be designated as Network Resource
- VAR capability (both leading and lagging) of all generators
- Operating restrictions
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit
  - Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
- Approximate variable generating cost (\$/MWH) for redispatch computations
- Arrangements governing sale and delivery of power to third parties from generating facilities located in the Transmission Provider Control Areas, where only a portion of unit output is designated as a Network Resource
- For each off-system Network Resource, such description shall include:
  - Identification of the Network Resource as an off-system resource
- Amount of power to which the customer has rights
  - Identification of the control area from which the power will originate
  - Delivery point(s) to the Transmission Provider's Transmission System
  - Transmission arrangements on the external transmission system(s)
- Operating restrictions, if any
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit

- Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
  - Approximate variable generating cost (\$/MWH) for redispatch computations;
- (vi) Description of Eligible Customer's transmission system:
- Load flow and stability data, such as real and reactive parts of the load, lines, transformers, reactive devices and load type, including normal and emergency ratings of all transmission equipment in a load flow format compatible with that used by the Transmission Provider
  - Operating restrictions needed for reliability
  - Operating guides employed by system operators
  - Contractual restrictions or committed uses of the Eligible Customer's transmission system, other than the Eligible Customer's Network Loads and Resources
  - Location of Network Resources described in subsection (v) above
  - 10 year projection of system expansions or upgrades
  - Transmission System maps that include any proposed expansions or upgrades
  - Thermal ratings of Eligible Customer's Control Area ties with other Control Areas;
- (vii) Service Commencement Date and the term of the requested Network Integration Transmission Service. The minimum term for Network Integration Transmission Service is one year except that, for service provided with respect to a state required retail access program, the minimum term is one day;
- (viii) A statement signed by an authorized officer from or agent of the Network Customer attesting that all of the network resources listed pursuant to Tariff, Part III, section 29.2(v) satisfy the following conditions: (1) the Network Customer owns the resource, has committed to purchase generation pursuant to an executed contract, or has committed to purchase generation where execution of a contract is contingent upon the availability of transmission service under Tariff, Part III; and (2) the Network Resources do not include any resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program; and

(ix) Any additional information required of the Transmission Customer as specified in the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6 Tariff, Schedule 19.~~

In addition, a party requesting Transmission Service shall provide the information specified in, and otherwise comply with, the "PJM Credit Policy" set forth in Tariff, Attachment Q hereto. Unless the Parties agree to a different time frame, the Transmission Provider must acknowledge the request within ten (10) days of receipt. The acknowledgement must include a date by which a response, including a Service Agreement, will be sent to the Eligible Customer. If an Application fails to meet the requirements of this section, the Transmission Provider shall notify the Eligible Customer requesting service within fifteen (15) days of receipt and specify the reasons for such failure. Wherever possible, the Transmission Provider will attempt to remedy deficiencies in the Application through informal communications with the Eligible Customer. If such efforts are unsuccessful, the Transmission Provider shall return the Application without prejudice to the Eligible Customer filing a new or revised Application that fully complies with the requirements of this section. The Eligible Customer will be assigned a new Project Identifier consistent with the date of the new or revised Application. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

### **31.6 Annual Load and Resource Information Updates:**

Even if an Application is no longer required, the Network Customer shall provide the Transmission Provider with annual updates of Network Load and Network Resource forecasts consistent with those included in its Application for Network Integration Transmission Service under Tariff, Part III including, but not limited to, any information provided under Tariff, Part III, section 29.2(ix) pursuant to the Transmission Provider's planning process in ~~Operating Agreement~~Tariff, Schedule 6~~Schedule 19~~. Even if an Application is no longer required, the Network Customer also shall provide the Transmission Provider with timely written or electronic notice of material changes in any other information listed in Tariff, Part III, section 29.2 or provided in its Application relating to the Network Customer's Network Load, Network Resources, its transmission system or other aspects of its facilities or operations affecting the Transmission Provider's ability to provide reliable service.

### **36.1 General:**

Generation Interconnection Requests and Transmission Interconnection Requests shall be governed by Tariff, Part IV, Subpart A, section 36.

#### **36.1.01 Generation Interconnection Request:**

Except as otherwise provided in this Subpart A with respect to Behind The Meter Generation, an Interconnection Customer that seeks to interconnect new generation in, to increase the capacity of generation already interconnected in, the PJM Region shall submit to the Transmission Provider a Generation Interconnection Request. The Transmission Provider shall acknowledge receipt of the Generation Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Generation Interconnection Request.

1. Generation Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part IV, Preamble, section 201, a Generation Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment N. To be considered complete at the time of submission, the Interconnection Customer's Generation Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. specification of the location of the proposed Generating Facility site or existing Generating Facility (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. evidence of an ownership interest in, or right to acquire or control the Generating Facility site for a minimum of three years, such as a deed, option agreement, lease, or other similar document acceptable to the Transmission Provider; and
  - c. the MW size of the proposed Generating Facility or the amount of increase in MW capability of an existing Generating Facility, and identification of any MW portion of the facility's capability that will be a Capacity Resource; and
  - d. identification of the fuel type of the proposed generating unit or upgrade thereto; and
  - e. a description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the generating unit is a wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and



- f. the planned date the proposed generating unit or increase in MW capability of an existing generating unit will be in service, where such date is to be no more than seven years from the date that a complete and fully executed Generation Interconnection Feasibility Study Agreement is received by the Transmission Provider unless the Interconnection Customer demonstrates that engineering, permitting, and construction of the generating unit or increase in capability will take more than seven years; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals, including a description of how the full electrical generating capability of the generating unit will be limited to the Maximum Facility Output requested if the Maximum Facility Output of the generating unit is less than the full electrical generating capability of the Generating Facility; and
- h. if Behind The Meter Generation is identified in the Generation Interconnection Feasibility Study Agreement, all of the requirements in Tariff, Part IV, Subpart A, section 36.1A must also be met; and
- i. Deposit.
  - i. A deposit shall be submitted to Transmission Provider, as follows:
    - (1) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the first four calendar months of the current New Services Queue shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Generation Interconnection Request is received in the first four calendar months of the current New Services Queue; or
    - (2) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Generation Interconnection Request is received in the fifth calendar month of the current New Services Queue; or
    - (3) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000 a deposit of \$30,000 plus \$200 for each MW requested, if the Generation Interconnection Request is received in the sixth calendar month of the current New Services Queue.

- ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Generation Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Generation Interconnection Customer withdraws its Generation Interconnection Request, or the Generation Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:
  - (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
  - (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
  - (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
  - (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Generation Interconnection Request (to determine whether the Generation Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Generation Interconnection Feasibility Study; and
  - (4) If the Generation Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to

cover all of the costs incurred by the Transmission Provider up to the point of such Generation Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:

- (a) The costs of any restudies required as a result of the modification (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
  - (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
  - (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
  - (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Generation Interconnection Customer in accordance with the PJM Manuals.
- iv. Upon completion of the Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:
- (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Generation Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
  - (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related

to prior Generation Interconnection Requests by the Interconnection Customer.

- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Generation Interconnection Customer.
  - vi. The Interconnection Customer must submit the total required deposit amount with the Generation Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Generation Interconnection Request, the Generation Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Generation Interconnection Request shall be terminated prior to reaching the deficiency review stage).
  - vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or in part to a different New Service Request or Interconnection Request or Queue Position.
  - j. Primary frequency response operating range for Energy Storage Resources.
2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Generation Interconnection Request to determine whether the Interconnection Customer submitted a valid Generation Interconnection Request.
- a. With the exception of evidence of an ownership interest in, or right to acquire or control the generating unit site for a minimum of three years, if a Generation Interconnection Request meets all requirements set forth above the Transmission Provider shall start the deficiency review. While deficiency reviews may commence for Generation Interconnection Requests that are submitted without site control evidence that is acceptable to the Transmission Provider, such Generation Interconnection Requests shall not be assigned a Queue Position until the Transmission Provider receives site control evidence that is acceptable to the Transmission Provider.
  - b. Pursuant to Tariff, Attachment N, section 9, Cost Responsibility, of the Generation Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed

the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.

- i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
  - (1) Withdraw the Generation Interconnection Request during the deficiency response period (as described below); or
  - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
  - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs, then the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- c. If there are deficiencies in the Generation Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Generation Interconnection Request that such Generation Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt

of the Generation Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.

- i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
- ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
  - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or evidence (such as generation site control) and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Generation Interconnection Request.
  - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review each Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Generation Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Generation

Interconnection Request shall be deemed to be terminated and withdrawn.

- iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
3. The Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement (Tariff, Attachment N) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Generation Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
  4. In accordance with Tariff, Part VI, Preamble, section 201, the Transmission Provider shall assign Queue Positions as of the date and time of receipt of all information required pursuant to this section 36.1.01. If the information required pursuant to this section 36.1.01 is provided to the Transmission Provider in separate submissions, the Queue Position shall be assigned based on the date and time of receipt of the last required piece of information.
  5. Deficiency notices shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
  6. Transmission Provider Website Postings.
    - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Generation Interconnection Requests that identifies:
      - i. the proposed maximum summer and winter megawatt electrical output;
      - ii. the location of the generation by county and state;
      - iii. the station or transmission line or lines where the interconnection will be made;
      - iv. the facility's projected date of Initial Operation;
      - v. the status of the Generation Interconnection Request, including its Queue Position;

- vi. the type of Generation Interconnection Service requested;
  - vii. the availability of any studies related to the Interconnection Request;
  - viii. the date of the Generation Interconnection Request;
  - ix. the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and
  - x. for each Generation Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
- b. This list will not disclose the identity of the Generation Interconnection Customer, except as otherwise provided in Tariff, Part IV. The list and the priority of Generation Interconnection Requests shall be included on the Transmission Provider's website as part of the New Services Queue.

### **36.1.02 Generation Interconnection Requests of 20 Megawatts or Less:**

The Transmission Provider has developed streamlined processes for Generation Interconnection Requests involving new generation resources of 20 MW or less and increases in the capacity of a generating unit by 20 MW or less over any consecutive 24-month period. The processes for Generation Interconnection Requests involving increases in capacity by 20 MW or less are set forth in Tariff, Part IV, Subpart G and the PJM Manuals.

### **36.1.03 Transmission Interconnection Request:**

An Interconnection Customer that seeks to interconnect or add Merchant Transmission Facilities to the Transmission System, or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System shall submit to the Transmission Provider a Transmission Interconnection Request. The Transmission Provider shall acknowledge receipt of the Transmission Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Transmission Interconnection Request.

1. Transmission Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part VI, Preamble, section 201, a Transmission Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment S. To be considered complete at the time of submission, the Interconnection Customer's Transmission Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. the location of the proposed Merchant Transmission Facilities and of the substation(s) or other location(s) where the Transmission Interconnection



Customer proposes to interconnect or add its Merchant Transmission Facilities to the Transmission System; and

- b. a description of the proposed Merchant Transmission Facilities; and
- c. the nominal capability or increase in capability (in megawatts) of the proposed Merchant Transmission Facilities; and
- d. the planned date the proposed Merchant Transmission Facilities will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Transmission Interconnection Customer demonstrates that engineering, permitting, and construction of the Merchant Transmission Facilities will take more than seven years; and
- e. if the request relates to proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that will interconnect with the Transmission System and with another control area outside the PJM Region, the Transmission Interconnection Customer's election to receive either; and
  - i. Transmission Injection Rights and/or Transmission Withdrawal Rights, or
  - ii. Incremental Deliverability Rights, Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Available Transfer Capability Revenue Rights, associated with the capability of the proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities;
- f. if the Transmission Interconnection Customer will be eligible to receive Incremental Deliverability Rights under Tariff, Part VI, Subpart C, section 235, identification of the point on the Transmission System where the Transmission Interconnection Customer wishes to receive Incremental Deliverability Rights created by the construction or installation of its proposed Merchant Transmission Facilities; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- h. Deposit.
  - i. A deposit shall be submitted to the Transmission Provider as follows:
    - (1) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the first four calendar months of the current New Services Queue

shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Transmission Interconnection Request is received in the first four calendar months of the current New Services Queue; or

- (2) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Transmission Interconnection Request is received within the fifth calendar month of the current New Services Queue; or
- (3) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000, a deposit of \$30,000 plus \$200 for each MW requested, if the Transmission Interconnection Request is received within the sixth calendar month of the current New Services Queue.

ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Transmission Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Transmission Interconnection Customer withdraws its Transmission Interconnection Request, or the Transmission Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:

- (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
- (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Transmission Interconnection Request; and/or
- (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or

Generation Interconnection Requests by the  
Interconnection Customer.

- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
- (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Transmission Interconnection Request (to determine whether the Transmission Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Transmission Interconnection Feasibility Study; and
  - (4) If the Transmission Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to cover all of the costs incurred by the Transmission Provider up to the point of such Transmission Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:
    - (a) The costs of any restudies required as a result of the modification, rejection termination and/or withdrawal of such Transmission Interconnection Request; and/or
    - (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
    - (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service

Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.

- (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Interconnection Customer in accordance with the PJM Manuals.
- iv. Upon completion of the Transmission Interconnection Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:
  - (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Transmission Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
  - (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.
- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Interconnection Customer.
- vi. The Interconnection Customer must submit the total required deposit amount with the Transmission Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Transmission Interconnection Request, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Transmission Interconnection Request shall be terminated prior to reaching the deficiency review stage).
- vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or

in part to a different New Service Request or Interconnection Request or Queue Position.

2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Transmission Interconnection Request to determine whether the Interconnection Customer submitted a valid Transmission Interconnection Request.
  - a. If a Transmission Interconnection Request meets all requirements set forth above, the Transmission Provider shall start the deficiency review.
  - b. Pursuant to Tariff, Attachment S, section 9, Cost Responsibility, of the Transmission Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.
    - i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
      - (1) Withdraw the Interconnection Request during the deficiency response period (as described below); or
      - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
      - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
    - ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider

sending the Interconnection Customer notification of such estimated additional study costs, then the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- c. If there are deficiencies in the Transmission Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Transmission Interconnection Request that such Transmission Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt of the Transmission Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.
  - i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
  - ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
    - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Transmission Interconnection Request.
    - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
  - iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review the Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency

notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Transmission Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

3. The Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement (Tariff, Attachment S) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Transmission Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
4. The Transmission Provider shall assign Queue Positions pursuant to Tariff, Part VI, Preamble, section 201 on the date and time of receipt of all the required information set forth in this section 36.1.03.
5. Deficiencies shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
6. Adjacent Control Area Stipulation. If applicable, within 30 calendar days of submitting its Transmission Interconnection Request, the Interconnection Customer shall provide evidence acceptable to the Transmission Provider that Interconnection Customer has submitted a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Transmission Interconnection Customer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request

process for the relevant PJM Transmission Interconnection Request. If Interconnection Customer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

7. Transmission Provider Website Postings.
  - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Transmission Interconnection Requests that identifies:
    - i. in megawatts the potential nominal capability or increase in capability;
    - ii. the location of the Merchant Transmission Facilities by county and state;
    - iii. the station or transmission line or lines where the interconnection will be made;
    - iv. the facility's projected date of Initial Operation;
    - v. the status of the Transmission Interconnection Request, including its Queue Position;
    - vi. the availability of any studies related to the Interconnection Request;
    - vii. the date of the Transmission Interconnection Request;
    - viii. the type of Merchant Transmission Facilities to be constructed; and
    - ix. for each Transmission Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
  - b. This list will not disclose the identity of the Transmission Interconnection Customer, except as otherwise provided in Tariff, Part IV or Tariff, Part VI. The list and the priority of Transmission Interconnection Requests shall be included on the Transmission Provider's website as a part of the New Services Queue.

### **36.1.03A Transmission Interconnection Customers Requesting Merchant Network Upgrades**

Notwithstanding Tariff, Part IV, Subpart A, section 36.1.03, an Interconnection Customer that proposes Merchant Network Upgrades (including advancing pursuant to Tariff, Part VI, Subpart



B, section 220 or accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19) shall submit an Upgrade Request, with the required information and the required deposit for a System Impact Study, as set forth in Tariff, Attachment EE.

### **36.1.1 Interconnection Services for Generation:**

Generation Interconnection Customers may request either of two forms of Interconnection Service, i.e., interconnection as a Capacity Resource or as an Energy Resource. Energy Resource status allows the generator to participate in the PJM Interchange Energy Market pursuant to the PJM Operating Agreement. Capacity Resource status allows the generator to participate in the PJM Interchange Energy Market to be utilized by load-serving entities in the PJM Region to meet capacity obligations imposed under the Reliability Assurance Agreement and/or to be designated as a Network Resource under Tariff, Part III. Capacity Resources also may participate in Reliability Pricing Model Auctions and in Ancillary Services markets pursuant to the Tariff or the Operating Agreement. Capacity Resource status is based on providing sufficient transmission capability to ensure deliverability of generator output to the aggregate PJM Network Load and to satisfy the contingency criteria in the Applicable Standards. Specific tests performed during the Generation Interconnection Feasibility Study and later System Impact Study will identify those upgrades required to satisfy the contingency criteria applicable at the generator's location.

Consistent with Operating Agreement, Schedule 1, section 1.7.4(i), to the extent its Generating Facility is dispatchable, an Interconnection Customer shall submit an Economic Minimum in the real-time market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights.

#### **36.1.1A Service Below Generating Capability**

The Transmission Provider shall consider requests for Interconnection Service below the full electrical generating capability of the Generating Facility. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of determining Interconnection Facilities, Network Upgrades, and associated costs, but may be subject to other studies at the full electrical generating capability of the Generating Facility to ensure the safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (i) specify which additional Network Upgrade costs are based on which studies; and (ii) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrades costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of these technologies as set forth in the Interconnection Service Agreement. The necessary control technologies and protection systems shall be established in Tariff, Attachment O, Schedule K (Requirements for Interconnection

Service Below Full Electrical Generating Capability) of the executed, or requested to be filed unexecuted Interconnection Service Agreement.

### **36.1.1B Surplus Interconnection Service Request**

Requests for Surplus Interconnection Service may be made by the existing Interconnection Customer whose Generating Facility is already interconnected, or one of its affiliates, or by an unaffiliated Interconnection Customer. The existing Interconnection Customer or one of its affiliates has priority to use this service; however, if they do not exercise this priority, Surplus Interconnection Requests also may be made available to an unaffiliated Surplus Interconnection Customer. Surplus Interconnection Service is limited to utilizing or transferring an existing Generating Facility's Surplus Interconnection Service at the pre-existing Point of Interconnection of the existing Generating Facility and cannot exceed the existing Generating Facility's total amount of Interconnection Service, i.e., the total amount of Interconnection Service used by the Generating Facility requesting Surplus Interconnection Service and the existing Generating Facility shall not exceed the lesser of the Maximum Facility Output stated in the existing Generating Facility's Interconnection Service Agreement or the total "as-built capability" of the existing Generating Facility. If the Generating Facility requests Surplus Interconnection Service associated with an existing Generating Facility that is an Energy Resource, the Generating Facility requesting the Surplus Interconnection Service shall be an Energy Resource; and if the existing Generating Facility is a Capacity Resource, the Generating Facility requesting Surplus Interconnection Service associated with the Generating Facility may be an Energy Resource or a Capacity Resource (but only up to the amount of Capacity Interconnection Rights granted the existing Generating Facility). Surplus Interconnection Service cannot be granted if doing so would require new Network Upgrades or would have additional impacts affecting the determination of what Network Upgrades would be necessary to New Service Customers already in the New Services Queue or that have a material impact on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response.

1. Surplus Interconnection Request Requirements. A Surplus Interconnection Customer seeking Surplus Interconnection Service must submit a complete and fully executed Surplus Interconnection Study Agreement, which form is located at Tariff, Attachment RR. To be considered complete at the time of submission, the Surplus Interconnection Customer's Surplus Interconnection Study Agreement must include, at a minimum, each of the following:
  - a. Specification of the location of the proposed surplus generating unit site or existing surplus generating unit (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. Evidence of an ownership interest in, or right to acquire or control the surplus generating unit site for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider; and

- c. The MW size of the proposed surplus generating unit or the amount of increase in MW capability of an existing surplus generating unit; and Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- d. Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- e. A description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the surplus generating unit is wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and
- f. The planned date the proposed surplus generating unit or increase in MW capability of an existing surplus generating unit will be in service; and
- g. Any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- h. A description of the circumstances under which Surplus Interconnection Service will be available at the existing Generating Facility's Point of Interconnection; and
- i. A deposit in the amount of \$10,000 plus \$100 for each MW requested provided that the maximum total deposit amount for a Surplus Interconnection Request shall not exceed \$110,000. If any deposit monies remain after the Surplus Interconnection Study is complete and any outstanding monies owed by the Surplus Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Surplus Interconnection Requests by the Surplus Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Surplus Interconnection Customer; and
- j. Identification of the specific, existing Generating Facility already interconnected to the PJM Transmission System providing Surplus Interconnection Service, including whether the Surplus Interconnection Customer requesting Surplus Interconnection Service is the owner or affiliate of the existing Generating Facility; and
- k. If the Surplus Interconnection Customer is an unaffiliated third party, the Surplus Interconnection Customer must submit with its Surplus Interconnection Study Agreement the following information and documentation acceptable to the Transmission Provider:

- i. Written evidence from the owner of the existing Generating Facility granting Surplus Interconnection Customer permission to utilize the existing Generating Facility's unused portion of Interconnection Service established in the existing Generating Facility's Interconnection Service Agreement; and
  - ii. Written documentation stating that the owner of the surplus generating unit and the owner of the existing Generating Facility will have entered into, prior to the owner of the existing Generating Facility executing a revised Interconnection Service Agreement, a shared facilities agreement between the owner of the existing Generating Facility and the owner of the surplus generating unit detailing their respective roles and responsibilities relative to the Surplus Interconnection Service.
1. If an Energy Storage Resource, Surplus Interconnection Customer must submit primary frequency response operating range for the surplus generating unit.
  2. **Deficiency Review.** Following the receipt of the Surplus Interconnection Study Agreement and requisite information and/or monies listed in section 36.1.1B.1.a – l above, Transmission Provider shall determine whether the listed requirements were submitted as valid or deficient. If deemed deficient by Transmission Provider, Surplus Interconnection Customer must submit the requisite information and/or monies acceptable to the Transmission Provider within ten Business Days of receipt of the Transmission Provider's notice of deficiency. Failure of the Interconnection Customer to timely provide information and/or monies identified in the deficiency notice shall result in the Surplus Interconnection Request being terminated and withdrawn. The Surplus Interconnection Service Request shall be considered valid as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information and/or monies deemed acceptable by the Transmission Provider to clear such deficiency notice.

### **36.1.2 No Applicability to Transmission Service:**

Nothing in this Tariff, Part IV shall constitute a request for transmission service, or confer upon an Interconnection Customer any right to receive transmission service, under Tariff, Part II or Tariff, Part III.

### **36.1.3 [Reserved]**

### **36.1.4 [Reserved]**

### **36.1.5 Scoping Meeting:**

After a valid Interconnection Request has been established, the Transmission Provider shall provide each Interconnection Customer with an opportunity for a scoping meeting among the Transmission Provider, the prospective Interconnected Transmission Owner and the Interconnection Customer. The purpose of the scoping meeting will be to identify one alternative Point(s) of Interconnection and configurations to evaluate in the Interconnection Studies and to attempt to select the best alternatives in a reasonable fashion given resources and information available. The Interconnection Customer may select a maximum of two Point(s) of Interconnection to be studied during the Interconnection Feasibility Study, a primary and secondary Point of Interconnection may be selected by the Interconnection Customer. After establishing a valid Interconnection Request, Transmission Provider shall offer to arrange, within seven Business Days of establishing such valid Interconnection Request, for the scoping meeting, and shall provide a minimum of three suggested meeting dates and times for the scoping meeting. The scoping meeting shall be held, or waived by mutual agreement of the parties within 45 days after establishment of a valid Interconnection Request if the valid Interconnection Request is established in the first four calendar months of the current New Services Queue; or within 30 days if the valid Interconnection Request is established within the fifth calendar month of the current New Services Queue; or in 20 days if the valid Interconnection Request is established in the sixth calendar month of the date of the beginning of the current New Services Queue. The Interconnection Customer may choose to divide the scoping meeting into two sessions, one between the Transmission Provider and Interconnection Customer and one among Transmission Provider, the Interconnection Customer and the prospective Interconnected Transmission Owner. Such meetings may be held consecutively on the same day. Scoping meetings may be held in person or by telephone or video conference. In the event the Interconnection Customer fails to waive or complete the scoping meeting requirement, its Interconnection Request shall be deemed to be terminated and withdrawn.

#### **36.1.6 Coordination with Affected Systems:**

The Transmission Provider will coordinate with Affected System Operators the conduct of any required studies in accordance with Tariff, Part VI, Subpart A, section 202.

#### **36.1.7 Base Case Data:**

Transmission Provider shall maintain base case power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on a password-protected website, subject to the confidentiality provisions of Tariff, Part VI, Subpart B, section 223. In addition, Transmission Provider shall maintain base case power flows and underlying assumptions on a password-protected website. Such base case power flows and underlying assumptions should reasonably represent those used during the most recent interconnection study. Transmission Provider may require Interconnection Customers and password-protected website users to sign any required confidentiality agreement(s) before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects, that are included in the then-current, approved Regional Transmission Expansion Plan.

### **212.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Interconnection Construction Service Agreement(s), for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~.

## 212.4 Retaining Priority and Security:

(a) Retaining Priority: To retain the assigned Queue Position of its Interconnection Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have executed the tendered Interconnection Service Agreement and it must be in the possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable Operating Agreement, Schedule 5, or (ii) that the Interconnection Service Agreement be filed unexecuted with the Commission. In addition, to retain the assigned priority, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have met the milestones specified in Tariff, Part VI, Subpart B, section 212.5.

(b) Security: (1) At the time the Interconnection Customer executes and returns to the Transmission Provider the Interconnection Service Agreement (or requests dispute resolution or that it be filed unexecuted), the Interconnection Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Non-Direct Connection Local Upgrades and Non-Direct Connection Network Upgrades, (ii) any Network Upgrades that the Interconnected Transmission Owner will be responsible for constructing (including with respect to both items (i) and (ii) required upgrades for which another Interconnection Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), and either (iii) the estimated cost of the work that the Transmission Owner will be responsible for performing on the required Attachment Facilities, Direct Connection Local Upgrades, and Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, or (iv) in the event that the Interconnection Customer exercises the Option to Build pursuant to Interconnection Construction Service Agreement, Tariff, Attachment P, Appendix 2, section 3.2.3.1 , all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs (i.e., costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Interconnection Customer is complying with the Transmission Owner's standards and specifications for the construction of facilities) associated with Interconnection Customer building Transmission Owner Attachment Facilities and Direct Connection Network Upgrades, including but not limited to Costs for tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. . Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment P, Appendix 2, section 3.2.3.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction. The Transmission Provider shall provide the affected Transmission Owner(s) with

a copy of the letter of credit or other form of security. After execution of the Interconnection Service Agreement, the amount of security required may be adjusted from time to time in accordance with the Interconnection Service Agreement, Tariff, Attachment O, Appendix 2, section 11.2.1

(2) Transmission Provider shall invoice Interconnection Customer for work by the Interconnected Transmission Owner and Transmission Provider on a quarterly basis for the costs to be expended in the subsequent three months. Interconnection Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. Interconnection Customer may request in the Interconnection Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment O, Appendix 2, section 11.2.3, Interconnection Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Transmission Provider shall hold the security related to construction until as-built drawings are received and settlement of the final invoice; security related to construction may be reduced as construction progresses.

(c) **Deferred Security:** Interconnection Customer may request to defer providing security under subsection (b) of this section 212.4 until no later than 120 days after Interconnection Customer executes the Interconnection Service Agreement. Upon Interconnection Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which Interconnection Customer has cost responsibility under the Interconnection Service Agreement. Interconnection Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided Interconnection Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the Interconnection Customer terminates the Interconnection Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to an Interconnection Customer upon Initial Operation.

(d) **Withdrawal:** If an Interconnection Customer fails to timely execute the Interconnection Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), meet the milestones (unless extended) set forth in Tariff, Part VI, Subpart B, section 212.5, or provide the security prescribed in this section 212.4, its Interconnection Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn Interconnection Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with Tariff, Part VI, Subpart C, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the



Facilities Study, shall re-determine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned priority pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement with each remaining Interconnection Customer setting forth its revised cost obligation. In such event, if the amount of an Interconnection Customer's cost responsibility increases, the Interconnection Customer shall provide additional security pursuant to this section 212.4.

## **212.6 Interconnection Construction Service Agreement and Commencement of Construction:**

For all interconnections within the scope of this section 212 for which construction of facilities is required, Transmission Provider shall tender to the Interconnection Customer an Interconnection Construction Service Agreement relating to such facilities within 45 days after receipt of the executed Interconnection Service Agreement. In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Interconnection Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. The Transmission Provider shall provide the Transmission Owner(s) with a copy of the Interconnection Construction Service Agreement when this agreement is provided to the Interconnection Customer for execution. Within ninety (90) calendar days of receipt thereof, unless otherwise specified in the project specific milestones of the Interconnection Service Agreement, Interconnection Customer either shall have executed the tendered Interconnection Construction Service Agreement and it must be in possession of the Transmission Provider, or, alternatively, shall request dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or that the Interconnection Construction Service Agreement be filed unexecuted with the Commission. In the event that the Interconnection Customer has requested dispute resolution or that the Interconnection Service Agreement be filed unexecuted, construction of facilities and upgrades shall be deferred until any disputes are resolved, unless otherwise agreed by the Interconnection Customer, the Interconnected Transmission Owner and the Transmission Provider.

### **213.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~.

#### 213.4 Retaining Priority and Security:

(a) Retaining Priority: To retain the assigned Queue Position of its New Service Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study), the New Service Customer either shall have executed the tendered Upgrade Construction Service Agreement and it must be in possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable Operating Agreement, Schedule 5, or (ii) that the Upgrade Construction Service Agreement be filed unexecuted with the Commission.

(b) Security: (1) At the time the New Service Customer executes and returns to the Transmission Provider the Upgrade Construction Service Agreement (or requests dispute resolution or that it be filed unexecuted), the New Service Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Direct Assignment Facilities, Non-Direct Connection Local Upgrades and/or Non-Direct Connection Network Upgrades (including required upgrades for which another New Service Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), (ii) the estimated cost of work that the New Service Customer will be responsible for performing on the required Direct Assignment Facilities, Direct Connection Local Upgrades, and/or Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, and (iii) in the event that the New Service Customer exercised the Option to Build pursuant to Upgrade Construction Service Agreement, Tariff, Attachment GG, Appendix III, section 6.2.1 , all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs associated with the New Service Customer's building Direct Assignment Facilities and/or Direct Connection Network Upgrades, including but not limited to Costs for inspections, testing, and tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment GG, Appendix III, section 6.2.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction.

The Transmission Provider shall provide the affected Transmission Owner(s) with a copy of the letter of credit or other form of security. After execution of the Upgrade Construction Service Agreement, the amount of Security required may be adjusted from time to time in accordance with Tariff, Attachment GG, Appendix III, section 9.1 of the Upgrade Construction Service Agreement.

(2) Transmission Provider shall invoice New Service Customer for work by the Transmission Owner on a quarterly basis for the costs to be expended in the subsequent three months. Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. New Service Customer may request in the Upgrade Construction Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment GG, Appendix III, section 9.3 of the Upgrade Construction Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Security related to construction of Local Upgrades and/or Network Upgrades may be reduced as construction progresses.

(c) **Deferred Security:** New Service Customer may request to defer providing security under subsection (b) of this section 213.4 until no later than 120 days after New Service Customer executes the Upgrade Construction Service Agreement. Upon New Service Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which New Service Customer has cost responsibility under the Upgrade Construction Service Agreement. New Service Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided New Service Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the New Service Customer terminates the Upgrade Construction Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to a New Service Customer upon Stage Two Energization of Completed Facilities.

(d) **Withdrawal:** If a New Service Customer fails to timely execute the Upgrade Construction Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), or to provide the security prescribed in this Section, its New Service Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn New Service Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with the Upgrade Construction Service Agreement, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the Facilities Study, shall redetermine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned Queue Position pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, with each remaining New Service Customer setting forth its revised cost obligation. In such

event, if the amount of a New Service Customer's cost responsibility increases, the New Service Customer shall provide additional security pursuant to this section.

## 216 Interconnection Requests Designated as Market Solutions:

The provisions of this section shall apply to any Interconnection Request related to a project that Transmission Provider determines, in accordance with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.5.7(h) could relieve a transmission constraint and which, in the judgment of the Transmission Provider, is economically justified (hereafter, a “market solution”).

#### **217.4 Additional Upgrades:**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request. The New Service Customer shall have the right of first refusal to pay for any or all of the upgrades in addition to the minimum, and to hold all rights associated with the additional upgrades for which it agrees to pay, in accordance with Tariff, Part VI, Subpart C. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners. If, based upon the date of the submission of a subsequent New Service Request, the Transmission Provider determines that a New Service Customer will make use of additional economic capacity that exists or will exist as a result of facilities and upgrades constructed as a result of an earlier New Service Request, then the Transmission Provider may require the subsequent New Service Customer to pay an appropriate portion of the cost of the facilities and upgrades that produced the additional economic capacity.



### **217.5 Specification of Costs in Agreement:**

The cost responsibility of a New Service Customer shall be specified, (a) in the case of an Interconnection Customer that proposes facilities other than Merchant Network Upgrades, in the Interconnection Service Agreement, and (b) in the case of all other New Service Customers, in the Upgrade Construction Service Agreement. If a New Service Customer does not agree with the Transmission Provider's determination of such cost responsibility, it may request that the matter be submitted to Dispute Resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or request that an unexecuted Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, be filed with the Commission in accordance with the Tariff.

### **221.1 Construction Obligation:**

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VI, Subpart B, section 218.2, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~. Except to the extent otherwise provided in a Construction Service Agreement entered into pursuant to this Tariff, Part VI, the Transmission Owners shall own all Attachment Facilities, Direct Assignment Facilities, Local Upgrades, and Network Upgrades constructed to accommodate New Service Requests.

## 221.2 Alternative Facilities and Upgrades:

Upon completion of the studies of a New Service Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s) or the New Service Customer may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s) or the New Service Customer may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected New Service Customer may participate in any such Dispute Resolution process.

### **230.1 Purpose:**

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

## 236.2 Upgrades to Merchant Transmission Facilities:

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

## **237.4 Confirmation by Transmission Provider:**

### **237.4.1**

Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to section 237.6 below. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5.~~

### **237.4.2**

To the extent that an election of the Buyer Customer under section 237.2.2(b) above or section 237.3 above to terminate participation in any Network Upgrade or Local Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VI, Subpart B, section 217, as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VII, Subpart A, section 301(A)(3)(b).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.



**Tariff, Part VII, Subpart D, section 314**  
**Final Agreement Negotiation Phase**

- A. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the end of Phase III, and shall run concurrently with Decision Point III. New Service Requests that enter Decision Point III will also enter the Final Agreement Negotiation Phase. The purpose of the Final Agreement Phase is to negotiate, execute and enter into a final interconnection related service agreement found in Tariff, Part IX, as applicable to a New Service Request or Upgrade Request; adjust the Security obligation based on New Service Requests or Upgrade Request withdrawn during Decision Point III and/or during the Final Agreement Negotiation Phase; and conduct any remaining analyses or updated analyses based on New Service Requests or Upgrade Request withdrawn during Decision Point III. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
1. If a New Service Request or Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the New Service Request or Upgrade Request from the Cycle, and adjust the Security obligations of other New Service Requests based on the withdrawal.
- B. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:
1. Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX, as applicable to the Project Developer's or Eligible Customer's New Service Request, along with any applicable draft schedules, to the parties to such interconnection related agreement prior to the start of the Final Agreement Negotiation Phase.
    - a. Subject to any withdrawn New Service Requests during Decision Point III that require Transmission Provider to update study results, the draft interconnection related agreement shall be prepared using the study results available from Phase III or the most-recently completed studies conducted during the Final Agreement Negotiation Phase.
      - i. If a different New Service Request is withdrawn during Decision Point III after a draft agreement has been tendered to Project Developer or Eligible Customer, and that withdrawn New Service Request impacts the Project Developer's or Eligible Customer tendered draft, Transmission Provider shall use Reasonable Efforts to update and reissue the tendered draft within 15 Business Days.
  2. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business

Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC, or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
  - iv. and provide any required adjustments to Security.

- b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
- 5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart E, section 323**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VII, Subpart E, section 324**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VII, Subpart E, section 324 by submitting an IDR Transfer Agreement in accordance with Tariff, Part VII, Subpart E, section 324(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VII, Subpart E, section 324(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VII, Subpart E, section 324(B) the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;

- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of an Interconnection Service Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VII, Subpart E, section 324(B).

4. Confirmation by Transmission Provider:

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VII, Subpart E, section 324. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VII, Subpart E, sections 324(B)(2)(b) and 324(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VII, Subpart D, section 307(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request

In the event that the Buyer Customer, pursuant to a confirmed election under this section 324(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.



**Tariff, Part VII, Subpart E, section 326**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VII, Subpart G, section 336, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Tariff, Part VII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VII, Subpart E, section 328**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VII, Subpart E, section 328 shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a

Generation Capacity Resource fails to meet the operational standards set forth in Tariff, Part VII, Subpart E, section 328(C)(1) for any consecutive three-year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VII, Subpart E, section 328(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VII, Subpart C, section 306(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection Rights will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 328(C) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VII, Subpart E, section 330**  
**Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this section 330, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VII, Subpart E, section 330(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 330(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a

Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VII, Subpart E, section 330, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VII, Subpart E, section 330 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.



**Tariff, Part VII, Subpart G, section 336**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VII, Subpart D, section 310, as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
  - b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
  - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - i. Affected System Customer is responsible for, and must pay, all actual study costs.
    - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VII.
  - b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission

Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.

- i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with the FERC.
- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall elect one of the following:

- i. to execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement in unexecuted form.
    - (a) The unexecuted Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider.
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart H, section 337**  
**Upgrade Requests**

A. Applicability

Tariff, Part VII Subpart H applies to valid Upgrade Requests submitted on or after October 1, 2020 and up to and including September 10, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30

days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- i. Readiness Deposit refunds will be handled as follows:
    - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
    - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
  - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.
  6. Tariff, Part VII, Subpart C (Base Case Data) requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
  7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and



acquires all rights and obligations as identified in the Upgrade Request for such project.

8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.
2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.
  - a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
5. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven years; and
6. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.
- c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

- (i) **Load Flow Violations**  
Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.
- (ii) **Short Circuit Violations**  
Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.
- (iii) **Stability and Dynamic Criteria Violations**  
Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. **System Impact Study Results**

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
- d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
- e. Upgrade Customer may not elect Option to Build after such date.

4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report,

Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall

conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse

If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall elect one of the following:

(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

(c) to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate

by Transmission Provider, and provide any required adjustments to Security.

- ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - (a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - (b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. In order to exercise the Option to Build, as set forth in Upgrade Construction Service Agreement, Tariff, Part IX, Subpart E, Appendix III, section 6.2.1, Upgrade Customer must provide Transmission Provider and the Transmission Owner with written notice of its election to exercise the option no later than 30 days from the date the Upgrade Customer receives the results of the Facilities Study (or the System Impact performed, if a Facilities Study was not required).

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected

Transmission Owners) for the Costs, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VII, Subpart H, section 337(H)(1) to the affected Transmission Owner(s).

2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330, except to the extent the applicable terms of Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90



percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.

- c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VIII, Subpart A, section 401(D).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VIII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Tariff, Part VIII, Subpart D, section 411**  
**Final Agreement Negotiation Phase**

- A. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the end of Phase III, and shall run concurrently with Decision Point III. New Service Requests that enter Decision Point III will also enter the Final Agreement Negotiation Phase. The purpose of the Final Agreement Phase is to negotiate, execute and enter into a final interconnection related service agreement found in Tariff, Part IX, as applicable to a New Service Request; adjust the Security obligation based on New Service Requests withdrawn during Decision Point III and/or during the Final Agreement Negotiation Phase; and conduct any remaining analyses or updated analyses based on New Service Requests withdrawn during Decision Point III. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
1. If a New Service Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the New Service Request from the Cycle, and adjust the Security obligations of other New Service Requests based on the withdrawal.
- B. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:
1. Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX (as applicable to the Project Developer's or Eligible Customer's New Service Request), along with any applicable draft schedules, to the parties to such interconnection related agreement prior to the start of the Final Agreement Negotiation Phase.
    - a. Subject to any withdrawn New Service Requests during Decision Point III that require Transmission Provider to update study results, the draft interconnection related agreement shall be prepared using the study results available from Phase III or the most-recently completed studies conducted during the Final Agreement Negotiation Phase.
      - i. If a different New Service Request is withdrawn during Decision Point III after a draft agreement has been tendered to Project Developer or Eligible Customer, and that withdrawn New Service Request impacts the Project Developer's or Eligible Customer tendered draft, Transmission Provider shall use Reasonable Efforts to update and reissue the tendered draft within 15 Business Days.

2. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

- iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
      - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
    - iv. and provide any required adjustments to Security.
  - b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
    - i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
    - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
    - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
      - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
- 5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart E, section 421**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VIII, Subpart E, section 422**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VIII, Subpart C, section 404(A)(5) by submitting an IDR Transfer Agreement in accordance with Tariff, Part VIII, Subpart E, section 422(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VIII, Subpart E, section 422(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B), the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VIII, Subpart E, section 422(B), the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;



- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of a Generation Interconnection Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VIII, Subpart E, section 422(B)(4).

4. Confirmation by Transmission Provider

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VIII, Subpart E, section 422(B)(6). Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VIII, Subpart E, section 422(B)(2)(b) or section 422(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VIII, Subpart C, section 404(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request

In the event that the Buyer Customer, pursuant to a confirmed election under this Tariff, Part VIII, Subpart E, section 422(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VIII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.

**Tariff, Part VIII, Subpart E, section 424**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VIII, Subpart G, section 434, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Part VIII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VIII, Subpart E, section 426**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VIII, Subpart E, section 426(C)(2) shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a Generation Capacity Resource fails to meet the operational standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) for any consecutive three-

year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VIII, Subpart B, section 403(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection Rights will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 426(C)(2) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VIII, Subpart E, section 428**  
**Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this Tariff, Part VIII, Subpart E, section 428, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.



a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VIII, Subpart E, section 428(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 428(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a

Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VIII, Subpart E, section 428, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VIII, Subpart E, section 428 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.

**Tariff, Part VIII, Subpart G, section 434**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VIII, Subpart C, section 407(A)(1)(c), as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
    - b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
    - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
      - i. Affected System Customer is responsible for, and must pay, all actual study costs.
      - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.
  2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
  3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
    - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VIII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
- i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement with the FERC.

- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall either:
  - i. execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement or Network Upgrade Cost Responsibility Agreement unexecuted, with the unexecuted Construction Service Agreement or Network Upgrade Cost Responsibility Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement unexecuted, with the unexecuted Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after



such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart H, section 435**  
**Upgrade Requests**

A. Applicability

Tariff, Part VIII, Subpart H, section 435 applies to valid Upgrade Requests submitted on or after October 1, 2020, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction

Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to

- complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30<sup>th</sup> day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.
    - i. Readiness Deposit refunds will be handled as follows:
      - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
      - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
    - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
  3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.

6. Tariff, Part VIII, Subpart E, section 416, Base Case Data, requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.
8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.

2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.

a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
- v. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and

construction of the Merchant Network Upgrade will take more than seven years; and

- vi. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.

c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:



- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

#### F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

#### G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade

Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation  
Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60<sup>th</sup> day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse  
If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as

~~applicable Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable Operating Agreement, Schedule 5; or

(c) request in writing that Transmission Provider file with FERC the final interconnection related service agreement unexecuted, with the final interconnection related service agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the

Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system.

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5) of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VIII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VIII, Subpart H, section 435 to the affected Transmission Owner(s).

##### 2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430, except to the extent the applicable terms of Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VIII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

## Tariff, Part IX, Section 500, Execution Deadlines

Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer or Upgrade Customer, and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider's tender for execution of such agreement, Project Developer, Eligible Customer or Upgrade Customer, shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer or Upgrade Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer or Upgrade Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.

With the filing of any unexecuted agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between the parties.

(Project Identifier #\_\_\_\_)

**GENERATION INTERCONNECTION AGREEMENT**  
**By and Between**  
**PJM INTERCONNECTION, L.L.C.**  
**And**

---

**And**

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**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_)

- 1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), \_\_\_\_\_ (“Project Developer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA reflects amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]
- 2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a Generation Interconnection Agreement under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.
- 3.0 Generating Facility or Merchant Transmission Facility Specifications. Attached are Specifications for the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect with the Transmission System. Project Developer represents and warrants that, upon completion of construction of such facilities, it will own or control the Generating Facility or Merchant Transmission Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that

Project Developer will not own the Generating Facility or Merchant Transmission Facility, Project Developer represents and warrants that it is authorized by the owner(s) thereof to enter into this GIA and to represent such control.

- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this GIA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is filed with FERC unexecuted, upon the date specified by FERC. This GIA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this GIA. The term of the GIA shall be as provided in section 1.3 of Appendix 2 to this GIA. Interconnection Service shall commence as provided in section 1.2 of Appendix 2 to this GIA.
- 5.0 Security. In accord with the GIP, Project Developer shall provide the Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmissions Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$\_\_\_\_\_. Such Security can also be applied to unpaid Cancellation Costs and for completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades. This amount represents the sum of the estimated Costs, determined in accordance with the GIP for which the Project Developer will be responsible, less any Costs already paid by Project Developer. Project Developer acknowledges that its ultimate cost responsibility will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.
- 6.0 Project Specific Milestones. In addition to the milestones stated in the GIP as applicable, during the term of this GIA, Project Developer shall ensure that it meets each of the following development milestones:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand (sections should be renumbered as appropriate):]

6.1 Substantial Site work completed. On or before \_\_\_\_\_, Project Developer must demonstrate completion of at least 20 percent of project site construction. At this time, Project Developer must submit to Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities.

6.2 Delivery of major electrical equipment. On or before \_\_\_\_\_, Project Developer must demonstrate that \_\_\_\_ generating units have been delivered to Project Developer’s project site.

[Instructions: the following provisions can be used be as mutually agreed upon, and as an alternative to the milestones set forth in the GIP (renumber sections as appropriate):]

6.2.1 \_\_\_\_\_ Fuel delivery agreement and water agreement. Project Developer must demonstrate it has entered into a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnection by \_\_\_\_\_.

6.2.2 \_\_\_\_\_ Local, county, and state site permits. Project Developer must obtain all necessary local, county, and state site permits by \_\_\_\_\_.

[Instruction to be used if the Project Developer has not provided evidence of the 100 percent Site Control for the Project Developer's Interconnection Facilities, and any Transmission Owner's Interconnection Facilities or Transmission Owner Upgrades at the Point of Interconnection that the Project Developer will develop prior to entering to a GIA (renumber remaining sections as appropriate):]

6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

6.3 Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of all generating units in order to achieve the full Maximum Facility Output set forth in section 1.0(c) of the Specifications to this GIA. Failure to achieve this Maximum Facility Output may result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes achieving Initial Operation in accordance with section 1.4 of Appendix 2 to this GIA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Instructions: If this GIA is for an incremental increase in output for a facility that already is in commercial operation (i.e., an uprate), then, instead of the above, use the following language for the Commercial Operation milestone.]

[For an uprate where MFO and CIRs will increase, use this alternate language:]

Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase over Project Developer's previous interconnection, as set forth in Specifications, section 1.0(c) of this GIA for increases in Maximum Facility Output and in Specifications, section 2.1 of this GIA for increases in Capacity Interconnection Rights. This incremental increase is a result of the Interconnection Request associated with this GIA. Failure to achieve this Maximum Facility Output shall result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[For CIR-only uprates, use the alternate language that follows. The September 1, \_\_\_\_\_ date for CIR-only uprates is meant to align with Summer Capability Testing for the unit(s). Without this Commercial Operation milestone that is specific to CIR-only uprates, it can be difficult to implement or enforce a Commercial Operation milestone for CIR-only uprates, because the unit is already in Commercial Operation at its specified MFO:]

Commercial Operation. On or before September 1, \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase in Capacity Interconnection Rights over Project Developer's previous interconnection, as set forth in Specifications, section 2.1 of this GIA. Failure to achieve this level of Capacity Interconnection Rights shall result in a permanent reduction of the Capacity Interconnection Rights to the level achieved. This incremental increase in Capacity Interconnection Rights is a result of the Interconnection Request associated with this GIA. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Additional instructions (separate from the Commercial Operation Date provisions): if a specific situation requires a separate Construction Service Agreement by a certain date then use the following:]

Construction Service Agreement. On or before \_\_\_\_\_, Project Developer must have either (a) executed a Construction Service Agreement for Interconnection Facilities or Transmission Owner Upgrades for which Project Developer has cost responsibility; (b) requested dispute resolution under section 12 of the PJM Tariff, or if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement")~~;

or (c) requested that the Transmission Provider file the Construction Service Agreement unexecuted with FERC.

- 6.4 Within one month following commercial operation of generating unit(s), Project Developer must provide certified documentation demonstrating that “as-built” Generating Facility or the Merchant Transmission Facilities, and Project Developer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Project Developer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

**[Add Additional Project Specific Milestones as appropriate]**

Project Developer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Project Developer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. Project Developer shall also have a one-time option to extend its milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. This option may only be applied one time for an Interconnection Request, and may only be applied to one single milestone specified in this GIA. Other milestone dates stated in this GIA shall be deemed to be extended coextensively with Project Developer’s use of this provision. Once this extension is used, it is no longer available with regard to any other milestones or other deadlines in this GIA. If the Project Developer fails to meet any of the milestones set forth above, including any extended milestones, its Interconnection Request shall be terminated and withdrawn, in accordance with the provisions of Appendix 2, sections 15 and 16. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

- 7.0 Provision of Interconnection Service. Transmission Provider and Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Project Developer’s Generating Facility or Merchant Transmission Facility identified in the Specifications in accordance with the GIP, the Operating Agreement, and this GIA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 System Impact Study(ies) and/or Facilities Study(ies). In analyzing and preparing the [System Impact Study(ies) and/or Facilities Study(ies)], and in designing and constructing the Distribution Upgrades, Network Upgrades, Stand Alone Network

Upgrades and/or Transmission Owner Interconnection Facilities described in the Specifications attached to this GIA, Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY(IES) AND/OR FACILITIES STUDY(IES) OF THE DISTRIBUTION UPGRADES, NETWORK UPGRADES, STAND ALONE NETWORK UPGRADES AND/OR TRANSMISSION OWNER INTERCONNECTION FACILITIES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.0 Construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

10.1. Cost Responsibility. Project Developer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Generating Facility or Merchant Transmission Facility as specified in the GIP. These Costs may include, but are not limited to, a Distribution Upgrades charge, Network Upgrades charge, Stand Alone Network Upgrades charge, Transmission Owner Interconnection Facilities charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in sections 3.0 and 4.0 of the Specifications to this GIA.

10.2. Billing and Payments. Transmission Provider shall bill the Project Developer for the Costs associated with the facilities contemplated by this GIA, estimates of which are set forth in the Specifications to this GIA, and the Project Developer shall pay such Costs, in accordance with section 11 of Appendix 2 to this GIA and the applicable provisions of Schedule L. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the applicable Transmission Owner. Project Developer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

\_\_\_\_\_ No

10.3. Contract Option. In the event that the Project Developer and Transmission Owner agree to utilize the Negotiated Contract Option as set forth in Schedule L, Appendix 1 to establish, subject to FERC acceptance, non-standard terms regarding cost responsibility, payment, billing and/or financing, the terms of sections 10.1 and/or 10.2 of this section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in Schedule L to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement if all Project Developers and the relevant Transmission Owner agree.

\_\_\_\_\_ Yes

\_\_\_\_\_ No

#### 10.4 Interconnection Construction Terms and Conditions

10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any there are Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.

10.4.2 In the event that the Project Developer elects to construct some or all of the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades under the Option to Build, billing and payment for the Costs associated with the facilities contemplated by this GIA shall relate only to such portion of the Interconnection Facilities and Transmission Owner Upgrades as the Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this GIA.

11.2 List and Ownership of Interconnection Facilities and Transmission Owner Upgrades. The Interconnection Facilities and Transmission Owner Upgrades and Transmission Owner Upgrades to be constructed and ownership of the

components thereof are identified in section 3.0 of the Specifications attached to this GIA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this GIA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades are identified in Schedule D to this GIA.

## 12.0 Power Factor Requirement.

Consistent with section 4.6 of Appendix 2 to this GIA, the power factor requirement is as follows:

[For Generation Project Developers]

{The following language should be included for new large and small synchronous generation facilities that will have the Tariff specified power factor. This section does not apply if the Interconnection Request is for an incremental increase in generating capability.}

The Project Developer shall design its Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{Include the following language if the Interconnection Request is for an incremental increase in capacity or energy output to a synchronized generation facility}

The existing \_\_ MW portion of the Generating Facility shall retain its existing ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

The increase of \_\_\_ MW to the Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 1.0 (unity) to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{For new wind or non-synchronous generation facilities which have submitted a New Service Request. after November 1, 2016, the following applies:}

The Generation Project Developer shall design its [wind-powered] [non-synchronous] Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.



{For all wind or non-synchronous generation facilities requesting an incremental increase in capacity or energy output which have entered the New Services Queue after November 1, 2016, and were not commercially operable prior to November 1, 2016 include the following requirements:}

The existing [wind-powered] [non-synchronous] \_\_ MW portion of the Customer Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

The increase of \_\_ MW to the [wind-powered] [non-synchronous] Customer Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

[For Transmission Project Developers]

{The following language should be included only for new Merchant Transmission Facilities}

Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.

- 13.0 Charges. In accordance with sections 10 and 11 of Appendix 2 to this GIA, the Project Developer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this GIA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this GIA, except, however, that, subject to modification of the payment terms stated in section 10 of this GIA pursuant to the Negotiated Contract Option, payment obligations imposed on Project Developer under this GIA are agreed and acknowledged to be for the benefit of the Transmission Owner(s). Project Developer expressly agrees that the Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Project Developer for the payment of any Costs or charges authorized under this GIA or the GIP with respect to Interconnection Service for which Project Developer fails, in whole or in part, to pay as provided in this GIA, the GIP and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this GIA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.

- 16.0 Amendment. Except as set forth in Appendix 2, section 12.0 of this GIA, this GIA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 17.0 Construction With Other Parts of The Tariff. This GIA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this GIA shall be made, in accordance with the terms of Appendix 2 to this GIA, to the representatives of the other party and as applicable, to the Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmission Owner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 19.0 Incorporation of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this GIA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this GIA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this GIA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section

24.1 of Appendix 2 to this GIA, Schedule G to this GIA shall set forth the Project Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this GIA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this GIA.
- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 24.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this GIA to be executed by their respective authorized officials.

(Project Identifier #\_\_\_)

Transmission Provider: **PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

## **22 Miscellaneous**

### **22.1 Regulatory Filing:**

In the event that this Generation Interconnection Agreement contains any terms that deviate materially from the form included in the Tariff, Transmission Provider shall file the Generation Interconnection Agreement on behalf of itself and the Transmission Owner with FERC as a service schedule under the Tariff within 30 days after execution. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 17 of this Appendix 2. An Project Developer shall have the right, with respect to any Generation Interconnection Agreement tendered to it, to request (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement~~, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted Generation Interconnection Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between or among the Interconnection Parties.

### **22.2 Waiver:**

Any waiver at any time by an Interconnection Party of its rights with respect to a Breach or Default under this Generation Interconnection Agreement or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any subsequent Breach or Default or other matter.

### **22.3 Amendments and Rights Under the Federal Power Act:**

This Generation Interconnection Agreement may be amended or supplemented only by a written instrument duly executed by all Interconnection Parties. An amendment to the Generation Interconnection Agreement shall become effective and a part of this Generation Interconnection Agreement upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the foregoing, nothing contained in this Generation Interconnection Agreement shall be construed as affecting in any way any of the rights of any Interconnection Party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Interconnection Party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this Generation Interconnection Agreement and every appendix referred to therein shall be amended, as mutually agreed by the Interconnection Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

### **22.4 Binding Effect:**

This Generation Interconnection Agreement, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the Interconnection Parties.

## **22.5 Regulatory Requirements:**

Each Interconnection Party's performance of any obligation under this Generation Interconnection Agreement for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Interconnection Party, or the Interconnection Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Interconnection Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

**APPENDIX 2**  
**STANDARD TERMS AND CONDITIONS**

## **Preamble**

The cost responsibility of any Common Use Upgrades required to interconnect a Generating Facility or Merchant Transmission Facility with the Transmission System shall be in accordance with the following Standard Construction Terms and Conditions.

### **1 Facilitation by Transmission Provider**

Transmission Provider shall keep itself apprised of the status of the construction-related activities of the parties to this NUCRA and, upon request of any of them, Transmission Provider shall meet with the parties separately or together to assist them in resolving issues between them regarding their respective activities, rights and obligations under this NUCRA. Each party shall cooperate in good faith with the other parties in Transmission Provider's efforts to facilitate resolution of disputes.

### **2 Common Use Upgrade Cost Responsibility**

Responsibility for the Costs of Common Use Upgrades shall be assigned in accordance with the GIP. The cost responsibility of each Project Developer shall be shown in Schedule B.

### **3 Security, Billing and Payments**

#### **3.1 Security:**

Security associated with this NUCRA shall be the Security provided by each Project Developer as set forth in section 7 of this NUCRA above.

#### **3.2 Adjustments to Security:**

The Security provided by each Project Developer at or before execution of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to shall be increased or decreased in accordance with the provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to, and consistent with the Project Developer's cost responsibility set forth in Schedule B of this NUCRA.

#### **3.3 Invoice:**

In addition to the invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, Transmission Provider shall bill the Project Developers in accordance with the cost responsibility set forth in Schedule B of this NUCRA.



### **3.4 Final Invoice:**

In addition to the final invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, the accounting and payments shall be in accordance with the cost responsibility set forth in Schedule B of this NUCRA.

### **3.5 Disputes:**

In the event of a billing dispute between any of the parties to this NUCRA, Transmission Provider shall continue to perform its obligations pursuant to this NUCRA so long as (a) Project Developer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Project Developer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Project Developer fails to meet any of these requirements, then Transmission Provider shall so inform the other parties to this NUCRA and Transmission Provider may provide notice to Project Developer of a Breach pursuant to section 6 of this Appendix 2.

### **3.6 No Waiver:**

Payment of an invoice shall not relieve Project Developer from any other responsibilities or obligations it has under this NUCRA, nor shall such payment constitute a waiver of any claims arising hereunder.

### **3.7 Interest:**

Interest on any unpaid, delinquent amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment.

## **4 Assignment**

### **4.1 Assignment with Prior Consent:**

Except as provided in section 4.2 to this Appendix 2, no party to this NUCRA shall assign its rights or delegate its duties, or any part of such rights or duties, under this NUCRA without the written consent of the other parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. A party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of the Common Use Upgrades which it owns or will own upon completion of construction and the transfer of title required by the applicable GIA or Construction Service Agreement, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this NUCRA.

## **4.2 Assignment Without Prior Consent:**

### **4.2.1 Assignment to Owners:**

Project Developer may assign the NUCRA without the prior consent of any other party to the NUCRA to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Common Use Upgrades, provided that prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical and operational competence to comply with the requirements of this NUCRA and assumes in a writing provided to the Transmission Provider all rights, duties, and obligations of Project Developer arising under this NUCRA. However, any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider, such consent not to be unreasonably withheld, conditioned or delayed. Project Developer shall provide Transmission Provider with notice of any such assignment in accordance with the PJM Manuals.

### **4.2.2 Assignment to Lenders:**

Project Developer may, without the consent of any other party to this NUCRA, assign the NUCRA to any Project Finance Entity(ies), provided that such assignment shall not alter or diminish Project Developer's duties and obligations under this NUCRA. If Project Developer provides the parties to this NUCRA with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2, the Transmission Provider shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Appendix 2 in accordance with this Appendix 2. Transmission Provider shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the NUCRA, provided that such documents do not alter or diminish the rights of the Transmission Provider under this Appendix 2, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider's invoice therefor, Project Developer shall pay the Transmission Provider reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider.

## **4.3 Successors and Assigns:**

This NUCRA and all of its provisions are binding upon, and inure to the benefit of, the parties to this NUCRA and their respective successors and permitted assigns.

## **5 Indemnity**

### **5.1 Indemnity:**

Each Project Developer to this NUCRA shall indemnify and hold harmless the other parties to this NUCRA, and the other parties' officers, shareholders, stakeholders, members, managers,

representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with, or resulting from (i) the indemnifying party's breach of any of the representations or warranties made in, or failure of the indemnifying party or any of its subcontractors to perform any of its obligations under, this NUCRA (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying party or its contractors; provided, however, that no party shall have any indemnification obligations under this section 5.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the party seeking indemnity.

## **5.2 Indemnity Procedures:**

Promptly after receipt by a party entitled to indemnity ("Indemnified Person") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in section 5.1 may apply, the Indemnified Person shall notify the indemnifying party(ies) of such fact. Any failure of or delay in such notification shall not affect the indemnifying party's(ies) indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party(ies). The Indemnified Person shall cooperate with the indemnifying party(ies) with respect to the matter for which indemnification is claimed. The indemnifying party(ies) shall have the right to assume the defense thereof with counsel designated by such indemnifying party(ies) and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying party(ies) and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying party(ies), the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying party(ies) shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying party(ies). Notwithstanding the foregoing, the indemnifying party(ies) (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying party(ies), in such event the indemnifying party(ies) shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

### **5.3 Indemnified Person:**

If an Indemnified Person is entitled to indemnification under this section 5 as a result of a claim by a third party, and the indemnifying party(ies) fails, after notice and reasonable opportunity to proceed under section 5.2 of this Appendix 2, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying party(ies) contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

### **5.4 Amount Owing:**

If an indemnifying party(ies) is obligated to indemnify and hold any Indemnified Person harmless under this section 5, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

### **5.5 Limitation on Damages:**

Except as otherwise provided in this section 5, the liability of a party(ies) under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any party(ies) or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this section 5.5 are without regard to the cause or causes related thereto, including the negligence of any party(ies), whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this section 5.5 shall survive the termination or expiration of this NUCRA.

### **5.6 Limited Liability in Emergency Conditions:**

Except as otherwise provided in the Tariff or the Operating Agreement, no party shall be liable to any other party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or of the Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Project Developer shall be liable in the event that it fails to comply with any instructions of Transmission Provider or the Transmission Owner related to an Emergency Condition.

## **6 Breach, Cure and Default**

### **6.1 Breach:**

A Breach of the NUCRA shall include, but not be limited to:

- (a) The failure to pay any amount when due;

(b) The failure to comply with any material term or condition of this NUCRA including but not limited to any material breach of a representation, warranty or covenant (other than in sections 6.1(a) and (c)-(d) hereof) made in this Appendix 2;

(c) Assignment of the NUCRA in a manner inconsistent with the terms of this Appendix 2; or

(d) Failure of any party to provide information or data required to be provided to another party under this Appendix 2 for such other party to satisfy its obligations under this NUCRA.

## **6.2 Notice of Breach:**

A party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Project Developer, Transmission Provider agrees to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2.

## **6.3 Cure and Default:**

A party that commits a Breach and does not take steps to cure the Breach pursuant to this section 6.3 is automatically in Default of this Appendix 2 and of the NUCRA without further notice from the non-Breaching Parties.

## **6.4 Cure of Breach:**

**6.4.1** Except for the event of Breach set forth in section 6.1(a) above, the Breaching Party (a) may cure the Breach within 30 days of the time the non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within 30 days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such 30 day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the parties to the NUCRA. Such agreement shall not be unreasonably withheld.

**6.4.2** In an event of Breach set forth in section 6.1(a), the Breaching Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Party is a Project Developer, and the Project Developer fails to pay an amount due within five days from the receipt of notice of the Breach, Transmission Provider may use the Security provided by the Project Developer as set forth in section 7.0

of this NUCRA. Upon drawing on such Security, Project Developer shall automatically be deemed in default of this NUCRA.

## **6.5 Right to Compel Performance:**

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting party(ies) shall be entitled to exercise such other rights and remedies as it may have in equity or at law. Subject to section 11 of this Appendix 2, no remedy conferred by any provision of this Appendix 2 is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **7 Termination**

### **7.1 Termination of the NUCRA:**

This NUCRA may be terminated by the following means:

#### **7.1.1 By Mutual Consent:**

This NUCRA may be terminated as of the date on which the parties mutually agree to terminate this NUCRA.

#### **7.1.2 By All Project Developers:**

Subject to payment of Cancellation Costs and of all other unpaid Costs, all Project Developers that are parties to this NUCRA may at the same time unilaterally terminate the NUCRA pursuant to Applicable Laws and Regulations upon providing Transmission Provider sixty days prior written notice thereof. Termination under this section must be performed in parallel with the termination provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party. Project Developers' terminating under this section forfeit Security provided related to the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party.

#### **7.1.3 Notification of Final Payment:**

This NUCRA shall terminate upon the date Transmission Provider receives written notice, in a form acceptable to the Transmission Provider from the Transmission Owner that Transmission Owner has received final payment of all Costs for the Common Use Upgrades shown on Schedule A.

### **7.2 Upon Default by Project Developer:**

#### **7.2.1 Consequences of Default by Project Developer:**

If one or more, but not all, Project Developers that are parties to this NUCRA are in Default, such Project Developers shall remain liable for any portion of their cost responsibility for the Costs of the Common Use Upgrades, and Cancellation Costs, in accordance with Schedule B of this NUCRA. Transmission Provider shall draw on and apply such defaulting Project Developer's Security to any amount under this NUCRA not paid by that Project Developer. Upon drawing on such Security, Project Developer is automatically in default of this NUCRA, and Project Developer's GIA and Construction Service Agreement; and all such agreements shall be deemed terminated and withdrawn, and Project Developer's project shall be removed from the relevant Cycle.

### **7.2.2 Reallocation of Costs upon Default by Project Developer:**

If a defaulting Project Developer cannot pay its amount due after exhausting all available Security, the unpaid costs shall be reallocated to the remaining Project Developers in proportion to the cost responsibility percentages set forth in Schedule B. A remaining Project Developer shall be entitled to exercise such other rights and remedies as it may have in equity or at law against the defaulting Project Developer that caused the reallocation of Costs under this section.

### **7.3 Survival of Rights:**

The obligations of the parties to this NUCRA with respect to payments, Cancellation Costs, warranties, liability and indemnification shall survive termination to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while the NUCRA was in effect. In addition, applicable provisions of this NUCRA will continue in effect after expiration, cancellation or termination to the extent necessary to provide for final billings, payments, and billing adjustments.

## **8 Force Majeure**

### **8.1 Notice:**

A party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify each other party in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

### **8.2 Duration of Force Majeure:**

A party shall not be considered to be in Default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other parties in writing as soon as reasonably possible after the occurrence of the cause relied upon. Those notices shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. Written notices given pursuant to this Article shall be acknowledged in writing as soon as reasonably possible. The party affected shall exercise

Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance. The party affected has a continuing notice obligation to the other parties, and must update the particulars of the original Force Majeure notice and subsequent notices, in writing, as the particulars change. The affected party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such party shall resume performance and give prompt written notice thereof to the other parties.

### **8.3 Obligation to Make Payments:**

Any party's obligation to make payments pursuant to applicable GIA, Construction Service Agreement, this NUCRA, or other relevant NUCRAs to which the Project Developer is a party shall not be suspended by Force Majeure.

### **8.4 Definition of Force Majeure:**

For the purposes of this section, shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or any other cause beyond a party's control that, in any of the foregoing cases, by exercise of due diligence, such party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force majeure does not include (i) a failure of performance that is due to an affected party's own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected party.

## **9 Confidentiality**

The Confidentiality provisions of the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party are incorporated by reference and shall apply to this NUCRA.

## **10 Information Access and Audit Rights**

### **10.1 Information Access:**

Subject to Applicable Laws and Regulations, each party to this NUCRA shall make available to each other party information necessary (i) to verify the costs incurred by the other party for which the requesting party is responsible under this Appendix 2, and (ii) to carry out obligations and responsibilities under this Appendix 2. The parties shall not use such information for



purposes other than those set forth in this section and to enforce their rights under this Appendix 2.

### **10.2 Reporting of Non-Force Majeure Events:**

Each party to this NUCRA shall notify each other party when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than an event of force majeure as defined in section 8 of this Appendix 2. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this section shall not entitle the receiving party to allege a cause of action for anticipatory breach of this Appendix 2.

### **10.3 Audit Rights:**

Subject to the requirements of confidentiality under section 9 of this Appendix 2, each party to this NUCRA shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent party, to audit at its own expense the other party's accounts and records pertaining to such party's performance and/or satisfaction of obligations arising under this NUCRA. Any audit authorized by this section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the other party not later than 24 months after the event as to which the audit is sought. Each party shall preserve all records held by it for the duration of the audit period.

## **11 Disputes**

### **11.1 Submission:**

Any claim or dispute that any party to this NUCRA may have against another party arising out of this Appendix 2 may be submitted for resolution in accordance with the dispute resolution provisions of Tariff, Part I, section 12.

### **11.2 Rights Under The Federal Power Act:**

Nothing in this section shall restrict the rights of any party to file a complaint with FERC under relevant provisions of the Federal Power Act.

### **11.3 Equitable Remedies:**

Nothing in this section shall prevent any party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations.

## **12 Notices**

### **12.1 General:**

Any notice, demand or request required or permitted to be given by any party to this NUCRA to another and any instrument required or permitted to be tendered or delivered by any party, in writing to another shall be provided electronically or may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the party, or personally delivered to the party, at the electronic or other address specified in the NUCRA.

### **12.2 Operational Contacts:**

Each party shall designate, and shall provide to each other party contact information concerning, a representative to be responsible for addressing and resolving operational issues as they arise during the term of the NUCRA.

## **13 Miscellaneous**

### **13.1 Regulatory Filing:**

In the event that this NUCRA contains any terms that deviate materially from the form included in Tariff, Part IX or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed NUCRA on behalf of itself with FERC as a service schedule under the Tariff. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 9 of this Appendix 2. A Project Developer shall have the right, with respect to any NUCRA tendered to it, to request in writing (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement~~, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted NUCRA, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any parties to this NUCRA.

### **13.2 Waiver:**

Any waiver at any time by any party of its rights with respect to a Breach or Default under this Appendix 2, or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any other Breach or Default or other matter.

### **13.3 Amendments and Rights Under the Federal Power Act:**

This NUCRA may be amended or supplemented only by a written instrument duly executed by all parties to this NUCRA. An amendment to the NUCRA shall become effective and a part of this NUCRA upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the

foregoing, nothing contained in this NUCRA shall be construed as affecting in any way any of the rights of any party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this NUCRA and every appendix referred to therein shall be amended, as mutually agreed by the parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

#### **13.4 Binding Effect:**

This NUCRA, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the parties.

#### **13.5 Regulatory Requirements:**

Each party's performance of any obligation under this NUCRA for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving party, or the party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

### **14 Representations and Warranties**

#### **14.1 General:**

Each party to this NUCRA hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the party during the time the NUCRA is effective:

##### **14.1.1 Good Standing:**

Such party is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated and operates as stated in the NUCRA.

##### **14.1.2 Authority:**

Such party has the right, power and authority to enter into the NUCRA, to become a party hereto and to perform its obligations hereunder. The NUCRA is a legal, valid and binding obligation of such party, enforceable against such party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**14.1.3 No Conflict:**

The execution, delivery and performance of the NUCRA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the party, or with any judgment, license, permit, order, material agreement or instrument applicable to or binding upon the party or any of its assets.

**14.1.4 Consent and Approval:**

Such party has sought or obtained, or, in accordance with the NUCRA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of the NUCRA and it will provide to any Governmental Authority notice of any actions under this Appendix 2 that are required by Applicable Laws and Regulations.

**SCHEDULE 12**  
**Transmission Enhancement Charges**

**(a) Establishment of Transmission Enhancement Charges.**

**(i) Establishment of Transmission Enhancement Charges by Transmission Owners and Entities That Will Become Transmission Owners.** One or more of the Transmission Owners may be designated to construct and own and/or finance Required Transmission Enhancements by (1) the Regional Transmission Expansion Plan periodically developed pursuant to ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~ or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (“Appendix B Agreement”) (collectively, for purposes of this Schedule 12 only, “Regional Transmission Expansion Plan”). ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.7 recognizes that Transmission Owners, subject to obtaining any necessary regulatory approvals, may seek to recover the costs of Required Transmission Enhancements and obligates PJM Settlement to collect on behalf of Transmission Owner(s) any charges established by Transmission Owners to recover the costs of Required Transmission Enhancements. If a Transmission Owner is designated by the Regional Transmission Expansion Plan to construct and own and/or finance a Required Transmission Enhancement, such Transmission Owner may choose any of the following cost recovery mechanisms, subject to the crediting procedures set forth in section (e) below:

- (1) Decline to seek to recover the costs of Required Transmission Enhancements from customers until such time as it makes a filing pursuant to Section 205 of the Federal Power Act to revise its Network Integration Transmission Service rates;
- (2) Make a filing pursuant Section 205 of the Federal Power Act and the FERC’s rules and regulations to establish the revenue requirement with respect to a Required Transmission Enhancement, without filing to revise its rates for Network Integration Transmission Service generally; or
- (3) Establish the revenue requirement with respect to a Required Transmission Enhancement through the operation of a formula rate in effect applicable to its rates for Network Integration Transmission Service.

A charge established to recover the revenue requirement with respect to a Required Transmission Enhancement is hereafter referred to as a “Transmission Enhancement Charge.” Transmission Enhancement Charges of one or more Transmission Owners for Required Transmission Enhancements shall be established in accordance with this Schedule 12.

**(ii) Establishment of Transmission Enhancement Charges With Respect to Required Transmission Enhancements Constructed by Entities in Another Region.** The revenue requirement with respect to a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement in another region by an entity designated by such other region shall be governed by the tariffs or agreements in effect in such region. Transmission Enhancement Charges to recover the costs of such Required Transmission Enhancement for which PJM is

responsible shall be determined in accordance with this Schedule 12. Other than with respect to a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement, no PJM Network or Transmission Customer will bear cost responsibility for any required transmission upgrades in another region as a consequence of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan.

**(iii) Transmission Facilities Not Eligible for Cost Responsibility Assignment.** Any alternating current (“A.C.”) facilities or direct current (“D.C.”) facilities that are Attachment Facilities, Local Upgrades, Merchant Network Upgrades, Merchant Transmission Facilities, Network Upgrades, Supplemental Projects, or any other Transmission Facilities that operate or are planned to be operated in a manner that requires customers to subscribe to transmission service over such facilities or to a portion of the electric capability of such facilities shall not be eligible for cost responsibility assignment pursuant to this Schedule 12.

**(iv) Entities Not Yet Eligible to Become Transmission Owners.** For purposes of this Schedule 12 only, the term, “Transmission Owner,” shall include any entity that undertakes to construct and own and/or finance a Required Transmission Enhancement pursuant to a designation in the Regional Transmission Expansion Plan to construct and own and/or finance such Required Transmission Enhancement, even if such entity is not yet eligible to become a party to the Consolidated Transmission Owners Agreement. Nothing in the PJM Tariff nor the Consolidated Transmission Owners Agreement shall prevent an entity that undertakes to construct and own and/or finance a Required Transmission Enhancement pursuant to a designation in the Regional Transmission Expansion Plan to construct and own and/or finance such Required Transmission Enhancement from recovering the costs of such Required Transmission Enhancement through this Schedule 12.

**(v) Effective Date.** The assignment of cost responsibility or classification of Required Transmission Enhancements either (1) made by the Transmission Provider prior to February 1, 2013, or (2) applicable to Required Transmission Enhancements approved by the PJM Board ~~pursuant to Operating Agreement, section 1.6~~ prior to February 1, 2013 are set forth in Tariff, Schedule 12-Appendix. Except as specifically set forth herein, nothing in this Schedule 12 shall change the assignment of cost responsibility or classification of Required Transmission Enhancements included in Tariff, Schedule 12-Appendix. The assignment of cost responsibility or classification of all other Required Transmission Enhancements shall be set forth in Tariff, Schedule 12-Appendix A.

**(b) Designation of Customers Subject to Transmission Enhancement Charges.**

**(i) Regional Facilities and Necessary Lower Voltage Facilities.** Transmission Provider shall assign cost responsibility on a region-wide basis for Required Transmission Enhancements included in the Regional Transmission Expansion Plan that (1) (a) are A.C. facilities that operate at or above 500 kV; (b) constitute a single Required Transmission Enhancement comprising two A.C. circuits operating at or above 345 kV and below 500 kV, where both circuits originate from a single substation or switching station at one end and terminate at a single substation or switching station at the other end, regardless of whether or not

the two circuits are routed in the same right-of-way (“Double-circuit 345 kV Required Transmission Enhancement”); (c) are A.C. or D.C. shunt reactive resources (such as capacitors, static var compensators, static synchronous condenser (STATCON), synchronous condensers, inductors, other shunt devices, or their equivalent) connected to a Transmission Facility described in clause (a) or (b) of this subsection, or (d) are D.C. facilities meeting the criteria set forth in subsection (b)(i)(D) (collectively, “Regional Facilities”), or (2) new A.C. Transmission Facilities or expansions or enhancements to existing Transmission Facilities that operate below 500 kV (or 345 kV in the case of a Regional Facility described in clause (1)(b) of this subsection) or new D.C. Transmission Facilities that do not meet the criteria of subsection (b)(i)(D) that must be constructed or strengthened to support new Regional Facilities, based on the planning criteria used by the Transmission Provider in developing the applicable Regional Transmission Expansion Plan (“Necessary Lower Voltage Facilities”) as follows:

(A) Cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities shall be allocated among Responsible Customers as defined in this Schedule 12 as follows:

(1) Fifty percent (50%) shall be assigned annually on a load-ratio share basis as follows:

(a) With respect to each Zone, using, consistent with Tariff, Part III, section 34.1, the applicable zonal loads at the time of such Zone’s annual peak load from the 12-month period ending October 31 preceding the calendar year for which the annual cost responsibility allocation is determined; and

(b) With respect to Merchant Transmission Facilities, (1) for the calendar year following the year in which it initiates operation, the actually awarded Firm Transmission Withdrawal Rights associated with its existing Merchant Transmission Facility; and (2) for all subsequent calendar years, the annual peak load of the Merchant Transmission Facility (not to exceed its actual Firm Transmission Withdrawal Rights) from the 12-month period ending October 31 of the calendar year preceding the calendar year for which the annual cost responsibility allocation is determined.

(2) Fifty percent (50%) shall be assigned as follows:

(a) In the case of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan to address one or more reliability violations or to address operational adequacy and performance issues (collectively, “Reliability Project”), in accordance with the distribution factor (“DFAX”) analysis described in subsection (b)(iii) or the analysis applicable to Regional Facilities that address stability issues described in subsection (b)(xviii) of this Schedule 12 as applicable; and

(b) In the case of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan to relieve one or more economic constraints as described in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19, section 1.5.7(b)(iii) (“Economic Project”), in accordance with the methodology described in subsection (b)(v) of this Schedule 12.

(B) (1) Except for transformers that are an integral component of a Regional Facility, transformers connected to Lower Voltage Facilities, as defined in section (b)(ii) of this Schedule 12, shall not be considered Regional Facilities or Necessary Lower Voltage Facilities; and (2) Transmission Facilities that are not Regional Facilities and deliver energy from a Regional Facility to load shall not be considered Necessary Lower Voltage Facilities.

(C) With respect Required Transmission Enhancements that qualify as Regional Facilities under subsection (b)(i)(1)(b) or subsection (b)(i)(D)(2) of this Schedule 12:

(1) where the Required Transmission Enhancement includes both new Transmission Facilities and pre-existing Transmission Facilities, cost responsibility under this section (b)(i) shall apply only to the cost of the new Transmission Facilities plus the original cost less accumulated depreciation of pre-existing Transmission Facilities that are included in Tariff, Schedule 12-Appendix or Tariff, Schedule 12-Appendix A;

(2) cost responsibility shall be assigned under this section (b)(i) only after the Required Transmission Enhancement goes into service as a Double-circuit 345 kV Required Transmission Enhancement or a Double-circuit D.C. Required Transmission Enhancement; and

(3) cost responsibility shall be assigned under this section (b)(i) for any CWIP permitted to be recovered before the Required Transmission Enhancement goes into service only after such Transmission Facilities are approved in a Regional Transmission Expansion Plan as a Double-circuit 345 kV Required Transmission Enhancement or a Double-circuit D.C. Required Transmission Enhancement.

(D) A Required Transmission Enhancement included in the Regional Transmission Expansion Plan that is a D.C. facility, consisting of D.C. lines (i.e., wires or cables) and A.C./D.C. converters, shall be a Regional Facility only if:

(1) such D.C. facility comprises two poles and operates at a voltage of  $\pm 433$  kV D.C. or above; or

(2) such D.C. Facility constitutes a single Required Transmission Enhancement comprising two D.C. circuits where (i) both circuits originate from a single substation or switching station at one end and terminate at a single substation or switching station at the other end, regardless of whether or not both circuits are routed in the same right-of-way, and (ii) each such circuit consists of two poles and operates at a voltage of  $\pm 298$  kV D.C. or above (“Double-circuit D.C. Required Transmission Enhancement”).

**(ii) Lower Voltage Facilities.** Transmission Provider shall assign cost responsibility for Required Transmission Enhancements that (a) are not Regional Facilities; and (b) are not “Necessary Lower Voltage Facilities” as defined in section (b)(i) of this Schedule 12 (collectively “Lower Voltage Facilities”), as follows:

(A) If the Lower Voltage Facility is a Reliability Project, Transmission Provider shall use the DFAX analysis described in subsection (b)(iii) or the analysis applicable to



Regional Facilities that address stability issues described in subsection (b)(xviii) of this Schedule 12 as applicable; and

(B) If the Lower Voltage Facility is an Economic Project, Transmission Provider shall use the methodology described in subsection (b)(v) of this Schedule 12.

**(iii) DFAX Analysis for Reliability Projects.**

(A) For purposes of the assignment of cost responsibility for Reliability Projects under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12, the Transmission Provider, based on a computer model of the electric network and using power flow modeling software, shall calculate distribution factors, represented as decimal values or percentages, which express the portions of a transfer of energy from a defined source to a defined sink that will flow across a particular transmission facility or group of transmission facilities. These distribution factors represent a measure of the use by the load of each Zone or Merchant Transmission Facility (collectively, “Responsible Zone”) of the Required Transmission Enhancement, as determined by a power flow analysis. In general, a distribution factor can be represented as:

Distribution Factor = (After-shift power flow – pre-shift power flow) / Total amount of power shifted

Total amount of power shifted = Modeled incremental megawatt transfer to a given Load Deliverability Area or Merchant Transmission Facility

Pre-shift power flow = Megawatt flow over the Required Transmission Enhancement before the incremental megawatt transfer

After-shift power flow = Megawatt flow over the Required Transmission Enhancement after the incremental megawatt transfer

When calculating such distribution factors:

(1) All distribution factors are calculated with respect to the Required Transmission Enhancement subject to cost allocation under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12.

(2) The calculation of distribution factors shall be determined using linear matrix algebra, such that distribution factors represent the ratio of (i) a change in megawatt flow on a Required Transmission Enhancement to (ii) a change in megawatts transferred to aggregate load within a Zone or, in the case of a Merchant Transmission Facility, the point of withdrawal associated with Firm Transmission Withdrawal Rights over such Merchant Transmission Facility.

(3) With respect to a Merchant Transmission Facility, zonal peak load shall mean (i) the existing Firm Transmission Withdrawal Rights of the Merchant Transmission

Facility being evaluated, if the Merchant Transmission Facility is in service, or (ii) for a Merchant Transmission Facility that is not yet in service, the planned Firm Transmission Withdrawal Rights of the Merchant Transmission Facility being evaluated as identified in the Interconnection Service Agreement in effect for such Merchant Transmission Facility.

(4) In the DFAX analysis, when Transmission Provider models a transfer from generation to all load within an individual Zone, Transmission Provider shall model the transfer to the Zone as a whole (not on a bus-by-bus basis).

(5) In the DFAX analysis, Transmission Provider shall model generation both external and internal to individual Responsible Zones to reflect (a) the boundaries of Locational Deliverability Areas (“LDAs”), and (b) limitations with respect to the reliability objective for moving generation capacity across the transmission system. Transmission Provider shall adopt the Capacity Emergency Transfer Objective (“CETO”), associated with that LDA and calculated for the applicable planning year to be the transfer limitation into the LDA. In modeling the system generation and load, Transmission Provider shall assume that the percentage of the zonal load in the LDA served by external (or internal) generation to the LDA shall equal the ratio of (i) the CETO associated within that LDA (or generation internal with the LDA) to (ii) the sum of (a) the internal generation within the LDA and (b) the CETO associated with that LDA. For the generation dispatch used in calculating the distribution factor, Transmission Provider shall distribute these amounts of external/internal generation among all generation in the PJM Region external to/internal within the LDA, respectively, in proportion to their capacity. For Responsible Zones that are located within LDAs that are also entirely contained in other larger LDAs, the modeling approach and distribution factor calculations shall be repeated for such Responsible Zones for each LDA. The lowest distribution factor derived from these calculations shall be applied to the Responsible Zone in the calculation of the use of the Required Transmission Enhancement.

(6) Except as provided in this subsection, no cost responsibility shall be assigned to a Responsible Zone unless the magnitude of the distribution factor is greater than or equal to 0.01, and any distribution factor of a smaller magnitude shall be set equal to zero. This rule shall not apply to the Zone(s) in which the Required Transmission Enhancement is located, which shall be assigned cost responsibility based on its distribution factor, regardless of the magnitude.

(B) The DFAX analysis will be performed in accordance with the following steps:

(1) Transmission Provider shall calculate a distribution factor and a direction of use for each Responsible Zone by modeling a transfer from all generation in the PJM Region to each Responsible Zone. To establish the use by a Responsible Zone, in megawatts, of a Required Transmission Enhancement, the distribution factor of a Required Transmission Enhancement associated with the resulting transfer modeled by the Transmission Provider to each Responsible Zone shall be multiplied by the Responsible Zone’s peak load.

(2) The Transmission Provider shall separately determine the relative use of the Required Transmission Enhancement by each Responsible Zone in each direction by dividing the megawatts of use by each Responsible Zone determined in section (iii)(B)(1) above by the total use of all Responsible Zones using the Required Transmission Enhancement in the same direction of use.

(3) Transmission Provider shall determine the direction of use percentage of the Required Transmission Enhancement in each direction using a production cost analysis to determine the total use, in megawatt-hours, of the Required Transmission Enhancement by all Zones and Merchant Transmission Facilities in each direction over the course of a year. The Transmission Provider shall calculate the percentage use in each direction by dividing the megawatt-hours of use in each direction by total use in megawatt-hours in both directions of use.

(4) The Transmission Provider shall multiply the relative use by each Responsible Zone of the Required Transmission Enhancement in each direction of use determined in section (iii)(B)(2) above, by the applicable direction of use percentage determined in section (iii)(B)(3) above.

(5) The products of the calculation performed in section (iii)(B)(4) above, shall determine the relative allocation to each Responsible Zone of cost responsibility for the Required Transmission Enhancement.

(C) In the DFAX analysis, the Zones of Public Service Electric and Gas Company and Rockland Electric Company will be treated as one Zone unless and until Rockland Electric Company elects to be treated as a separate Zone in accordance with the terms of the Settlement Agreement And Offer Of Partial Settlement approved by FERC in Docket Nos. ER06-456-000, et al.

(D) Transmission Provider shall round cost responsibility assignments determined using the DFAX analysis described in subsection (b)(iii) of this Schedule 12 to the nearest one-hundredth of one percent.

(E) Transmission Provider shall not account for the ability to adjust use of phase angle regulators (“PARs”) in the DFAX analysis described in subsection (b)(iii) of this Schedule 12. In the DFAX analysis, all PAR angles shall be fixed at their base case settings.

(F) In the DFAX analysis, if the Required Transmission Enhancement is a D.C. facility, the Transmission Provider shall determine cost responsibility assignment as follows:

(1) The Required Transmission Enhancement shall be replaced in the model with a comparable proxy A.C. facility, the impedance of which shall be calculated based on the length of the D.C. facility that was removed from the model multiplied by an approximate per unit/mile impedance value for the proxy A.C. facility.

(2) Where a D.C. facility is an integral part of a Required Transmission Enhancement that also includes A.C. facilities, the methodology described in subsection (b)(iii)(F)(1) above shall be used only for the D.C. facility segment of such Required Transmission Enhancement.

(3) A D.C. facility used to control flow over portions of the Transmission System shall be modeled with a zero impedance and no control shall be applied.

(G) If Transmission Provider determines in its reasonable engineering judgment that, as a result of applying the provisions in section (b)(iii) of this Schedule 12, the DFAX analysis cannot be performed or that the results of such DFAX analysis are objectively unreasonable, the Transmission Provider may use an appropriate substitute proxy for the Required Transmission Enhancement in conducting the DFAX analysis. If a proxy is used that is not specified in this Schedule 12, Transmission Provider shall state in a written report (a) the reasons why it determined the DFAX analysis could not be performed or that the results of the DFAX analysis were objectively unreasonable; (b) why the substitute proxy produced objectively reasonable results; and (3) a recommendation as to what changes, if any, should be considered in conducting the DFAX analysis.

(H) The Transmission Provider shall make a preliminary cost responsibility determination for each Required Transmission Enhancement subject to section (b)(iii) of this Schedule 12 at the time such Required Transmission Enhancement is included in the Regional Transmission Expansion Plan.

(1) When CWIP in connection with a Required Transmission Enhancement subject to this section (b)(iii) of this Schedule 12 is entitled to be recovered, the preliminary determination of cost responsibility made at the time that the Required Transmission Enhancement was included in the Regional Transmission Expansion Plan shall be used to assign cost responsibility for such CWIP and such cost responsibility shall remain unchanged until the date the Required Transmission Enhancement goes into service. Once a Required Transmission Enhancement has gone into service, the updated cost responsibility determination provided for in subsection (b)(iii)(H)(2) below shall apply.

(2) Beginning with the calendar year in which a Required Transmission Enhancement is scheduled to enter service, and thereafter annually at the beginning of each calendar year, the Transmission Provider shall update the preliminary cost responsibility determination for each Required Transmission Enhancement using the values and inputs used in the base case of the most recent Regional Transmission Expansion Plan approved by the PJM Board prior to the date of the update. All values and inputs used in the calculation of the distribution factor in a determination of cost responsibility shall be the same values and inputs as used in the base case of the most recent Regional Transmission Expansion Plan approved by the PJM Board prior to the determination of cost responsibility.

**(iv) Spare Parts, Replacement Equipment And Circuit Breakers.** Transmission Provider shall assign cost responsibility for spare parts, replacement equipment, and circuit

breakers and associated equipment, included in the Regional Transmission Expansion Plan as follows:

(A) Spare parts that are part of the design specifications of a Required Transmission Enhancement at the time such Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in subsection (b)(vi) of this Schedule 12 and cost responsibility for such spare parts shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for spare parts independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a Required Transmission Enhancement as described above in this subsection shall be assigned to the Zone of the owner of the spare part, if the owner of the spare part is a Transmission Owner listed in Tariff, Attachment J. If the owner of the spare part is not a Transmission Owner listed in Tariff, Attachment J, cost responsibility shall be assigned on a pro rata basis to the zones that bear cost responsibility for the owner's Required Transmission Enhancements.

(B) Replacement equipment that is part of the design specifications of a Required Transmission Enhancement at the time the Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in section (b)(vi) of this Schedule 12 and cost responsibility for such replacement equipment shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for Required Transmission Enhancement replacement equipment independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a Required Transmission Enhancement as described above in this subsection, shall be assigned to the same Zones and/or Merchant Transmission Facilities and in the same proportions as the then-existing assignments of cost responsibility for the facilities that the replacement equipment is replacing.

(C) Circuit breakers and associated equipment that are part of the design specifications of a Required Transmission Enhancement at the time the Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in subsection (b)(vi) of this Schedule 12 and cost responsibility for such circuit breakers and associated equipment shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for circuit breakers and associated equipment independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a transmission element of a Required Transmission Enhancement as described above in this subsection, shall be assigned to the Zone of the owner of the circuit breaker and associated equipment if the owner of the circuit breaker is a Transmission Owner listed in Tariff, Attachment J. If the owner of the circuit breaker is not a Transmission Owner listed in Tariff, Attachment J, cost responsibility shall be assigned on a pro rata basis to the zones that bear cost responsibility for the owner's Required Transmission Enhancements.

(v) **Economic Projects.** Transmission Provider shall assign (i) fifty percent (50%) of cost responsibility for Economic Projects that are Regional Facilities; and (ii) full cost responsibility for Economic Projects that are Lower Voltage Facilities; as follows:

(A) Transmission Provider shall assign cost responsibility for Economic Projects that are accelerations of Reliability Projects as described in ~~Operating Agreement, Schedule 6~~ **Tariff, Schedule 19**, section 1.5.7(b)(i) (“Acceleration Projects”) by performing and comparing (1) a DFAX analysis consistent with the methodology described in subsection (b)(iii) of this Schedule 12, and (2) a methodology that is intended to act as a proxy for expected economic benefits from reduced Locational Marginal Prices (“LMP Benefit”) over the period that the reliability-based enhancement or expansion is to be accelerated (“LMP Benefits Methodology”). The LMP Benefits Methodology shall determine cost responsibility assignment percentages to Zones and Merchant Transmission Facilities in the following manner. The LMP Benefit to a Zone shall be deemed to be equal to the reduction in Locational Marginal Price payments made by Load Serving Entities as a result of the Acceleration Project assuming the customers purchase all energy needs from the PJM Interchange Energy Market, and LMP Benefits so calculated shall be converted into percentage cost responsibility assignments for the affected Zones. The LMP Benefits Methodology shall not incorporate the financial effects of allocations of Auction Revenue Rights or Financial Transmission Rights. The LMP Benefit to a Merchant Transmission Facility shall be deemed to be equal to the proportionate share of assigned cost responsibility using the DFAX analysis and the assignments of cost responsibility to other Zones in the LMP Benefits Methodology shall be proportionately adjusted, as necessary, to reflect this treatment of Merchant Transmission Facilities to ensure that the total allocation for any economic-based Required Transmission Enhancement equals one hundred percent. If, after performing both analyses and comparing the percentage cost responsibility assignments for the affected Zones calculated pursuant to the DFAX analysis and the LMP Benefits Methodology, the results do not indicate at least a ten percentage point cost responsibility assignment differential between the two methods for any Zone, cost responsibility for the Acceleration Project shall be assigned using the DFAX analysis. If, after performing both analyses and comparing the percentage cost responsibility assignments for the affected Zones calculated pursuant to the DFAX analysis and LMP Benefits Methodology, the results indicate at least a ten percentage point cost responsibility assignment differential between the DFAX analysis and the LMP Benefits Methodology for any Zone, cost responsibility for the Acceleration Project for the period of time the Reliability Project is accelerated (i.e. the period between the date the Reliability Project actually goes into service and the date the Reliability Project originally was scheduled to go in service in the PJM Board approved Regional Transmission Expansion Plan) shall be assigned using the LMP Benefits Methodology. For all periods other than the period of time the Reliability Project is accelerated, cost responsibility for such an Acceleration Project shall be assigned in accordance with the provisions of this Schedule 12 governing the assignment of cost responsibility of Regional Facility Reliability Projects or Lower Voltage Facility Reliability Projects, as applicable.

(B) Transmission Provider shall assign cost responsibility for Economic Projects that are modifications to Reliability Projects as described in ~~Operating Agreement, Schedule 6~~ **Tariff, Schedule 19**, section 1.5.7(b)(ii) in accordance with the provisions of this

Schedule 12 governing the assignment of cost responsibility of Regional Facility Reliability Projects or Lower Voltage Facility Reliability Projects, as applicable.

(C) Transmission Provider shall assign cost responsibility for Economic Projects that are new enhancements or expansions that could relieve one or more economic constraints as described in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.7(b)(iii) to the Zones that show a decrease in the net present value of the Changes in Load Energy Payment. The Change in Load Energy Payment for each year shall be determined using the methodology set forth in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.7(d) for the period specified in that section. Cost responsibility shall be assigned based on each Zone's pro rata share of the sum of the net present values of the Changes in Load Energy Payment only of the Zones in which the net present value of the Changes in Load Energy Payment shows a decrease.

**(vi) Required Transmission Enhancements Costing Less Than \$5 Million.**

Notwithstanding sections (b)(i), (b)(ii), (b)(iv) and (b)(v) of this Schedule 12, cost responsibility for a Required Transmission Enhancement for which the good faith estimate of the cost of the Required Transmission Enhancement (a) prepared in connection with the development of the Regional Transmission Expansion Plan and (b) provided to the PJM Board at the time the Required Transmission Enhancement is included for the first time in the Regional Transmission Expansion Plan, does not equal or exceed \$5 million shall be assigned to the Zone where the Required Transmission Enhancement is to be located. The determination of whether the estimated cost of a Required Transmission Enhancement does not equal or exceed \$5 million shall be based solely on such good faith estimate of the cost of the Required Transmission Enhancement regardless of the actual costs incurred. The estimated cost of a Required Transmission Enhancement shall include the aggregate estimated costs of all of the transmission elements approved by the PJM Board at the time such elements are included in the Regional Transmission Expansion Plan that collectively are intended (i) in the case of a Reliability Project, to resolve a specific reliability criteria violation, or (ii) in the case of an Economic Project, provide a specific LMP Benefit. Where a Required Transmission Enhancement subject to this section (b)(vi) consists of a single transmission element or multiple transmission elements that will be located in more than one Zone, each Zone shall be assigned cost responsibility for the transmission elements or portions of the transmission elements located in such Zone. Merchant Transmission Facilities shall not be assigned cost responsibility for a Required Transmission Enhancement subject to this section (b)(vi).

**(vii) Modifications of Required Transmission Enhancements.** Once a Required Transmission Enhancement is included in the Regional Transmission Expansion Plan, any modification to such Required Transmission Enhancement that subsequently is included in the Regional Transmission Expansion Plan as a separate Reliability or Economic Project shall be considered a separate and distinct Required Transmission Enhancement for purposes of cost responsibility assignment under this Schedule 12. Except as provided in sections (b)(iv) and (b)(xiv) of this Schedule 12, any cost responsibility assignment that has been made for a previously approved Required Transmission Enhancement shall have no impact on the cost responsibility assignment of such modification.

**(viii) FERC Filing.** Within 30 days of the approval of each Regional Transmission Expansion Plan or an addition to such plan by the PJM Board pursuant to ~~Operating Agreement, Schedule 6~~ **Tariff, Schedule 19**, section 1.6, the Transmission Provider shall designate in the Tariff, Schedule 12-Appendix A and in a report filed with the FERC the customers using Point-to-Point Transmission Service and/or Network Integration Transmission Service and Merchant Transmission Facility owners that will be subject to each such Transmission Enhancement Charge (“Responsible Customers”) based on the cost responsibility assignments determined pursuant to this Schedule 12. Those customers designated by the Transmission Provider as Responsible Customers shall have 30 days from the date the filing is made with the FERC to seek review of such designation. Such cost responsibility designations shall be the same as those made for the relevant Regional Facility, Necessary Lower Voltage Facility, or Lower Voltage Facility in the Regional Transmission Expansion Plan.

**(ix) Regions With Which PJM Has Entered Into an Agreement Listed in Schedule 12-Appendix B .** For purposes of this Schedule 12, where costs of a Required Transmission Enhancement are allocated to a region other than PJM pursuant to an agreement set forth in Tariff, Schedule 12-Appendix B, Responsible Customers for such costs shall be customers in such region. Cost responsibility with respect to the costs of a Required Transmission Enhancements allocated to a region other than PJM shall be allocated within such region in accordance with the applicable tariff or agreement governing the allocation of such costs in such region.

**(x) Merchant Transmission Facilities.**

(A) For purposes of this Schedule 12, where the Transmission Provider has allocated all or a portion of a Required Transmission Enhancement to a Merchant Transmission Facility, the owner of the Merchant Transmission Facility shall be the Responsible Customer with respect to such Required Transmission Enhancement, and shall pay the Transmission Enhancement Charges associated with the Required Transmission Enhancement.

(B) (1) Transmission Provider shall defer collection of Transmission Enhancement Charges from a Merchant Transmission Facility until the Merchant Transmission Facility goes into commercial operation; provided, however, in the event the commercial operation of a Merchant Transmission Facility is delayed beyond the commercial operation milestone date(s) specified in the Interconnection Service Agreement associated with the Merchant Transmission Facility and the Transmission Provider or Transmission Owner constructing the Required Transmission Enhancement demonstrates that the Merchant Transmission Facility is responsible for such delay, Transmission Provider may begin collecting Transmission Enhancement Charges from the Merchant Transmission Facility prior to the Merchant Transmission Facility going into commercial operation. Transmission Enhancement Charges allocated to a Merchant Transmission Facility for which collection is deferred in accordance with this section (b)(x)(B)(1) shall be recorded in appropriate Transmission Provider accounts for deferred charges and collected in accordance with section (b)(x)(B)(3) below.

(2) Transmission Provider shall base the collection of Transmission Enhancement Charges associated with Required Transmission Enhancements from a Merchant



Transmission Facility on the actual Firm Transmission Withdrawal Rights that have been awarded to the Merchant Transmission Facility; provided, however, to the extent that a Merchant Transmission Facility has been awarded less than the amount of Firm Transmission Withdrawal Rights specified in the Interconnection Service Agreement associated with the Merchant Transmission Facility, then Transmission Provider shall record the difference between the amount of Transmission Enhancement Charges collected based on the lesser amount of Firm Transmission Withdrawal Rights and the amount of Transmission Enhancement Charges based on the full amount of Firm Transmission Withdrawal Rights specified in the applicable Interconnection Service Agreement in appropriate accounts for deferred charges and, after the Merchant Transmission Facility has been awarded the full amount of Firm Transmission Withdrawal Rights specified in the Interconnection Service Agreement, collect such deferred amounts in accordance with section (b)(x)(B)(3) below. Notwithstanding the foregoing, Transmission Provider may collect Transmission Enhancement Charges based on more than a Merchant Transmission Facility's actually awarded Firm Transmission Withdrawal Rights (not to exceed the Firm Transmission Withdrawal Rights specified in the applicable Interconnection Service Agreement) if the Transmission Provider or Transmission Owner demonstrates that the Merchant Transmission Facility is responsible for receiving fewer Firm Transmission Withdrawal Rights than are specified in the applicable Interconnection Service Agreement.

(3) Transmission Provider shall record: (i) in an appropriate deferred asset account, the Transmission Enhancement Charges associated with Required Transmission Enhancements for which collection is deferred in accordance with sections (b)(x)(B)(1) and (b)(x)(B)(2) above; and (ii) in an appropriate deferred liability account, the revenues associated with the Transmission Enhancement Charges that, absent the deferred charges, would have been due to Transmission Owners or to Transmission Owners' customers as directed by the applicable Transmission Owner. At such time as collection of such deferred Transmission Enhancement Charges are permitted in accordance with sections (b)(x)(B)(1) and (b)(x)(B)(2) above, the deferred charges (along with appropriate interest) shall be collected from the Merchant Transmission Facility in equal installments over the twelve months following the commencement of the collection of the deferred charges. Such amounts shall be distributed to Transmission Owners or to Transmission Owners' customers as directed by the applicable Transmission Owner, and the Transmission Provider shall make appropriate adjustments to the deferred asset and liability accounts. Transmission Provider shall not be responsible for distributing revenues associated with deferred Transmission Enhancement Charges unless and until such charges are collected in accordance with this section (b)(x)(B), and uncollected deferred Transmission Enhancement Charges shall not be subject to Default Allocation Assessments to the Members pursuant to Operating Agreement, section 15.2.

**(xi) Consolidated Edison Company of New York.** (A) Cost responsibility assignments to Consolidated Edison Company of New York for Required Transmission Enhancements pursuant to this Schedule 12 with respect to the Firm Point-To-Point Service Agreements designated as Original Service Agreement No. 1873 and Original Service Agreement No. 1874 accepted by the Commission in Docket No. ER08-858 ("ConEd Service Agreements") shall be in accordance with the terms and conditions of the settlement approved by the FERC in Docket No. ER08-858-000. (B) All cost responsibility assignments for Required Transmission Enhancements pursuant to this Schedule 12 shall be adjusted at the commencement

and termination of service under the ConEd Service Agreements to take account of the assignments under subsection (xi)(A) of this section.

**(xii) Public Policy Projects.**

(A) Transmission Facilities as defined in Consolidated Transmission Owners Agreement, section 1.27 constructed by a Transmission Owner pursuant to a Public Policy Requirement but not included in a Regional Transmission Expansion Plan as a Required Transmission Enhancement, shall be as considered a Supplemental Project.

(B) If a transmission enhancement or expansion is proposed pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.9(a) which is not a Supplemental Project (“State Agreement Public Policy Project”), the Transmission Provider shall submit the assignment of costs to Responsible Customers proposed in connection with such State Agreement Public Policy Project to the Transmission Owners Agreement Administrative Committee for consideration and filing pursuant to Consolidated Transmission Owners Agreement, section 7.3 and Tariff, Part I, section 9.1(a). Nothing in this section (b)(xii) shall prevent the Transmission Provider or the state governmental entities proposing such State Agreement Public Policy Project from filing a proposed assignment of costs to Responsible Customers for such project pursuant to Section 206 of the Federal Power Act.

**(xiii) Replacement of Transmission Facilities.** Unless determined by PJM to be a Required Transmission Enhancement included in a Regional Transmission Expansion Plan, cost responsibility for the replacement of Transmission Facilities, as defined in Consolidated Transmission Owners Agreement, section 1.27, shall be assigned to the Zonal loads and Merchant Transmission Facilities responsible for the costs of the Transmission Facilities being replaced.

**(xiv) Multi-Driver Projects.**

(A) Assignment of Proportional Multi-Driver Project Costs. The Transmission Provider shall assign cost responsibility for Proportional Multi-Driver Projects in proportion to the relative percentage benefit that each driver of a Proportional Multi-Driver Project addresses, respectively, reliability violations or operational performance (“reliability”), economic constraints (“economic”) and/or Public Policy Requirements (“public policy”) as follows:

(1) As part of the open planning process provided for in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.10(h), the Transmission Provider employs the Proportional Method to develop a Proportional Multi-Driver Project, by determining which of the following drivers a Proportional Multi-Driver Project addresses: reliability, economic, or public policy, and the extent to which each such driver contributes to the size, scope, and estimated costs of such Proportional Multi-Driver Project (irrespective of the reliability cost allocation treatment that is otherwise accorded an incremental market efficiency modification thereto pursuant to section (b)(v)(B) of this Schedule 12). The Transmission Provider shall identify the

contribution of each driver in terms of a percentage totaling 100 percent for all such drivers at the time that each Proportional Multi-Driver Project is submitted to the PJM Board for approval and included in the Regional Transmission Expansion Plan. The percentage contribution of each driver shall be based on the ratio of the estimated cost of each project that the Multi-Driver Project replaces to the total of the estimated costs of all projects combined into the Multi-Driver Project.

(2) Once a Proportional Multi-Driver Project is approved by the PJM Board, the percentage contributions of each driver shall not be changed unless the PJM Board subsequently approves an upgrade or modification to the Proportional Multi-Driver Project. In that event, the cost responsibility for the Proportional Multi-Driver Project, including any costs incurred prior to the upgrade or modification, will be determined as if it were a new Proportional Multi-Driver Project, such that the percentage contribution for each driver shall be established anew.

(B) Assignment of Incremental Multi-Driver Project Costs. The Transmission Provider shall assign cost responsibility for Incremental Multi-Driver Projects as defined in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.15B using the same methodology described in section (b)(xiv)(A)(1) above treating the estimated cost of modifying the original project as if it were the estimated cost of a separate project included in a Proportional Multi-Driver Project. Any costs that had been expended on the original project prior its designation by Transmission Provider as an Incremental Multi-Driver Project shall be included in the calculation of the Incremental Multi-Driver Project pursuant to this section (b)(xiv)(B).

(C) The Transmission Provider shall separately assign cost responsibility for the costs assigned to each driver pursuant to this section (b)(xiv) in accordance with the provisions of this Schedule 12 governing the assignment of cost responsibility for a single driver project of each driver's respective type (reliability, economic or public policy). Except as provided in section (b)(xiv)(D) below, cost responsibility will be assigned based on the final voltage and configuration of the Multi-Driver Project determined in accordance with sections (b)(i), (b)(ii), or (b)(vi) of this Schedule 12.

(D) Notwithstanding the cost assignments that would otherwise be provided for in section (b)(xiv)(C) above, if a Multi-Driver Project includes a public policy driver that is the result of the State Agreement Approach provided for in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.9 and is a Regional Facility as defined in section (b)(i) of this Schedule 12 and such Multi-Driver Project would not be a Regional Facility but for the inclusion of the public policy driver, then the percentage of costs of such Multi-Driver Project assigned to the non-public policy drivers in accordance with the procedures set forth in section (b)(i)(A)(1) above shall be twenty percent (20%) and the percentage of costs assigned to the non-public policy drivers of such Multi-Driver Project in accordance section (b)(i)(A)(2) above shall be eighty percent (80%), and not the fifty percent (50%) cost responsibility percentages provided for in section (b)(i)(A)(i) and section (b)(i)(A)(2), respectively, of this Schedule 12.

(xv) *Reserved.*

**(xvi) Required Transmission Enhancements Designed to Address Reliability Violations on Transmission Facilities Operating Below 200 kV.** Notwithstanding section (b)(ii), above, cost responsibility for any Required Transmission Enhancements that are included in the Regional Transmission Expansion Plan to address reliability violations on Transmission Facilities that are designed to operate at below 200 kV and, pursuant to ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.5.8(n), were not included in an ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.5.8(c) proposal window, shall be assigned to the Responsible Customers in the Zone where the Required Transmission Enhancement is to be located.

**(xvii) Required Transmission Enhancements Constructed As Targeted Market Efficiency Projects Under The Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. Coordinated System Plan.** Notwithstanding sections (b)(i), (b)(ii), (b)(iv), (b)(v), (b)(vi) and (b)(x)(B)(2) of this Schedule 12, cost responsibility for the costs of a Required Transmission Enhancement that is included in the Regional Transmission Expansion Plan because it is a Targeted Market Efficiency Project (“TMEP”) identified in the Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (“PJM-MISO JOA”) and assigned to PJM pursuant to PJM-MISO JOA, section 9.4.4.2.5, shall be assigned among Zones and Merchant Transmission Facilities in accordance with this section (b)(xvii). Using the Targeted Market Efficiency Project study conducted pursuant to PJM-MISO JOA, section 9.3.7.2(c) of in which the TMEP was identified, the Transmission Provider shall determine, in accordance with Tariff, Attachment K-Appendix, section 5.1, the average annual Transmission Congestion Charges experienced by Market Buyers in Zones and at Merchant Transmission Facilities attributable to the targeted Reciprocal Coordinated Flowgate during the two historical calendar years prior to the study year of the Targeted Market Efficiency Project study. In making this determination, the Transmission Provider shall net any increases in Day-ahead and Real-time Prices paid by Market Buyers in a Zone or at a Merchant Transmission Facility against any decreases in Day-ahead and Real-time Prices paid by Market Buyers in such Zone or at such Merchant Transmission Facility attributable to the targeted Reciprocal Coordinated Flowgate. Where a single TMEP is constructed to reduce Transmission Congestion Charges attributable to more than one targeted Reciprocal Coordinated Flowgate, the Transmission Provider shall net any increases in Day-ahead and Real-time Prices paid by Market Buyers in a Zone or at a Merchant Transmission Facility against any decreases in Day-ahead and Real-time Prices paid by Market Buyers in such Zone or at such Merchant Transmission Facility attributable to all targeted Reciprocal Coordinated Flowgates. Cost responsibility shall be assigned based on each Zone’s and Merchant Transmission Facility’s pro rata share of the sum of the net Transmission Congestion Charges paid by Market Buyers only of the Zones and Merchant Transmission Facilities in which Market Buyers experienced net Transmission Congestion Charges.

**(xviii) Required Transmission Enhancements Designed to Address Stability Issues.** For purposes of the assignment of cost responsibility for Reliability Projects designed to address stability issues under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12, the

Transmission Provider shall, using the same inputs and assumptions from the simulation that originally drove the need for the stability upgrade, perform a stability simulation that includes the stability upgrade under the worst fault condition. The worst fault condition shall be the fault condition in the simulation that produces the maximum rotor angle swing with the stability upgrade included. For each load bus on the system, the difference between the highest and lowest voltage angle that occurs during the simulation of the worst fault condition will be recorded. Load buses having a voltage angle deviation less than 25 percent of the load bus with the largest voltage angle deviation will not be included in the cost allocation calculation. For the remaining load buses, the voltage angle deviation will be multiplied by the megawatt load at the bus obtained from the stability simulation model, or, in the case of a Merchant Transmission Facility, the Firm Transmission Withdrawal Rights at the bus. The products of the voltage angle deviation and megawatt load at each bus will be summed for each Responsible Zone. The Stability Deviation cost allocation for a Responsible Zone or Merchant Transmission Facility will be determined by dividing the sum of the load-weighted angle deviations for the Responsible Zone or Merchant Transmission Facility by the sum of the load-weighted angle deviations for each Responsible Zone and Merchant Transmission Facility. Transmission Provider shall round cost responsibility assignments to the nearest one-hundredth of one percent.

**(c) Determination of Transmission Enhancement Charges.** In the event that any Transmission Owner recovers the cost of a Required Transmission Enhancement through a Transmission Enhancement Charge, such charge shall be determined as follows:

- (1) Transmission Provider shall identify in writing and post on the PJM Internet site the Required Transmission Enhancement(s) to which each Transmission Enhancement Charge corresponds. The Transmission Enhancement Charge with respect to a Required Transmission Enhancement shall recover the applicable Transmission Owner's annual transmission revenue requirement associated with the Required Transmission Enhancement.
- (2) Each Transmission Enhancement Charge shall be a monthly charge based on all costs and applicable incentives associated with a particular Required Transmission Enhancement for which the Transmission Owner is responsible.
- (3) A Transmission Owner's annual transmission revenue requirement associated with a Required Transmission Enhancement shall be determined pursuant to either (i) a unilateral filing by the Transmission Owner under Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder; or (ii) a formula rate in effect applicable to the Transmission Owner's rates for Network Integration Transmission Service, including the costs associated with Required Transmission Enhancements.
- (4) Each Transmission Enhancement Charge applicable to Network Customers and Non-Zone Network Customers shall be recalculated annually to reflect the annual revisions to the billing determinants used by the Transmission Provider to calculate charges to Network Customers for Network Integration Transmission Service under Tariff, Part III, section 34.1. The Transmission Provider shall post on its Internet site by

October 31 of each calendar year each recalculated Transmission Enhancement Charge that shall be effective during the subsequent calendar year.

(5) Each Transmission Enhancement Charge applicable to customers using Point-To-Point Transmission Service shall be calculated monthly to reflect the billing determinants used by the Transmission Provider to determine charges for customers of Point-To-Point Transmission Service in accordance with Tariff, Part II, section 25.

(6) Each Transmission Enhancement Charge payable by an owner of a Merchant Transmission Facility pursuant to section (b) of this Schedule 12 shall be calculated as a fixed monthly charge.

(7) If a Transmission Owner chooses to recover the cost of Required Transmission Enhancements through the operation of a formula rate as described in section (a) of this Schedule 12, the Transmission Owner must make an informational filing with the Commission one year from the date the selecting Transmission Owner's formula rates go into effect, and each year thereafter, providing a detailed list of the costs the Transmission Owner has incurred, and the revenues the Transmission Owner has received to provide service.

**(d) Recovery of Transmission Enhancement Charges.**

(1) Responsible Customers shall pay Transmission Provider all applicable Transmission Enhancement Charges as required by this Schedule 12 in addition to all other charges for transmission service for which such Responsible Customers are responsible under the Tariff.

(2) Transmission Provider shall collect all applicable Transmission Enhancement Charges from each Responsible Customer on a monthly basis. Transmission Provider shall remit or credit all revenues received from Responsible Customers under this Schedule 12 to the Transmission Owner(s) that established such charge or to the appropriate authority in a region other than PJM in the case of Transmission Enhancement Charges established in such region in connection with a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement, to be distributed in accordance with the applicable tariff or agreement governing the distribution of such charges in such region.

**(e) Crediting of Revenue from Transmission Enhancement Charges.** In recognition that a Transmission Owner's charges for Network Integration Transmission Service set forth in Tariff, Attachment H are established based upon the Transmission Owner's total cost of providing FERC-jurisdictional transmission service, including the costs associated with Required Transmission Enhancements, revenue from a Transmission Owner's Transmission Enhancement Charges for a billing month shall be credited pursuant to this Schedule 12 to the Network Customers in the Transmission Owner's Zone (including, where applicable, the Transmission Owner) and Transmission Customers purchasing Firm Point-to-Point Transmission Service for delivery in the Transmission Owner's Zone in proportion to their Demand Charges (including

any imputed Demand Charges for bundled service to Native Load Customers) for Network Integration Transmission Service and Reserved Capacity for Firm Point-to-Point Transmission Service; provided that such credits shall be reduced by the amount of any applicable incentives included in such Transmission Enhancement Charges.

## SCHEDULE 12 – APPENDIX A

### **Required Transmission Enhancements Approved By The PJM Board On Or After February 1, 2013, Responsible Customers And Associated Transmission Owner Revenue Requirements.**

This Schedule 12 – Appendix A applies only to the assignment of cost responsibility or classification of Required Transmission Enhancements either (1) made by the Transmission Provider on or after February 1, 2013, or (2) applicable to Required Transmission Enhancements approved by the PJM Board ~~pursuant to Section 1.6 of the PJM Operating Agreement~~ on or after such effective date.

Required Transmission Enhancements that have been placed in service in PJM, the Transmission Owner(s) responsible for constructing and owning and/or financing such Required Transmission Enhancements, the Responsible Customers and the annual revenue requirement upon which Transmission Enhancement Charges determined in accordance with section (c) of Schedule 12 are based, are set forth below. Unless otherwise stated, all designations of Responsible Customers refer collectively to all Firm Point-to-Point Transmission Service and Network Integration Transmission Service customers in each indicated Zone and state the proportional (percentage) cost responsibility allocated to the indicated customers in each Zone. Zones are identified using the short names stated in Attachment J to the Tariff.



## SCHEDULE 12 – APPENDIX B

### Joint Planning Or Coordination Agreements Between PJM And Other Regions Or Transmission Planning Authorities

1. Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C., [which can be found at miso-joa.pdf \(pjm.com\)](#);
2. Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. and The Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol, <https://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
3. Interregional transmission coordination between Southeastern Regional Transmission Planning region participants and PJM pursuant to ~~Schedule 6-A of the Operating Agreement and Tariff~~, Schedule 12-B [and Schedule 19-A of the Tariff](#) and the corresponding provisions of the tariffs of the jurisdictional Southeastern Regional Transmission Planning region participants;
4. [Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C., which is found at nyiso-joa.ashx \(pjm.com\)](#);
5. [Joint Reliability Coordination Agreement among and between Tennessee Valley Authority, Louisville Gas and Electric Co. and Kentucky Utilities Co., and PJM Interconnection, L.L.C., which can be found at joint-reliability-agreement-jrca-pjm-tva.ashx](#);
6. [Adjacent Reliability Coordinator Coordination Agreement between PJM Interconnection, L.L.C. VACAR South RC, those being Duke Energy Progress, Inc., Duke Energy Carolinas, LLC, South Carolina Electric & Gas Company, South Carolina Public Service Authority and Cube Hydro Carolinas, LLC, which can be found at https://www.pjm.com/~media/documents/agreements/executed-pjm-vacar-rc-agreement.ashx](#); and
7. [Amended and Restated Agreement Joint Operating Agreement Among and Between PJM Interconnection L.L.C., and Duke Energy Progress, L.L.C, which is found at progress-joa.pdf \(pjm.com\)](#).

## Schedule 12 - Appendix C

### State Agreement Public Policy Projects Constructed Pursuant to the State Agreement Approach

This Schedule 12 - Appendix C applies only to the assignment of cost responsibility of State Agreement Public Policy Projects constructed in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, section 1.5.9 among Responsible Customers.

**(1) Rate Schedule FERC No. 49, State Agreement Approach Agreement By and Among PJM Interconnection, L.L.C. and New Jersey Board of Public Utilities**

In accordance with the FERC order in Docket Nos. ER22-2690-000 and -001, 181 FERC ¶ 61,178 (2022), cost responsibility for the State Agreement Public Policy Projects shall be assigned annually on a load-ratio share basis among Network Customers in the State of New Jersey determined in accordance with Schedule 12, section (c)(4), and customers using Point-to-Point Transmission Service with a Point of Delivery within the State of New Jersey determined in accordance with Schedule 12, section (c)(5), as follows:

With respect to each Zone located in the State of New Jersey, using, consistent with Tariff, Part III, section 34.1, the applicable zonal loads at the time of such Zone’s annual peak load from the 12-month period ending October 31 preceding the calendar year for which the annual cost responsibility allocation is determined.

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.1	Reconfigure Larrabee 230 kV substation	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.2	Larrabee substation – 230 kV equipment for direct connection	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.3	Lakewood Generator substation – Update relay settings on the Larrabee 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.4	B54 Larrabee – South Lockwood 34.5 kV line transfer	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.5	Larrabee Collector station – Larrabee 230 kV new line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.6	Larrabee Collector station – Smithburg No.1 500 kV line (new asset). New 500 kV line will be built double circuit to accommodate a 500 kV line and a 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.7	Rebuild G1021 Atlantic – Smithburg 230 kV line between the Larrabee and Smithburg substations as a double circuit 500 kV/230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.8	Smithburg substation 500 kV expansion to 4-breaker ring	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.9	Larrabee substation upgrades	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.10	Atlantic 230 kV substation – Convert to double-breaker double-bus	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.11	Freneau substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.12	Smithburg substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.13	Oceanview substation – Update relay settings on the Atlantic 230 kV lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.14	Red Bank substation – Update relay settings on the Atlantic 230 kV lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.15	South River substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.16	Larrabee substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.17	Atlantic substation – Construct a new 230 kV line terminal position to accept the generator lead line from the offshore wind Larrabee Collector station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.18	G1021 (Atlantic – Smithburg) 230 kV upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.19	R1032 (Atlantic – Larrabee) 230 kV upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.20	New Larrabee Collector station – Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

Identifier	Description	Responsible Customers (percentage share)
b3737.21	Larrabee – Oceanview 230 kV line upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.22	Construct the Larrabee Collector station AC switchyard, composed of a 230 kV 3 bay breaker and a half substation with a nominal current rating of 4000 A and four single phase 500/230 kV 450 MVA autotransformers to step up the voltage for connection to the Smithburg substation. Procure land adjacent to the AC switchyard, and prepare the site for construction of future AC to DC converters for future interconnection of DC circuits from offshore wind generation. Land should be suitable to accommodate installation of four individual converters to accommodate circuits with equivalent rating of 1400 MVA at 400 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.23	Rebuild the underground portion of Richmond – Waneeta 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.24	Upgrade Cardiff – Lewis 138 kV by replacing 1590 kcmil strand bus inside Lewis substation	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.25	Upgrade Lewis No. 2 – Lewis No. 1 138 kV by replacing its bus tie with 2000 A circuit breaker	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.26	Upgrade Cardiff – New Freedom 230 kV by modifying existing relay setting to increase relay limit	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.27	Rebuild approximately 0.8 miles of the D1018 (Clarksville –Lawrence 230 kV) line between Lawrence substation (PSEG) and structure No. 63	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.28	Reconductor Kilmer I – Lake Nelson I 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.29	Convert the six-wired East Windsor – Smithburg E2005 230 kV line (9.0 miles) to two circuits: One a 500 kV line and the other a 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.30	Add third Smithburg 500/230 kV transformer	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.31	Additional reconductoring required for Lake Nelson I –Middlesex 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.32	Rebuild Larrabee – Smithburg No. 1 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.33	Reconductor Red Oak A – Raritan River 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.34	Reconductor Red Oak B – Raritan River 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.35	Reconductor small section of Raritan River – Kilmer I 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.36	Replace substation conductor at Kilmer and reconductor Raritan River – Kilmer W 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.37	Add a third set of submarine cables, rerate the overhead segment, and upgrade terminal equipment to achieve a higher rating for the Silver Run – Hope Creek 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.38	Linden subproject: Install a new 345/230 kV transformer at the Linden 345 kV switching station, and relocate the Linden – Tosco 230 kV (B-2254) line from the Linden 230 kV to the existing 345/230 kV transformer at Linden 345 kV station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.39	Bergen subproject: Upgrade the Bergen 138 kV ring bus by installing a 80 kA breaker along with the foundation, piles, and relays to the existing ring bus, install breaker isolation switches on existing foundations and modify and extend bus work	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.40	Windsor to Clarksville subproject: Create a paired conductor path between Clarksville 230 kV and JCPL Windsor Switch 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.41	Windsor to Clarksville subproject: Upgrade all terminal equipment at Windsor 230 kV and Clarksville 230 kV as necessary to create a paired conductor path between Clarksville and JCPL East Windsor Switch 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.42	Upgrade inside plant equipment at Lake Nelson I 230 kV station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.43	Upgrade Kilmer W – Lake Nelson W 230 kV line drop and strain bus connections at Lake Nelson 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.44	Upgrade Lake Nelson – Middlesex – Greenbrook W 230 kV line drop and strain bus connections at Lake Nelson 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.45	Reconductor 0.33 miles of PPL’s portion of the Gilbert –Springfield 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.46	Install a new breaker at Graceton 230 kV substation to terminate a new 230 kV line from the new greenfield North Delta station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

Identifier	Description	Responsible Customers (percentage share)
b3737.47 <sup>+</sup>	Build a new North Delta 500 kV substation with four bay breaker and half configuration. The substation will include 12 500 kV breakers and one 500/230 kV transformers, will allow the termination of six 500 kV lines	<p align="center"><b>Reliability Driver (26.73%):</b></p> <p align="center"><b>Load-Ratio Share Allocation:</b>  AEC (1.65%) / AEP (13.68%) / APS (5.76%) / ATSI (8.04%) / BGE (4.11%) / ComEd (13.39%) / Dayton (2.12%) / DEOK (3.25%) / DL (1.71%) / Dominion (13.32%) / DPL (2.60%) / EKPC (1.89%) / JCPL (3.86%) / ME (1.90%) / NEPTUNE* (0.42%) / OVEC (0.08%) / PECO (5.40%) / PENELEC (1.78%) / PEPCO (3.67%) / PPL (4.72%) / PSEG (6.39%) / RE (0.26%)</p> <p align="center"><b>DFAX Allocation:</b>  PECO (100%)</p> <hr/> <p align="center"><b>Public Policy Driver (73.27%):</b>  AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)</p>
b3737.48	Build a new North Delta – Graceton 230 kV line by rebuilding 6.07 miles of the existing Cooper – Graceton 230 kV line to double circuit	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.49	Bring the Cooper – Graceton 230 kV line “in and out” of North Delta by constructing a new double-circuit North Delta – Graceton 230 kV (0.3 miles) and a new North Delta – Cooper 230 kV (0.4 miles) cut-in lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<sup>+</sup> b3737.47 is an Incremental Multi-Driver Project that includes both a reliability driver and a public policy driver. Accordingly, b3737.47 is included on both Tariff, Schedule 12–Appendix A, section 28 and Tariff, Schedule 12–Appendix C, section 1.



<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.50	Bring the Peach Bottom – Delta Power Plant 500 kV line “in and out” of North Delta by constructing a new Peach Bottom – North Delta 500 kV (0.3 miles) cut-in and cut-out lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.51	Replace four 63 kA circuit breakers "205," "235," "225" and "255" at Peach Bottom 500 kV with 80 kA	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.52	Replace one 63 kA circuit breaker "B4" at Conastone 230 kV with 80 kA	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.53	Remove the existing E83 115 kV line (not in-service) to accommodate the new 500 kV/230 kV lines (approximately 7.7 miles)	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.54	Remove the existing H2008 Larrabee – Smithburg No. 2 230 kV line to accommodate the new 500 kV/230 kV lines	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.55	Middlesex substation 230 kV – Replace the 2000A circuit switcher at Middlesex switch point for the Lake Nelson I1023 230 kV exit	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.56	Build a new North Delta – Graceton 230 kV line by rebuilding 6.26 miles of the existing Cooper – Graceton 230 kV line to double circuit. Cooper-Graceton is jointly owned by PECO and BGE. This subproject is for BGE's portion of the line rebuild, which is 2.16 miles	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.59	Windsor to Clarksville subproject: Upgrade terminal equipment at Windsor 230 kV station	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.60	Perform a Pre-build Infrastructure evaluation study in alignment with the NJBPU Solicitation Guidance Document requirements	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)

## SCHEDULE 12-B

### Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions

1. **Cost Allocation:** The PJM Region portion determined under Section 3 of this Schedule 12-B of the cost of an interregional transmission project located in the PJM Region and the Southeastern Regional Transmission Planning Process (“SERTP”) region shall be allocated in accordance with Schedule 12 of the Tariff, provided that the interregional transmission project satisfies all of the criteria in Section 2 of this Schedule 12-B.

2. **Proposal of Interregional Transmission Projects for Interregional Cost Allocation Purposes:** For an interregional transmission project to be eligible for interregional cost allocation purposes within the SERTP region and the PJM Region, all of the following criteria must be met:

A. The interregional transmission project must be interregional in nature, which requires that it must:

- Be physically located in both the SERTP region and the PJM Region;
- Interconnect to transmission facilities in both the PJM and SERTP regions. The facilities to which the project is proposed to interconnect may be either existing transmission facilities or transmission projects included in the regional transmission expansion plan that are currently under development; and
- Meet the threshold criteria for transmission projects potentially eligible to be included in the regional transmission plans for purposes of cost allocation in both the SERTP region and the PJM Region, pursuant to the regional transmission planning process of the SERTP region and the Regional Transmission Expansion Plan prepared by the Office of the Interconnection pursuant to ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, respectively.

B. The interregional transmission project must be proposed for purposes of cost allocation in both the SERTP region and the PJM Region:

- The transmission developer and project submittal must satisfy all criteria specified in the respective regional transmission processes; and
- The proposal should be submitted in the timeframes outlined in the respective regional transmission planning processes.

C. The interregional transmission project must be selected both in the regional transmission plan of the SERTP region and in the Regional Transmission Expansion Plan prepared by the Office of the Interconnection for the PJM Region:

- The costs of the interregional transmission project eligible for interregional cost allocation shall only be allocated to a region if that region has selected the

interregional transmission project in its regional transmission plan for purposes of cost allocation; and

- No cost shall be allocated to a region that has not selected the interregional transmission project in its regional transmission plan for purposes of cost allocation.

**3. Allocation of Costs for Interregional Transmission Projects Between the SERTP and PJM Regions:** The cost of an interregional transmission project selected for purposes of cost allocation in the regional transmission plans of both the SERTP region and PJM Region shall be allocated for interregional cost allocation purposes to those regions as provided below:

A. The share of the costs of an interregional transmission project allocated to a region will be determined by the ratio of the present value(s) of the estimated costs of such region's displaced regional transmission project(s) to the total of the present values of the estimated costs of the displaced regional transmission projects in all regions that have selected the interregional transmission project in their regional transmission plans for purposes of cost allocation. The present values used in the cost allocation shall be based on a common date, comparable cost components, and the latest cost estimates used in the determination to include the interregional transmission project in the respective regional plans for purposes of cost allocation. The applicable discount rate(s) used for the SERTP region for interregional cost allocation purposes will be based upon the after-tax weighted average cost of capital of the SERTP transmission owners whose projects would be displaced by the proposed interregional transmission project. The applicable discount rate for the PJM Region shall be the discount rate included in the assumptions that are reviewed with the PJM Board of Managers each year for use in the economic planning process.

B. When all or a portion of an interregional transmission project is to be located within a region in which there is no displaced regional transmission project, such region may, at its sole discretion, select the interregional transmission project for inclusion in its regional transmission plan; provided, however, that no portion of the costs of the interregional transmission project shall be allocated to such region pursuant to Section 3(A).

C. Nothing in this Schedule 12-B shall govern the further allocation of costs allocated to a region pursuant to this Section 3 within such region. For purposes of clarification, the further allocation of costs allocated by this Section 3 within the PJM Region shall be governed by the applicable provisions of Schedule 12 of the Tariff.

D. The following example illustrates the cost allocation provisions in Section 3:

- Regions A and B, through the joint evaluation process prescribed in ~~Schedule 6-A of the Operating Agreement~~ Tariff, Schedule 19-A have included Transmission Project Z in their respective regional plans for purposes of cost allocation. Transmission Project Z was determined to address both regions' needs more efficiently or cost effectively than Transmission Project X in Region A and Transmission Project Y in Region B.

- The estimated cost of Transmission Projects X and Y are Cost (X) and Cost (Y) respectively. As described in Section 3(A), these costs shall be based upon common cost components.
- The number of years from the common present value date to the year associated with the cost estimates of Transmission Projects X and Y are N(X) and N(Y) respectively.
- Recognizing that the regions may have different discount rates, for purposes of this example  $D_A$  is the discount rate used for Transmission Project X and  $D_B$  is the discount rate used for Transmission Project Y.
- Based on the foregoing assumptions and the allocation of costs based upon displaced regional transmission projects as prescribed in Section 3(A), the following illustrative formulas would be used:
  - Present Value of Cost (X) = PV Cost (X) =  $\text{Cost (X)} / (1 + D_A)^{N(X)}$
  - Present Value of Cost (Y) = PV Cost (Y) =  $\text{Cost (Y)} / (1 + D_B)^{N(Y)}$
  - Cost Allocation to Region A =  $\text{PV Cost (X)} / [\text{PV Cost (X)} + \text{PV Cost (Y)}]$
  - Cost Allocation to Region B =  $\text{PV Cost (Y)} / [\text{PV Cost (X)} + \text{PV Cost (Y)}]$
- Applying the above formulas, if:
  - Cost (X) = \$60 Million and N(X) = 8.25 years
  - Cost (Y) = \$40 Million and N(Y) = 4.50 years
  - $D_A = 7.5\%$  per year
  - $D_B = 7.4\%$  per year
- Then:
  - $\text{PV Cost (X)} = 60 / (1 + 0.075)^{8.25} = 33.0$  Million
  - $\text{PV Cost (Y)} = 40 / (1 + 0.074)^{4.50} = 29.0$  Million
  - Cost Allocation to Region A =  $33.0 / (33.0 + 29.0) = 53.2\%$  of the cost of Transmission Project Z
  - Cost Allocation to Region B =  $29.0 / (33.0 + 29.0) = 46.8\%$  of the cost of Transmission Project Z

4. **Merchant Transmission and Transmission Owner Projects:** Nothing in this Schedule 12-B shall preclude the development of interregional transmission projects that are funded by merchant transmission developers or by individual transmission owners.

5. **Exclusivity with Respect to Interregional Transmission Projects Selected for Interregional Cost Allocation Purposes:** The following provisions shall apply regarding other cost allocation arrangements:

A. Except as provided in Section 5(B), the provisions in this Schedule 12-B are the exclusive means by which any costs of an interregional transmission project selected for interregional cost allocation purposes between the SERTP region and the PJM Region may be allocated between or among those regions.

B. A transmission owner(s) or transmission developer(s) may propose to fund or allocate, on a voluntary basis, the cost of an interregional transmission project selected for interregional cost allocation purposes using an allocation other than the allocation that results from the methodology set forth in Section 3, provided that, should the allocation of cost of such interregional transmission project be subject to the Commission's jurisdiction, such allocation proposal is accepted for filing by the Commission in accordance with the filing rights with respect to cost allocation set forth in Section 6 of this Schedule 12-B and provided further that no allocation shall be made to any region that has not agreed to that allocation.

**6. Section 205 Filing Rights with Respect to Interregional Transmission Projects Selected for Interregional Cost Allocation Purposes:** Solely with respect to interregional transmission projects evaluated under ~~Schedule 6-A of the Operating Agreement~~Tariff, Schedule 19-A and selected by the SERTP and PJM regional transmission planning processes for purposes of interregional cost allocation purposes, the following provisions shall apply:

A. Except as provided in Sections 5 and 6(B) of this Schedule 12-B, nothing in this Schedule 12-B will convey, expand, limit or otherwise alter any rights of the transmission owners, transmission developers or other market participants to submit filings under Section 205 of the Federal Power Act ("FPA") regarding cost allocation or any other matter.

B. The cost allocation provisions in this Schedule 12-B shall not be modified under Section 205 of the FPA without the mutual consent of the holders of the FPA Section 205 rights with respect to interregional cost allocation in the SERTP region and the PJM Region.

**7. Consequences to Other Regions from Interregional Transmission Projects:** Except as provided in this Schedule 12-B, or in other documents, agreements or tariffs on file with the Commission, neither the PJM Region nor the transmission providers in the SERTP region shall be responsible for compensating another planning region for required upgrades or for any other consequences in another planning region associated with interregional transmission projects identified pursuant to ~~Schedule 6-A of the Operating Agreement~~Tariff, Schedule 19-A.

**SCHEDULE 19 -**  
**REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

References to section numbers in this Schedule 19 refer to sections of this Schedule 19, unless otherwise specified.

**1. REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

## **1.1 Purpose and Objectives.**

This Regional Transmission Expansion Planning Protocol (“Protocol”) shall govern the process by which the Members shall rely upon the Office of the Interconnection to prepare a plan for the enhancement and expansion of the Transmission Facilities in order to meet the demands for firm transmission service, and to support competition, in the PJM Region. The Regional Transmission Expansion Plan (also referred to as “RTEP”) to be developed shall enable the transmission needs in the PJM Region to be met on a reliable, economic and environmentally acceptable basis.



## **1.2 Conformity with NERC Reliability Standards and Other Applicable Reliability Criteria.**

(a) NERC establishes Reliability Standards to promote the reliability, adequacy and security of the North American bulk power supply as related to the operation and planning of electric systems.

(b) ReliabilityFirst Corporation is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the geographic region described in the applicable agreements between NERC and ReliabilityFirst Corporation, as approved by the FERC, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the ReliabilityFirst Corporation.

(c) [Reserved]

(c.01) [Reserved]

(c.02) SERC is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the VACAR subregion of SERC. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.

(d) The Regional Transmission Expansion Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals.

(e) The Regional Transmission Expansion Plan planning criteria shall include, Office of the Interconnection planning procedures, NERC Reliability Standards, Regional Entity reliability principles and standards, and the individual Transmission Owner FERC filed planning criteria as filed in FERC Form No. 715, and posted on the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Critical Energy Infrastructure Information (CEII) requirements.

(f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

### 1.3 Establishment of Committees.

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee participants shall be given an opportunity to provide advice and recommendations for consideration by the Office of the Interconnection regarding sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives in the studies and analyses to be conducted by the Office of the Interconnection. The Transmission Expansion Advisory Committee participants shall be given the opportunity to review and provide advice and recommendations on the projects to be included in the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional planning issues, as required. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates; and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series) and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committees established by the Office of the Interconnection shall facilitate the development and review of the Local Plans. The Subregional RTEP Committees will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. A Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the Transmission Expansion Advisory Committee for further review, advice and recommendations.

(d) The Subregional RTEP Committees shall be responsible for the timely review of the criteria, assumptions and models used to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements, proposed solutions and written comments prior to finalizing the Local Plan, the coordination and integration of the Local Plans into the RTEP, and addressing any stakeholder issues unresolved in the Local Plan process. The Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the criteria, assumptions, and models used in local planning activities prior to finalizing the Local Plan. The Subregional RTEP Committees shall also be responsible for the timely review of the Transmission Owners' criteria, assumptions, and models used to identify Supplemental Projects that will be considered for inclusion in the Local Plan for each Subregional RTEP Committee. The Subregional RTEP Committees meetings shall include discussions addressing interregional planning issues, as required. Once finalized, the Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the Local Plans as integrated into the RTEP, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval. In addition, the Subregional RTEP Committees will provide sufficient opportunity to review and provide written comments to the Transmission Owners on any Supplemental Projects included in the Local Plan, in accordance with Additional Procedures for Planning of Supplemental Projects set forth in Tariff, Attachment M-3.

(e) The Subregional RTEP Committees shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates and (v) any other interested entities or persons.

(f) Each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions and models to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements. Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting, per planning cycle, and as required to review the identified criteria violations and potential solutions. The Subregional RTEP Committees may facilitate additional meetings to incorporate more localized areas in the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas.

(g) The Subregional RTEP Committees shall schedule and facilitate meetings regarding Supplemental Projects, as described in the Tariff, Attachment M-3.

(h) The Subregional RTEP Committees shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional

Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.

#### **1.4 Contents of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of (i) maintaining the reliability of the PJM Region in an economic and environmentally acceptable manner, (ii) supporting competition in the PJM Region, (iii) striving to maintain and enhance the market efficiency and operational performance of wholesale electric service markets and (iv) considering federal and state Public Policy Requirements.

(b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule 19, transmission enhancements and expansions; load forecasts; and capacity forecasts, including expected generation additions and retirements, demand response, and reductions in demand from energy efficiency and price responsive demand for at least the ensuing ten years.

(c) The Regional Transmission Expansion Plan shall, at a minimum, include a designation of the Transmission Owner(s) or other entity(ies) that will construct, own, maintain, operate, and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.

(d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vi) strive for consistency in planning data and assumptions that may relieve transmission congestion across multiple regions.

## **1.5 Procedure for Development of the Regional Transmission Expansion Plan.**

### **1.5.1 Commencement of the Process.**

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b), constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to the Operating Agreement, Schedule 1, section 7.8. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

### **1.5.2 Development of Scope, Assumptions and Procedures.**

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

### **1.5.3 Scope of Studies.**

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs. The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

(a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.

(b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.

(c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.

(d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.

(e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to the Operating Agreement, Schedule 1, section 7.8.

(f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.

(g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.

(h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b). Enhancements and expansions related to stage 1A

Auction Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Tariff, Schedule 19, section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to the Tariff, Schedule 19, section 1.5.6(m) and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

#### **1.5.4 Supply of Data.**

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current local planning information, including all criteria, assumptions and models used by the Transmission Owners, such as those used to develop Supplemental Projects. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's local planning information, including all criteria, assumptions and models



used by the Transmission Owners in their internal planning processes, including the development of Supplemental Projects (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in the Operating Agreement, section 18.17; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in the Operating Agreement, section 18.17 and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

### **1.5.5 Coordination of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements:

- Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at Tariff, Schedule 19-B and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at Tariff, Schedule 19-A ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at Tariff, Schedule 12-B;
- Joint Reliability Coordination Agreement Between the Midwest Independent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas.

(i) Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(ii) An entity, including existing Transmission Owners and Nonincumbent Developers, may submit potential Interregional Transmission Projects pursuant to Tariff, Schedule 19, section 1.5.8.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

#### **1.5.6 Development of the Recommended Regional Transmission Expansion Plan.**

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Requirements identified by the states for consideration in the Office of the Interconnection's transmission planning analyses; (iii) Public Policy Objectives identified by stakeholders for consideration in the Office of the Interconnection's transmission planning analyses; (iv) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (v) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (v) of this subsection. Following the assumptions meeting and prior to performing the evaluation and analyses of transmission needs, the Office of the Interconnection shall determine the range of assumptions to be used in the studies and

scenario analyses, based on the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees and, through the Independent State Agencies Committee, the statement of Public Policy Requirements provided individually by the states and any state member's assessment or prioritization of Public Policy Objectives proposed by other stakeholders. The Office of the Interconnection shall document and publicly post its determination for review. Such posting shall include an explanation of those Public Policy Requirements and Public Policy Objectives adopted at the assumptions stage to be used in performing the evaluation and analysis of transmission needs. Following identification of transmission needs and prior to evaluating potential enhancements and expansions to the Transmission System the Office of the Interconnection shall publicly post all transmission need information identified as described further in the Tariff, Schedule 19, section 1.5.8(b) herein to support the role of the Subregional RTEP Committees in the development of the Local Plan and support the role of Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection shall also post an explanation of why other Public Policy Requirements and Public Policy Objectives introduced by stakeholders at the assumptions stage were not adopted.

(c) The Subregional RTEP Committees shall also schedule and facilitate meetings related to Supplemental Projects, as described in the Tariff, Attachment M-3.

(d) After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in the Tariff, Schedule 19, sections 1.3(b) and 1.3(c)) to review, evaluate and offer comments and alternatives to the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

(e) In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the

current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in section (b), above.

(f) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in the Tariff, Schedule 19, section 1.5.8(b) to afford entities an opportunity to submit proposed enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in the Tariff, Schedule 19, section 1.5.8(c). Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to the Tariff, Schedule 19, section 1.5.8(c); (ii) consider proposals submitted during the proposal windows consistent with the Tariff, Schedule 19, section 1.5.8(d) and develop a recommended plan. Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to the Tariff, Schedule 19, section 1.5.3, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(h) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(i) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in

accordance with the procedures, criteria and analyses described in the Tariff, Schedule 19, sections 1.5.7 and 1.5.8.

(j) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to the Tariff, Schedule 19, section 1.5.9.

(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Tariff, Schedule 19, section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(m) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff, (2) in the event and to the extent that no provision of the PJM Tariff assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to the Tariff, Schedule 12, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint

Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to the Tariff, Schedule 12 that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under the Tariff, Schedule 19, sections 1.5.6(i) and 1.5.7, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7 shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under the Tariff, Schedule 12, section (b) for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in the Tariff, Attachment DD, section 15 shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(n) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

#### **1.5.7 Development of Economic-based Enhancements or Expansions.**

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Tariff, Schedule 19, section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in the Operating Agreement, Schedule 1, section 7.4.2(c); or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items in the Tariff, Schedule 19, section 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the

Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional Economic-based Enhancements or Expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to the Tariff, Schedule 19, section 1.5.8(c), any market participant may submit to the Office of the Interconnection a proposal to construct an additional Economic-based Enhancement or Expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed Economic-based Enhancements or Expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new Economic-based Enhancements or Expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new Economic-based Enhancements or Expansions for inclusion in the Regional Transmission Expansion Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional Economic-based Enhancements or Expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional Economic-based Enhancements or Expansions pursuant to the Tariff, Schedule 19, section 1.5.6(m). In the event the entity or entities designated as responsible for construction, owning or financing a designated new Economic-based Enhancement or Expansion declines to construct, own or finance the new Economic-based Enhancement or Expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with the Tariff, Schedule 19, sections 1.6 and 1.7. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional Economic-based Enhancements or Expansions and whether such Economic-based Enhancements or Expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional Economic-based Enhancements or Expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this Tariff, Schedule 19, section 1.5.7(d). An Economic-based Enhancement or Expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the Economic-based Enhancement or Expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:



Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for the 15 year period starting with the RTEP Year (defined as current year plus five) minus benefits for years when the project is not yet in-service] ÷ [Present value of the Total Enhancement Cost for the same 15 year period]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Energy Market Benefit is as follows:

Energy Market Benefit = [.50] \* [Change in Total Energy Production Cost] + [.50] \* [Change in Load Energy Payment]

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Energy Market Benefit is as follows:

Energy Market Benefit = [1] \* [Change in Load Energy Payment]

and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the Economic-based Enhancement or Expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the Economic-based Enhancement or Expansion]. The change in costs for purchases from outside of the PJM Region and sales to outside the PJM Region will be captured, if appropriate. Purchases will be valued at the Load Weighted LMP and sales will be valued at the Generation Weighted LMP.

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each Zone without the Economic-based Enhancement or Expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each

Zone with the Economic-based Enhancement or Expansion)] – [the change in value of transmission rights for each Zone with the Economic-based Enhancement or Expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion)]. The Change in the Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in the Load Energy Payment.

And

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [.50] * [\text{Change in Total System Capacity Cost}] + [.50] * [\text{Change in Load Capacity Payment}]$$

and

For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [1] * [\text{Change in Load Capacity Payment}]$$

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD without the Economic-based Enhancement or Expansion) \* (the number of

days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion. The Change in the Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in the Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the Economic-based Enhancement or Expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new Economic-based Enhancement or Expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection’s Commission-approved capacity construct.

(f) To assure that new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the

Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new Economic-based Enhancements or Expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the Economic-based Enhancement or Expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of the Tariff, Schedule 19, section 1.5.7(i). The Office of the Interconnection will not be required to review annually the costs and benefits of constructing Economic-based Enhancements or Expansions with capital costs less than \$20 million if, based on updated cost estimates and the original benefits, the Benefit/Cost Ratio remains at or above 1.25. The Office of the Interconnection shall no longer be required to review costs and benefits of constructing Economic-based Enhancements and Expansions once: (i) a certificate of public convenience and necessity or its equivalent is granted by the state or relevant regulatory authority in which such enhancements or expansions will be located; or (ii) if a certificate of public convenience and necessity or its equivalent is not required by the state or relevant regulatory authority in which an economic-based enhancement or expansion will be located, once construction activities commence at the project site.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new Economic-based Enhancements or Expansions is consistent with the new Economic-based Enhancements or Expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to the Tariff, Parts IV and VI that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, the Tariff, Part VI, Subpart B, section 216, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

(i) Timely installation of Qualifying Transmission Upgrades, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

(ii) Availability of Generation Capacity Resources, as defined by the RAA, section 1.33, that are committed to the PJM Region as a

result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

- (iii) Availability of Demand Resources that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iv) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues to determine the likelihood of a Customer Facility, pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on

type and location of generation in existing PJM interconnection queues and, if necessary, add transmission enhancements to address congestion that arises from such modeling.

(viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an Economic-based Enhancement or Expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the Economic-based Enhancement or Expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to Economic-based Enhancements or Expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with the Tariff, Schedule 19, section 1.5.3 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

### **1.5.8 Development of Long-lead Projects, Short-term Projects, Immediate-need Reliability Projects, and Economic-based Enhancements or Expansions.**

#### **(a) Pre-Qualification Process.**

(a)(1) On September 1 of each year, the Office of the Interconnection shall open a thirty-day pre-qualification window for entities, including existing Transmission Owners and Nonincumbent Developers, to submit to the Office of the Interconnection: (i) applications to pre-qualify as eligible to be a Designated Entity; or (ii) updated information as described in the Tariff, Schedule 19, section 1.5.8(a)(3). Pre-qualification applications shall contain the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the

financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's, or parent company's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities; (ix) a description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Tariff, Schedule 19, section 1.5.8(a).

(a)(2) No later than October 31, the Office of the Interconnection shall notify the entities that submitted pre-qualification applications or updated information during the annual thirty-day pre-qualification window, whether they are, or will continue to be, pre-qualified as eligible to be a Designated Entity. In the event the Office of the Interconnection determines that an entity (i) is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, or (ii) provided insufficient information to determine pre-qualification, the Office of the Interconnection shall inform that the entity it is not pre-qualified and include in the notification the basis for its determination. The entity then may submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is, or will continue to be, pre-qualified as eligible to be a Designated Entity. If the entity submits additional information by November 30, the Office of the Interconnection shall notify the entity of the results of its re-evaluation no later than December 15. If the entity submits additional information after November 30, the Office of the Interconnection shall use reasonable efforts to re-evaluate the application, with the additional information, and notify the entity of its determination as soon as practicable. No later than December 31, the Office of the Interconnection shall post on the PJM website the list of entities that are pre-qualified as eligible to be Designated Entities. If an entity is notified by the Office of the Interconnection that it does not pre-qualify or will not continue to be pre-qualified as eligible to be a Designated Entity, such entity may request dispute resolution pursuant to dispute resolution procedures in the Tariff or the Consolidated Transmission Owner Agreement, as applicable.

(a)(3) In order to continue to pre-qualify as eligible to be a Designated Entity, such entity must confirm its information with the Office of the Interconnection no later than three years following its last submission or sooner if necessary as required below. In the event the information on which the entity's pre-qualification is based changes with respect to the upcoming year, such entity must submit to the Office of the Interconnection all updated information during the annual thirty-day pre-qualification window and the timeframes for notification in the Tariff, Schedule 19, section 1.5.8(a)(2) shall apply. In the event the information on which the entity's pre-qualification is based changes with respect to the current year, such entity must submit to the Office of the Interconnection all updated information at the time the information changes and the Office of the Interconnection shall use reasonable efforts to evaluate the updated information and notify the entity of its determination as soon as practicable.

(a)(4) As determined by the Office of the Interconnection, an entity may submit a pre-qualification application outside the annual thirty-day pre-qualification window for good cause shown. For a pre-qualification application received outside of the annual thirty-day pre-qualification window, the Office of the Interconnection shall use reasonable efforts to process the application and notify the entity as to whether it pre-qualifies as eligible to be a Designated Entity as soon as practicable.

(a)(5) To be designated as a Designated Entity for any project proposed pursuant to the Tariff, Schedule 19, section 1.5.8, existing Transmission Owners and Nonincumbent Developers must be pre-qualified as eligible to be a Designated Entity pursuant to this Tariff, Schedule 19, section 1.5.8(a). This Tariff, Schedule 19, section 1.5.8(a) shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Following identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Tariff, Schedule 19 and the PJM Manuals, and after consideration of non-transmission solutions, and prior to evaluating potential enhancements and expansions to the Transmission System, the Office of the Interconnection shall publicly post on the PJM website all transmission need information, including violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in the Tariff, Schedule 19, section 1.5.9, as applicable. Such posting shall support the role of the Subregional RTEP Committees in the development of the Local Plans and support the role of the Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 60-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects and Economic-based Enhancements or Expansions. The specifics regarding whether or not the following types of violations or projects are subject to a proposal window are detailed in the Tariff, Schedule 19, section 1.5.8(m) for Immediate-need Reliability Projects; Tariff, Schedule 19, section 1.5.8(n) for reliability violations on transmission facilities below 200 kV; and Tariff, Schedule 19, section 1.5.8(p) for violations on transmission substation equipment. The Office of Interconnection may shorten a proposal window should an identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions, or extend a proposal window as needed to accommodate updated information regarding system conditions. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on one or more of the following criteria: (1) complexity of the violation or system condition; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. The Office of



the Interconnection may lengthen a proposal window that already is opened based on or more of the following criteria: (i) changes in assumptions or conditions relating to the underlying need for the project, such as load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change in the proposal window period. During these windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) All proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(1)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Transmission Provider to evaluate the submitted project proposal. To the extent the Transmission Provider incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Transmission Provider shall invoice equal shares of the non-severable costs among the project proposals that cause such non-severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(1)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Transmission Provider as a result of the evaluation of a submitted project proposal.

(c)(1)(iii) Following the close of a proposal window but before the Transmission Provider incurs any third-party consultant work costs to evaluate a submitted project proposal, the Transmission Provider will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Transmission Provider may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the

Transmission Provider receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(1)(iv) At the completion of the evaluation activities associated with a project proposal, the Transmission Provider will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(1)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Transmission Provider sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Transmission Provider. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Transmission Provider in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Transmission Provider as a result of the evaluation of the proposing entity's project proposal(s).

(c)(2) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to the Tariff, Schedule 19, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost containment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. PJM may not alter the requirements for proposal submission to require the submission of a binding cost containment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.

(c)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in the Tariff, Schedule 19, sections 1.5.8(e) and 1.5.8(f). If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the Tariff, Schedule 19, section 1.5.8(c)(3) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(c)(5) Within 30 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to the Tariff, Schedule 19, section 1.5.8(c). All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with the Tariff, Schedule 19, section 1.5.9. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the Tariff, Schedule 19, sections 1.5.8(e) and 1.5.8(f). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After

consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Tariff, Schedule 19.

**(e) Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to the Tariff, Schedule 19, section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to the Tariff, Schedule 19, section 1.5.3, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to the Tariff, Schedule 19, section 1.5.7(d); (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) the ability to timely complete the project, and project development feasibility; and (v) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each project finalist's proposal, including any Transmission Owner Upgrades, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the Transmission Expansion Advisory Committee for review and comment. In evaluating any cost, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates from the Commission. PJM may modify the technical specifications of a proposal, as outlined in the PJM Manuals, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board. Neither PJM, the Designated Entity nor any stakeholders are waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

**(f) Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project, Long-lead Project or Economic-based Enhancement or Expansion recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal,

the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Tariff, Schedule 19, section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to the Tariff, Schedule 19, section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

(g) **Procedures if No Long-lead Project or Economic-based Enhancement or Expansion Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, or system condition, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, or system conditions pursuant to the Tariff, Schedule 19, section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office of the Interconnection shall propose a project to solve the posted violation, or system condition for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall develop and post on the PJM website a transmission solution construction timeline for input and review by the Transmission Expansion Advisory Committee that will include factors such as, but not limited to: (i) deadlines for obtaining regulatory approvals, (ii) dates by which long lead equipment should be acquired, (iii) the time necessary to complete a proposed solution to meet the required in-service date, and (iv) other time-based factors impacting the feasibility of achieving the required in-service date. Based on input from the Transmission Expansion Advisory Committee and the time frames set forth in the construction timeline, the Office of the Interconnection shall determine whether there is sufficient time to conduct a re-evaluation and re-post and timely address the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion. To the extent that an economic constraint remains unaddressed, the economic constraint will be re-evaluated and re-posted.

**(h) Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

**(i) Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

**(j) Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause shown, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. In the alternative, the Designated Entity may request dispute resolution pursuant to the dispute resolution procedures in the Tariff or the Consolidated Transmission Owner Agreement, as applicable, or request that the Designated Entity Agreement be filed unexecuted with the Commission.

**(k) Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to comply with one or more of the requirements of the Tariff, Schedule 19, section 1.5.8(j); or fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

**(l) Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Tariff, Schedule 19, section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a project proposed pursuant to the Tariff, Schedule 19, section 1.5.8(c) is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

**(m) Immediate-need Reliability Projects:**

(m)(1) Pursuant to the expansion planning process set forth in Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify immediate reliability needs that must be addressed within three years or less. For those immediate reliability needs for which PJM determines a proposal window may not be feasible, PJM shall identify and post such immediate need reliability criteria violations and system conditions for review and comment by the Transmission Expansion Advisory Committee and other stakeholders. Following review and comment, the Office of the Interconnection shall develop Immediate-need Reliability Projects for which a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2) is infeasible. The Office of the Interconnection shall consider the following factors in determining the infeasibility of such a proposal window: (i) nature of the reliability criteria violation; (ii) nature and type of potential solution required; and (iii) projected construction time for a potential

solution to the type of reliability criteria violation to be addressed. The Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the Immediate-need Reliability Projects for which a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2) is infeasible. Stakeholders shall be afforded no less than ten days to review Immediate-need Reliability Project materials prior to providing comments at stakeholder meetings. However, PJM may review Immediate-need Reliability Project materials with stakeholders without the requisite ten-day notice so long as: (i) stakeholders do not object to reviewing the materials or (ii) PJM identifies in its posting to the meeting materials extenuating circumstances identified by PJM that require review of the materials at the stakeholder meeting. The descriptions shall include an explanation of the decision to designate the Transmission Owner as the Designated Entity for the Immediate-need Reliability Project rather than conducting a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2), including an explanation of the time-sensitive need for the Immediate-need Reliability Project, other transmission and non-transmission options that were considered but concluded would not sufficiently address the immediate reliability need, the circumstances that generated the immediate reliability need, and why the immediate reliability need was not identified earlier. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments to the Office of the Interconnection. All comments received by the Office of the Interconnection shall be publicly available on the PJM website. Based on the comments received from stakeholders and the review by Transmission Expansion Advisory Committee, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. In January of each year, the Office of the Interconnection shall post on the PJM website and file with the Commission for informational purposes a list of the Immediate-need Reliability Projects for which an existing Transmission Owner was designated in the prior year as the Designated Entity in accordance with this Tariff, Schedule 19, section 1.5.8(m)(1). The list shall include the need-by date of Immediate-need Reliability Project and the date the Transmission Owner actually energized the Immediate-need Reliability Project.

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals, including an explanation of the time-sensitive need for an Immediate-need Reliability Project and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in the Tariff, Schedule 19, section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to the Tariff, Schedule 19, section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely



complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with the Tariff, Schedule 19, section 1.5.8(i), shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with the Tariff, Schedule 19, section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with the Tariff, Schedule 19, section 1.5.8(m)(1).

**(n) Reliability Violations on Transmission Facilities Below 200 kV.** Pursuant to the expansion planning process set forth in the Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify reliability violations on facilities below 200 kV. The Office of the Interconnection shall not post such a violation pursuant to the Tariff, Schedule 19, section 1.5.8(b) for inclusion in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c) unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations. If the reliability violation is identified on multiple facilities rated below 200 kV that are determined by the Office of the Interconnection to meet one of the two exceptions stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). If the Office of the Interconnection determines that the identified reliability violations do not satisfy either of the two exceptions stated above, the Office of the Interconnection shall develop a solution to address the reliability violation on below 200 kV Transmission Facilities that will not be included in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c). The Office of Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the below 200 kV reliability violations that will not be included in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the below 200 kV reliability violation(s) in Tariff, Schedule 19, section 1.5.8(c) proposal window, a description of the facility on which the violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such below 200 kV reliability violation will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. With the exception of Immediate-need Reliability Projects under

the Tariff, Schedule 19, section 1.5.8(m), PJM will not select an above 200 kV solution for inclusion in the recommended plan that would address a reliability violation on a below 200 kV transmission facility without posting the violation for inclusion in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

(o) [Reserved]

(p) **Thermal Reliability Violations on Transmission Substation Equipment.** Pursuant to the regional transmission expansion planning process set forth in the Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify thermal reliability violations on existing transmission substation equipment. The Office of the Interconnection shall not post such thermal reliability violations pursuant to the Tariff, Schedule 19, section 1.5.8(b) for inclusion in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c) if the Office of the Interconnection determines that the reliability violations would be more efficiently addressed by an upgrade to replace in kind transmission substation equipment with higher rated equipment, excluding power transmission transformers, but including station service transformers and instrument transformers. If the Office of the Interconnection determines that the reliability violation does not meet the exemption stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). If the Office of the Interconnection determines that the identified thermal reliability violations satisfy the above exemption to the proposal window process, the Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the transmission substation equipment thermal reliability violations that will not be included in a proposal window pursuant to Tariff, Schedule 19, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the transmission substation equipment thermal reliability violation(s) in Tariff, Schedule 19, section 1.5.8(c) proposal window, a description of the facility on which the thermal violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such transmission substation equipment thermal violations will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

### **1.5.9 State Agreement Approach.**

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. As determined by the authorized state governmental entities, such transmission enhancements or expansions may be included in the recommended plan, either as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily

agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in the Tariff, Schedule 19, section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with the Tariff, Schedule 19, section 1.5.9(a) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to the Tariff, Schedule 19, section 1.5.8(a).

#### **1.5.10 Multi-Driver Project.**

(a) When a proposal submitted by an existing Transmission Owner or Nonincumbent Developer pursuant to Tariff, Schedule 19, section 1.5.8(c) meets the definition of a Multi-Driver Project and is designated to be included in the Regional Transmission Expansion Plan for purposes of cost allocation, the Office of the Interconnection shall designate the Designated Entity for the project as follows: (i) if the Multi-Driver Project does not contain a state Public Policy Requirement component, the Office of the Interconnection shall designate the Designated Entity pursuant to the criteria in the Tariff, Schedule 19, section 1.5.8; or (ii) if the Multi-Driver Project contains a state Public Policy Requirement component, the Office of the Interconnection shall evaluate potential Designated Entity candidates based on the criteria in the Tariff, Schedule 19, section 1.5.8, and provide its evaluation to and elicit feedback from the sponsoring state governmental entities responsible for allocation of all costs of the proposed state Public Policy Requirement component (“state governmental entity(ies)”) regarding its evaluation. Based on its evaluation of the Tariff, Schedule 19, section 1.5.8 criteria and consideration of the feedback from the sponsoring state governmental entity(ies), the Office of the Interconnection shall designate the Designated Entity for the Multi-Driver Project and notify such entity consistent with the Tariff, Schedule 19, section 1.5.8(i). A Multi-Driver Project may be based on proposals that consist of (1) newly proposed transmission enhancements or expansions; (2) additions to, or modifications of, transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan; and/or (3) one or more transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan.

(b) A Multi-Driver Project may contain an enhancement or expansion that addresses a state Public Policy Requirement component only if it meets the requirements set forth in the Tariff, Schedule 19, section 1.5.9(a) and its cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(c) If a state governmental entity(ies) desires to include a Public Policy Requirement component after an enhancement or expansion has been included in the Regional Transmission Expansion Plan, the Office of the Interconnection may re-evaluate the relevant reliability-based enhancement or expansion, Economic-based Enhancement or Expansion, or Multi-Driver Project to determine whether adding the state-sponsored Public Policy Requirement component would create a more cost effective or efficient solution to system conditions. If the Office of the Interconnection determines that adding the state-sponsored Public Policy Requirement component to an enhancement or expansion already included in the Regional Transmission Expansion Plan would result in a more cost effective or efficient solution, the state-sponsored Public Policy Requirement component may be included in the relevant enhancement or expansion, provided all of the requirements of the Tariff, Schedule 19, section 1.5.10(b) are met, and cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(d) If, subsequent to the inclusion in the Regional Transmission Expansion Plan of a Multi-Driver Project that contains a state Public Policy Requirement component, a state governmental entity(ies) withdraws its support of the Public Policy Requirement component of a Multi-Driver Project, then: (i) the Office of the Interconnection shall re-evaluate the need for the remaining components of the Multi-Driver Project without the state Public Policy Requirement component, remove the Multi-Driver Project from the Regional Transmission Expansion Plan, or replace the Multi-Driver Project with an enhancement or expansion that addresses remaining reliability or economic system needs; (ii) if the Multi-Driver Project is retained in the Regional Transmission Expansion Plan without the state Public Policy Requirement component, the costs of the remaining components will be allocated in accordance with the Tariff, Schedule 12; (iii) if more than one state is responsible for the costs apportioned to the state Public Policy Requirement component of the Multi-Driver Project, the remaining state governmental entity(ies) shall have the option to continue supporting the state Public Policy component of the Multi-Driver Project and if the remaining state governmental entity(ies) choose this option, the apportionment of the state Public Policy Requirement component will remain in place and the remaining state governmental entity(ies) shall agree upon their respective apportionments; (iv) if a Multi-Driver Project must be retained in the Regional Transmission Expansion Plan and completed with the State Public Policy component, the state Public Policy Requirement apportionment will remain in place and the withdrawing state governmental entity(ies) shall continue to be responsible for its/their share of the FERC-accepted cost allocations as filed pursuant to the Tariff, Schedule 12, section (b)(xii)(B).

(e) The actual costs of a Multi-Driver Project shall be apportioned to the different components (reliability-based enhancement or expansion, Economic-based Enhancement or Expansion and/or Public Policy Requirement) based on the initial estimated costs of the Multi-Driver Project in accordance with the methodology set forth in the Tariff, Schedule 12.

(f) The benefit metric calculation used for evaluating the market efficiency component of a Multi-Driver Project will be based on the final voltage of the Multi-Driver Project using the Benefit/Cost Ratio calculation set forth in the Tariff, Schedule 19, section 1.5.7(d) where the Cost component of the calculation is the present value of the estimated cost of the enhancement apportioned to the market efficiency component of the Multi-Driver Project for each of the first 15 years of the life of the enhancement or expansion.

(g) Except as provided to the contrary in this Tariff, Schedule 19, section 1.5.10 and Tariff, Schedule 19, section 1.5.8 applies to Multi-Driver Projects.

(h) The Office of the Interconnection shall determine whether a proposal(s) meets the definition of a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).

(i) In determining whether a Multi-Driver Project may be designated to more than one entity, PJM shall consider whether: (i) the project consists of separable transmission elements, which are physically discrete transmission components, such as, but not limited to, a transformer, static var compensator or definable linear segment of a transmission line, that can be designated individually to a Designated Entity to construct and own and/or finance; and (ii) each entity satisfies the criteria set forth in the Tariff, Schedule 19, section 1.5.8(f). Separable transmission elements that qualify as Transmission Owner Upgrades shall be designated to the Transmission Owner in the Zone in which the facility will be located.

## **1.6 Approval of the Final Regional Transmission Expansion Plan.**

(a) Based on the studies and analyses performed by the Office of the Interconnection under - Tariff, Schedule 19, the PJM Board shall approve the Regional Transmission Expansion Plan in accordance with the requirements of Tariff, Schedule 19. The PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with Tariff, Schedule 12. Supplemental Projects shall be integrated into the Regional Transmission Expansion Plan approved by the PJM Board but shall not be included for cost allocation purposes.

(b) The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owner(s) or Designated Entity(ies) to construct such expansion or enhancement, the Office of the Interconnection shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Tariff, Schedule 19, section 1.5.6(l) to bear responsibility for the costs of the project.

(c) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.

(d) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be documented, posted publicly and provided to the Applicable Regional Entities.

## **1.7 Obligation to Build.**

(a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners or Designated Entities designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. Except as provided in Tariff, Schedule 19, section 1.5.8(k), nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.

(b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.

(c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) or Designated Entity(ies) all charges established under Tariff, Schedule 12 in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners or Designated Entity(ies) to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) or Designated Entity(ies) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.

(d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under sections 1.5.6(d) and 1.5.7 of this Tariff, Schedule 19 that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

## **1.8 Interregional Expansions**

(a) PJM shall collect from Midwest Independent System Operator, Inc., for distribution to the applicable Transmission Owners, in accordance with Schedule 12 of the PJM Tariff, revenues collected by the Midwest Independent System Operator, Inc. under the Open Access Transmission Tariff of the Midwest Independent System Owner, Inc. with respect to transmission enhancements or expansions for which the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility for transmission enhancements or expansions in the PJM Region to market participants in the region of the Midwest Independent System Operator, Inc.

(b) PJM shall disburse to the Midwest Independent System Operator, Inc., for distribution to applicable transmission owners of the Midwest Independent System Operator, Inc., revenues collected under Schedule 12 of the PJM Tariff which establishes a charge in connection with enhancements or expansions in the region of the Midwest Independent System Operator, Inc. the cost responsibility for which has been assigned to market participants in the PJM Region under the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.

(c) Nothing in this Section 1.8 shall affect or limit any Transmission Owners filing rights under Section 205 of the Federal Power Act as set forth in the PJM Tariff and applicable agreements.



### **1.9 Relationship to Service Requests in the PJM Open Access Transmission Tariff.**

Nothing herein shall modify the rights and obligations of an Eligible Customer or a Transmission Customer with respect to required studies and completion of necessary enhancements or expansions associated with service requests submitted pursuant to Parts II, III, IV, VI, VII, and VIII of the Tariff. An Eligible Customer or Transmission Customer electing to follow the above-referenced procedures shall also be responsible for the related costs. The enhancement and expansion study process under this Protocol shall be funded as a part of the operating budget of the Office of the Interconnection.

**SCHEDULE 19-A**  
**Interregional Transmission Coordination Between the SERTP and PJM Regions**

The Office of the Interconnection, through its regional transmission planning process, coordinates with the public utility transmission providers of Southeastern Regional Transmission Planning (“SERTP,” and individually, “SERTP Transmission Provider,” and collectively, “SERTP Transmission Providers”), as the transmission providers and planners for the SERTP region to address transmission planning coordination issues related to interregional transmission projects. The interregional transmission coordination procedures include a detailed description of the process for coordination between the SERTP Transmission Providers and the Office of the Interconnection, to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than transmission projects included in the respective regional transmission plans. The interregional transmission coordination procedures are hereby provided in this Schedule 19-A with additional materials provided on the PJM Regional Planning website.

The Office of the Interconnection and each of the SERTP Transmission Providers shall:

(1) Coordinate and share the results of the SERTP Transmission Providers’ and the Office of the Interconnection’s regional transmission plans to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than separate regional transmission projects;

(2) Identify and jointly evaluate transmission projects that are proposed to be located in both transmission planning regions;

(3) Exchange, at least annually, planning data and information; and

(4) Maintain a website and e-mail list for the communication of information related to the coordinated planning process.

The SERTP Transmission Providers and the Office of the Interconnection developed a mutually agreeable method for allocating between the two transmission planning regions the costs of new interregional transmission projects that are located within both transmission planning regions. Such cost allocation method satisfies the six interregional cost allocation principles set forth in Order No. 1000 and are included in Tariff, Schedule 12-B.

For purposes of this Schedule 19-A, each of the SERTP Transmission Provider’s transmission planning process is the process described in each of the SERTP Transmission Providers’ open access transmission tariffs; the Office of the Interconnection’s regional transmission planning process is the process described in Tariff, Schedule 19. References to the respective transmission planning processes in each of the SERTP Transmission Providers’ open access transmission tariffs are intended to identify the activities described in those tariff provisions. References to the respective regional transmission plans in this Schedule 19-A are intended to identify, for the Office of the Interconnection, the PJM Regional Transmission Expansion Plan (“RTEP”), as defined in applicable PJM documents and, for the each SERTP

Transmission Providers, the SERTP regional transmission plan which includes the applicable ten (10) year transmission expansion plan. Unless noted otherwise, section references in this Schedule 19-A refer to sections within this Schedule 19-A.

Nothing in this Schedule 19-A is intended to affect the terms of any bilateral planning or operating agreements between transmission owners and/or transmission service providers that exist as of the effective date of this Schedule 19-A or that are executed at some future date.

## **INTERREGIONAL TRANSMISSION PLANNING PRINCIPLES**

Representatives of the SERTP and the Office of the Interconnection will meet no less than once per year to facilitate the interregional coordination procedures described below (as applicable). Representatives of the SERTP and the Office of the Interconnection may meet more frequently during the evaluation of project(s) proposed for purposes of interregional cost allocation between the SERTP and the Office of the Interconnection. For purposes of this Schedule 19-A, an “interregional transmission project” means a facility or set of facilities that would be physically located in both the SERTP and PJM regions and would interconnect to transmission facilities in both the SERTP and PJM regions. The facilities to which the project is proposed to interconnect may be either existing transmission facilities or transmission projects included in the regional transmission plan that are currently under development.

### **1. Coordination**

1.1 **Review of Respective Regional Transmission Plans:** Biennially, the Office of the Interconnection and the SERTP Transmission Providers shall review each other’s current regional transmission plan(s) and engage in the data exchange and joint evaluation described in sections 2 and 3 below.

1.1.1 The review of each region’s regional transmission plan(s), which plans include the transmission needs and planned upgrades of the transmission providers in each region, shall occur on a mutually agreeable timetable, taking into account each region’s transmission planning process timeline.

1.2 **Review of Proposed Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection will also coordinate with regard to the evaluation of interregional transmission projects identified by the SERTP Transmission Providers and the Office of the Interconnection as well as interregional transmission projects proposed for Interregional Cost Allocation Purposes (“Interregional CAP”), pursuant to section 3 below and Tariff, Schedule 12-B. Initial coordination activities regarding new interregional proposals will typically begin during the third calendar quarter. The SERTP Transmission Providers and the Office of the Interconnection will exchange status updates for new interregional transmission project proposals or proposals currently under consideration as needed. These status updates will generally include, if applicable: (i) an update of the region’s evaluation of the proposal; (ii) the latest calculation of Regional Benefits (as defined in Tariff, Schedule 12-B); (iii) the anticipated timeline for future assessments; and (iv) reevaluations related to the proposal.

1.3 Coordination of Assumptions Used in Joint Evaluation: The SERTP Transmission Providers and the Office of the Interconnection will coordinate assumptions used in joint evaluations, as necessary, which includes items such as:

1.3.1 Expected timelines/milestones associated with the joint evaluation

1.3.2 Study assumptions

1.3.3 Regional benefit calculations

1.4 Posting of Materials on Regional Planning Websites: The SERTP Transmission Providers and the Office of the Interconnection will coordinate with respect to the posting of materials related to the interregional coordination procedures described in this Schedule 19-A on each region's regional planning website.

## 2. Data Exchange

2.1 At least annually, each of the SERTP Transmission Providers and the Office of the Interconnection shall exchange power-flow models and associated data used in the regional transmission planning processes to develop their respective then-current regional transmission plan(s). This exchange will occur when such data is available in each of the transmission planning processes, typically during the first calendar quarter. Additional transmission-based models and data may be exchanged between the SERTP Transmission Providers and the Office of the Interconnection as necessary and if requested. For purposes of the interregional coordination activities outlined in this Schedule 19-A, only data and models used in the development of the SERTP Transmission Provider's and the Office of the Interconnection's then-current regional transmission plans and used in their respective regional transmission planning processes will be exchanged. This data will be posted on the pertinent regional transmission planning process' websites, consistent with the posting requirements of the respective regional transmission planning processes, and is considered CEII. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting.

2.2 The RTEP will be posted on the Office of the Interconnection's Regional Planning website pursuant to the Office of the Interconnection's regional transmission planning process. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting so that the SERTP Transmission Providers may retrieve these transmission plans. Each of the SERTP Transmission Providers will exchange its then-current regional plan(s) in a similar manner according to its regional transmission planning process.

## 3. Joint Evaluation

3.1 Identification of Interregional Transmission Projects: The SERTP Transmission Providers and the Office of the Interconnection shall exchange planning models and data and current regional transmission plans as described in section 2 above. Each SERTP Transmission Provider and the Office of the Interconnection will review one another's then-current regional transmission plan(s) in accordance with the coordination procedures described in section 1 above and their respective regional transmission planning processes. If through this review, a SERTP Transmission Provider and the Office of the Interconnection identify a

potential interregional transmission project that could be more efficient or cost effective than projects included in the respective regional plans, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the potential project pursuant to section 3.3 below.

**3.2 Identification of Interregional Transmission Projects by Stakeholders:** Stakeholders may propose projects that may be more efficient or cost-effective than projects included in the SERTP Transmission Providers' and the Office of the Interconnection's regional transmission plans pursuant to the procedures in each region's regional transmission planning processes. The SERTP Transmission Providers and Office of the Interconnection will evaluate interregional transmission projects proposed by stakeholders pursuant to section 3.3 below.

**3.3 Evaluation of Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection shall act through their respective regional transmission planning processes to evaluate potential interregional transmission projects and to determine whether the inclusion of any potential interregional transmission projects in each region's regional transmission plan would be more efficient or cost-effective than projects included in the respective then-current regional transmission plans. Such analysis shall be consistent with accepted planning practices of the respective regions and the methods utilized to produce each region's respective regional transmission plan(s). The Office of the Interconnection will evaluate potential interregional transmission projects consistent with Tariff, Schedule 19 and the PJM Manuals 14A entitled New Services Request Process and 14B entitled PJM Region Transmission Planning Process on the PJM Website at <http://www.pjm.com/documents/manuals.aspx>. To the extent possible and as needed, assumptions and models will be coordinated between the SERTP Transmission Providers and the Office of the Interconnection, as described in section 1 above. Data shall be exchanged to facilitate this evaluation using the procedures described in section 2 above.

**3.4 Evaluation of Interregional Transmission Projects Proposed for Interregional Cost Allocation Purposes:** Interregional transmission projects proposed for Interregional CAP must be submitted in both the SERTP and PJM regional transmission planning processes. The project submittals must satisfy the applicable requirements for submittal of interregional transmission projects, including those in Tariff, Schedule 19 and Tariff, Schedule 12-B. The submittals in the respective regional transmission planning processes must identify the project proposal as interregional in scope and identify SERTP and PJM as the regions in which the project is proposed to interconnect. The Office of the Interconnection will determine whether the submittal for the proposed interregional transmission project satisfies all applicable requirements. Upon finding that the project submittal satisfies all such applicable requirements, the Office of the Interconnection will notify the SERTP Transmission Provider. Upon both regions so notifying one another that the project is eligible for consideration pursuant to their respective regional transmission planning processes, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the proposed interregional projects.

**3.4.1** If an interregional transmission project is proposed in the SERTP and Office of Interconnection for Interregional CAP, the initial evaluation of the project will typically begin during the third calendar quarter, with analysis conducted in the same manner as

analysis of interregional projects identified pursuant to sections 3.1 and 3.2 above. Further evaluation shall also be performed pursuant to this section 3.4. Projects proposed for Interregional CAP shall also be subject to the requirements of Tariff, Schedule 12-B.

3.4.2. Each region, acting through its regional transmission planning process, will evaluate proposals to determine whether the interregional transmission project(s) proposed for Interregional CAP addresses transmission needs that are currently being addressed with projects in its regional transmission plan(s) and, if so, which projects in the regional transmission plan(s) could be displaced by the proposed project(s).

3.4.3. Based upon its evaluation, each region will quantify a Regional Benefit based upon the transmission costs that each region is projected to avoid due to its transmission projects being displaced by the proposed project. For purposes of this Schedule 19-A, “Regional Benefit” means: (i) for the SERTP Transmission Providers, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included and (ii) for the Office of the Interconnection, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included. The Regional Benefit is not necessarily the same as the benefits used for purposes of regional cost allocation.

**3.5 Inclusion of Interregional Projects Proposed for Interregional CAP in Regional Transmission Plans:** An interregional transmission project proposed for Interregional CAP in the SERTP and Office of the Interconnection will be included in the respective regional plans for purposes of cost allocation only after it has been selected by both the SERTP and Office of the Interconnection regional processes to be included in their respective regional plans for purposes of cost allocation.

3.5.1. To be selected in both the SERTP and Office of the Interconnection regional plans for purposes of cost allocation means that each region has performed all evaluations, as prescribed in its regional transmission planning processes, necessary for a project to be included in its regional transmission plans for purposes of cost allocation.

- For SERTP: All requisite approvals are obtained, as prescribed in the SERTP regional transmission planning process, necessary for a project to be included in the SERTP regional transmission plan for purposes of cost allocation. This includes any requisite regional benefit to cost (“BTC”) ratio calculations performed pursuant to the respective regional transmission planning processes. For purposes of the SERTP, the anticipated allocation of costs of the interregional transmission project for use in the regional BTC ratio calculation shall be based upon the ratio of the SERTP’s Regional Benefit to the sum of the Regional Benefits identified for both the SERTP and the Office of the Interconnection; and
- For the Office of Interconnection: All requisite approvals are obtained, as prescribed in the PJM regional transmission planning process, necessary for a project to be included in the RTEP for purposes of cost allocation.

3.6 **Removal from Regional Plans:** An interregional transmission project may be removed from the SERTP's or Office of the Interconnection's regional plan for purposes of cost allocation: (i) if the developer fails to meet developmental milestones; (ii) pursuant to the reevaluation procedures specified in the respective regional transmission planning processes; or (iii) if the project is removed from one of the region's regional transmission plan(s) pursuant to the requirements of its regional transmission planning process.

3.6.1 The Office of the Interconnection, shall notify the SERTP Transmission Provider if an interregional project or a portion thereof is likely to be removed from its regional transmission plan.

#### 4. **Transparency**

4.1 The Office of the Interconnection shall post procedures for coordination and joint evaluation on the Regional Planning website.

4.2 Access to the data utilized will be made available through the Regional Planning website subject to the appropriate clearance, as applicable (such as CEII and confidential non-CEII). Both planning regions will make available, on their respective regional websites, links to where stakeholders can register (if applicable/available) for the stakeholder committees or distribution lists of the other planning region.

4.3 PJM will provide status updates of SERTP interregional activities to the TEAC including:

- Facilities to be evaluated
- Analysis performed
- Determinations/results.

4.4 Stakeholders will have an opportunity to provide input and feedback within the respective regional planning processes of SERTP and the Office of the Interconnection related to interregional facilities identified, analysis performed, and any determination/results. Stakeholders may participate in either or both regions' regional planning processes to provide their input and feedback regarding the interregional coordination between the SERTP and the Office of the Interconnection.

4.5 The Office of the Interconnection will post a list on the Regional Planning Website of interregional transmission projects proposed for purposes of cost allocation in both the SERTP and PJM that are not eligible for consideration because they do not satisfy the regional project threshold criteria of one or both of the regions as well as post an explanation of the thresholds the proposed interregional project failed to satisfy.

**SCHEDULE 19-B**  
**Interregional Transmission Coordination Between**  
**PJM, New York Independent System Operator, Inc. and ISO New England Inc.**

PJM, its Transmission Owners, and any other interested parties shall coordinate system planning activities with neighboring planning regions, (i.e., New York Independent System Operator, Inc. and ISO New England Inc.) (“ISO/RTO Regions”) pursuant to the Northeastern Planning Protocol (“Protocol”) identified in Tariff, Schedule 19, section 1.5.5(b).

The Interregional Planning Protocol includes a description of the committee structure, processes, and procedures through which system planning activities are openly and transparently coordinated by the ISO/RTO Regions. The objective of the interregional planning process is to contribute to the on-going reliability and the enhanced operational and economic performance of the ISO/RTO Regions through: (i) exchange of relevant data and information; (ii) coordination of procedures to evaluate certain interconnection and transmission service requests; (iii) periodic comprehensive interregional assessments; (iv) identification and evaluation of potential Interregional Transmission Projects that can address regional needs in a manner that may be more efficient or cost-effective than separate regional solutions, in accordance with the requirements of Order No. 1000.

Section 9 of the Protocol indicates that the cost allocation for identified interregional transmission projects between PJM and NYISO shall be conducted in accordance with the Joint Operating Agreement Among and Between New York Independent System Operator, Inc. and PJM Interconnection, L.L.C. referenced in Tariff, Schedule 19, section 1.5.5(b).

The planning activities of the ISO/RTO Regions shall be conducted consistent with the planning criteria of each ISO/RTO Region. The ISO/RTO Regions shall periodically produce a Northeastern Coordinated System Plan that integrates the system plans of all of the ISO/RTO Regions.



**ATTACHMENT  
M-3  
ADDITIONAL PROCEDURES FOR PLANNING  
SUPPLEMENTAL PROJECTS AND ASSET MANAGEMENT PROJECTS**

**(a) Applicability.** Each Transmission Owner shall be responsible for planning and constructing in accordance with ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19 as provided in this Attachment M-3, to the extent applicable, (i) Asset Management Projects, as defined herein, (ii) Supplemental Projects, as defined in ~~section 1.42A.02 of the Operating Agreement~~ the Tariff, and (iii) any other transmission expansion or enhancement of Transmission Facilities that is not planned by PJM to address one or more of the following planning criteria:

1. NERC Reliability Standards (which includes Applicable Regional Entity reliability standards);
2. Individual Transmission Owner planning criteria as filed in FERC Form No. 715 and posted on the PJM website, provided that the Additional Procedures for the Identification and Planning of EOL Needs, set forth in section (d), shall apply, as applicable;
3. Criteria to address economic constraints in accordance with section 1.5.7 of ~~the Operating Agreement~~ Tariff, Schedule 19 or an agreement listed in Schedule 12-Appendix B;
4. State Agreement Approach expansions or enhancements in accordance with section 1.5.9(a)(ii) of ~~the Operating Agreement~~ Tariff, Schedule 19; or
5. An expansion or enhancement to be addressed by the RTEP Planning Process pursuant to section (d)(2) of this Attachment M-3 in accordance with RTEP Planning Process procedures in ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19.

This Attachment M-3 shall not apply to CIP-014 mitigation projects that are subject to Attachment M-4.

**(b) Definitions.**

1. Asset Management Project. “Asset Management Project” shall mean any modification or replacement of a Transmission Owner’s Transmission Facilities that results in no more than an Incidental Increase in transmission capacity undertaken to perform maintenance, repair, and replacement work, to address an EOL Need, or to effect infrastructure security, system reliability, and automation projects the Transmission Owner undertakes to maintain its existing electric transmission system and meet regulatory compliance requirements.
2. Attachment M-3 Project. “Attachment M-3 Project” means (i) an Asset Management Project that affects the connectivity of Transmission Facilities that

are included in the Transmission System, affects Transmission Facility ratings or significantly changes the impedance of Transmission Facilities; (ii) a Supplemental Project; or (iii) any other expansion or enhancement of Transmission Facilities that is not excluded from this Attachment M-3 under any of clauses (1) through (5) of section (a). “Attachment M-3 Project” does not include a project to address Form No. 715 EOL Planning Criteria.

3. Incidental Increase. “Incidental Increase” shall mean an increase in transmission capacity achieved by advancements in technology and/or replacements consistent with current Transmission Owner design standards, industry standards, codes, laws or regulations, which is not reasonably severable from an Asset Management Project. A transmission project that results in more than an Incidental Increase in transmission capacity is an expansion or enhancement of Transmission Facilities.
4. Transmission Facilities. “Transmission Facilities” shall have the meaning set forth in the Consolidated Transmission Owners Agreement, ~~section 1.27~~.
5. EOL Need. “EOL Need” shall mean a need to replace a transmission line between breakers operating at or above 100 kV or a transformer, the high side of which operates at or above 100 kV and the low side of which is not connected to distribution facilities, which the Transmission Owner has determined to be near the end of its useful life, the replacement of which would be an Attachment M-3 Project.
6. Candidate EOL Needs List. “Candidate EOL Needs List” shall have the meaning ascribed to it in section (d)(1)(iii).
7. Form No. 715 EOL Planning Criteria. “Form No. 715 EOL Planning Criteria” shall mean planning criteria filed by a Transmission Owner in FERC Form No. 715 to address EOL Needs. No Transmission Owner may be compelled to file a Form No. 715 EOL Planning Criteria not required to be filed pursuant to FERC regulations applicable to Form No. 715.
8. Attachment M-3 EOL Planning Criteria. “Attachment M-3 EOL Planning Criteria” shall mean planning criteria utilized by a Transmission Owner under Attachment M-3 to address EOL Needs.
9. PJM Planning Criteria Need. “PJM Planning Criteria Need” shall mean a need to plan a transmission expansion or enhancement of Transmission Facilities other than those reserved to each Transmission Owner in accordance with section (a).
10. RTEP Planning Process. “RTEP Planning Process” shall mean the process by which PJM develops the Regional Transmission Expansion Plan under ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19.

(c) **Procedures for Review of Attachment M-3 Projects.** The following procedures shall be applicable to the planning of Attachment M-3 Projects:

1. **Review of Attachment M-3 Projects.** As described in sections 1.3(c) and (d) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, the Subregional RTEP Committees shall be responsible for the review of Attachment M-3 Projects. The Subregional RTEP Committees shall have a meaningful opportunity to participate and provide feedback, including written comments, throughout the transmission planning process for Attachment M-3 Projects. Disputes shall be resolved in accordance with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable at Schedule 5 of the Operating Agreement. For purposes of this section (c), reference to the Subregional RTEP Committees shall be deemed to include the Transmission Expansion Advisory Committee (TEAC) when the TEAC reviews Attachment M-3 Projects in accordance with these procedures.
2. **Review of Assumptions and Methodology.** In accordance with sections 1.3(d), 1.5.4(a), and 1.5.6(b) and 1.5.6(c) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions, and models Transmission Owners propose to use to plan and identify Attachment M-3 Projects (Assumptions Meeting). Each Transmission Owner shall provide the criteria, assumptions, and models to PJM for posting at least 20 days in advance of the Assumptions Meeting to provide Subregional RTEP Committee Participants sufficient time to review this information. Stakeholders may provide comments on the criteria, assumptions, and models to the Transmission Owner for consideration either prior to or following the Assumptions Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the Assumptions Meeting and may respond or provide feedback as appropriate.
3. **Review of System Needs.** No fewer than 25 days after the Assumptions Meeting, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting per planning cycle to review the identified criteria violations and resulting system needs, if any, that may drive the need for an Attachment M-3 Project (Needs Meeting). Each Transmission Owner will review the identified system needs and the drivers of those needs, based on the application of its criteria, assumptions, and models that it uses to plan Attachment M-3 Projects. The Transmission Owners shall share and post their identified criteria violations and drivers no fewer than 10 days in advance of the Needs Meeting. Stakeholders may provide comments on the criteria violations and drivers to the Transmission Owner for consideration prior to, at, or following the Needs Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the Needs Meeting and may respond or provide feedback as appropriate.

4. **Review of Potential Solutions.** No fewer than 25 days after the Needs Meeting, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting per planning cycle to review potential solutions for the identified criteria violations (Solutions Meeting). The Transmission Owners shall share and post their potential solutions, as well as any alternatives identified by the Transmission Owners or stakeholders, no fewer than 10 days in advance of the Solutions Meeting. Stakeholders may provide comments on the potential solutions to the Transmission Owner for consideration either prior to or following the Solutions Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the meeting and may respond or provide feedback as appropriate.
5. **Submission of Attachment M-3 Projects.** Each Transmission Owner will finalize for submittal to the Transmission Provider Attachment M-3 Projects for inclusion in the Local Plan in accordance with section 1.3 of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19 and the schedule established by the Transmission Provider. Stakeholders may provide comments on the Attachment M-3 Projects in accordance with section 1.3 of ~~Schedule 6 of the PJM Operating Agreement~~ Tariff, Schedule 19 before the Local Plan is integrated into the Regional Transmission Expansion Plan. Stakeholders shall have at least 10 days to comment on the Local Plan after the solutions selected by the Transmission Owner for inclusion in the Local Plan are posted. Each Transmission Owner shall review and consider comments that are received at least 10 days before the Local Plan is submitted for integration into the Regional Transmission Expansion Plan.
6. **Information Relating to Attachment M-3 Projects.** Information relating to each Transmission Owner's Attachment M-3 Projects will be provided in accordance with, and subject to the limitations set forth in, section 1.5.4 of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19. Local Plan Information will be provided to and posted by the Office of Interconnection as set forth in section 1.5.4(e) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19.
7. **No Limitation on Additional Meetings and Communications or Use of Attachment M-3 For Other Transmission Projects.**
  - i. Nothing in this Attachment M-3 precludes any Transmission Owner from agreeing with stakeholders to additional meetings or other communications regarding Attachment M-3 Projects, in addition to the Subregional RTEP Committee process.

- ii. Nothing in this Attachment M-3 precludes a Transmission Owner from using the procedures set forth in section (c) to solicit stakeholder input in the planning of Transmission Facilities not subject to this section (c) or the RTEP Planning Process.

**(d) Additional Procedures for the Identification and Planning of EOL Needs.**

**1. EOL Need Planning Criteria Documentation and Identification**

- i. Each PJM Transmission Owner shall develop documentation for its Attachment M-3 EOL Planning Criteria and/or its Form 715 EOL Planning Criteria through which each identifies EOL Needs.
- ii. Each Transmission Owner's Attachment M-3 EOL Planning Criteria and/or Form 715 EOL Planning Criteria shall be clearly and separately delineated and presented by the Transmission Owner at least once annually pursuant to section (c)(2) and/or in its FERC Form No. 715 at a meeting of the TEAC.
- iii. Annually, each Transmission Owner will provide to PJM a Candidate EOL Needs List comprising its non-public confidential, non-binding projection of up to 5 years of EOL Needs that it has identified under the Transmission Owner's processes for identification of EOL Needs documented under section (d)(1)(i). Each Transmission Owner may change its projection as it deems necessary and will update it annually. Any Candidate EOL Needs List provided to PJM shall remain confidential within PJM, except to the extent necessary for PJM to make the determination referenced in clause (a) of section (d)(2)(ii).

**2. Coordination of EOL Needs Planning With PJM Planning Criteria Needs.**

- i. If, as part of the RTEP Planning Process, PJM initially determines that a substantial electrical overlap exists such that a single Solution may address a validated PJM Planning Criteria Need(s) identified during the current PJM planning cycle under the RTEP Planning Process and address a projected EOL Need on the Candidate EOL Needs List, which the relevant Transmission Owner has confirmed remains a projected EOL Need, the relevant Transmission Owner shall consult with PJM regarding such potential overlap.
- ii. If, (a) PJM determines through the RTEP Planning Process that a proposed Required Transmission Enhancement would more efficiently ~~and-or~~ cost-effectively address the identified PJM Planning Criteria Need and may, as well, address the projected EOL Need confirmed under section (d)(2)(i), and (b) the proposed Required Transmission Enhancement is not a solution proposed by the Transmission Owner pursuant to section (c)(4), and (c) the Transmission Owner determines that the projected EOL Need

is not met by the proposed Required Transmission Enhancement and determines that it will plan an Attachment M-3 Project to address the projected EOL Need or propose a project to address the Form No. 715 EOL Planning Criteria, the Transmission Owner will provide documentation to PJM and stakeholders on the rationale supporting its determination at the next appropriate meeting of the TEAC or Subregional RTEP Committee that considered the proposed Required Transmission Enhancement.

- (e) **Modifications.** This Attachment M-3 may only be modified under section 205 of the Federal Power Act if the proposed modification has been authorized by the PJM Transmission Owners Agreement-Administrative Committee in accordance with section 8.5 of the Consolidated Transmission Owners Agreement.

## ATTACHMENT M-4

### SPECIAL PROCEDURES SOLELY APPLICABLE TO PLANNING OF CIP-014 MITIGATION SUPPLEMENTAL PROJECTS

- a) **Purpose, Limited Scope, Sunset, and Definitions.** Under NERC Reliability Standard CIP-014-2 (“CIP-014”), as it may be redesignated from time to time, Transmission Owners are required to develop and implement physical security plans to protect certain critical transmission stations and substations. This Attachment M-4 is to identify an efficient and cost-effective process for the elimination of such stations and substations as CIP-014 facilities through Supplemental Projects without the level of public disclosure of the existence, location, exact number, and vulnerabilities associated with the CIP-014 facilities that would otherwise be required pursuant to Attachment M-3. The Supplemental Projects that are to be planned for the elimination of CIP-014 stations and substations in accordance with this Attachment M-4, defined below as CIP-014 mitigation projects (“CMP”) in Step 1 of this Attachment M-4, are removed from the Attachment M-3 public planning process in order to ensure that security is maintained while also providing reasonable transparency into the planning process and justification for CMPs. This Attachment M-4 mechanism is a limited alternative to the Attachment M-3 process both in scope and duration, is narrowly tailored to meet security needs, and provides for vital roles by both PJM Interconnection, L.L.C. (“PJM”) and State Commissions in all CMP Process Steps, as set forth below. Notwithstanding the procedures provided for in Attachment M-3 or other planning requirements with respect to all other Supplemental Projects, including proposed project reviews by the Transmission Expansion Advisory Committee or Subregional RTEP Committees and inclusion in the Local Plan, this Attachment M-4 provides special targeted procedures that the Transmission Owners and the unaffiliated verifying entity as defined in NERC CIP-014 (currently, PJM), shall follow in connection with CMPs, which have the specific purpose of removing transmission stations or substations from the list of CIP-014 facilities, within the limited period for which this Attachment M-4 shall be in effect pursuant to the Sunset provision and Step 1 of this Attachment M-4. Other than to the extent that CMP information is included in models maintained by the Transmission Provider, this information shall be made available to the public during the planning and construction of the CMP only under the confidentiality provisions described in Steps 8 and 10 below. Provisions for confidential consultations with State Commissions during this process are also included herein.
- b) **CMP Process Steps.** The process under this Attachment M-4 consists of the following steps:
1. **Definition of CMPs.** For purposes of this Attachment M-4, a CMP shall mean a “Supplemental Project,” as defined in the ~~Operating Agreement, Section 1.42A.02~~ Tariff, that is (a) designed specifically to remove a transmission station or

- substation from the list of CIP-014 facilities identified as of September 30, 2018 as requiring a documented physical security plan (“CIP-014 List”); and (b) reviewed by PJM in accordance with Step 4 of this Attachment M-4. The intent is to complete CMPs no later than five (5) years after the date that the Commission issues an Order accepting this Attachment M-4.
2. **Limitation on the Number of CMPs.** The number of stations and substations throughout the PJM region eligible for CMPs will not exceed 20, the maximum allowable under the finite list referred to in Step 1 of this Attachment M-4. The process set forth in this Attachment M-4 shall be in effect and available only as to CMPs designed specifically to remove a transmission station or substation from the list of CIP-014 facilities as it exists on September 30, 2018 and will cease to apply to any transmission station or substation if it is removed or eliminated from that list immediately upon such removal or elimination.
  3. **Transmission Owner Deliberative Process.** A Transmission Owner will submit to PJM:
    - A. **Potential Solutions.** The potential alternative means of eliminating a transmission station or substation from the CIP-014 List; and
    - B. **Preferred Solution.** Identification from among the Potential Solutions the solution that in the view of the Transmission Owner constitutes the more efficient or cost-effective solution to enable the transmission station or substation to be removed from the list of CIP-014 facilities along with an explanation of its Preferred Solution that addresses the following:
      - i. The customer impact that would result from the loss of the transmission station or substation on the CIP-014 List, taking into account any plans for recovering from the loss of the transmission station or substation that could help to restore all or some of the load that was lost, the amount of time that it would take for such load to be restored and the nature of the load to be recovered or not able to be recovered;
      - ii. Whether there are distribution system-level solutions to eliminate the transmission station or substation from the CIP-014 List; and
      - iii. Whether the Preferred Solution requires new or expanded right-of-way.
  4. **PJM Review and Assessment.**
    - A. **PJM Review.** Upon receiving the Preferred Solution and Potential Solutions from a Transmission Owner pursuant to Step 3 above, PJM (or consultants selected by PJM) shall evaluate those solutions. PJM shall report its findings to the



Transmission Owner in writing and either: (i) advise that the Preferred Solution is the more efficient or cost effective solution from among the Preferred Solutions and Potential Solutions; (ii) suggest modifications to any of the Preferred Solution or Potential Solutions that will permit PJM to advise that one of them is the more efficient or cost effective solution; or (iii) advise that a CMP solution not be pursued. PJM's report of its findings shall include an explanation of the basis for its advice.

- B. PJM Assessment and Verification. For any CMP project ultimately selected for construction by the Transmission Owner ("Proposed CMP"), PJM shall assess and verify (or explain its inability to verify) that the project:
- i. Will result in removal of one or more transmission stations or substations from the CIP-014 List;
  - ii. Does not remove transmission station(s) or substation(s) from the CIP-014 List that would otherwise be removed from the list through the current Regional Transmission Expansion Planning Process under the ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 ("RTEP Process");
  - iii. Does not provide a solution to address a reliability, operational performance, market efficiency or public policy need that would otherwise be addressed through the current RTEP Process;
  - iv. Will not result in another transmission station or substation being added to the CIP-014 List; and
  - v. Does not result in reliability or operational performance criteria violations under the RTEP Process.

PJM shall report its assessment of these factors to the Transmission Owner in writing. No CMP solution shall proceed to another step in the Attachment M-4 process until this Step 4 has been completed. Once PJM and the Transmission Owner have agreed that the report is final, PJM's report will be provided to the affected State Commission, at that agency's option.

5. Consultation with State Commissions. The Transmission Owner shall ensure that all consultations with a State Commission as set forth in this Step 5, are subject to appropriate confidential safeguards. The Transmission Owner shall only be required to engage in consultations with a State Commission with respect to the planning and construction of a CMP under Step 5 and the Transmission Owner and PJM shall only consult with or provide information to a State Commission under Steps 5 or 6, if and to the extent that the Transmission Owner can ensure that such consultations and information will be subject to such appropriate confidential safeguards.

- A. Any Transmission Owner having submitted to PJM a Preferred Solution and Potential Solutions to eliminate a transmission station or substation from the CIP-014 List pursuant to Step 3 above shall seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which a CMP is proposed to be located. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to the considerations specified in CIP-014, including the need for a CMP, the Potential Solutions submitted to PJM, and the Transmission Owner's Preferred Solution.
- B. Upon PJM's completion of the review specified in Step 4 above, the Transmission Owner shall again seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which a CMP is proposed to be located. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to PJM's review and findings, including the efficiency and cost-effectiveness of any and all of PJM's recommendations.
- C. After identifying and selecting its Proposed CMP pursuant to completion of Step 4(B) above, but before construction is initiated, the Transmission Owner shall further seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which the Proposed CMP is to be constructed. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to PJM's assessment of the factors in Step 4(B)(i) through (v) above, the rationale for, location of, and specifications of the Proposed CMP and potential siting issues, particularly those that could affect the estimated project cost. To facilitate the discussion and enable an understanding of the benefits of costs assessed, the Transmission Owner shall be prepared to present an explanation of the reasons and rationale for its intention to proceed to construct its Proposed CMP and the reasonableness of that proposal. The Transmission Owner shall be prepared to address the following:
  - i. The customer impact that would result from the loss of the transmission station or substation on the CIP-014 List, taking into account any plans for recovering from the loss of the transmission station or substation that could help to restore all or some of the load that was lost, the amount of time that it would take for such load to be restored and the nature of the load to be recovered or not able to be recovered, as compared to these same factors as they relate to that station or substation assuming that the Proposed CMP is constructed;
  - ii. Whether there exist distribution system-level solutions, or changes in operating procedures, or some combination, to eliminate the transmission station or substation from the CIP-014 List;
  - iii. Whether the Proposed CMP requires new or expanded right-of-way;

- iv. Whether the Proposed CMP will displace costs associated with maintaining physical security for stations/substations on the CIP-014 List; and
  - v. The estimated cost of the Proposed CMP.
- 6. PJM Interim/Periodic Review and Interim Consultation with State Commissions. Nothing in this Attachment M-4 precludes PJM, at its sole discretion, from conducting additional periodic examinations to verify the continuing validity of its findings and assessment under Step 4, above. Similarly, nothing in this Attachment M-4 precludes PJM from consulting with State Commissions in addition to those consultations specified in Step 5 above, with or without the participation of the relevant Transmission Owner.
- 7. Project Notification and Compliance.
  - A. Transmission Owner Notification to PJM. Upon satisfaction of all parts of Step 5, the Transmission Owner shall notify PJM in writing that the Proposed CMP will be constructed and identify the location and specifications of the Proposed CMP selected. The Transmission Owner shall make a reasonable effort to seek alternative funding to offset project costs, including but not limited to U.S. Department of Energy grants associated with addressing national security, critical infrastructure or resilience.
  - B. Compliance. The Transmission Owner will comply with all applicable licensing, permitting, siting, or certification requirements as well as all applicable proceedings for eminent domain authority.
- 8. CMP Construction. During construction of a CMP, the Transmission Owner carrying out such construction shall continue to take safeguards to ensure necessary confidentiality until the CMP is placed in service.
- 9. CMP In-Service Placement. A Transmission Owner shall have complied with all of its obligations set forth in the CMP Process Steps above before the CMP may be placed in-service.
- 10. Confidentiality. If at any step in the Attachment M-4 process, the level of needed confidentiality is eliminated with respect to elements of CMP information, such confidentiality shall be reduced or lifted. As a precondition to any Transmission Owner being eligible for recovery of the costs of the CMP, the Transmission Owner shall provide public notice of the existence of the CMP.
- 11. Public Review of CMP. At no time prior to the existence of the CMP being made known to the public by adherence to Step 10 of this Attachment M-4 shall the costs of any CMP be eligible for inclusion in rates filed by any Transmission Owner. After

notice of the existence of a CMP has been provided by adherence to Step 10 of this Attachment M-4, the Transmission Owner may propose to recover its investment in the CMP and the associated costs from Responsible Customers in its Zone through a rate, including a formula rate, in effect under the applicable Tariff, Attachment H similar to the cost recovery process it follows for other Supplemental Projects. Any such proposal shall be subject to discovery on all matters pursuant to the procedures applicable under the applicable Attachment H, the Federal Power Act, and the Commission's regulations, including any applicable procedures for the protection against disclosure of commercially sensitive information and Critical Energy Infrastructure Information.

- c) **Modifications.** This Attachment M-4 may be modified under Section 205 of the Federal Power Act only if the proposed modification has been authorized by the PJM Transmission Owners Agreement-Administrative Committee in accordance with Section 8.5 of the Consolidated Transmission Owners Agreement ("CTOA").
- d) **Sunset.** This Attachment M-4 terminates five years after the issuance date of an Order from the Federal Energy Regulatory Commission approving this Attachment M-4 for inclusion in the PJM Tariff; however, CMPs already under construction as of that date of termination may proceed and the conditions in Steps 8, 9, 10, and 11 shall remain in force. For any CMP construction occurring after the sunset date, quarterly status briefings shall be provided to any State Commission previously consulted under Step 5 until the CMP is placed in service pursuant to Step 9.

## 21.1 Regulatory Filing:

In the event that this Interconnection Construction Service Agreement contains any terms that deviate materially from the form included in Attachment P or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed Interconnection Construction Service Agreement on behalf of itself and the Interconnected Transmission Owner with FERC as a service schedule under the Tariff. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Section 17 of this Appendix 2. An Interconnection Customer shall have the right, with respect to any Interconnection Construction Service Agreement tendered to it, to request (a) dispute resolution under Section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement~~, or (b) that Transmission Provider file the agreement unexecuted with the Commission. With the filing of any unexecuted Interconnection Construction Service Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any Construction Parties.

## **ATTACHMENT U**

### **INDEPENDENT TRANSMISSION COMPANIES**

References to section numbers in this Attachment U refer to sections of this Attachment U, unless otherwise specified.

This Attachment U sets forth a general framework for the development and operation of independent transmission companies (“ITCs”) as to certain of the transmission facilities for which the Transmission Provider, PJM Interconnection, L.L.C. (“PJM”), is otherwise responsible. The provisions of this Attachment U shall govern in the event of any conflict between this Attachment and the other provisions of the Tariff, except as to Tariff, Attachment M. If there is a conflict between the provisions of this Attachment U and Tariff, Attachment M, the provisions of Tariff, Attachment M shall govern. Under this Attachment U, certain responsibilities may be assigned to an ITC, if the ITC enters into an ITC Agreement in the form set forth in this Tariff and if FERC acceptance of the independence of the ITC and FERC approval or acceptance of the assignment is obtained as provided herein.

This Attachment U sets forth the standard terms and conditions, and the standard division of rights, responsibilities, and functions, in conformance with FERC policy and precedent, for any ITC that operates under PJM. Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall enter into an ITC Agreement in the form set forth in Tariff, Attachment V, which is subject to and incorporates the standard terms and conditions of this Attachment U and identifies the ITC Transmission Facilities (as defined herein).

It is recognized that PJM shall be responsible for administering any wholesale energy market (and providing all functions integral to such market administration) within the PJM region.

#### **1. FERC APPROVAL**

1.1 FERC Acceptance As A Prerequisite. Before receiving the rights and responsibilities provided for under this Attachment U, the ITC Sponsor shall apply for and receive a FERC order accepting the ITC proposal to be implemented and finding that the proposed ITC satisfies FERC’s independence criteria and that such entity may be treated as an ITC under this Attachment U.

1.2 Effect of FERC Acceptance. Once FERC issues an order accepting the filing and providing the finding required under section 1.1 above, then the ITC, subject to satisfaction of the other requirements of this section 1, may operate under PJM consistent with the rights, responsibilities, and functions that have been accepted or approved by FERC.

1.3 Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall submit a filing with FERC detailing each of the rights, responsibilities, and functions the ITC proposes to assume, which may consist of some or all of the rights, responsibilities, and functions set forth in this Attachment U, together with specifics on implementing any of these assigned rights, responsibilities, and functions. An ITC Sponsor must have, or demonstrate to

FERC that it shall have prior to implementation, ownership of, or the authority to direct the operation of, transmission facilities that are within the PJM region, or that are to be added to the PJM region as a result of the establishment of the ITC (such facilities referred to herein as the “ITC Transmission Facilities”).

1.4 Following the FERC approvals specified in section 1.1 above, the ITC shall assume the rights and responsibilities described herein on the first day of the calendar month (“ITC Commencement Date”) following the date on which the ITC provides written notice to Transmission Provider that the ITC is prepared to assume its responsibilities hereunder in accordance with section 15 below. PJM shall coordinate with the ITC prior to the ITC Commencement Date to ensure that PJM is capable as of the ITC Commencement Date of providing the responsibilities reserved to PJM hereunder as to the ITC Transmission Facilities and related bulk power facilities.

1.5 Prior to the ITC Commencement Date, the ITC and each owner of transmission facilities participating in such ITC shall execute, with respect to the transmission facilities over which it has the authority to direct the operation: (a) the Consolidated Transmission Owners Agreement; and (b) the Operating Agreement. In the event of any conflict between the ITC Agreement and the Operating Agreement that affects the PJM Region other than the ITC Transmission Facilities, the provisions of the Operating Agreement shall control pending dispute resolution, with final approval of the dispute’s resolution by FERC. In the event of any other express conflict between the ITC Agreement and the Operating Agreement or the transmission owners agreement executed by ITC, neither the transmission owners agreement nor the Operating Agreement shall be interpreted to limit the rights and responsibilities assigned to ITC in its role as an ITC pursuant to the ITC Agreement.

## **2. SECURITY COORDINATION**

2.1 Regional Reliability Authority. PJM shall be the regional Reliability Authority under NERC standards for all PJM transmission facilities, including any ITC Transmission Facilities. As the Reliability Authority, PJM is responsible for monitoring and directing corrective action for reliability for all areas in the PJM region.

2.2 ITC Actions to Preserve System Security. An ITC may monitor and analyze the security of the ITC Transmission Facilities and may take actions to protect the ITC Transmission Facilities from physical damage or prevent injury or damage to persons or property in accordance with good utility practice and the PJM Operating Manuals, as they may be modified pursuant to section 16 of this Attachment U, before requesting assistance from PJM. At the earliest possible time, the ITC shall inform PJM of any such actions taken and coordinate further actions with PJM.

2.3 Ultimate Authority. Notwithstanding any other provision in this Attachment U, PJM may intercede and direct appropriate actions in its role as the regional Reliability Authority. The ITC shall be responsible for implementing such corrective actions directed by PJM. If such PJM action or direction is disputed, PJM’s position shall control pending resolution of the dispute.

### **3. BASE TRANSMISSION RATES**

3.1 Right to File Rate Changes. The ITC shall possess the unilateral right, subject to consultation with PJM, to file at FERC and to place into effect pursuant to FPA section 205 the rates for transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities (including incentive rate structures, but excluding ancillary services, except as permitted by section 17 below, and excluding the congestion pricing methodology for the PJM region), and for additional services, if any, solely involving the ITC Transmission Facilities, and the revenue requirement for such zones for use in developing rates for other transmission services provided by PJM. Such rate or rate structure changes shall be included in discrete schedules or portions of the Tariff (hereafter, such the “ITC Rate Schedule”). The ITC shall consult with PJM prior to making a section 205 rate filing to ensure that PJM has adequate opportunity to determine whether the proposal results in adverse impacts outside the zone or zones comprising the ITC Transmission Facilities.

3.2 Limitations. The ITC may not implement transmission rates in accordance with section 3.1 above that violate the terms of the Consolidated Transmission Owners Agreement.

3.3 No Rate Pancaking. Notwithstanding its rights under section 3.1 above, the ITC shall not implement rates or a rate structure that results in a Transmission Customer paying more than one base transmission charge for use of the Transmission System for any one transaction.

### **4. REVENUE DISTRIBUTION**

4.1 ITC Receipt of Transmission Revenues. The ITC shall receive and/or retain revenues resulting from the provision of transmission service under the Tariff in accordance with the applicable revenue distribution procedures of the Consolidated Transmission Owners Agreement. The ITC may take no unilateral action that interferes with or affects the revenue distribution provided for in such agreements or that interferes with the collection by PJM of the revenues due it for services it provides or arranges.

4.2 Redistribution of Revenues. The ITC may distribute the revenues due it in accordance with section 4.1 above in any manner it wishes subject to receiving any necessary regulatory approvals, without involvement of PJM.

### **5. MANAGEMENT OF CONGESTION PRICING METHODOLOGY**

5.1 Subject to FERC approval, PJM shall determine the congestion pricing methodology for the PJM region, administer the dispatch of the generation and transmission facilities in the PJM region in accordance with the approved methodology, calculate the resulting congestion prices, and conduct all related billing and settlement.

### **6. ACTIONS TO ENHANCE TRANSMISSION PERFORMANCE**

6.1 The ITC may take actions with respect to the system comprised of the ITC Transmission Facilities that can be accommodated within the framework of the approved congestion pricing



methodology referenced in section 5.1 above. It may do this through targeted transmission system investment, outage management, the determination of transmission device settings, establishing contractual arrangements (e.g., with generators and LSE's), changes in technology, and other operating actions affecting the ITC Transmission Facilities. Before it first implements such actions, the ITC shall consult with PJM to develop procedures for inclusion in the PJM Operating Manuals for each class of such action that the ITC may thereafter implement. In such consultation, PJM shall consider whether the type of action can be accommodated within the framework of the approved congestion pricing methodology and whether the type of action would result in violations of regional reliability criteria applied in the PJM region. Following inclusion of procedures for each such type of action in the Manuals, the ITC may implement such actions in coordination with PJM in the manner set forth in the manuals. In addition, the ITC and PJM shall cooperate with one another in solving operational issues outside the ITC region that affect the ITC Transmission Facilities, or inside the ITC region that affect facilities outside such region.

6.2 Incentive Mechanisms. The ITC shall possess the unilateral right to file with FERC incentive mechanisms relating to the system comprised of the ITC Transmission Facilities in a manner that can be accommodated within the framework of the approved methodology referenced in section 5.1 above. The ITC shall consult with PJM prior to filing any such mechanism to allow PJM to consider whether any such proposed mechanism can be so accommodated and whether it would result in violations of regional reliability criteria applied in the PJM region. In addition, prior to the implementation of any such incentive mechanism, the ITC and PJM shall coordinate the operation of any such mechanism. PJM shall modify the PJM Operating Manuals as necessary to allow for the implementation of any FERC-approved incentive mechanism.

## **7. TARIFF ADMINISTRATION**

7.1 Service under the Tariff. PJM is the Transmission Provider and remains responsible for administering the Tariff, which shall be amended to include the ITC Transmission Facilities and any provisions specific to the ITC Transmission Facilities that the ITC may propose pursuant to this Attachment U. Transmission Customers on the ITC Transmission Facilities will receive transmission service under the Tariff. PJM shall execute the agreements with customers for service under the Tariff, except that the ITC and PJM shall both execute agreements with customers for interconnection services. For transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities, to the extent rate discounting is authorized as to such transmission services, the ITC shall make all decisions on rate discounts.

7.2 OASIS. PJM shall maintain the OASIS specified in Tariff, section 4. Customers shall apply for service on the PJM OASIS. PJM shall have responsibility for granting or denying all transmission service requests, but shall coordinate as necessary with ITC in developing its response to transmission service requests, including any necessary studies. The ITC shall be entitled to have and maintain a site page within the PJM OASIS for any additional services provided by such ITC.

7.3 Studies. PJM shall administer the contracts with the customers and shall provide the notices and make filings under this Tariff. If a system impact, facilities, or other study is required to address a connection to, or a constraint or other impact on, the ITC Transmission Facilities, then the ITC shall assume responsibility for the study subject to oversight by, and coordination with, PJM, and satisfaction of PJM criteria for such studies as set forth in the joint planning protocol developed pursuant to section 10.3 below. The study agreement shall be executed by PJM; provided however, that nothing herein shall preclude the ITC from entering into additional agreements with customers regarding studies.

7.4 ATC. PJM shall calculate Available Transfer Capability (“ATC”), in accordance with Tariff, Attachment C, for all facilities, including the ITC Transmission Facilities, provided that the ITC shall possess the unilateral right to provide, pursuant to section 9.1 of this Attachment U, the ratings, transfer limits, inputs, assumptions, and corresponding operating guides with respect to the ITC Transmission Facilities to be used in calculating ATC. If PJM disagrees with these ratings, transfer limits, calculations, inputs, assumptions, or corresponding operating guides, the ITC’s position shall prevail pending dispute resolution, unless PJM determines that ITC’s position would violate system reliability criteria, in which case PJM’s position shall prevail pending dispute resolution.

7.5 Scheduling. Customers will schedule through the processes established by PJM.

## **8. CURTAILMENTS**

8.1 PJM shall be responsible for directing all curtailments consistent with the Tariff and the Operating Agreement. The ITC and PJM shall develop protocols to implement any curtailments ordered by PJM with respect to the ITC Transmission Facilities.

8.2 The ITC may propose to PJM operating methods to avoid and/or limit the need for curtailments, and may implement such measures involving operation of the ITC Transmission Facilities, in coordination with PJM; provided, however, that if PJM determines that a measure proposed by the ITC would exacerbate an existing violation of a system reliability criterion, or cause a violation of such criterion elsewhere on the system, or of another system reliability criterion, then that measure shall not be implemented, pending dispute resolution.

## **9. OPERATIONS**

9.1 Ratings and Rating Procedures. The ITC is responsible for the establishment of ratings, transfer limits, and rating procedures for the ITC Transmission Facilities. The ITC shall provide notice to PJM of all changes in ratings, transfer limits, and rating procedures, along with the related information called for by Operating Agreement, Schedule 1, section 1.9.8, in accordance with the deadlines set forth in such section 1.9.8 and in accordance with the PJM Manuals, as they may be modified pursuant to section 16 below; provided that nothing in section 1.9.8 shall preclude the ITC from instituting ratings changes (including, but not limited to, dynamic ratings changes) in accordance with applicable PJM Operating Manuals, as they may be revised pursuant to section 16 of this Attachment U. Notwithstanding Operating Agreement, Schedule 1,

section 1.9.8 or Operating Agreement, Schedule 1, section 1.9.9(e), should PJM dispute the application of a rating, then the ITC's position shall prevail pending dispute resolution.

9.2 Transmission Maintenance. The ITC shall be responsible for developing its own coordinated transmission maintenance and outage schedules for the ITC Transmission Facilities and shall advise PJM of all such maintenance and outage schedules, for all ITC Transmission Facilities, in accordance with Operating Agreement, Schedule 1, section 1.9.2. PJM shall have the authority to disapprove transmission maintenance outages on the ITC Transmission Facilities if ITC fails to comply with the notice requirements of Operating Agreement, Schedule 1, section 1.9.2 to the Operating Agreement, or if PJM determines that such outages would create a violation of system reliability criteria. PJM shall have the authority to revoke its previously granted approval of transmission maintenance outages on the ITC Transmission System if forced transmission outages or emergency circumstances occur such that proceeding with the approved outage would create a violation of system reliability criteria; provided that, where time permits, PJM will consult with the ITC to determine whether steps can be taken that would enable the maintenance outage to go forward as scheduled. PJM shall notify the ITC of the decision to reschedule or revoke approval of the transmission maintenance outage as soon as possible after the circumstances arise that create the need for the rescheduling or revocation. Within a reasonable time after it requires a transmission maintenance outage to be rescheduled or revokes its approval of such an outage, PJM shall consult with the ITC to explain the reasons for its decisions and to consider measures that the parties may adopt to avoid the need for further rescheduling or revocation of outages.

9.3 Generation Maintenance. In accordance with the Operating Agreement and with procedures in the PJM Manuals, as they may be modified pursuant to section 16 below, the ITC shall promptly provide PJM with any advance notice of scheduled outages it receives from generators, and PJM shall promptly provide the ITC with any advance notice it receives of scheduled generator outages that affect the ITC Transmission Facilities, to permit the ITC to schedule transmission outages on the ITC Transmission Facilities and perform its other functions hereunder, and to permit PJM to exercise its responsibilities under the PJM Operating Agreement with respect to generator outages. The ITC may agree to coordinate with generators to modify its planned transmission outage schedules in coordination with generator outage schedules.

9.4 Scheduling and Dispatch. PJM shall be responsible for administering day-ahead and real-time wholesale energy markets, including transmission security monitoring and constrained economic dispatch, for all facilities, including the ITC Transmission Facilities. The ITC shall manage the configuration and topology of the ITC Transmission Facilities, including acting as the primary interface for all switching, maintenance, ratings, transfer limits, and monitoring, subject to the direction of PJM as the regional Reliability Authority, and in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U.

9.5 Operations. The ITC shall have the authority and responsibility, in accordance with its agreements with the owners of the ITC Transmission Facilities, the terms of the Consolidated Transmission Owners Agreement, NERC and Applicable Regional Entity standards and guidelines, and the PJM Operating Manuals, as such manuals may be revised pursuant to section 16 of this Attachment U, to operate those facilities in a safe, economical, and reliable manner.

PJM shall have the authority and responsibility to issue operating instructions to the ITC as they relate to the ITC Transmission Facilities in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U, provided that nothing herein shall be construed to require a change in the physical control of the ITC Transmission Facilities using the ITC's control center facilities and equipment. The ITC and PJM shall seek agreement (where time limitations allow) on real-time operational decisions affecting the ITC Transmission Facilities not otherwise specified in the PJM Manuals. In the absence of such agreement, or if time limitations do not permit reaching agreement, PJM shall exercise its authority to direct operations, subject to any actions the ITC may take in accordance with section 2.2 of this Attachment U.

## 10. PLANNING

10.1 PJM has the ultimate authority for developing a Regional Transmission Expansion Plan for its entire region, including the ITC Transmission Facilities, and may direct expansions as required in accordance with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19, or successor provisions, as they may be amended. In the event of disputes between PJM and ITC concerning the contents of such Regional Transmission Expansion Plan, the position of PJM, as the ultimate authority for planning in the region, shall prevail. Pursuant to the joint planning protocol developed under section 10.3 below, PJM shall be responsible for setting appropriate planning criteria and the ITC shall be responsible for studying the need for modifications, enhancements, or additions to the ITC Transmission Facilities and for proposing a plan of modifications, enhancements, or additions to the ITC Transmission Facilities. Each component of a timely plan proposed by the ITC shall be incorporated without PJM approval in the Regional Transmission Expansion Plan if PJM determines that such component does not materially adversely affect the Transmission System other than the ITC Transmission Facilities. The ITC also may suggest, in accordance with any established stakeholder procedures under ~~Schedule 6 of the PJM Operating Agreement~~ Tariff, Schedule 19, potential modifications, enhancements, or additions to transmission facilities in the PJM region other than the ITC Transmission Facilities. Subject to any necessary FERC approval, the ITC may adopt any procedures it deems necessary with respect to the ITC's development of a plan of enhancements or expansions, so long as such procedures do not adversely affect PJM's ability to prepare the Regional Transmission Expansion Plan in a timely and efficient manner. Nothing in this Attachment U impairs the rights of affected parties to participate in the PJM planning process in accordance with Commission-approved procedures. During the planning process the ITC shall adhere to all Applicable Regional Entity, NERC and PJM Planning criteria. The ITC shall participate with PJM in the development of the system needs analysis, any system impact studies and the transmission expansion plans as necessary to promote fully coordinated and efficient solutions.

10.2 Interconnection Requests. Customer requests for interconnection, including requests for interconnection with the ITC Transmission Facilities, will be coordinated by PJM in accordance with the Tariff and the PJM Manuals, as they may be modified pursuant to section 16 of this Attachment U. The ITC shall assume primary responsibility for interconnection projects on the ITC Transmission Facilities. PJM shall be responsible for setting interconnection standards, receiving interconnection requests, administering the queue, coordinating the analysis of requests for interconnection with ITC Transmission Facilities with requests for interconnection with non-

ITC Transmission Facilities, and ensuring that proposed interconnections to the ITC Transmission Facilities will not materially adversely affect the Transmission System other than the ITC Transmission Facilities. PJM as the Transmission Provider under this Tariff also shall retain primary responsibility for all service-related matters under the Tariff, including issuance and administration of interconnection rights. ITC shall regularly and frequently update PJM on the status and results of all interconnect studies performed by or for the ITC, in accordance with the joint planning protocol developed pursuant to section 10.3 below. The results of any ITC studies prepared in response to interconnection requests shall be reflected in the Regional Transmission Expansion Plan.

10.3 Joint Planning Protocol. PJM and ITC shall develop a joint planning protocol to facilitate the seamless and efficient integration of all ITC transmission planning, study and analysis efforts, and all ITC proposals for transmission enhancements, modifications, and additions into the Regional Transmission Expansion Plan under ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ and the regional generation interconnection queuing, study, and cost allocation process under Tariff, Part IV. Such protocols shall be designed to facilitate the preparation of the Regional Transmission Expansion Plan, and shall reflect and accommodate the procedures, timelines, and study cycles employed for the regional transmission planning and generation interconnection process. PJM and ITC shall each implement the provisions of the joint planning protocol. PJM and ITC shall consult regularly concerning the extent to which changes to the joint planning protocol may be required to achieve the foregoing purposes in light of experience and, as applicable, the coordination of planning activities among PJM and all ITCs in the PJM region.

10.4 Material Adverse Effect. As used in this Attachment, a material adverse effect on the Transmission System other than the ITC Transmission Facilities shall not be present only if all of the following statements are true:

1. The proposed facility or requested service does not result in any non-ITC facilities in the PJM Region exceeding thermal, voltage, or stability limits, consistent with all applicable reliability criteria; and
2. The proposed facility or requested service does not result in any circuit breaker on non-ITC facilities in the PJM Region exceeding its interrupting capability.

## **11. BILLING AND REMITTANCE**

11.1 PJM Responsibilities. PJM shall be responsible for all billing, settlement, and revenue distribution, except as provided in section 11.2 below.

11.2 ITC Responsibilities. The ITC may elect to perform billing, settlement, and revenue distribution for the additional services, if any, provided by the ITC as referenced in section 3.1 of this Attachment U. The ITC may elect to contract for the provision of those functions by PJM or another third party.

## **12. MONITORING**

12.1 The Market Monitoring Unit established under Tariff, Attachment M shall monitor the services provided by the ITC, and the ITC-PJM relationship, to detect any problems that may inhibit a robust and competitive market. Transactions utilizing the ITC Transmission Facilities shall be subject to the authority of the Market Monitoring Unit on the same basis as transactions involving any other Market Participant using other portions of the Transmission System. This provision is also found in Tariff, Attachment M, Article IV, section C-1.

### **13. LIABILITY AND INDEMNITY**

13.1 The ITC shall execute the Operating Agreement as a Member of PJM and the liability and indemnity provisions as set forth in Operating Agreement, section 16 shall apply to acts or omissions resulting from, arising out of, or in any way connected with this Attachment or the ITC Agreement.

### **14. DISPUTE RESOLUTION**

14.1 Dispute resolution as used herein refers to the dispute resolution procedures in Tariff, section 12, as it may be amended.

### **15. NOTIFICATION OF ASSUMPTION OF RESPONSIBILITIES**

15.1 The ITC shall provide adequate notice to PJM of its intent to assume the responsibilities described in this Attachment U.

### **16. OPERATING PROCEDURES AND PROTOCOLS**

16.1 Operating Guides, Manuals and Procedures. As provided in section 9.5 of this Attachment U, the ITC shall operate the ITC Transmission Facilities in accordance with the PJM Operating Manuals. Prior to start-up, and from time to time after the ITC commences operations, the ITC shall review such manuals and shall timely notify PJM of any changes or additions desired by the ITC to address specific conditions or operating procedures on the ITC Transmission Facilities. Subject to PJM's agreement, the PJM Manuals shall be revised or supplemented accordingly. PJM shall apprise ITC of subsequent changes to the PJM manuals through its established procedures for stakeholder notification of such changes. Any dispute between the ITC and PJM concerning changes to the PJM Manuals shall be resolved in accordance with section 14.1 above. Nothing herein precludes the ITC from maintaining more detailed operating guides, manuals, and procedures specific to the ITC Transmission Facilities that are consistent with and subject to the operating guides and procedures in the PJM Manuals.

16.2 ITC Start-Up Procedures and Protocols. The ITC and PJM shall cooperate and use their best efforts to develop the necessary procedures and protocols to allow timely start-up of the ITC pursuant to this Attachment U.

### **17. ANCILLARY SERVICES**

17.1 ITC System Control and Administrative Services. ITC shall recover its costs of providing system control and other administrative services through an appropriate schedule to the Tariff, as filed and made effective by ITC, subject to FERC acceptance.

17.2 System Restoration and Black Start Generation. PJM and the ITC shall coordinate in the preparation of a workable system restoration plan for the ITC Transmission Facilities in accordance with approved PJM Tariff requirements. PJM and the ITC shall be responsible for implementing their respective assigned duties under such system restoration plan.

17.3 Reactive Support. PJM shall be responsible for purchases of reactive support from generators under the PJM Tariff. If desired by ITC and approved by FERC, PJM shall designate ITC as a supplier of reactive support in accordance with an ITC Rate Schedule to be included in the PJM Tariff.

## **18. INFORMATION SHARING**

18.1 Subject to FERC approval of any necessary changes to the PJM Operating Agreement, PJM shall share with the ITC information within the possession of PJM that is necessary for the ITC to perform those rights, responsibilities and functions that FERC authorizes the ITC to perform and the ITC shall share with PJM information within the possession of the ITC that is necessary for PJM to perform those rights, responsibilities and functions that FERC authorizes PJM to perform. If such data are immediately available, it is expected that the parties will establish communication links for data transfer as appropriate and necessary. Data requiring manipulation shall be made available within a reasonable time. In all cases, all data designated as confidential shall be handled as provided in section 18.2 of this Attachment U.

18.2 Confidentiality. To the extent ITC obtains from PJM or any Member of PJM any documents, data, or other information that has been designated by PJM or a Member as confidential, ITC shall treat such information in the same manner and subject to the same procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17. To the extent PJM obtains from ITC any documents, data, or other information that has been designated by ITC as confidential, PJM shall treat such information in accordance with the procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17.

## **19. INTERREGIONAL COORDINATION**

19.1 PJM is responsible for coordination with all neighboring regions, including those adjacent to the ITC (or operated by the ITC in adjacent regions).

19.2 To the extent that an ITC (or its affiliates) is operating in PJM and a neighboring region, the ITC may, in coordination with PJM, undertake efforts to facilitate interregional coordination between PJM and the neighboring region. The ITC shall consult with PJM prior to implementing any such efforts to allow PJM to consider whether the actions could be accommodated within the framework of PJM's approved congestion pricing methodology and other rules and whether the actions would result in violations of regional reliability criteria applied in the PJM region.

## **20. REVISION OF ITC FUNCTIONS**

20.1 The division of functions and responsibilities between PJM and ITC shall be as set forth in this Attachment U and the ITC Agreement and may be modified from time to time to reflect the functionality permitted for independent transmission companies in accordance with FERC policy as pronounced in proceedings concerning Standard Market Design or otherwise, and to reflect the experience of the parties in the actual performance of their functions hereunder. PJM and ITC from time to time will review the allocation of functions and responsibilities and address appropriate changes, if any, to the division of functions between ITC and PJM consistent with such FERC policy, and any such changes shall be subject to any required regulatory approvals.



**APPENDIX II**  
**DEFINITIONS**

**1. Definitions.**

The following definitions shall apply to this Agreement.

**1.1 “Affiliate”**

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**1.2 “Applicable Laws and Regulations”**

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**1.3 “Applicable Regional Entity”**

Applicable Regional Entity shall mean the Regional Entity for the region in which the Transmission Owner or New Service Customer operates.

**1.4 “Applicable Standards”**

Applicable Standards shall mean the requirements and guidelines of NERC, the Applicable Regional Entity and the Control Area in which the Direct Assignment Facilities or Customer-Funded Upgrades are electrically located, the PJM Manuals and applicable technical requirements and standards.

**1.5 “Breach”**

Breach shall mean the failure of a Party to perform or observe any material term or condition of the applicable Part of the PJM Tariff or this Upgrade CSA.

**1.6 “Breaching Party”**

Breaching Party shall mean a Party that is in Breach of the applicable Part of the PJM Tariff and/or this Upgrade CSA.

**1.7 “Cancellation Costs”**

Cancellation Costs shall mean the Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, engineer, construct and install the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA; and/or (b) completion of some or all of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, or specific unfinished portions and/or removal of any or all of such Direct Assignment Facilities or Customer-Funded Upgrades which have been installed, to the extent required for the Transmission Owner and Transmission Provider to perform their respective obligations under this Upgrade CSA.

### **1.8 “Commission”**

Commission shall mean the Federal Energy Regulatory Commission.

### **1.9 “Confidential Information”**

Confidential Information shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, engineering, device, list, concept, policy, or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing Party’s technology, research and development, business affairs and pricing, and any information supplied by any Party to another such Party prior to the execution of a Transmission Service Agreement or this Upgrade CSA.

### **1.10 “Constructing Entity”**

Constructing Entity shall mean either the Transmission Owner or the New Service Customer, depending on which entity has the construction responsibility pursuant to Part VI and this Upgrade CSA.

### **1.11 “Control Area”**

Control Area shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to: (1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

### **1.12 “Costs”**

Costs shall mean all of the actual costs and expenses incurred by the Transmission Owner to complete its obligations under Section 2.5 of this Upgrade CSA, including, but not limited to, capital expenditures, overhead, return, and the costs of financing, equipment, labor, services, taxes, income tax gross-ups and any Incidental Expenses.

### **1.13 “Default”**

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of this Upgrade CSA and the PJM Tariff.

### **1.14 “Delivering Party”**

Delivering Party shall mean the entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

### **1.15 “Emergency Condition”**

Emergency Condition shall mean a condition or situation: (i) that in the judgment of any Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or the Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, a Transmission Owner’s transmission system or distribution system to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of the New Service Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the facility.

### **1.16 “Environmental Laws”**

Environmental Laws shall mean Applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

### **1.17 “Facilities Study”**

Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Direct Assignment Facilities or Customer-Funded Upgrades necessary to accommodate the New Service Request, as applicable.

### **1.18 “Federal Power Act”**

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

### **1.19 “FERC”**

FERC shall mean the Federal Energy Regulatory Commission or its successor.

#### **1.20 “Firm Point-To-Point Transmission Service”**

Firm Point-To-Point Transmission Service shall mean Transmission Service under the PJM Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Part II of the PJM Tariff.

#### **1.21 “Force Majeure”**

Force Majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of due diligence such Party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force Majeure does not include: (i) a failure of performance that is due to an affected Party’s own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

#### **1.22 “Good Utility Practice”**

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

#### **1.23 “Governmental Authority”**

Governmental Authority means any federal, State, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over any Party regarding any matter relating to this Upgrade CSA, as applicable.

#### **1.24 “Hazardous Substances”**

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or

words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

### **1.25 “Incidental Expenses”**

Incidental Expenses shall mean those expenses incidental to the performance of design, engineering, procurement and construction of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, including, but not limited to, the expense of temporary construction power, telecommunications charges, Transmission Owner expenses associated with, but not limited to, document preparation, design review, engineering, installation, monitoring, and construction-related operations and maintenance for the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

### **1.26 “Local Upgrades”**

Local Upgrades shall mean modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include: (i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and (ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

### **1.27 “Long-Term Firm Point-To-Point Transmission Service”**

Long-Term Firm Point-To-Point Transmission Service shall mean Firm Point-To-Point Transmission Service under Part II of the PJM Tariff with a term of one year or more.

### **1.28 “NERC”**

NERC shall mean the North American Electric Reliability Council or any successor thereto.

### **1.29 “Network Upgrades”**

Network Upgrades shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

### **1.30 "Office of the Interconnection"**

Office of the Interconnection shall mean the Office of the Interconnection, as supervised by the Board of Managers of the PJM Interconnection, L.L.C., acting pursuant to the Operating Agreement.

### **1.31 "Operating Agreement of the PJM Interconnection, L.L.C." or "Operating Agreement"**

Operating Agreement of the PJM Interconnection, L.L.C." or "Operating Agreement shall mean that agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

### **1.32 "Part I"**

Part I shall mean the PJM Tariff Definitions and Common Service Provisions contained in Sections 2 through 12 of the PJM Tariff.

### **1.33 "Part II"**

Part II shall mean PJM Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments of the PJM Tariff.

### **1.34 "Part III"**

Part III shall mean PJM Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments of the PJM Tariff.

### **1.35 "Part IV"**

Part IV shall mean PJM Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with applicable Common Service Provision of Part I and appropriate Schedules and Attachments.

### **1.36 “Part VI”**

Part VI shall mean PJM Tariff Sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provision of Part I and appropriate Schedules and Attachments.

### **1.37 “PJM Interchange Energy Market”**

PJM Interchange Energy Market shall mean the regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the PJM Tariff and Schedule 1 to the Operating Agreement.

### **1.38 “PJM Manuals”**

PJM Manuals shall mean the instructions, rules, procedures and guidelines established by the Transmission Provider for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

### **1.39 “PJM Region”**

PJM Region shall have the meaning specified in the Operating Agreement.

### **1.40 “Point(s) of Delivery”**

Point(s) of Delivery shall mean the point(s) on the Transmission Provider’s Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Part II of the PJM Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.41 “Point(s) of Receipt”**

Point(s) of Receipt shall mean the point(s) of interconnection on the Transmission Provider’s Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Part II of the PJM Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.42 “Project Financing” means:**

Project Financing shall mean

(a) One or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of

which are used to finance or refinance the costs of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, any alteration, expansion or improvement to such Direct Assignment Facilities or Customer-Funded Upgrades, the purchase and sale of such Direct Assignment Facilities or Customer-Funded Upgrades or the operation of such Direct Assignment Facilities or Customer-Funded Upgrades;

(b) Loans and/or debt issues secured by the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

#### **1.43 “Project Finance Entity”**

Project Finance Entity means: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the facility to which New Service Customer has granted a mortgage or other lien as security for some or all of New Service Customer’s obligations under the corresponding power purchase agreement.

#### **1.44 “Reasonable Efforts”**

Reasonable Efforts shall mean, with respect to any action required to be made, attempted, or taken by Transmission Provider or Transmission Owner, such efforts as are timely and consistent with Good Utility Practice and with efforts that such Party would undertake for the protection of its own interests.

#### **1.45 “Receiving Party”**

Receiving Party shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

#### **1.46 “Regional Transmission Expansion Plan” or “RTEP”**

Regional Transmission Expansion Plan or “RTEP” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Schedule 6 of the Operating Agreement~~ [Tariff, Schedule 19](#) for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

#### **1.47 “Schedule and Scope of Work”**

Schedule and Scope of Work shall mean that schedule and scope of work attached to the Upgrade CSA setting forth the scope and timing of work to be performed by the Transmission Owner, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for projects set forth in the PJM Manuals.

#### **1.48 “Security”**

Security shall mean the letter of credit or other reasonable form of security provided by the New Service Customer to the Transmission Provider pursuant to Section 213.4 of the PJM Tariff to



secure the New Service Customer's responsibility for Costs incurred pursuant to this Upgrade CSA.

**1.49 "Service Agreement"**

Service Agreement shall mean the initial agreement and any amendments or supplements thereto entered into by the New Service Customer and the Transmission Provider for service under the PJM Tariff.

**1.50 "State"**

State shall mean a state of the United States or the District of Columbia.

**1.51 "Transmission System"**

Transmission System shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the PJM Tariff.

**DESIGNATED ENTITY AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

**And**

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# DESIGNATED ENTITY AGREEMENT

Between

**PJM Interconnection, L.L.C.**

And

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This Designated Entity Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date between PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), and \_\_\_\_\_ (“Designated Entity” [OPTIONAL: or “[short name]”), referred to herein individually as “Party” and collectively as “the Parties.”

## WITNESSETH

WHEREAS, in accordance with FERC Order No. 1000 and Schedule ~~6-19~~ of the ~~Amended and Restated Operating Agreement~~ Open Access Transmission Tariff of PJM Interconnection, L.L.C. (“~~Operating Agreement~~ Tariff”), Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to construct the Project; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## Article 1 – Definitions

### 1.0 Defined Terms.

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this

Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement.

### **1.1 Confidential Information.**

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to, information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Designated Entity Letter of Credit.**

Designated Entity Letter of Credit shall mean the letter of credit provided by the Designated Entity pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19 and Section 3.0 of this Agreement as security associated with the Project.

### **1.3 Development Schedule.**

Development Schedule shall mean the schedule of milestones set forth in Schedule C of this Agreement.

### **1.4 Effective Date.**

Effective Date shall mean the date this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.5 Initial Operation.**

Initial Operation shall mean the date the Project is (i) energized and (ii) under Transmission Provider operational dispatch.

### **1.6 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan described in Schedule A of this Agreement.

### **1.7 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.8 Project Financing.**

Project Financing shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

### **1.9 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with ensuring the timely and effective design and construction of the Project in a manner, which ensures that the Project, once placed in service, meets the requirements of the Project as described in Schedule B and are consistent with Good Utility Practice.

### **1.10 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B this Agreement, (ii) meet the criteria outlined in Schedule D of this Agreement and (iii) be under Transmission Provider operational dispatch.

## **Article 2 – Effective Date and Term**

### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is filed with FERC for acceptance, rather than reported only in PJM’s Electric Quarterly Report, upon the date specified by FERC.

### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity executes the Consolidated Transmission Owners Agreement; and (ii) the Project (a) has been completed in accordance with the terms and conditions of this Agreement, (b) meets all relevant required planning criteria, and (c) is under Transmission Provider’s operational dispatch; or (iii) the Agreement is terminated pursuant to Article 8 of this Agreement.

## **Article 3 – Security**

### **3.0 Obligation to Provide Security.**

In accordance with Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Designated Entity shall provide Transmission Provider a letter of credit as acceptable to

Transmission Provider (Designated Entity Letter of Credit) or cash security in the amount of \$\_\_\_\_\_, which is three percent of the estimated cost of the Project. Designated Entity is required provide and maintain the Designated Entity Letter of Credit, as required by Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19 and Section 3.0 of this Agreement. The Designated Entity Letter of Credit shall remain in full force and effect for the term of this Agreement and for the duration of the obligations arising therefrom in accordance with Article 17.0.

### **3.1 Distribution of Designated Entity Letter of Credit or Cash Security.**

In the event that Transmission Provider draws upon the Designated Entity Letter of Credit or retains the cash security in accordance with Sections 7.5, 8.0, or 8.1, Transmission Provider shall distribute such funds as determined by FERC.

## **Article 4 – Project Construction**

### **4.0 Construction of Project by Designated Entity.**

Designated Entity shall design, engineer, procure, install and construct the Project, including any modifications thereto, in accordance with: (i) the terms of this Agreement, including but not limited to the Scope of Work in Schedule B and the Development Schedule in Schedule C; (ii) applicable reliability principles, guidelines, and standards of the Applicable Regional Reliability Council and NERC; (iii) the ~~Operating Agreement~~Tariff; (iv) the PJM Manuals; and (v) Good Utility Practice.

#### **4.1 Milestones.**

##### **4.1.0 Milestone Dates.**

Designated Entity shall meet the milestone dates set forth in the Development Schedule in Schedule C of this Agreement. Milestone dates set forth in Schedule C only may be extended by Transmission Provider in writing. Failure to meet any of the milestone dates specified in Schedule C, or as extended as described in this Section 4.1.0 or Section 4.3.0 of this Agreement, shall constitute a Breach of this Agreement. Transmission Provider reasonably may extend any such milestone date, in the event of delays not caused by the Designated Entity that could not be remedied by the Designated Entity through the exercise of due diligence, or if an extension will not delay the Required Project In-Service Date specified in Schedule C of this Agreement; provided that a corporate officer of the Designated Entity submits a revised Development Schedule containing revised milestones and showing the Project in full operation no later than the Required Project In-Service Date specified in Schedule C of this Agreement.

##### **4.1.1 Right to Inspect.**

Upon reasonable notice, Transmission Provider shall have the right to inspect the Project for the purposes of assessing the progress of the Project and satisfaction of milestones. Such inspection

shall not be deemed as review or approval by Transmission Provider of any design or construction practices or standards used by the Designated Entity.

## **4.2 Applicable Technical Requirements and Standards.**

For the purposes of this Agreement, applicable technical requirements and standards of the Transmission Owner(s) to whose facilities the Project will interconnect shall apply to the design, engineering, procurement, construction and installation of the Project to the extent that the provisions thereof relate to the interconnection of the Project to the Transmission Owner(s) facilities.

## **4.3 Project Modification.**

### **4.3.0 Project Modification Process.**

The Scope of Work and Development Schedule, including the milestones therein, may be revised, as required, in accordance with Transmission Provider's project modification process set forth in the PJM Manuals, or otherwise by Transmission Provider in writing. Such modifications may include alterations as necessary and directed by Transmission Provider to meet the system condition for which the Project was included in the Regional Transmission Expansion Plan.

### **4.3.1 Consent of Transmission Provider to Project Modifications.**

Designated Entity may not modify the Project without prior written consent of Transmission Provider, including but not limited to, modifications necessary to obtain siting approval or necessary permits, which consent shall not be unreasonably withheld, conditioned, or delayed.

### **4.3.2 Customer Facility Interconnections And Transmission Service Requests.**

Designated Entity shall perform or permit the engineering and construction necessary to accommodate the interconnection of Customer Facilities to the Project and transmission service requests that are determined necessary for such interconnections and transmission service requests in accordance with Parts IV and VI, and Parts II and III, respectively, of the Tariff.

## **4.4 Project Tracking.**

The Designated Entity shall provide regular, quarterly construction status reports in writing to Transmission Provider. The reports shall contain, but not be limited to, updates and information specified in the PJM Manuals regarding: (i) current engineering and construction status of the Project; (ii) Project completion percentage, including milestone completion; (iii) current target Project or phase completion date(s); (iv) applicable outage information; and (v) cost expenditures to date and revised projected cost estimates for completion of the Project. Transmission Provider shall use such status reports to post updates regarding the progress of the Project.

## **4.5 Exclusive Responsibility of Designated Entity.**

Designated Entity shall be solely responsible for all planning, design, engineering, procurement, construction, installation, management, operations, safety, and compliance with applicable laws and regulations associated with the Project, including but not limited to obtaining all necessary permits, siting, and other regulatory approvals. Transmission Provider shall have no responsibility to manage, supervise, or ensure compliance or adequacy of same.

## **Article 5 – Coordination with Third-Parties**

### **5.0 Interconnection Coordination Agreement with Transmission Owner(s).**

By the dates specified in the Development Schedule in Schedule C of this Agreement, Designated Entity shall execute or request to file unexecuted with the Commission: (a) an Interconnection Coordination Agreement; and (b) an interconnection agreement among and between Designated Entity, Transmission Provider, and the Transmission Owner(s) to whose facilities the Project will interconnect.

### **5.1 Connection with Entities Not a Party to the Consolidated Transmission Owners Agreement.**

Designated Entity shall not permit any part of the Project facilities to be connected with the facilities of any entity which is not: (i) a party to Consolidated Transmission Owners Agreement without an interconnection agreement that contains provisions for the safe and reliable interconnection and operation of such interconnection in accordance with Good Utility Practice, and principles, guidelines and standards of the Applicable Regional Reliability Council and NERC or comparable requirements of an applicable retail tariff or agreement approved by appropriate regulatory authority; or (ii) a party to a separate Designated Entity Agreement.

## **Article 6 – Insurance**

### **6.0 Designated Entity Insurance Requirements.**

Designated Entity shall obtain and maintain in full force and effect such insurance as is consistent with Good Utility Practice. The Transmission Provider shall be included as an Additional Insured in the Designated Entity's applicable liability insurance policies. The Designated Entity shall provide evidence of compliance with this requirement upon request by the Transmission Provider.

### **6.1 Subcontractor Insurance.**

In accord with Good Utility Practice, Designated Entity shall require each of its subcontractors to maintain and, upon request, provide Designated Entity evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the subcontractor. Bonding and hiring of contractors or subcontractors shall be the Designated Entity's discretion, but regardless of bonding or the existence or non-existence of insurance, the



Designated Entity shall be responsible for the performance or non-performance of any contractor or subcontractor it hires.

## **Article 7 – Breach and Default**

### **7.0 Breach.**

Except as otherwise provided in Article 10, a Breach of this Agreement shall include:

(a) The failure to comply with any term or condition of this Agreement, including but not limited to, any Breach of a representation, warranty, or covenant made in this Agreement, and failure to provide and maintain security in accordance with Section 3.0 of this Agreement;

(b) The failure to meet a milestone or milestone date set forth in the Development Schedule in Schedule C of this Agreement, or as extended in writing as described in Sections 4.1.0 and 4.3.0 of this Agreement;

(c) Assignment of this Agreement in a manner inconsistent with the terms of this Agreement; or

(d) Failure of any Party to provide information or data required to be provided to another Party under this Agreement for such other Party to satisfy its obligations under this Agreement.

### **7.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, and to any other persons, including a Project Finance Entity, if applicable, that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **7.2 Cure and Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 7.3 shall be in Default of this Agreement.

### **7.3 Cure of Breach.**

The breaching Party may: (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to ensure that the Project meets its Required Project In-Service Date set forth in Schedule C; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that ensures that the Project meets the Required Project In-Service Date for the Project, within such thirty day time period, commences

in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

#### **7.4 Re-evaluation if Breach Not Cured.**

In the event that a breaching Party does not cure a Breach in accordance with Section 7.3 of this Agreement, Transmission Provider shall conduct a re-evaluation pursuant to Section 1.5.8(k) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19. If based on such re-evaluation, the Project is retained in the Regional Transmission Expansion Plan and the Designated Entity's designation for the Project also is retained, the Parties shall modify this Agreement, including Schedules, as necessary. In all other events, Designated Entity shall be considered in Default of this Agreement, and this Agreement shall terminate in accordance with Section 8.1 of this Agreement.

#### **7.5 Remedies.**

Upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit. Nothing in this Section 7.5 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity resulting from Designated Entity's Default of this Agreement.

#### **7.6 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

#### **7.7 Waiver.**

Any waiver at any time by any Party of its rights with respect to a Breach or Default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any other Breach or Default or other matter.

### **Article 8 – Early Termination**

#### **8.0 Termination by Transmission Provider.**

In the event that: (i) pursuant to Section 1.5.8(k) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, Transmission Provider determines to remove the Project from the Regional Transmission Expansion Plan and/or not to retain Designated Entity's status for the Project; (ii) Transmission Provider otherwise determines pursuant to Regional Transmission Expansion Planning Protocol in ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19 that the Project is no longer required to address the specific need for which the Project was included in the Regional Transmission Expansion Plan; or (iii) an event of force majeure, as defined in section 10.0 of this Attachment KK, or other event outside of the Designated Entity's control that, with the exercise of Reasonable Efforts, Designated Entity cannot alleviate and which prevents the Designated Entity from satisfying its obligations under this Agreement, Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity, which shall become effective the later of sixty calendar days after the Designated Entity receives such notice or other such date the FERC establishes for the termination. In the event termination pursuant to this Section 8.0 is based on (ii) or (iii) above, Transmission Provider shall not have the right to draw upon the Designated Entity Letter of Credit or retain the cash security and shall cancel the Designated Entity Letter of Credit or return the cash security within thirty days of the termination of this Agreement.

#### **8.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in Default of this Agreement in accordance with Sections 7.2 or 7.4 of this Agreement. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit or retain the cash security.

#### **8.2 Filing at FERC.**

Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 8.

### **Article 9 – Liability and Indemnity**

#### **9.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

#### **9.1 Indemnity.**

For the purposes of this Agreement, Designated Entity shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

## **Article 10 – Force Majeure**

### **10.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightening, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which in any foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

### **10.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

### **10.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party. In the event that Designated Entity is unable to perform any of its obligations under this Agreement because of an occurrence of Force Majeure, Transmission Provider may terminate this Agreement in accordance with Section 8.0 of this Agreement.

### **10.3 Breach or Default of or Force Majeure under Interconnection Coordination Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 10 shall apply: (i) a breach or default of the Interconnection Coordination Agreement associated with the Project by a party to the Interconnection Coordination Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Interconnection Coordination Agreement associated with the Project.

## **Article 11 – Assignment**

### **11.0 Assignment.**

A Party may assign all of its rights, duties, and obligations under this Agreement in accordance with this Section 11.0. Except for assignments described in Section 11.1 of this Agreement that may not result in the assignment of all rights, duties, and obligations under this Agreement to a Project Finance Entity, no partial assignments will be permitted. No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. Assignment by the Designated Entity shall be contingent upon, prior to the effective date of the assignment: (i) the Designated Entity or assignee demonstrating to the satisfaction of Transmission Provider that the assignee has the technical competence and financial ability to comply with the requirements of this Agreement and to construct the Project consistent with the assignor's cost estimates for the Project; and (ii) the assignee is eligible to be a Designated Entity for the Project pursuant to Sections 1.5.8(a) and (f) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19. Except as provided in an assignment to a Finance Project Entity to the contrary, for all assignments by any Party, the assignee must assume in a writing, to be provided to the other Party, all rights, duties, and obligations of the assignor arising under this Agreement. Any assignment described herein shall not relieve or discharge the assignor from any of its obligations hereunder absent the written consent of the other Party. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the terms of this Agreement, the Tariff and the Operating Agreement.

### **11.1 Project Finance Entity Assignments**

#### **11.1.1 Assignment to Project Finance Entity**

If an arrangement between the Designated Entity and a Project Finance Entity provides that the Project Finance Entity may assume any of the rights, duties and obligations of the Designated Entity under this Agreement or otherwise provides that the Project Finance Entity may cure a

Breach of this Agreement by the Designated Entity, the Project Finance Entity may be assigned this Agreement or any of the rights, duties, or obligations hereunder only upon written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement.

#### **11.1.2 Assignment By Project Finance Entity**

A Project Finance Entity that has been assigned this Agreement or any of the rights, duties or obligations under this Agreement or otherwise is permitted to cure a Breach of this Agreement, as described pursuant to Section 11.1.1 above, may assign this Agreement or any of the rights, duties or obligations under this Agreement to another entity not a Party to this Agreement only: (i) upon the Breach of this Agreement by the Designated Entity; and (ii) with the written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement alter or diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the Tariff and Operating Agreement.

### **Article 12 – Information Exchange**

#### **12.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Party information necessary to carry out each Party's obligations and responsibilities under this Agreement, the Operating Agreement, and the Tariff. Such information shall include but not be limited to, information reasonably requested by Transmission Provider to prepare the Regional Transmission Expansion Plan. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement, the Operating Agreement, and the Tariff.

#### **12.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Party when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 12.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

### **Article 13 – Confidentiality**

### **13.0 Confidentiality.**

For the purposes of this Agreement, information will be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as “confidential” on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is “confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 14 – Regulatory Requirements**

### **14.0 Regulatory Approvals.**

Designated Entity shall seek and obtain all required government authority authorizations or approvals as soon as reasonably practicable, and by the milestone dates set forth in the Development Schedule of Schedule C of this Agreement, as applicable.

## **Article 15 – Representations and Warranties**

### **15.0 General.**

Designated Entity hereby represents, warrants and covenants as follows, with these representations, warranties, and covenants effective as to the Designated Entity during the full time this Agreement is effective:

#### **15.0.1 Good Standing**

Designated Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated.

#### **15.0.2 Authority**

Designated Entity has the right, power and authority to enter into this Agreement, to become a Party thereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of Designated Entity, enforceable against Designated Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors’ rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

### **15.0.3 No Conflict.**

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of Designated Entity, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon Designated Entity or any of its assets.

## **Article 16 – Operation of Project**

### **16.0 Initial Operation.**

The following requirements shall be satisfied prior to Initial Operation of the Project:

#### **16.0.1 Execution of the Consolidated Transmission Owners Agreement**

Designated Entity has executed the Consolidated Transmission Owners Agreement and is able to meet all requirements therein.

#### **16.0.2 Execution of an Interconnection Agreement**

Designated Entity has executed an Interconnection Agreement with the Transmission Owner(s) to whose facilities the Project will interconnect, or such agreement has been filed unexecuted with the Commission.

#### **16.0.3 Operational Requirements**

The Project must meet all applicable operational requirements described in the PJM Manuals.

#### **16.0.4 Parallel Operation**

Designated Entity shall have all necessary systems and personnel in place to allow for parallel operation of its facilities with the facilities of the Transmission Owner(s) to which the Project is interconnected consistent with the Interconnection Coordination Agreement associated with the Project.

#### **16.0.5 Synchronization**

Designated Entity shall have received any necessary authorization from Transmission Provider and the Transmission Owner(s) to whose facilities the Project will interconnect to synchronize with the Transmission System or to energize, as applicable, per the determination of Transmission Provider, the Project.

### **16.1 Partial Operation.**

If the Project is to be completed in phases, the completed part of the Project may operate prior to completion and Required Project In-Service Date set forth in Schedule C of this Agreement,



provided that: (i) Designated Entity has notified Transmission Provider of the successful completion of the Project phase; (ii) Transmission Provider has determined that partial operation of the Project will not negatively impact the reliability of the Transmission System; (iii) Designated Entity has demonstrated that the requirements for Initial Operation set forth in Section 16.0 of this Agreement have been met for the Project phase; and (iv) partial operation of the Project is consistent with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.

## **Article 17 – Survival**

### **17.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The Liability and Indemnity provisions in Article 9 also shall survive termination, expiration, or cancellation of this Agreement.

## **Article 18 – Non-Standard Terms and Conditions**

### **18.0 Schedule E – Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule E are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule E that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule E shall control.

## **Article 19 – Miscellaneous**

### **19.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

Transmission Provider:  
PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
Attention:

Designated Entity:  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attention:

**19.1 No Transmission Service.**

This Agreement does not entitle the Designated Entity to take Transmission Service under the Tariff.

**19.2 No Rights.**

Neither this Agreement nor the construction or the financing of the Project entitles Designated Entity to any rights related to Customer-Funded Upgrades set forth in Subpart C of Part VI of the Tariff.

**19.3 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

**19.4 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

**19.5 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

**19.6 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

**19.7 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force

and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

**19.8 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

**19.9 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

**19.10 Governing Law**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

**19.11 Incorporation of Other Documents.**

The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Designated Entity: [Name of Designated Entity]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**Description of Project**

**SCHEDULE B**

**Scope of Work**

## SCHEDULE C

### Development Schedule

Designated Entity shall ensure and demonstrate to the Transmission Provider that it timely has met the following milestones and milestone dates and that the milestones remain in good standing:

[As appropriate include the following standard Milestones, with any revisions, and additional milestones necessary for the Project]:

<b>Milestones and Milestone Dates</b>
<b>Execute Interconnection Coordination Agreement.</b> On or before _____, Designated Entity must execute the Interconnection Coordination Agreement or request the agreement be filed unexecuted.
<b>Demonstrate adequate Project financing.</b> On or before _____, Designated Entity must demonstrate that adequate project financing has been secured. Project financing must be maintained for the term of this Agreement [add detail if necessary].
<b>Acquisition of all necessary federal, state, county, and local site permits.</b> On or before _____, Designated Entity must demonstrate that all required federal, state, county and local site permits have been acquired. [add detail if necessary. May provide separate dates for each permit]
<b>Substantial Site Work Completed:</b> On or before _____, Designated Entity must demonstrate that at least 20% of Project site construction is completed. Additionally the Designated Entity must submit updated ratings and the final project drawings to the Transmission Provider.
<b>Delivery of major electrical equipment.</b> On or before _____, Designated Entity must demonstrate that all major electrical equipment has been delivered to the project site. [add detail if necessary].
<b>Demonstrate required ratings.</b> On or before _____, Designated Entity must demonstrate that the project meets all required electrical ratings. [add detail if necessary].
<b>Required Project In-Service Date.</b> On or before _____, Designated Entity must: (i) demonstrate that the Project is completed in accordance with the Scope of Work in Schedules B of this Agreement; (ii) meets the criteria outlined in Schedule D of this Agreement; and (iii) is under Transmission Provider operational dispatch.
<b>[Add additional Milestones]</b>

**SCHEDULE D**

**PJM Planning Requirements and Criteria and Required Ratings**



**SCHEDULE E**

**Non-Standard Terms and Conditions**

**INTERCONNECTION COORDINATION AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

---

**And**

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# INTERCONNECTION COORDINATION AGREEMENT

Between

**PJM Interconnection, L.L.C.**

**[Name of Designated Entity]**

And

**[Name of Transmission Owners]**

This Interconnection Coordination Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date (as specified in Section 2.0) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Designated Entity”) [OPTIONAL: or “[short name]”]), and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL “[short name]”]) Transmission Provider, Designated Entity and Transmission Owner may be referred to herein individually as “Party” and collectively as “the Parties.”

## WITNESSETH

WHEREAS, in accordance with FERC Order No. 1000 and ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~Tariff, Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to build the Project;

WHEREAS, pursuant to ~~Section Schedule 196~~ of the ~~Operating Agreement~~Tariff, Transmission Owner has received and accepted the designation from Transmission Provider to construct enhancements or expansions to its transmission facilities in order to effectuate interconnection with the Project, to which Transmission Provider has assigned a PJM upgrade ID identifier, which is unique to such construction modifications;

WHEREAS, the Project will interconnect to the Transmission Owner’s transmission facilities, and therefore Designated Entity and Transmission Owner shall coordinate with each other to facilitate the interconnection of the Project to the Transmission Owner’s transmission

facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project In-Service Date; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions**

### **1.0 Defined Terms.**

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement and attached Schedules.

### **1.1 Confidential Information.**

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Effective Date.**

Effective Date shall mean the date that this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.3 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan to be constructed by the Designated Entity described in Schedule A of this Agreement.

### **1.4 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.5 Project Financing.**

Project Financing shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

#### **1.6 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with enabling the timely and effective design, construction, and interconnection to the Transmission System of the Project in a manner, which enables the Project to achieve its Required In-Service Date consistent with Good Utility Practice.

#### **1.7 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date that the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B of the Designated Entity Agreement associated with the Project; (ii) meet the criteria outlined in Schedule D of the Designated Entity Agreement associated with the Project; and (iii) be under Transmission Provider operational dispatch.

### **Article 2 – Effective Date and Term**

#### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is individually filed with FERC for acceptance, upon the date specified by FERC.

#### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity Agreement associated with the Project expires or terminates; or (ii) the Agreement is terminated pursuant to Article 3 of this Agreement.

### **Article 3 – Early Termination**

#### **3.0 Termination by Transmission Provider.**

In the event that: (i) the Designated Entity Agreement associated with the Project is terminated pursuant to Article 8.0 of that agreement; or (ii) the Project is modified such that it will not interconnect to Transmission Owner's transmission facilities; Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity and Transmission Owner, which shall become effective the later of sixty calendar days after the

Designated Entity receives such notice or other such date the FERC establishes for the termination.

### **3.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in default of this Agreement in accordance with Section 5.2 of this Agreement and such termination is approved by Transmission Provider in writing.

### **3.2 Filing at FERC.**

To the extent required by law or regulation, Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 3.

## **Article 4 – Coordination**

### **4.0 Designated Entity and Transmission Owner Responsibilities.**

The Designated Entity and Transmission Owner shall coordinate with each other as set forth in this Article 4 to facilitate the interconnection of the Project to the Transmission Owner's transmission facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project In-Service Date.

#### **4.0.1 Scope of Transmission Owner Responsibilities.**

Transmission Owner shall coordinate with Designated Entity the interconnection of the Project to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_\_ and designated by PJM to the Transmission Owner to make Transmission Owner's transmission facilities ready to receive the interconnection of the Project. Nothing in this Agreement shall be construed as obligating Transmission Owner to assure that Designated Entity satisfies Designated Entity's obligations under this Agreement, under the Designated Entity Agreement described in Schedule A of this Agreement, nor under any other agreement.

#### **4.0.2 Scope of Designated Entity Responsibilities.**

Designated Entity shall coordinate with Transmission Owner, the interconnection of the Project, identified as PJM Upgrade ID \_\_\_\_\_ to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_\_ and described in Section 4.0.1 of this Agreement. Nothing in this Agreement shall be construed as obligating Designated Entity to assure that Transmission Owner satisfies Transmission Owner's obligations under this Agreement, under the Consolidated Transmission Owner's Agreement described in Schedule A of this Agreement, nor under any other agreement.

#### **4.1 Transmission Provider Responsibilities.**

Transmission Provider may facilitate the coordination between Designated Entity and Transmission Owner required by this Agreement, including convening meetings with the Designated Entity and the Transmission Owner to further facilitate coordination among the Parties, and to evaluate available options or alternatives to avoid delays, and coordinating outages as described in Section 4.2 of this Agreement.

#### **4.2 Outage Coordination.**

Designated Entity and Transmission Owner acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner may be necessary to complete the process of constructing and interconnecting the Project. Designated Entity and Transmission Owner further acknowledge and agree that any such outages shall be coordinated by and through Transmission Provider. Any delays due to emergency, load or maintenance which affect the timing of outages as required or approved by the Transmission Provider may not be considered a Breach under Article 5.

#### **4.3 Construction and Interconnection.**

##### **4.3.1 No Conferral of Rights.**

This Agreement shall confer no rights upon either the Designated Entity or the Transmission Owner to enter the right-of-way or property of the other Party, or interconnect its facilities, either physically or electrically, to the facilities of the other Party.

##### **4.3.2 Interconnection Agreement.**

Prior to interconnection, the Parties shall enter into an interconnection agreement setting forth the terms and conditions for: (i) the interconnection of the Transmission Owner's and Designated Entity's facilities; and (ii) the ongoing relationship of the Transmission Owner and the Designated Entity with regard to the interconnection. In the event the Parties are unable to agree, a Party may request: (i) dispute resolution consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable-Schedule 5 of the Operating Agreement; or, (ii) the interconnection agreement be filed unexecuted with the Commission.

##### **4.3.3 Other Agreements.**

The Parties recognize that, where appropriate, the Parties may enter into other agreements (beyond the interconnection agreement referred to in Section 4.3.2 above) such as construction agreements. Such other agreements shall be filed with FERC, if required. The terms and conditions of such other agreements are not addressed in this Agreement.

## **Article 5 – Breach and Default**

### **5.0 Breach.**

Except as otherwise provided in Article 7 of this Agreement, a breach of this Agreement shall include the failure of any Party to comply with any term or condition of this Agreement, including the Schedules attached hereto.

### **5.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, the other non-breaching Party and to any other persons, including Project Finance Entities that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **5.2 Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 5.3 shall be in default of this Agreement.

### **5.3 Cure of Breach.**

A breaching Party may (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to enable the Project meets its Required Project In-Service Date; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that enables the Project to meet its Required Project In- Service Date, the breaching Party, within such thirty day time period, commences in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

### **5.4 Remedies.**

Upon the occurrence of an event of Default, the non-defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Nothing in this Section 5.4 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity or the Transmission Owner resulting from Designated Entity's default of this Agreement.

### **5.5 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or



otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

#### **5.6 Waiver.**

Any waiver at any time by any Party of its rights with respect to a Breach or default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any other Breach or default or other matter.

### **Article 6 – Liability and Indemnity**

#### **6.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, Transmission Owner, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

#### **6.1 Indemnity.**

For the purposes of this Agreement, Designated Entity and Transmission Owner shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

### **Article 7 – Force Majeure**

#### **7.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian

authorities, which in any foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute), which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

#### **7.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

#### **7.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party.

#### **7.3 Breach or Default of or Force Majeure under Designated Entity Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 7 shall apply: (i) a breach or default of the Designated Entity Agreement associated with the Project by a party to the Designated Entity Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Designated Entity Agreement associated with the Project.

### **Article 8 – Assignment**

#### **8.0 Assignment.**

No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed.

#### **8.1 Assignment of Designated Entity Agreement.**

In the event that the Designated Entity Agreement associated with the Project is assigned pursuant to Article 11 of the Designated Entity Agreement, this Agreement also shall be assigned contemporaneously with that assignment, without the need for any consent under Section 8.0

above.

## **Article 9 – Information Exchange**

### **9.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Parties information necessary to carry out obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement.

### **9.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Parties when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties shall cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 9.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

## **Article 10 – Confidentiality**

### **10.0 Confidentiality.**

For the purposes of this Agreement, information shall be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as “confidential” on the face of the document, or, in the case of information conveyed orally, by inspection or by electronic media incapable of being marked as “confidential”, if the Party providing the information orally informs the Party receiving the information that the information is “confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 11 – Representations and Warranties**

### **11.0 General.**

The Parties hereby represent, warrant and covenant as follows, with these representations, warranties, and covenants effective during the full time this Agreement is effective:

### **11.0.1 Good Standing.**

The Party is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of incorporation, organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated, organized or formed.

### **11.0.2 Authority.**

The Party has the right, power and authority to enter into this Agreement, to become a Party thereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of the Party, enforceable against the Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

### **11.0.3 No Conflict.**

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon Designated Entity or any of its assets.

## **Article 12 – Survival**

### **12.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The provisions of Article 6 also shall survive termination, expiration, or cancellation of this Agreement

## **Article 13 – Non-Standard Terms and Conditions**

### **13.0 Schedule C -- Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule C are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule C that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule C shall control.

**Article 14 – Schedules**

**14.0 Schedule A: Description of the Project.**

Schedule A provides a description of the Project to be constructed by the Designated Entity.

**14.1 Schedule B: Single Line Diagram.**

Schedule B contains a single line diagram that depicts the Project and the Transmission Owner transmission facilities to which the Project will interconnect.

**Article 15 – Miscellaneous**

**15.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

Transmission Provider:  
PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403

Attention:

Designated Entity:

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Transmission Owner:

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**15.1 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just

and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

## **15.2 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association, taxable as a corporation, or other entity for the conduct of any business for profit.

## **15.3 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

## **15.4 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

## **15.5 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

## **15.6 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

## **15.7 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

## **15.8 Governing Law.**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

**15.9 Incorporation of Other Documents.**

The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
                                    Name                                    Title                                    Date

Printed name of signer: \_\_\_\_\_

**Designated Entity: [Name of Designated Entity]**

By: \_\_\_\_\_  
                                    Name                                    Title                                    Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
                                    Name                                    Title                                    Date

Printed name of signer: \_\_\_\_\_



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**Description of Project**

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(Clean Format)

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- VII Forced Outage Rule
- VIII Data Collection and Verification

**ATTACHMENT M-1 (FirstEnergy)**

**Energy Procedure Manual for Determining Supplier Total Hourly Energy Obligation**

**ATTACHMENT M-2 (First Energy)**

**Energy Procedure Manual for Determining Supplier Peak Load Share Procedures for Load Determination**

**ATTACHMENT M-2 (ComEd)**

**Determination of Capacity Peak Load Contributions and Network Service Peak Load Contributions**

**ATTACHMENT M-2 (PSE&G)**

**Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-2 (Atlantic City Electric Company)**

**Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-2 (Delmarva Power & Light Company)**

**Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-2 (Delmarva Power & Light Company)**

**Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-2 (Duke Energy Ohio, Inc.)**

**Procedures for Determination of Peak Load Contributions, Network Service Peak Load and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-3**

**Additional Procedures for Planning of Supplemental Projects**

**ATTACHMENT N**

**Form of Generation Interconnection Feasibility Study Agreement**

**ATTACHMENT N-1**

**Form of System Impact Study Agreement**

**ATTACHMENT N-2**

**Form of Facilities Study Agreement**

## **ATTACHMENT N-3**

### **Form of Optional Interconnection Study Agreement**

## **ATTACHMENT O**

### **Form of Interconnection Service Agreement**

- 1.0 Parties
- 2.0 Authority
- 3.0 Customer Facility Specifications
- 4.0 Effective Date
- 5.0 Security
- 6.0 Project Specific Milestones
- 7.0 Provision of Interconnection Service
- 8.0 Assumption of Tariff Obligations
- 9.0 Facilities Study
- 10.0 Construction of Transmission Owner Interconnection Facilities
- 11.0 Interconnection Specifications
- 12.0 Power Factor Requirement
- 12.0A RTU
- 13.0 Charges
- 14.0 Third Party Benefits
- 15.0 Waiver
- 16.0 Amendment
- 17.0 Construction With Other Parts Of The Tariff
- 18.0 Notices
- 19.0 Incorporation Of Other Documents
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 22.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 23.0 Infrastructure Security of Electric System Equipment and Operations and Control Hardware and Software is Essential to Ensure Day-to-Day Reliability and Operational Security

### **Specifications for Interconnection Service Agreement**

- 1.0 Description of [generating unit(s)] [Merchant Transmission Facilities] (the Customer Facility) to be Interconnected with the Transmission System in the PJM Region
- 2.0 Rights
- 3.0 Construction Responsibility and Ownership of Interconnection Facilities
- 4.0 Subject to Modification Pursuant to the Negotiated Contract Option
  - 4.1 Attachment Facilities Charge
  - 4.2 Network Upgrades Charge
  - 4.3 Local Upgrades Charge
  - 4.4 Other Charges
  - 4.5 Cost breakdown
  - 4.6 Security Amount Breakdown

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## **ATTACHMENT O APPENDIX 2: Standard Terms and Conditions for Interconnections**

- 1 Commencement, Term of and Conditions Precedent to Interconnection Service**
  - 1.1 Commencement Date
  - 1.2 Conditions Precedent
  - 1.3 Term
  - 1.4 Initial Operation
  - 1.4A Other Interconnection Options
  - 1.5 Survival
- 2 Interconnection Service**
  - 2.1 Scope of Service
  - 2.2 Non-Standard Terms
  - 2.3 No Transmission Services
  - 2.4 Use of Distribution Facilities
  - 2.5 Election by Behind The Meter Generation
- 3 Modification Of Facilities**
  - 3.1 General
  - 3.2 Interconnection Request
  - 3.3 Standards
  - 3.4 Modification Costs
- 4 Operations**
  - 4.1 General
  - 4.2 [Reserved]
  - 4.3 Interconnection Customer Obligations
  - 4.4 Transmission Interconnection Customer Obligations
  - 4.5 Permits and Rights-of-Way
  - 4.6 No Ancillary Services
  - 4.7 Reactive Power
  - 4.8 Under- and Over-Frequency and Under- and Over- Voltage Conditions
  - 4.9 System Protection and Power Quality
  - 4.10 Access Rights
  - 4.11 Switching and Tagging Rules
  - 4.12 Communications and Data Protocol
  - 4.13 Nuclear Generating Facilities
- 5 Maintenance**
  - 5.1 General
  - 5.2 [Reserved]
  - 5.3 Outage Authority and Coordination
  - 5.4 Inspections and Testing
  - 5.5 Right to Observe Testing
  - 5.6 Secondary Systems
  - 5.7 Access Rights
  - 5.8 Observation of Deficiencies
- 6 Emergency Operations**
  - 6.1 Obligations
  - 6.2 Notice
  - 6.3 Immediate Action

- 6.4 Record-Keeping Obligations
- 7 Safety**
  - 7.1 General
  - 7.2 Environmental Releases
- 8 Metering**
  - 8.1 General
  - 8.2 Standards
  - 8.3 Testing of Metering Equipment
  - 8.4 Metering Data
  - 8.5 Communications
- 9 Force Majeure**
  - 9.1 Notice
  - 9.2 Duration of Force Majeure
  - 9.3 Obligation to Make Payments
  - 9.4 Definition of Force Majeure
- 10 Charges**
  - 10.1 Specified Charges
  - 10.2 FERC Filings
- 11 Security, Billing And Payments**
  - 11.1 Recurring Charges Pursuant to Section 10
  - 11.2 Costs for Transmission Owner Interconnection Facilities
  - 11.3 No Waiver
  - 11.4 Interest
- 12 Assignment**
  - 12.1 Assignment with Prior Consent
  - 12.2 Assignment Without Prior Consent
  - 12.3 Successors and Assigns
- 13 Insurance**
  - 13.1 Required Coverages for Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
  - 13.1A Required Coverages for Generation Resources Of 20 Megawatts Or Less
  - 13.2 Additional Insureds
  - 13.3 Other Required Terms
  - 13.3A No Limitation of Liability
  - 13.4 Self-Insurance
  - 13.5 Notices; Certificates of Insurance
  - 13.6 Subcontractor Insurance
  - 13.7 Reporting Incidents
- 14 Indemnity**
  - 14.1 Indemnity
  - 14.2 Indemnity Procedures
  - 14.3 Indemnified Person
  - 14.4 Amount Owing
  - 14.5 Limitation on Damages
  - 14.6 Limitation of Liability in Event of Breach

- 14.7 Limited Liability in Emergency Conditions
- 15 Breach, Cure And Default**
  - 15.1 Breach
  - 15.2 Continued Operation
  - 15.3 Notice of Breach
  - 15.4 Cure and Default
  - 15.5 Right to Compel Performance
  - 15.6 Remedies Cumulative
- 16 Termination**
  - 16.1 Termination
  - 16.2 Disposition of Facilities Upon Termination
  - 16.3 FERC Approval
  - 16.4 Survival of Rights
- 17 Confidentiality**
  - 17.1 Term
  - 17.2 Scope
  - 17.3 Release of Confidential Information
  - 17.4 Rights
  - 17.5 No Warranties
  - 17.6 Standard of Care
  - 17.7 Order of Disclosure
  - 17.8 Termination of Interconnection Service Agreement
  - 17.9 Remedies
  - 17.10 Disclosure to FERC or its Staff
  - 17.11 No Interconnection Party Shall Disclose Confidential Information
  - 17.12 Information that is Public Domain
  - 17.13 Return or Destruction of Confidential Information
- 18 Subcontractors**
  - 18.1 Use of Subcontractors
  - 18.2 Responsibility of Principal
  - 18.3 Indemnification by Subcontractors
  - 18.4 Subcontractors Not Beneficiaries
- 19 Information Access And Audit Rights**
  - 19.1 Information Access
  - 19.2 Reporting of Non-Force Majeure Events
  - 19.3 Audit Rights
- 20 Disputes**
  - 20.1 Submission
  - 20.2 Rights Under The Federal Power Act
  - 20.3 Equitable Remedies
- 21 Notices**
  - 21.1 General
  - 21.2 Emergency Notices
  - 21.3 Operational Contacts
- 22 Miscellaneous**
  - 22.1 Regulatory Filing

	22.2	Waiver
	22.3	Amendments and Rights Under the Federal Power Act
	22.4	Binding Effect
	22.5	Regulatory Requirements
<b>23</b>		<b>Representations And Warranties</b>
	23.1	General
<b>24</b>		<b>Tax Liability</b>
	24.1	Safe Harbor Provisions
	24.2.	Tax Indemnity
	24.3	Taxes Other Than Income Taxes
	24.4	Income Tax Gross-Up
	24.5	Tax Status
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<b>ATTACHMENT O - SCHEDULE B</b>		
		<b>Single-Line Diagram</b>
<b>ATTACHMENT O - SCHEDULE C</b>		
		<b>List of Metering Equipment</b>
<b>ATTACHMENT O - SCHEDULE D</b>		
		<b>Applicable Technical Requirements and Standards</b>
<b>ATTACHMENT O - SCHEDULE E</b>		
		<b>Schedule of Charges</b>
<b>ATTACHMENT O - SCHEDULE F</b>		
		<b>Schedule of Non-Standard Terms &amp; Conditions</b>
<b>ATTACHMENT O - SCHEDULE G</b>		
		<b>Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status</b>
<b>ATTACHMENT O - SCHEDULE H</b>		
		<b>Interconnection Requirements for a Wind Generation Facility</b>
<b>ATTACHMENT O - SCHEDULE I</b>		
		<b>Interconnection Specifications for an Energy Storage Resource</b>
<b>ATTACHMENT O - SCHEDULE J</b>		
		<b>Schedule of Terms and Conditions for Surplus Interconnection Service</b>
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	2.0	Authority
	3.0	Customer Facility
	4.0	Effective Date and Term



- 4.1 Effective Date
- 4.2 Term
- 4.3 Survival
- 5.0 Construction Responsibility
- 6.0 [Reserved.]
- 7.0 Scope of Work
- 8.0 Schedule of Work
- 9.0 [Reserved.]
- 10.0 Notices
- 11.0 Waiver
- 12.0 Amendment
- 13.0 Incorporation Of Other Documents
- 14.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 15.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 16.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 17.0 Infrastructure Security of Electric System Equipment and Operations and Control Hardware and Software is Essential to Ensure Day-to-Day Reliability and Operational Security

**ATTACHMENT P - APPENDIX 1 – DEFINITIONS**

**ATTACHMENT P - APPENDIX 2 – STANDARD CONSTRUCTION TERMS AND CONDITIONS**

**Preamble**

**1 Facilitation by Transmission Provider**

**2 Construction Obligations**

- 2.1 Interconnection Customer Obligations
- 2.2 Transmission Owner Interconnection Facilities and Merchant Network Upgrades
- 2.2A Scope of Applicable Technical Requirements and Standards
- 2.3 Construction By Interconnection Customer
- 2.4 Tax Liability
- 2.5 Safety
- 2.6 Construction-Related Access Rights
- 2.7 Coordination Among Constructing Parties

**3 Schedule of Work**

- 3.1 Construction by Interconnection Customer
- 3.2 Construction by Interconnected Transmission Owner
  - 3.2.1 Standard Option
  - 3.2.2 Negotiated Contract Option
  - 3.2.3 Option to Build
- 3.3 Revisions to Schedule of Work
- 3.4 Suspension
  - 3.4.1 Costs
  - 3.4.2 Duration of Suspension
- 3.5 Right to Complete Transmission Owner Interconnection Facilities

- 3.6 Suspension of Work Upon Default
- 3.7 Construction Reports
- 3.8 Inspection and Testing of Completed Facilities
- 3.9 Energization of Completed Facilities
- 3.10 Interconnected Transmission Owner’s Acceptance of Facilities Constructed by Interconnection Customer
- 4 Transmission Outages**
  - 4.1 Outages; Coordination
- 5 Land Rights; Transfer of Title**
  - 5.1 Grant of Easements and Other Land Rights
  - 5.2 Construction of Facilities on Interconnection Customer Property
  - 5.3 Third Parties
  - 5.4 Documentation
  - 5.5 Transfer of Title to Certain Facilities Constructed By Interconnection Customer
  - 5.6 Liens
- 6 Warranties**
  - 6.1 Interconnection Customer Warranty
  - 6.2 Manufacturer Warranties
- 7 [Reserved.]**
- 8 [Reserved.]**
- 9 Security, Billing And Payments**
  - 9.1 Adjustments to Security
  - 9.2 Invoice
  - 9.3 Final Invoice
  - 9.4 Disputes
  - 9.5 Interest
  - 9.6 No Waiver
- 10 Assignment**
  - 10.1 Assignment with Prior Consent
  - 10.2 Assignment Without Prior Consent
  - 10.3 Successors and Assigns
- 11 Insurance**
  - 11.1 Required Coverages For Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
  - 11.1A Required Coverages For Generation Resources of 20 Megawatts Or Less
  - 11.2 Additional Insureds
  - 11.3 Other Required Terms
  - 11.3A No Limitation of Liability
  - 11.4 Self-Insurance
  - 11.5 Notices; Certificates of Insurance
  - 11.6 Subcontractor Insurance
  - 11.7 Reporting Incidents
- 12 Indemnity**
  - 12.1 Indemnity

- 12.2 Indemnity Procedures
- 12.3 Indemnified Person
- 12.4 Amount Owing
- 12.5 Limitation on Damages
- 12.6 Limitation of Liability in Event of Breach
- 12.7 Limited Liability in Emergency Conditions
- 13 Breach, Cure And Default**
  - 13.1 Breach
  - 13.2 Notice of Breach
  - 13.3 Cure and Default
    - 13.3.1 Cure of Breach
  - 13.4 Right to Compel Performance
  - 13.5 Remedies Cumulative
- 14 Termination**
  - 14.1 Termination
  - 14.2 [Reserved.]
  - 14.3 Cancellation By Interconnection Customer
  - 14.4 Survival of Rights
- 15 Force Majeure**
  - 15.1 Notice
  - 15.2 Duration of Force Majeure
  - 15.3 Obligation to Make Payments
  - 15.4 Definition of Force Majeure
- 16 Subcontractors**
  - 16.1 Use of Subcontractors
  - 16.2 Responsibility of Principal
  - 16.3 Indemnification by Subcontractors
  - 16.4 Subcontractors Not Beneficiaries
- 17 Confidentiality**
  - 17.1 Term
  - 17.2 Scope
  - 17.3 Release of Confidential Information
  - 17.4 Rights
  - 17.5 No Warranties
  - 17.6 Standard of Care
  - 17.7 Order of Disclosure
  - 17.8 Termination of Construction Service Agreement
  - 17.9 Remedies
  - 17.10 Disclosure to FERC or its Staff
  - 17.11 No Construction Party Shall Disclose Confidential Information of Another Construction Party 17.12 Information that is Public Domain
  - 17.13 Return or Destruction of Confidential Information
- 18 Information Access And Audit Rights**
  - 18.1 Information Access
  - 18.2 Reporting of Non-Force Majeure Events
  - 18.3 Audit Rights

- 19 Disputes**
  - 19.1 Submission
  - 19.2 Rights Under The Federal Power Act
  - 19.3 Equitable Remedies
- 20 Notices**
  - 20.1 General
  - 20.2 Operational Contacts
- 21 Miscellaneous**
  - 21.1 Regulatory Filing
  - 21.2 Waiver
  - 21.3 Amendments and Rights under the Federal Power Act
  - 21.4 Binding Effect
  - 21.5 Regulatory Requirements
- 22 Representations and Warranties**
  - 22.1 General

**ATTACHMENT P - SCHEDULE A**

**Site Plan**

**ATTACHMENT P - SCHEDULE B**

**Single-Line Diagram of Interconnection Facilities**

**ATTACHMENT P - SCHEDULE C**

**Transmission Owner Interconnection Facilities to be Built by Interconnected Transmission Owner**

**ATTACHMENT P - SCHEDULE D**

**Transmission Owner Interconnection Facilities to be Built by Interconnection Customer Pursuant to Option to Build**

**ATTACHMENT P - SCHEDULE E**

**Merchant Network Upgrades to be Built by Interconnected Transmission Owner**

**ATTACHMENT P - SCHEDULE F**

**Merchant Network Upgrades to be Built by Interconnection Customer Pursuant to Option to Build**

**ATTACHMENT P - SCHEDULE G**

**Customer Interconnection Facilities**

**ATTACHMENT P - SCHEDULE H**

**Negotiated Contract Option Terms**

**ATTACHMENT P - SCHEDULE I**

**Scope of Work**

**ATTACHMENT P - SCHEDULE J**

**Schedule of Work**

**ATTACHMENT P - SCHEDULE K**

**Applicable Technical Requirements and Standards**

**ATTACHMENT P - SCHEDULE L**

**Interconnection Customer's Agreement to Confirm with IRS Safe Harbor Provisions For Non-Taxable Status**

**ATTACHMENT P - SCHEDULE M**

**Schedule of Non-Standard Terms and Conditions**

**ATTACHMENT P - SCHEDULE N**

**Interconnection Requirements for a Wind Generation Facility**  
**ATTACHMENT Q**  
**PJM Credit Policy**  
**ATTACHMENT R**  
**Lost Revenues Of PJM Transmission Owners And Distribution of Revenues**  
**Remitted By MISO, SECA Rates to Collect PJM Transmission Owner Lost**  
**Revenues Under Attachment X, And Revenues From PJM Existing Transactions**  
**ATTACHMENT S**  
**Form of Transmission Interconnection Feasibility Study Agreement**  
**ATTACHMENT T**  
**Identification of Merchant Transmission Facilities**  
**ATTACHMENT U**  
**Independent Transmission Companies**  
**ATTACHMENT V**  
**Form of ITC Agreement**  
**ATTACHMENT W**  
**COMMONWEALTH EDISON COMPANY**  
**ATTACHMENT X**  
**Seams Elimination Cost Assignment Charges**  
**NOTICE OF ADOPTION OF NERC TRANSMISSION LOADING RELIEF**  
**PROCEDURES**  
**NOTICE OF ADOPTION OF LOCAL TRANSMISSION LOADING RELIEF**  
**PROCEDURES**  
**SCHEDULE OF PARTIES ADOPTING LOCAL TRANSMISSION LOADING**  
**RELIEF PROCEDURES**  
**ATTACHMENT Y**  
**Forms of Screens Process Interconnection Request (For Generation Facilities of 2**  
**MW or less)**  
**ATTACHMENT Z**  
**Certification Codes and Standards**  
**ATTACHMENT AA**  
**Certification of Small Generator Equipment Packages**  
**ATTACHMENT BB**  
**Form of Certified Inverter-Based Generating Facility No Larger Than 10 kW**  
**Interconnection Service Agreement**  
**ATTACHMENT CC**  
**Form of Certificate of Completion**  
**(Small Generating Inverter Facility No Larger Than 10 kW)**  
**ATTACHMENT DD**  
**Reliability Pricing Model**  
**ATTACHMENT EE**  
**Form of Upgrade Request**  
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**ATTACHMENT GG**  
**Form of Upgrade Construction Service Agreement**

- Article 1 – Definitions And Other Documents
  - 1.0 Defined Terms
  - 1.1 Incorporation of Other Documents
- Article 2 – Responsibility for Direct Assignment Facilities or Customer-Funded Upgrades
  - 2.0 New Service Customer Financial Responsibilities
  - 2.1 Obligation to Provide Security
  - 2.2 Failure to Provide Security
  - 2.3 Costs
  - 2.4 Transmission Owner Responsibilities
- Article 3 – Rights To Transmission Service
  - 3.0 No Transmission Service
- Article 4 – Early Termination
  - 4.0 Termination by New Service Customer
- Article 5 – Rights
  - 5.0 Rights
  - 5.1 Amount of Rights Granted
  - 5.2 Availability of Rights Granted
  - 5.3 Credits
- Article 6 – Miscellaneous
  - 6.0 Notices
  - 6.1 Waiver
  - 6.2 Amendment
  - 6.3 No Partnership
  - 6.4 Counterparts

**ATTACHMENT GG - APPENDIX I –**

**SCOPE AND SCHEDULE OF WORK FOR DIRECT ASSIGNMENT FACILITIES OR CUSTOMER-FUNDED UPGRADES TO BE BUILT BY TRANSMISSION OWNER**

**ATTACHMENT GG - APPENDIX II - DEFINITIONS**

- 1 Definitions
  - 1.1 Affiliate
  - 1.2 Applicable Laws and Regulations
  - 1.3 Applicable Regional Reliability Council
  - 1.4 Applicable Standards
  - 1.5 Breach
  - 1.6 Breaching Party
  - 1.7 Cancellation Costs
  - 1.8 Commission
  - 1.9 Confidential Information
  - 1.10 Constructing Entity
  - 1.11 Control Area
  - 1.12 Costs
  - 1.13 Default
  - 1.14 Delivering Party
  - 1.15 Emergency Condition

- 1.16 Environmental Laws
- 1.17 Facilities Study
- 1.18 Federal Power Act
- 1.19 FERC
- 1.20 Firm Point-To-Point
- 1.21 Force Majeure
- 1.22 Good Utility Practice
- 1.23 Governmental Authority
- 1.24 Hazardous Substances
- 1.25 Incidental Expenses
- 1.26 Local Upgrades
- 1.27 Long-Term Firm Point-To-Point Transmission Service
- 1.28 MAAC
- 1.29 MAAC Control Zone
- 1.30 NERC
- 1.31 Network Upgrades
- 1.32 Office of the Interconnection
- 1.33 Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement
- 1.34 Part I
- 1.35 Part II
- 1.36 Part III
- 1.37 Part IV
- 1.38 Part VI
- 1.39 PJM Interchange Energy Market
- 1.40 PJM Manuals
- 1.41 PJM Region
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- 1.43 Point(s) of Delivery
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- 1.45 Project Financing
- 1.46 Project Finance Entity
- 1.47 Reasonable Efforts
- 1.48 Receiving Party
- 1.49 Regional Transmission Expansion Plan
- 1.50 Schedule and Scope of Work
- 1.51 Security
- 1.52 Service Agreement
- 1.53 State
- 1.54 Transmission System
- 1.55 VACAR

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- 1.0 Effective Date and Term
  - 1.1 Effective Date
  - 1.2 Term
  - 1.3 Survival

- 2.0 Facilitation by Transmission Provider
- 3.0 Construction Obligations
  - 3.1 Direct Assignment Facilities or Customer-Funded Upgrades
  - 3.2 Scope of Applicable Technical Requirements and Standards
- 4.0 Tax Liability
  - 4.1 New Service Customer Payments Taxable
  - 4.2 Income Tax Gross-Up
  - 4.3 Private Letter Ruling
  - 4.4 Refund
  - 4.5 Contests
  - 4.6 Taxes Other Than Income Taxes
  - 4.7 Tax Status
- 5.0 Safety
  - 5.1 General
  - 5.2 Environmental Releases
- 6.0 Schedule Of Work
  - 6.1 Standard Option
  - 6.2 Option to Build
  - 6.3 Revisions to Schedule and Scope of Work
  - 6.4 Suspension
- 7.0 Suspension of Work Upon Default
  - 7.1 Notification and Correction of Defects
- 8.0 Transmission Outages
  - 8.1 Outages; Coordination
- 9.0 Security, Billing and Payments
  - 9.1 Adjustments to Security
  - 9.2 Invoice
  - 9.3 Final Invoice
  - 9.4 Disputes
  - 9.5 Interest
  - 9.6 No Waiver
- 10.0 Assignment
  - 10.1 Assignment with Prior Consent
  - 10.2 Assignment Without Prior Consent
  - 10.3 Successors and Assigns
- 11.0 Insurance
  - 11.1 Required Coverages
  - 11.2 Additional Insureds
  - 11.3 Other Required Terms
  - 11.4 No Limitation of Liability
  - 11.5 Self-Insurance
  - 11.6 Notices: Certificates of Insurance
  - 11.7 Subcontractor Insurance
  - 11.8 Reporting Incidents
- 12.0 Indemnity
  - 12.1 Indemnity



- 12.2 Indemnity Procedures
- 12.3 Indemnified Person
- 12.4 Amount Owing
- 12.5 Limitation on Damages
- 12.6 Limitation of Liability in Event of Breach
- 12.7 Limited Liability in Emergency Conditions
- 13.0 Breach, Cure And Default
  - 13.1 Breach
  - 13.2 Notice of Breach
  - 13.3 Cure and Default
  - 13.4 Right to Compel Performance
  - 13.5 Remedies Cumulative
- 14.0 Termination
  - 14.1 Termination
  - 14.2 Cancellation By New Service Customer
  - 14.3 Survival of Rights
  - 14.4 Filing at FERC
- 15.0 Force Majeure
  - 15.1 Notice
  - 15.2 Duration of Force Majeure
  - 15.3 Obligation to Make Payments
- 16.0 Confidentiality
  - 16.1 Term
  - 16.2 Scope
  - 16.3 Release of Confidential Information
  - 16.4 Rights
  - 16.5 No Warranties
  - 16.6 Standard of Care
  - 16.7 Order of Disclosure
  - 16.8 Termination of Upgrade Construction Service Agreement
  - 16.9 Remedies
  - 16.10 Disclosure to FERC or its Staff
  - 16.11 No Party Shall Disclose Confidential Information of Party 16.12  
Information that is Public Domain
  - 16.13 Return or Destruction of Confidential Information
- 17.0 Information Access And Audit Rights
  - 17.1 Information Access
  - 17.2 Reporting of Non-Force Majeure Events
  - 17.3 Audit Rights
  - 17.4 Waiver
  - 17.5 Amendments and Rights under the Federal Power Act
  - 17.6 Regulatory Requirements
- 18.0 Representation and Warranties
  - 18.1 General
- 19.0 Inspection and Testing of Completed Facilities
  - 19.1 Coordination

- 19.2 Inspection and Testing
- 19.3 Review of Inspection and Testing by Transmission Owner
- 19.4 Notification and Correction of Defects
- 19.5 Notification of Results
- 20.0 Energization of Completed Facilities
- 21.0 Transmission Owner's Acceptance of Facilities Constructed  
by New Service Customer
- 22.0 Transfer of Title to Certain Facilities Constructed By New Service Customer
- 23.0 Liens

**ATTACHMENT HH – RATES, TERMS, AND CONDITIONS OF SERVICE FOR  
PJMSETTLEMENT, INC.**

**ATTACHMENT II – MTEP PROJECT COST RECOVERY FOR ATSI ZONE**

**ATTACHMENT JJ – MTEP PROJECT COST RECOVERY FOR DEOK ZONE**

**ATTACHMENT KK - FORM OF DESIGNATED ENTITY AGREEMENT**

**ATTACHMENT LL - FORM OF INTERCONNECTION COORDINATION  
AGREEMENT**

**ATTACHMENT MM – FORM OF PSEUDO-TIE AGREEMENT – WITH NATIVE BA  
AS PARTY**

**ATTACHMENT MM-1 – FORM OF SYSTEM MODIFICATION COST  
REIMBURSEMENT AGREEMENT – PSEUDO-TIE INTO PJM**

**ATTACHMENT NN – FORM OF PSEUDO-TIE AGREEMENT WITHOUT NATIVE BA  
AS PARTY**

**ATTACHMENT OO – FORM OF DYNAMIC SCHEDULE AGREEMENT INTO THE  
PJM REGION**

**ATTACHMENT PP – FORM OF FIRM TRANSMISSION FEASIBILITY STUDY  
AGREEMENT**

## **Definitions – C - D**

### **Canadian Guaranty:**

“Canadian Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in Canada, and meets all of the provisions of Tariff, Attachment Q.

### **Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Tariff, Part IV and/or Tariff, Part VI.

### **Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

### **Capacity Emergency Transfer Limit:**

“Capacity Emergency Transfer Limit” or “CETL” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Emergency Transfer Objective:**

“Capacity Emergency Transfer Objective” or “CETO” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Export Transmission Customer:**

“Capacity Export Transmission Customer” shall mean a customer taking point to point transmission service under Tariff, Part II to export capacity from a generation resource located in the PJM Region that has qualified for an exception to the RPM must-offer requirement as described in Tariff, Attachment DD, section 6.6(g).

### **Capacity Import Limit:**

“Capacity Import Limit” shall have the meaning provided in the Reliability Assurance Agreement.

### **Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

**Capacity Market Buyer:**

“Capacity Market Buyer” shall mean a Member that submits bids to buy Capacity Resources in any Incremental Auction.

**Capacity Market Seller:**

“Capacity Market Seller” shall mean a Member that owns, or has the contractual authority to control the output or load reduction capability of, a Capacity Resource, that has not transferred such authority to another entity, and that offers such resource in the Base Residual Auction or an Incremental Auction.

**Capacity Performance Resource:**

“Capacity Performance Resource” shall mean a Capacity Resource as described in Tariff, Attachment DD, section 5.5A(a).

**Capacity Performance Transition Incremental Auction:**

“Capacity Performance Transition Incremental Auction” shall have the meaning specified in Tariff, Attachment DD, section 5.14D.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Capacity Resource with State Subsidy:**

“Capacity Resource with State Subsidy” shall mean (1) a Capacity Resource that is offered into an RPM Auction or otherwise assumes an RPM commitment for which the Capacity Market Seller receives or is entitled to receive one or more State Subsidies for the applicable Delivery Year; (2) a Capacity Resource that has not cleared an RPM Auction for the Delivery Year for which the Capacity Market Seller last received a State Subsidy (or any subsequent Delivery Year) shall still be considered a Capacity Resource with State Subsidy upon the expiration of such State Subsidy until the resource clears an RPM Auction; (3) a Capacity Resource that is the subject of a bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6) shall be deemed a Capacity Resource with State Subsidy to the extent an owner of the facility supporting the Capacity Resource is entitled to a State Subsidy associated with such facility even if the Capacity Market Seller is not entitled to a State Subsidy; and (4) any Jointly Owned Cross-Subsidized Capacity Resource.

**Capacity Resource Clearing Price:**

“Capacity Resource Clearing Price” shall mean the price calculated for a Capacity Resource that offered and cleared in a Base Residual Auction or Incremental Auction, in accordance with Tariff, Attachment DD, section 5.

**Capacity Storage Resource:**

“Capacity Storage Resource” shall mean any Energy Storage Resource that participates in the Reliability Pricing Model or is otherwise treated as capacity in PJM’s markets such as through a Fixed Resource Requirement Capacity Plan.

**Capacity Transfer Right:**

“Capacity Transfer Right” shall mean a right, allocated to LSEs serving load in a Locational Deliverability Area, to receive payments, based on the transmission import capability into such Locational Deliverability Area, that offset, in whole or in part, the charges attributable to the Locational Price Adder, if any, included in the Zonal Capacity Price calculated for a Locational Delivery Area.

**Capacity Transmission Injection Rights:**

“Capacity Transmission Injection Rights” shall mean the rights to schedule energy and capacity deliveries at a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

**Charge Economic Maximum Megawatts:**

“Charge Economic Maximum Megawatts” shall mean the greatest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Continuous Mode or in Charge Mode. Charge Economic Maximum Megawatts shall be the Economic Minimum for an Energy Storage Resource or solar-storage Open-Loop Hybrid Resource in Charge Mode or in Continuous Mode.

**Charge Economic Minimum Megawatts:**

“Charge Economic Minimum Megawatts” shall mean the smallest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Charge Mode. Charge Economic

Minimum Megawatts shall be the Economic Maximum for an Energy Storage Resource or solar-storage Open-Loop Hybrid Resource in Charge Mode.

**Charge Mode:**

“Charge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource that only includes negative megawatt quantities (i.e., the Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource is only withdrawing megawatts from the grid).

**Charge Ramp Rate:**

“Charge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant or solar-storage Open-Loop Hybrid Resource in Charge Mode.

**Cleared Capacity Resource with State Subsidy:**

“Cleared Capacity Resource with State Subsidy” shall mean a Capacity Resource with State Subsidy that has cleared in an RPM Auction for a Delivery Year that is prior to the 2022/2023 Delivery Year or, starting with 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have cleared an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price and since then, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy have been, the subject of a Sell Offer into the Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for the relevant Delivery Year.

**Closed-Loop Hybrid Resource:**

“Closed-Loop Hybrid Resource” shall mean a Hybrid Resource that is physically or contractually incapable of charging from the grid.

**Cold/Warm/Hot Notification Time:**

“Cold/Warm/Hot Notification Time” shall mean the time interval between PJM notification and the beginning of the start sequence for a generating unit that is currently in its cold/warm/hot temperature state. The start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc.

**Cold/Warm/Hot Start-up Time:**

For all generating units that are not combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval, measured in hours, from the beginning of the start sequence to the point after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero for a generating unit in its cold/warm/hot temperature state. For combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval

from the beginning of the start sequence to the point after first combustion turbine generator breaker closure in its cold/warm/hot temperature state, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For all generating units, the start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc. Other more detailed actions that could signal the beginning of the start sequence could include, but are not limited to, the operation of pumps, condensers, fans, water chemistry evaluations, checklists, valves, fuel systems, combustion turbines, starting engines or systems, maintaining stable fuel/air ratios, and other auxiliary equipment necessary for startup.

**Cold Weather Alert:**

“Cold Weather Alert” shall mean the notice that PJM provides to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for expected extreme cold weather conditions.

**Collateral:**

“Collateral” shall be a cash deposit, including any interest thereon, or a Letter of Credit issued for the benefit of PJM or PJMSettlement, in an amount and form determined by and acceptable to PJM or PJMSettlement, provided by a Participant to PJM or PJMSettlement as credit support in order to participate in the PJM Markets or take Transmission Service. “Collateral” shall also include surety bonds, except for the purpose of satisfying the FTR Credit Requirement, in which case only a cash deposit or Letter of Credit will be acceptable.

**Collateral Call:**

“Collateral Call” shall mean a notice to a Participant that additional Collateral, or possibly early payment, is required in order to remain in, or to regain, compliance with Tariff, Attachment Q.

**Co-Located Resource:**

“Co-Located Resource” shall mean a component of a Mixed Technology Facility that operates in the capacity, energy, and/or ancillary services market(s) as a separate resource from the other components of such facility.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**Committed Offer:**

The “Committed Offer” shall mean 1) for pool-scheduled resources, an offer on which a resource was scheduled by the Office of the Interconnection for a particular clock hour for an Operating Day, and 2) for self-scheduled resources, either the offer on which the Market Seller has elected

to schedule the resource or the applicable offer for the resource determined pursuant to Operating Agreement, Schedule 1, section 6.4, and the parallel provisions of Tariff, Attachment K-Appendix, section 6.4, or Operating Agreement, Schedule 1, section 6.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 6.6, for a particular clock hour for an Operating Day.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Compliance Aggregation Area (CAA):**

“Compliance Aggregation Area” or “CAA” shall mean a geographic area of Zones or sub-Zones that are electrically-contiguous and experience for the relevant Delivery Year, based on Resource Clearing Prices of, for Delivery Years through May 31, 2018, Annual Resources and for the 2018/2019 Delivery Year and subsequent Delivery Years, Capacity Performance Resources, the same locational price separation in the Base Residual Auction, the same locational price separation in the First Incremental Auction, the same locational price separation in the Second Incremental Auction, the same locational price separation in the Third Incremental Auction.

**Composite Energy Offer:**

“Composite Energy Offer” for generation resources shall mean the sum (in \$/MWh) of the Incremental Energy Offer and amortized Start-Up Costs and amortized No-load Costs, and for Economic Load Response Participant resources the sum (in \$/MWh) of the Incremental Energy Offer and amortized shutdown costs, as determined in accordance with Tariff, Attachment K-Appendix, section 2.4 and Tariff, Attachment K-Appendix, section 2.4A and the PJM Manuals.

**Conditional Incremental Auction:**

“Conditional Incremental Auction” shall mean an Incremental Auction conducted for a Delivery Year if and when necessary to secure commitments of additional capacity to address reliability criteria violations arising from the delay in a Backbone Transmission upgrade that was modeled in the Base Residual Auction for such Delivery Year.

**Conditioned State Support:**

“Conditioned State Support” shall mean any financial benefit required or incentivized by a state, or political subdivision of a state acting in its sovereign capacity, that is provided outside of PJM Markets and in exchange for the sale of a FERC-jurisdictional product conditioned on clearing in any RPM Auction, where “conditioned on clearing in any RPM Auction” refers to specific directives as to the level of the offer that must be entered for the relevant Generation Capacity Resource in the RPM Auction or directives that the Generation Capacity Resource is required to clear in any RPM Auction. Conditioned State Support shall not include any Legacy Policy.



**CONE Area:**

“CONE Area” shall mean the areas listed in Tariff, Attachment DD, section 5.10(a)(iv)(A) and any LDAs established as CONE Areas pursuant to Tariff, Attachment DD, section 5.10(a)(iv)(B).

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

**Congestion Price:**

“Congestion Price” shall mean the congestion component of the Locational Marginal Price, which is the effect on transmission congestion costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource, based on the effect of increased generation from or consumption by the resource on transmission line loadings, calculated as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constraint Relaxation Logic:**

“Constraint Relaxation Logic” shall mean the logic applied in the market clearing software where the transmission limit is increased to prevent the Transmission Constraint Penalty Factor from setting the Marginal Value of a transmission constraint.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Tariff, Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement. “Construction Parties” shall mean all of the Parties to a Construction Service Agreement.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Continuous Mode:**

“Continuous Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource that includes both negative and positive megawatt quantities (i.e., the Energy Storage Resource Model Participant or Open-Loop Hybrid Resource is capable of continually and immediately transitioning from withdrawing megawatt quantities from the grid to injecting megawatt quantities onto the grid or injecting megawatts to withdrawing megawatts). Energy Storage Resource Model Participants or Open-Loop Hybrid Resource operating in Continuous Mode are considered to have an unlimited ramp rate. Continuous Mode requires Discharge Economic Maximum Megawatts to be zero or correspond to an injection, and Charge Economic Maximum Megawatts to be zero or correspond to a withdrawal.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Control Zone:**

“Control Zone” shall have the meaning given in the Operating Agreement.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Tariff, Part IV and Tariff, Part VI.

**Coordinated External Transaction:**

“Coordinated External Transaction” shall mean a transaction to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Coordinated Transaction Scheduling:**

“Coordinated Transaction Scheduling” or “CTS” shall mean the scheduling of Coordinated External Transactions at a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Corporate Guaranty:**

“Corporate Guaranty” shall mean a legal document, in a form acceptable to PJM and/or PJMSettlement, used by a Credit Affiliate of an entity to guaranty the obligations of another entity.

**Cost of New Entry:**

“Cost of New Entry” or “CONE” shall mean the nominal levelized cost of a Reference Resource, as determined in accordance with Tariff, Attachment DD, section 5.

**Costs:**

As used in Tariff, Part IV, Tariff, Part VI and related attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Counterparty:**

“Counterparty” shall mean PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a Market Participant or other entities, including the agreements and transactions with customers regarding transmission service and other transactions under the PJM Tariff and the Operating Agreement. PJMSettlement shall not be a counterparty to (i) any bilateral transactions between Members, or (ii) any Member’s self-supply of energy to serve its load, or (iii) any Member’s self-schedule of energy reported to the Office of the Interconnection to the extent that energy serves that Member’s own load.

**Credit Affiliate:**

“Credit Affiliate” shall mean Principals, corporations, partnerships, firms, joint ventures, associations, joint stock companies, trusts, unincorporated organizations or entities, one of which directly or indirectly controls the other or that are both under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity.

**Credit Available for Export Transactions:**

“Credit Available for Export Transactions” shall mean a designation of credit to be used for Export Transactions that is allocated by each Market Participant from its Credit Available for Virtual Transactions, and which reduces the Market Participant’s Credit Available for Virtual Transactions accordingly.

**Credit Available for Virtual Transactions:**

“Credit Available for Virtual Transactions” shall mean the Market Participant’s Working Credit Limit for Virtual Transactions calculated on its credit provided in compliance with its Peak Market Activity requirement plus available credit submitted above that amount, less any unpaid billed and unbilled amounts owed to PJMSettlement, plus any unpaid unbilled amounts owed by PJMSettlement to the Market Participant, less any applicable credit required for Minimum Participation Requirements, FTRs, RPM activity, or other credit requirement determinants as defined in Tariff, Attachment Q.

**Credit Breach:**

“Credit Breach” shall mean (a) the failure of a Participant to perform, observe, meet or comply with any requirements of Tariff, Attachment Q or other provisions of the Agreements, other than a Financial Default, or (b) a determination by PJM and notice to the Participant that a Participant represents an unreasonable credit risk to the PJM Markets; that, in either event, has not been cured or remedied after any required notice has been given and any cure period has elapsed.

**Credit-Limited Offer:**

“Credit-Limited Offer” shall mean a Sell Offer that is submitted by a Market Participant in an RPM Auction subject to a maximum credit requirement specified by such Market Participant.

**Credit Support Default:**

“Credit Support Default,” shall mean (a) the failure of any Guarantor of a Market Participant to make any payment, or to perform, observe, meet or comply with any provisions of the applicable Guaranty or Credit Support Document that has not been cured or remedied, after any required notice has been given and an opportunity to cure (if any) has elapsed, (b) a representation made or deemed made by a Guarantor in any Credit Support Document that proves to be false, incorrect or misleading in any material respect when made or deemed made, (c) the failure of a Guaranty or other Credit Support Document to be in full force and effect prior to the satisfaction of all obligations of such Participant to PJM, without PJM’s consent, or (d) a Guarantor repudiating, disaffirming, disclaiming or rejecting, in whole or in part, its obligations under the Guaranty or challenging the validity of the Guaranty.

**Credit Support Document:**

“Credit Support Document” shall mean any agreement or instrument in any way guaranteeing or securing any or all of a Participant’s obligations under the Agreements (including, without limitation, the provisions of Tariff, Attachment Q), any agreement entered into under, pursuant to, or in connection with the Agreements or any agreement entered into under, pursuant to, or in connection with the Agreements and/or any other agreement to which PJM, PJMSettlement and the Participant are parties, including, without limitation, any Corporate Guaranty, Letter of Credit, or agreement granting PJM and PJMSettlement a security interest.

**Critical Natural Gas Infrastructure:**

“Critical Natural Gas Infrastructure” shall mean locations with electrical loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility as defined by NERC/FERC standard(s); and until such NERC/FERC standard(s) is developed, is defined as electric loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility, which if curtailed, will impact the delivery of natural gas to bulk-power system natural gas-fired generation.

**Cross-Border:**

When used to describe Network Integration Transmission Service, Network External Designated Transmission Service or Point-to-Point Transmission Service, “Cross-Border” shall mean transmission service where the capacity and/or energy is delivered from a resource that is not part of the PJM Transmission System and/or to load that is not part of the PJM Transmission System.

**CTS Enabled Interface:**

“CTS Enabled Interface” shall mean an interface between the PJM Control Area and an adjacent Control Area at which the Office of the Interconnection has authorized the use of Coordinated Transaction Scheduling (“CTS”). The CTS Enabled Interfaces between the PJM Control Area and the New York Independent System Operator, Inc. Control Area shall be designated in the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C., Schedule A (PJM Rate Schedule FERC No. 45). The CTS Enabled Interfaces between the PJM Control Area and the Midcontinent Independent System Operator, Inc. shall be designated consistent with Attachment 3, section 2 of the Joint Operating Agreement between Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C.

**CTS Interface Bid:**

“CTS Interface Bid” shall mean a unified real-time bid to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Curtailement:**

“Curtailement” shall mean a reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

**Curtailement Service Provider:**

“Curtailement Service Provider” or “CSP” shall mean a Member or a Special Member, which action on behalf of itself or one or more other Members or non-Members, participates in the PJM Interchange Energy Market, Ancillary Services markets, and/or Reliability Pricing Model by causing a reduction in demand.

**Customer Facility:**

“Customer Facility” shall mean Generation Facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Tariff, Part IV.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Tariff, Part VI, section 217, or (ii) is voluntarily undertaken by a New Service Customer in fulfillment of an Upgrade Request. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Customer Interconnection Facilities:**

“Customer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer’s side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

**Daily Deficiency Rate:**

“Daily Deficiency Rate” shall mean the rate employed to assess certain deficiency charges under Tariff, Attachment DD, section 7, Tariff, Attachment DD, section 8, Tariff, Attachment DD, section 9, or Tariff, Attachment DD, section 13.

**Daily Unforced Capacity Obligation:**

“Daily Unforced Capacity Obligation” shall mean the capacity obligation of a Load Serving Entity during the Delivery Year, determined in accordance with Reliability Assurance Agreement, Schedule 8, or, as to an FRR entity, in Reliability Assurance Agreement, Schedule 8.1.

**Day-ahead Congestion Price:**

“Day-ahead Congestion Price” shall mean the Congestion Price resulting from the Day-ahead Energy Market.

**Day-ahead Energy Market:**

“Day-ahead Energy Market” shall mean the schedule of commitments for the purchase or sale of energy and payment of Transmission Congestion Charges developed by the Office of the Interconnection as a result of the offers and specifications submitted in accordance with Operating Agreement, Schedule 1, section 1.10 and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.

**Day-ahead Energy Market Injection Congestion Credits:**

“Day-ahead Energy Market Injection Congestion Credits” shall mean those congestion credits paid to Market Participants for supply transactions in the Day-ahead Energy Market including generation schedules, Increment Offers, Up-to Congestion Transactions, import transactions, and Day-Ahead Pseudo-Tie Transactions.

**Day-ahead Energy Market Transmission Congestion Charges:**

“Day-ahead Energy Market Transmission Congestion Charges” shall be equal to the sum of Day-ahead Energy Market Withdrawal Congestion Charges minus [the sum of Day-ahead Energy Market Injection Congestion Credits plus any congestion charges calculated pursuant to the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38), plus any congestion charges calculated pursuant to the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 45), plus any congestion charges calculated pursuant to agreements between the Office of the Interconnection and other entities, as applicable].

**Day-ahead Energy Market Withdrawal Congestion Charges:**

“Day-ahead Energy Market Withdrawal Congestion Charges” shall mean those congestion charges collected from Market Participants for withdrawal transactions in the Day-ahead Energy Market from transactions including Demand Bids, Decrement Bids, Up-to Congestion Transactions, Export Transactions, and Day-Ahead Pseudo-Tie Transactions.

**Day-ahead Loss Price:**

“Day-ahead Loss Price” shall mean the Loss Price resulting from the Day-ahead Energy Market.

**Day-ahead Prices:**

“Day-ahead Prices” shall mean the Locational Marginal Prices resulting from the Day-ahead Energy Market.

**Day-Ahead Pseudo-Tie Transaction:**

“Day-Ahead Pseudo-Tie Transaction” shall mean a transaction scheduled in the Day-ahead Energy Market to the PJM-MISO interface from a generator within the PJM balancing authority area that Pseudo-Ties into the MISO balancing authority area.

**Day-ahead Settlement Interval:**

“Day-ahead Settlement Interval” shall mean the interval used by settlements, which shall be every one clock hour.

**Day-ahead System Energy Price:**



“Day-ahead System Energy Price” shall mean the System Energy Price resulting from the Day-ahead Energy Market.

**Deactivation:**

“Deactivation” shall mean the retirement or mothballing of a generating unit governed by Tariff, Part V.

**Deactivation Avoidable Cost Credit:**

“Deactivation Avoidable Cost Credit” shall mean the credit paid to Generation Owners pursuant to Tariff, Part V, section 114.

**Deactivation Avoidable Cost Rate:**

“Deactivation Avoidable Cost Rate” shall mean the formula rate established pursuant to Tariff, Part V, section 115.

**Deactivation Date:**

“Deactivation Date” shall mean the date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

**Decrement Bid:**

“Decrement Bid” shall mean a type of Virtual Transaction that is a bid to purchase energy at a specified location in the Day-ahead Energy Market. A cleared Decrement Bid results in scheduled load at the specified location in the Day-ahead Energy Market.

**Default:**

As used in the Interconnection Service Agreement and Construction Service Agreement, “Default” shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

**Delivering Party:**

“Delivering Party” shall mean the entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

**Delivery Year:**

“Delivery Year” shall mean the Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Tariff, Attachment DD, or pursuant to an FRR Capacity Plan under Reliability Assurance Agreement, Schedule 8.1.

**Demand Bid:**

“Demand Bid” shall mean a bid, submitted by a Load Serving Entity in the Day-ahead Energy Market, to purchase energy at its contracted load location, for a specified timeframe and megawatt quantity, that if cleared will result in energy being scheduled at the specified location in the Day-ahead Energy Market and in the physical transfer of energy during the relevant Operating Day.

**Demand Bid Limit:**

“Demand Bid Limit” shall mean the largest MW volume of Demand Bids that may be submitted by a Load Serving Entity for any hour of an Operating Day, as determined pursuant to Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**Demand Bid Screening:**

“Demand Bid Screening” shall mean the process by which Demand Bids are reviewed against the applicable Demand Bid Limit, and rejected if they would exceed that limit, as determined pursuant to Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**Demand Resource:**

“Demand Resource” shall mean a resource with the capability to provide a reduction in demand.

**Demand Resource Factor or DR Factor:**

“Demand Resource Factor” or (“DR Factor”) shall have the meaning specified in the Reliability Assurance Agreement.

**Designated Agent:**

“Designated Agent” shall mean any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

**Designated Entity:**

“Designated Entity” shall mean an entity, including an existing Transmission Owner or Nonincumbent Developer, designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain, and finance Immediate-need Reliability Projects, Short-term Projects, Long-lead Projects, or Economic-based Enhancements or Expansions pursuant to Tariff, Schedule 19, section 1.5.8..

**Direct Assignment Facilities:**

“Direct Assignment Facilities” shall mean facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

**Direct Charging Energy:**

“Direct Charging Energy” shall mean the energy that an Energy Storage Resource or Open-Loop Hybrid Resource purchases from the PJM Interchange Energy Market and (i) later resells to the PJM Interchange Energy Market; or (ii) is lost to conversion inefficiencies, provided that such inefficiencies are an unavoidable component of the conversion, storage, and discharge process that is used to resell energy back to the PJM Interchange Energy Market.

**Direct Load Control:**

“Direct Load Control” shall mean load reduction that is controlled directly by the Curtailment Service Provider’s market operations center or its agent, in response to PJM instructions.

**Discharge Economic Maximum Megawatts:**

“Discharge Economic Maximum Megawatts” shall mean the maximum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Continuous Mode or in Discharge Mode. Discharge Economic Maximum Megawatts shall be the Economic Maximum for an Energy Storage Resource or Open-Loop Hybrid Resource in Discharge Mode or in Continuous Mode.

**Discharge Economic Minimum Megawatts:**

“Discharge Economic Minimum Megawatts” shall mean the minimum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Discharge Mode. Discharge Economic Minimum Megawatts shall be the Economic Minimum for an Energy Storage Resource or Open-Loop Hybrid Resource in Discharge Mode.

**Discharge Mode:**

“Discharge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource that only includes positive megawatt quantities (i.e., the Energy Storage Resource Model Participant or Open-Loop Hybrid Resource is only injecting megawatts onto the grid).

**Discharge Ramp Rate:**

“Discharge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource in Discharge Mode.

**Dispatch Rate:**

“Dispatch Rate” shall mean the control signal, expressed in dollars per megawatt-hour, calculated and transmitted continuously and dynamically to direct the output level of all generation resources dispatched by the Office of the Interconnection in accordance with the Offer Data.

**Dispatched Charging Energy:**

“Dispatched Charging Energy” shall mean Direct Charging Energy that an Energy Storage Resource Model Participant or Open-Loop Hybrid Resource receives from the electric grid pursuant to PJM dispatch while providing one of the following services in the PJM markets: Energy Imbalance Service pursuant to Tariff, Schedule 4; Regulation; Tier 2 Synchronized Reserves; or Reactive Service. Energy Storage Resource Model Participants and Open-Loop Hybrid Resource shall be considered to be providing Energy Imbalance Service when they are dispatchable by PJM in real-time.

**Dynamic Schedule:**

“Dynamic Schedule” shall have the same meaning provided in the Operating Agreement.

**Dynamic Transfer:**

“Dynamic Transfer” shall have the same meaning provided in the Operating Agreement.

## **Definitions – E - F**

### **Economic-based Enhancement or Expansion:**

“Economic-based Enhancement or Expansion” shall mean an enhancement or expansion described in Tariff, Schedule 19, section 1.5.7(b) (i) – (iii) that is designed to relieve transmission constraints that have an economic impact.

### **Economic Load Response Participant:**

“Economic Load Response Participant” shall mean a Member or Special Member that qualifies under Operating Agreement, Schedule 1, section 1.5A, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A, to participate in the PJM Interchange Energy Market and/or Ancillary Services markets through reductions in demand.

### **Economic Maximum:**

“Economic Maximum” shall mean the highest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

### **Economic Minimum:**

“Economic Minimum” shall mean the lowest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

### **Effective FTR Holder:**

“Effective FTR Holder” shall mean:

- (i) For an FTR Holder that is either a (a) privately held company, or (b) a municipality or electric cooperative, as defined in the Federal Power Act, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other entity that is under common ownership, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (ii) For an FTR Holder that is a publicly traded company including a wholly owned subsidiary of a publicly traded company, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other PJM Member has over 10% common ownership with the FTR Holder, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (iii) an FTR Holder together with any other PJM Member, including also any Affiliate, subsidiary or parent of such other PJM Member, with which it shares common ownership,

wholly or partly, directly or indirectly, in any third entity which is a PJM Member (e.g., a joint venture).

**EFORd:**

“EFORd” shall have the meaning specified in the PJM Reliability Assurance Agreement.

**Electrical Distance:**

“Electrical Distance” shall mean, for a Generation Capacity Resource geographically located outside the metered boundaries of the PJM Region, the measure of distance, based on impedance and in accordance with the PJM Manuals, from the Generation Capacity Resource to the PJM Region.

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VI, Eligible Customer shall mean only those Eligible Customers that have submitted a Completed Application.

**Eligible Fast-Start Resource:**

“Eligible Fast-Start Resource” shall mean a Fast-Start Resource that is eligible for the application of Integer Relaxation during the calculation of Locational Marginal Prices as set forth in Tariff, Attachment K-Appendix, section 2.2.

**Emergency Action:**

“Emergency Action” shall mean (1) any megawatt shortage of the Primary Reserve Requirement (as specified in the PJM Manuals) in a Reserve Zone or Reserve Sub-zone, inclusive of any adjustments to such requirement to account for system conditions, as determined by the dispatch run from the security constrained economic dispatch and where, as specified in the PJM

Manuals, there is also a Voltage Reduction Warning and reduction of non-critical plant load, Manual Load Dump Warning, Maximum Generation Emergency Action, or the curtailment of non-essential building loads and Voltage Reduction Warning that encompasses such Reserve Zone or Reserve Sub-zone or (2) anytime the Office of Interconnection identifies an emergency and issues a load shed directive, Manual Load Dump Action, Voltage Reduction Action, or deploy all resources action for an entire Reserve Zone or Reserve Sub-zone.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Interconnected Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not obligated by an Interconnection Service Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Emergency Load Response Program:**

“Emergency Load Response Program” shall mean the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix, section 8.

**Energy Efficiency Resource:**

“Energy Efficiency Resource” shall have the meaning specified in the PJM Reliability Assurance Agreement.

**Energy Market Opportunity Cost:**

“Energy Market Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of available run hours due to limitations imposed on the unit by Applicable Laws and Regulations, and (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Energy Market Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same compliance period, which compliance period is determined by the applicable regulatory authority and is reflected in the rules set forth in PJM Manual 15.

Energy Market Opportunity Costs shall be limited to those resources which are specifically delineated in Operating Agreement, Schedule 2.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Settlement Area:**

“Energy Settlement Area” shall mean the bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open-Loop Hybrid Resources are not Energy Storage Resources.

**Energy Storage Resource Model Participant:**

“Energy Storage Resource Model Participant” shall mean an Energy Storage Resource utilizing the Energy Storage Resource Participation Model.

**Energy Storage Resource Participation Model:**

“Energy Storage Resource Participation Model” shall mean the participation model accepted by the Commission in Docket No. ER19-469-000.

**Energy Transmission Injection Rights:**

“Energy Transmission Injection Rights” shall mean the rights to schedule energy deliveries at a specified point on the Transmission System. Energy Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Deliveries scheduled using Energy Transmission Injection Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**Entity Providing Supply Services to Default Retail Service Provider:**

“Entity Providing Supply Services to Default Retail Service Provider” shall mean any entity, including but not limited to a load aggregator or power marketer, providing supply services to an electric distribution company when that electric distribution company is serving as the default retail service provider, and that enters into a contract or similar obligation with such electric distribution company to serve retail customers who have not selected a competitive retail service provider.



**Environmental Laws:**

“Environmental Laws” shall mean applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

**Environmentally-Limited Resource:**

“Environmentally-Limited Resource” shall mean a resource which has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited by a governmental authority to operating only during declared PJM capacity emergencies.

**Equivalent Load:**

“Equivalent Load” shall mean the sum of a Market Participant’s net system requirements to serve its customer load in the PJM Region, if any, plus its net bilateral transactions.

**Event of Default:**

“Event of Default,” as that term is used in Tariff, Attachment Q, shall mean a Financial Default, Credit Breach, or Credit Support Default.

**Exercise of Buyer-Side Market Power:**

“Exercise of Buyer-Side Market Power” shall mean anti-competitive behavior of a Capacity Market Seller with a Load Interest, or directed by an entity with a Load Interest, to uneconomically lower RPM Auction Sell Offer(s) in order to suppress RPM Auction clearing prices for the overall benefit of the Capacity Market Seller’s (and/or affiliates of Capacity Market Seller) portfolio of generation and load or that of the directing entity with a Load Interest as determined pursuant to Tariff, Attachment DD, section 5.14(h-2)(2)(B). A bilateral contract between the Capacity Market Seller and an entity with a Load Interest with the express purpose of lowering capacity market clearing prices shall be evidence of the Exercise of Buyer-Side Market Power.

**Existing Generation Capacity Resource:**

“Existing Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Export Credit Exposure:**

“Export Credit Exposure” is determined for each Market Participant for a given Operating Day, and shall mean the sum of credit exposures for the Market Participant’s Export Transactions for that Operating Day and for the preceding Operating Day.

**Export Nodal Reference Price:**

“Export Nodal Reference Price” at each location is the 97th percentile, shall be, the real-time hourly integrated price experienced over the corresponding two-month period in the preceding calendar year, calculated separately for peak and off-peak time periods. The two-month time periods used in this calculation shall be January and February, March and April, May and June, July and August, September and October, and November and December.

**Export Transaction:**

“Export Transaction” shall be a transaction by a Market Participant that results in the transfer of energy from within the PJM Control Area to outside the PJM Control Area. Coordinated External Transactions that result in the transfer of energy from the PJM Control Area to an adjacent Control Area are one form of Export Transaction.

**Export Transaction Price Factor:**

“Export Transaction Price Factor” for a prospective time interval shall be the greater of (i) PJM’s forecast price for the time interval, if available, or (ii) the Export Nodal Reference Price, but shall not exceed the Export Transaction’s dispatch ceiling price cap, if any, for that time interval. The Export Transaction Price Factor for a past time interval shall be calculated in the same manner as for a prospective time interval, except that the Export Transaction Price Factor may use a tentative or final settlement price, as available. If an Export Nodal Reference Price is not available for a particular time interval, PJM may use an Export Transaction Price Factor for that time interval based on an appropriate alternate reference price.

**Export Transaction Screening:**

“Export Transaction Screening” shall be the process PJM uses to review the Export Credit Exposure of Export Transactions against the Credit Available for Export Transactions, and deny or curtail all or a portion of an Export Transaction, if the credit required for such transactions is greater than the credit available for the transactions.

**Export Transactions Net Activity:**

“Export Transactions Net Activity” shall mean the aggregate net total, resulting from Export Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Operating Agreement, Schedule 1 and the parallel provisions of Tariff, Attachment K-Appendix. Export Transactions Net Activity may be positive or negative.

**Extended Primary Reserve Requirement:**

“Extended Primary Reserve Requirement” shall equal the Primary Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under

emergency conditions necessary to address operational uncertainty. The Extended Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

**Extended Summer Demand Resource:**

“Extended Summer Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Extended Synchronized Reserve Requirement:**

“Extended Synchronized Reserve Requirement” shall equal the Synchronized Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals.

**Extended 30-minute Reserve Requirement:**

“Extended 30-minute Reserve Requirement” shall equal the 30-minute Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended 30-minute Reserve Requirement is calculated in accordance with the PJM Manuals.

**External Market Buyer:**

“External Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for consumption by end-users outside the PJM Region, or for load in the PJM Region that is not served by Network Transmission Service.

**External Resource:**

“External Resource” shall mean a generation resource located outside the metered boundaries of the PJM Region.

**Facilities Study:**

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider’s Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses documented in the System Impact Study or required by PJM Manuals, and determine the required modifications to the Transmission Provider’s Transmission System based on the conclusions of such additional studies. The Facilities Study shall include the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate a New Service Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design

and specification of the Customer Funded Upgrades necessary to accommodate the New Service Customer's New Service Request in accordance with Tariff, Part VI, section 207.

**Fast-Start Resource:**

"Fast-Start Resource" shall have the meaning set forth in Tariff, Attachment K-Appendix, section 2.2A

**Federal Power Act:**

"Federal Power Act" shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

**FERC or Commission:**

"FERC" or "Commission" shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

**FERC Market Rules:**

"FERC Market Rules" mean the market behavior rules and the prohibition against electric energy market manipulation codified by the Commission in its Rules and Regulations at 18 CFR §§ 1c.2 and 35.37, respectively; the Commission-approved PJM Market Rules and any related proscriptions or any successor rules that the Commission from time to time may issue, approve or otherwise establish.

**Final Offer:**

"Final Offer" shall mean the offer on which a resource was dispatched by the Office of the Interconnection for a particular clock hour for the Operating Day.

**Final RTO Unforced Capacity Obligation:**

"Final RTO Unforced Capacity Obligation" shall mean the capacity obligation for the PJM Region, determined in accordance with RAA, Schedule 8.

**Financial Close:**

"Financial Close" shall mean the Capacity Market Seller has demonstrated that the Capacity Market Seller or its agent has completed the act of executing the material contracts and/or other documents necessary to (1) authorize construction of the project and (2) establish the necessary funding for the project under the control of an independent third-party entity. A sworn, notarized certification of an independent engineer certifying to such facts, and that the engineer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration. For resources that do not have external financing, Financial Close shall mean the project has full funding available, and that the project has been

duly authorized to proceed with full construction of the material portions of the project by the appropriate governing body of the company funding such project. A sworn, notarized certification by an officer of such company certifying to such facts, and that the officer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration.

**Financial Default:**

“Financial Default” shall mean (a) the failure of a Member or Transmission Customer to make any payment for obligations under the Agreements when due, including but not limited to an invoice payment that has not been cured or remedied after notice has been given and any cure period has elapsed, (b) a bankruptcy proceeding filed by a Member, Transmission Customer or its Guarantor, or filed against a Member, Transmission Customer or its Guarantor and to which the Member, Transmission Customer or Guarantor, as applicable, acquiesces or that is not dismissed within 60 days, (c) a Member, Transmission Customer or its Guarantor, if any, is unable to meet its financial obligations as they become due, or (d) a Merger Without Assumption occurs in respect of the Member, Transmission Customer or any Guarantor of such Member or Transmission Customer.

**Financial Transmission Right:**

“Financial Transmission Right” or “FTR” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2 and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2.

**Financial Transmission Right Obligation:**

“Financial Transmission Right Obligation” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(b), and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2(b).

**Financial Transmission Right Option:**

“Financial Transmission Right Option” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(c), and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.2(c).

**Firm Point-To-Point Transmission Service:**

“Firm Point-To-Point Transmission Service” shall mean Transmission Service under the Tariff, Part II, section 13 that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Tariff, Part II.

**Firm Transmission Feasibility Study:**

“Firm Transmission Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part II, section 19.3 and Tariff, Part III, section 32.3.

**Firm Transmission Withdrawal Rights:**

“Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy and capacity withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System with another control area. Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.

**First Incremental Auction:**

“First Incremental Auction” shall mean an Incremental Auction conducted 20 months prior to the start of the Delivery Year to which it relates.

**Flexible Resource:**

“Flexible Resource” shall mean a generating resource that must have a combined Start-up Time and Notification Time of less than or equal to two hours; and a Minimum Run Time of less than or equal to two hours.

**Forecast Pool Requirement:**

“Forecast Pool Requirement” shall have the meaning specified in the Reliability Assurance Agreement.

**Foreign Guaranty:**

“Foreign Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in a foreign country, and meets all of the provisions of Tariff, Attachment Q.

**Form 715 Planning Criteria:**

“Form 715 Planning Criteria” shall mean individual Transmission Owner FERC-filed planning criteria as described in Tariff, Schedule 19, section 1.2(e) and filed with FERC Form No. 715 and posted on the PJM website.

**Forward Daily Natural Gas Prices:**

“Forward Daily Natural Gas Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(E).

**Forward Hourly Ancillary Services Prices:**

“Forward Hourly Ancillary Services Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(D).

**Forward Hourly LMPs:**

“Forward Hourly LMPs” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(C).

**FTR Credit Limit:**

“FTR Credit Limit” shall mean the amount of credit established with PJMSettlement that an FTR Participant has specifically designated to be used for FTR activity in a specific customer account. Any such credit so set aside shall not be considered available to satisfy any other credit requirement the FTR Participant may have with PJMSettlement.

**FTR Credit Requirement:**

“FTR Credit Requirement” shall mean the amount of credit that a Participant must provide in order to support the FTR positions that it holds and/or for which it is bidding. The FTR Credit Requirement shall not include months for which the invoicing has already been completed, provided that PJMSettlement shall have up to two Business Days following the date of the invoice completion to make such adjustments in its credit systems. FTR Credit Requirements are calculated and applied separately for each separate customer account.

**FTR Flow Undiversified:**

“FTR Flow Undiversified” shall have the meaning established in Tariff, Attachment Q, section VI.C.6.

**FTR Historical Value:**

For each FTR for each month, “FTR Historical Value” shall mean the weighted average of historical values over three years for the FTR path using the following weightings: 50% - most recent year; 30% - second year; 20% - third year.

**FTR Holder:**

“FTR Holder” shall mean the PJM Member that has acquired and possesses an FTR.

**FTR Monthly Credit Requirement Contribution:**

For each FTR, for each month, “FTR Monthly Credit Requirement Contribution” shall mean the total FTR cost for the month, prorated on a daily basis, less the FTR Historical Value for the month. For cleared FTRs, this contribution may be negative; prior to clearing, FTRs with negative contribution shall be deemed to have zero contribution.

**FTR Net Activity:**

“FTR Net Activity” shall mean the aggregate net value of the billing line items for auction revenue rights credits, FTR auction charges, FTR auction credits, and FTR congestion credits, and shall also include day-ahead and balancing/real-time congestion charges up to a maximum net value of the sum of the foregoing auction revenue rights credits, FTR auction charges, FTR auction credits and FTR congestion credits.

**FTR Participant:**

“FTR Participant” shall mean any Market Participant that provides or is required to provide Collateral in order to participate in PJM’s FTR market.

**FTR Portfolio Auction Value:**

“FTR Portfolio Auction Value” shall mean for each customer account of a Market Participant, the sum, calculated on a monthly basis, across all FTRs, of the FTR price times the FTR volume in MW.

**Fuel Cost Policy:**

“Fuel Cost Policy” shall mean the document provided by a Market Seller to PJM and the Market Monitoring Unit in accordance with PJM Manual 15 and Operating Agreement, Schedule 2, which documents the Market Seller’s method used to price fuel for calculation of the Market Seller’s cost-based offers for a generation resource.

**Full Notice to Proceed:**

“Full Notice to Proceed” shall mean that all material third party contractors have been given the notice to proceed with construction by the Capacity Market Seller or its agent, with a guaranteed completion date backed by liquidated damages.



## **Definitions – I – J - K**

### **IDR Transfer Agreement:**

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, Part VI, section 237, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

### **Immediate-need Reliability Project:**

“Immediate-need Reliability Project” shall mean a reliability-based transmission enhancement or expansion that the Office of the Interconnection has identified to resolve a need that must be addressed within three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in Tariff, Schedule 19, section 1.5.3.

### **Inadvertent Interchange:**

“Inadvertent Interchange” shall mean the difference between net actual energy flow and net scheduled energy flow into or out of the individual Control Areas operated by PJM.

### **Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

### **Incremental Auction:**

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction) shall be held for the purposes of:

(i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORD increase, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a

Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and

(ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Available Transfer Capability Revenue Rights:**

“Incremental Available Transfer Capability Revenue Rights” shall mean the rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

**Incremental Capacity Transfer Right:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” or “IDRs” shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Incremental Energy Offer:**

“Incremental Energy Offer” shall mean the cost in dollars per MWh of providing an additional MWh from a synchronized unit. It consists primarily of the cost of fuel, as determined by the unit’s incremental heat rate (adjusted by the performance factor) times the fuel cost. It also

includes operating costs, Maintenance Adders, emissions allowances, tax credits, and energy market opportunity costs.

**Incremental Multi-Driver Project:**

“Incremental Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h).

**Incremental Rights-Eligible Required Transmission Enhancements:**

“Incremental Rights-Eligible Required Transmission Enhancements” shall mean Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Tariff, Schedule 12) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

**Increment Offer:**

“Increment Offer” shall mean a type of Virtual Transaction that is an offer to sell energy at a specified location in the Day-ahead Energy Market. A cleared Increment Offer results in scheduled generation at the specified location in the Day-ahead Energy Market.

**Independent Auditor:**

“Independent Auditor” shall mean an external accountant or external accounting firm who is not an employee of, not otherwise related to, not obligated to, has no interest in, and is independent in the performance of professional services for, the entity he/she/it is auditing, its management and/or its owners.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Tariff, Attachment O-Appendix 2, section 1.4 (an Interconnection Service Agreement).

**Integer Relaxation:**

“Integer Relaxation” shall mean the process by which the commitment status variable for an Eligible Fast-Start Resource is allowed to vary between zero and one, inclusive of zero and one, as further described in Tariff, Attachment K-Appendix, section 2.2.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnected Transmission Owner:**

“Interconnected Transmission Owner” shall mean the Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Tariff, Part VI, Subpart B and in the form set forth in Tariff, Attachment P, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

**Interconnection Customer:**

“Interconnection Customer” shall mean a Generation Interconnection Customer and/or a Transmission Interconnection Customer.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

**Interconnection Feasibility Study:**

“Interconnection Feasibility Study” shall mean either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Tariff, Part IV and Tariff, Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

**Interconnection Service Agreement:**

“Interconnection Service Agreement” shall mean an agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Tariff, Part IV and Tariff, Part VI.

**Interconnection Studies:**

“Interconnection Studies” shall mean the Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Tariff, Part IV and Tariff, Part VI.

**Interface Pricing Point:**

“Interface Pricing Point” shall have the meaning specified in Operating Agreement, Schedule 1, section 2.6A, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.6A.

**Intermittent Resource:**

“Intermittent Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources.

**Internal Credit Score:**

“Internal Credit Score” shall mean a composite numerical score determined by PJM Settlement using quantitative and qualitative metrics to estimate various predictors of a credit event happening to a Market Participant that may trigger a credit event.

**Internal Market Buyer:**

“Internal Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for ultimate consumption by end-users inside the PJM Region that are served by Network Transmission Service.

**Interregional Transmission Project:**

“Interregional Transmission Project” shall mean transmission facilities that would be located within two or more neighboring transmission planning regions and are determined by each of those regions to be a more efficient or cost effective solution to regional transmission needs.

**Interruption:**

“Interruption” shall mean a reduction in non-firm transmission service due to economic reasons pursuant to Tariff, Part II, section 14.7.

**IROL Critical Resource:**

“IROL Critical Resource” shall mean a generation resource that the Office of the Interconnection designates, pursuant to NERC Reliability Standards, as having an interconnection reliability operating limit that, if violated, could lead to instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the bulk electric system.

**Jointly Owned Cross-Subsidized Capacity Resource:**

“Jointly Owned Cross-Subsidized Capacity Resource” shall mean a Capacity Resource that is supported by a facility that is jointly owned, where at least one owner is entitled to or receives a State Subsidy associated with such Capacity Resource, and therefore shall be considered a Capacity Resource with State Subsidy; provided however, in the event that the material rights and obligations of such generating facility are in pari passu, meaning that such rights and obligations are allocated among the owners pro rata based on ownership share, only Capacity Resources of those owners entitled to receive or receiving a State Subsidy shall have their share of such resource considered a Capacity Resource with a State Subsidy and Capacity Resources of owners not entitled to a State Subsidy shall not be considered a Capacity Resource with a State Subsidy. Each of these designations may be overcome by either Capacity Market Seller demonstrating to the Office of Interconnection, with advice and input from the Market Monitoring Unit, that there is no cross-subsidization or the Office of the Interconnection, with review and input from the Market Monitor, finds based on sufficient evidence, that there is cross-subsidization.

## **Definitions – L – M – N**

### **Legacy Policy:**

“Legacy Policy” shall mean any legislative, executive, or regulatory action that specifically directs a payment outside of PJM Markets to a designated or prospective Generation Capacity Resource and the enactment of such action predates October 1, 2021, regardless of when any implementing governmental action to effectuate the action to direct payment outside of PJM Markets occurs.

### **Limited Demand Resource:**

“Limited Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

### **Limited Demand Resource Reliability Target:**

“Limited Demand Resource Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of Limited Demand Resources determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity that shall be used to calculate the Minimum Extended Summer Demand Resource Requirement for Delivery Years through May 31, 2017 and the Limited Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years for the PJM Region or such LDA. As more fully set forth in the PJM Manuals, PJM calculates the Limited Demand Resource Reliability Target by first: i) testing the effects of the ten-interruption requirement by comparing possible loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using the cumulative capacity distributions employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) more than ten times over those peak days; ii) testing the six-hour duration requirement by calculating the MW difference between the highest hourly unrestricted peak load and seventh highest hourly unrestricted peak load on certain high peak load days (e.g., the annual peak, loads above the weather normalized peak, or days where load management was called) in recent years, then dividing those loads by the forecast peak for those years and averaging the result; and (iii) (for the 2016/2017 and 2017/2018 Delivery Years) testing the effects of the six-hour duration requirement by comparing possible hourly loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using a Monte Carlo model of hourly capacity levels that is consistent with the capacity model employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will

not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) for more than six hours over any one or more of the tested peak days. Second, PJM adopts the lowest result from these three tests as the Limited Demand Resource Reliability Target. The Limited Demand Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Limited Resource Constraint:**

“Limited Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and Delivery Years, for the PJM Region or each LDA for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Limited Demand Resource Reliability Target for the PJM Region or such LDA, respectively, minus the Short Term Resource Procurement Target for the PJM Region or such LDA, respectively.

**List of Approved Contractors:**

“List of Approved Contractors” shall mean a list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner’s system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

**Load Interest:**

“Load Interest” shall mean, for the purposes of the minimum offer price rule, responsibility for serving load within the PJM Region, whether by the Capacity Market Seller, an affiliate of the Capacity Market Seller, or by an entity with which the Capacity Market Seller is in contractual privity with respect to the subject Generation Capacity Resource.

**Load Management:**

“Load Management” shall mean a Demand Resource (“DR”) as defined in the Reliability Assurance Agreement.

**Load Management Event:**



“Load Management Event” shall mean a) a single temporally contiguous dispatch of Demand Resources in a Compliance Aggregation Area during an Operating Day, or b) multiple dispatches of Demand Resources in a Compliance Aggregation Area during an Operating Day that are temporally contiguous.

**Load Ratio Share:**

“Load Ratio Share” shall mean the ratio of a Transmission Customer’s Network Load to the Transmission Provider’s total load.

**Load Reduction Event:**

“Load Reduction Event” shall mean a reduction in demand by a Member or Special Member for the purpose of participating in the PJM Interchange Energy Market.

**Load Serving Charging Energy:**

“Load Serving Charging Energy” shall mean energy that is purchased from the PJM Interchange Energy Market and stored in an Energy Storage Resource for later resale to end-use load.

**Load Serving Entity (LSE):**

“Load Serving Entity” or “LSE” shall have the meaning specified in the Reliability Assurance Agreement.

**Load Shedding:**

“Load Shedding” shall mean the systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Tariff, Part II or Part III.

**Local Plan:**

“Local Plan” shall include Supplemental Projects as identified by the Transmission Owners within their Zone and Subregional RTEP projects developed to comply with all applicable reliability criteria, including Transmission Owners’ planning criteria or based on market efficiency analysis and in consideration of Public Policy Requirements.

**Local Upgrades:**

“Local Upgrades” shall mean modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

**Location:**

“Location” as used in the Economic Load Response rules shall mean an end-use customer site as defined by the relevant electric distribution company account number.

**LOC Deviation:**

“LOC Deviation,” shall mean, for units other than wind units, the LOC Deviation shall equal the desired megawatt amount for the resource determined according to the point on the Final Offer curve corresponding to the Real-time Settlement Interval real-time Locational Marginal Price at the resource’s bus and adjusted for any reduction in megawatts due to Regulation, Synchronized Reserve, or Secondary Reserve assignments and limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual output of the unit. For wind units, the LOC Deviation shall mean the deviation of the generating unit’s output equal to the lesser of the PJM forecasted output for the unit or the desired megawatt amount for the resource determined according to the point on the Final Offer curve corresponding to the Real-time Settlement Interval integrated real-time Locational Marginal Price at the resource’s bus, and shall be limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual output of the unit.

**Locational Deliverability Area (LDA):**

“Locational Deliverability Area” or “LDA” shall mean a geographic area within the PJM Region that has limited transmission capability to import capacity to satisfy such area’s reliability requirement, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, and as specified in Reliability Assurance Agreement, Schedule 10.1.

**Locational Deliverability Area Reliability Requirement:**

“Locational Deliverability Area Reliability Requirement” shall mean the projected internal capacity in the Locational Deliverability Area plus the Capacity Emergency Transfer Objective for the Delivery Year, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, less the minimum internal resources required for all FRR Entities in such Locational Deliverability Area. Notwithstanding the foregoing, for the 2024/2025 Delivery Year, during the auction process, the Office of Interconnection shall exclude from the Locational Deliverability Area Reliability Requirement any Planned Generation Capacity Resource in an LDA that does not participate in the relevant RPM Auction as projected internal capacity and in the Capacity Emergency Transfer Objective

model where the Locational Deliverability Area Reliability Requirement for the Base Residual Auction increases by more than one percent over the reliability requirement used from the prior Delivery Year's Base Residual Auction (for Incremental Auctions the Locational Deliverability Area Reliability Requirement would be compared with the reliability requirement used in the prior relevant RPM Auction associated with the same Delivery Year) for that LDA due to the cumulative addition of such Planned Generation Capacity Resources.

**Locational Price Adder:**

“Locational Price Adder” shall mean an addition to the marginal value of Unforced Capacity within an LDA as necessary to reflect the price of Capacity Resources required to relieve applicable binding locational constraints.

**Locational Reliability Charge:**

“Locational Reliability Charge” shall have the meaning specified in the Reliability Assurance Agreement.

**Locational UCAP:**

“Locational UCAP” shall mean unforced capacity that a Member with available uncommitted capacity sells in a bilateral transaction to a Member that previously committed capacity through an RPM Auction but now requires replacement capacity to fulfill its RPM Auction commitment. The Locational UCAP Seller retains responsibility for performance of the resource providing such replacement capacity.

**Locational UCAP Seller:**

“Locational UCAP Seller” shall mean a Member that sells Locational UCAP.

**Long-lead Project:**

“Long-lead Project” shall mean a transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion.

**Long-Term Firm Point-To-Point Transmission Service:**

“Long-Term Firm Point-To-Point Transmission Service” shall mean firm Point-To-Point Transmission Service under Tariff, Part II with a term of one year or more.

**Loss Price:**

“Loss Price” shall mean the loss component of the Locational Marginal Price, which is the effect on transmission loss costs (whether positive or negative) associated with increasing the output of

a generation resource or decreasing the consumption by a Demand Resource based on the effect of increased generation from or consumption by the resource on transmission losses, calculated as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**M2M Flowgate:**

“M2M Flowgate” shall have the meaning provided in the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.

**Maintenance Adder:**

“Maintenance Adder” shall mean an adder that may be included to account for variable operation and maintenance expenses in a Market Seller’s Fuel Cost Policy. The Maintenance Adder is calculated in accordance with the applicable provisions of PJM Manual 15, and may only include expenses incurred as a result of electric production.

**Manual Load Dump Action:**

“Manual Load Dump Action” shall mean an Operating Instruction, as defined by NERC, from PJM to shed firm load when the PJM Region cannot provide adequate capacity to meet the PJM Region’s load and tie schedules, or to alleviate critically overloaded transmission lines or other equipment.

**Manual Load Dump Warning:**

“Manual Load Dump Warning” shall mean a notification from PJM to warn Members of an increasingly critical condition of present operations that may require manually shedding load.

**Marginal Value:**

“Marginal Value” shall mean the incremental change in system dispatch costs, measured as a \$/MW value incurred by providing one additional MW of relief to the transmission constraint.

**Market Monitor:**

“Market Monitor” means the head of the Market Monitoring Unit.

**Market Monitoring Unit or MMU:**

“Market Monitoring Unit” or “MMU” means the independent Market Monitoring Unit defined in 18 CFR § 35.28(a)(7) and established under the PJM Market Monitoring Plan (Attachment M) to the PJM Tariff that is responsible for implementing the Market Monitoring Plan, including the Market Monitor. The Market Monitoring Unit may also be referred to as the IMM or Independent Market Monitor for PJM

**Market Monitoring Unit Advisory Committee or MMU Advisory Committee:**

“Market Monitoring Unit Advisory Committee” or “MMU Advisory Committee” shall mean the committee established under Tariff, Attachment M, section III.H.

**Market Operations Center:**

“Market Operations Center” shall mean the equipment, facilities and personnel used by or on behalf of a Market Participant to communicate and coordinate with the Office of the Interconnection in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

**Market Participant:**

“Market Participant” shall mean a Market Buyer, a Market Seller, and/or an Economic Load Response Participant, or all three, except when that term is used in or pertaining to Tariff, Attachment M, Tariff, Attachment Q, Operating Agreement, section 15, Tariff, Attachment K-Appendix, section 1.4 and Operating Agreement, Schedule 1, section 1.4. “Market Participant,” when such term is used in Tariff, Attachment M, shall mean an entity that generates, transmits, distributes, purchases, or sells electricity, ancillary services, or any other product or service provided under the PJM Tariff or Operating Agreement within, into, out of, or through the PJM Region, but it shall not include an Authorized Government Agency that consumes energy for its own use but does not purchase or sell energy at wholesale. “Market Participant,” when such term is used in or pertaining to Tariff, Attachment Q, Operating Agreement, section 15, Tariff, Attachment K-Appendix, section 1.4 and Operating Agreement, Schedule 1, section 1.4, shall mean a Market Buyer, a Market Seller, an Economic Load Response Participant, an FTR Participant, a Capacity Market Buyer, or a Capacity Market Seller.

**Market Participant Energy Injection:**

“Market Participant Energy Injection” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Day-ahead generation schedules, real-time generation output, Increment Offers, internal bilateral transactions and import transactions, as further described in the PJM Manuals.

**Market Participant Energy Withdrawal:**

“Market Participant Energy Withdrawal” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Demand Bids, Decrement Bids, real-time load (net of Behind The Meter Generation expected to be operating, but not to be less than zero), internal bilateral transactions and Export Transactions, as further described in the PJM Manuals.

**Market Revenue Neutrality Offset:**

“Market Revenue Neutrality Offset” shall mean the revenue in excess of the cost for a resource from the energy, Synchronized Reserve, Non-Synchronized Reserve, and Secondary Reserve markets realized from an increase in real-time market megawatt assignment from a day-ahead market megawatt assignment in any of these markets due to the decrease in the real-time reserve market megawatt assignment from a day-ahead reserve market megawatt assignment in any of the reserve markets.

**Market Seller Offer Cap:**

“Market Seller Offer Cap” shall mean a maximum offer price applicable to certain Market Sellers under certain conditions, as determined in accordance with Tariff, Attachment DD, section 6 and Tariff, Attachment M-Appendix, section II.E.

**Market Suspension:**

“Market Suspension” shall mean the inability of the Office of the Interconnection to clear the Day-ahead Energy Market prior to 11:59 p.m. on the day before the affected Operating Day due to extraordinary circumstances, as further described in Operating Agreement, Schedule 1, section 1.10.8(d) and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.8(d), or the inability of the Office of the Interconnection to produce Zonal Dispatch Rates for a total of seven (7) or more Real-time Settlement Intervals within a clock hour, for the purposes of the Real-time Energy Market, as further described in Operating Agreement, Schedule 1, section 1.11.6 and the parallel provisions of Tariff, Attachment K-Appendix, section 1.11.6.

**Market Violation:**

“Market Violation” shall mean a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies, as defined in 18 C.F.R. § 35.28(b)(8).

**Material Modification:**

“Material Modification” shall mean any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

**Maximum Daily Starts:**

“Maximum Daily Starts” shall mean the maximum number of times that a generating unit can be started in an Operating Day under normal operating conditions.

**Maximum Emergency:**

“Maximum Emergency” shall mean the designation of all or part of the output of a generating unit for which the designated output levels may require extraordinary procedures and therefore

are available to the Office of the Interconnection only when the Office of the Interconnection declares a Maximum Generation Emergency and requests generation designated as Maximum Emergency to run. The Office of the Interconnection shall post on the PJM website the aggregate amount of megawatts that are classified as Maximum Emergency.

**Maximum Facility Output:**

“Maximum Facility Output” shall mean the maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer’s Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

**Maximum Generation Emergency:**

“Maximum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection to address either a generation or transmission emergency in which the Office of the Interconnection anticipates requesting one or more Generation Capacity Resources, or Non-Retail Behind The Meter Generation resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Generation Capacity Resource or Non-Retail Behind The Meter resource in order to manage, alleviate, or end the Emergency.

**Maximum Generation Emergency Alert:**

“Maximum Generation Emergency Alert” shall mean an alert issued by the Office of the Interconnection to notify PJM Members, Transmission Owners, resource owners and operators, customers, and regulators that a Maximum Generation Emergency may be declared, for any Operating Day in either, as applicable, the Day-ahead Energy Market or the Real-time Energy Market, for all or any part of such Operating Day.

**Maximum Run Time:**

“Maximum Run Time” shall mean the maximum number of hours a generating unit can run over the course of an Operating Day, as measured by PJM’s State Estimator.

**Maximum Weekly Starts:**

“Maximum Weekly Starts” shall mean the maximum number of times that a generating unit can be started in one week, defined as the 168 hour period starting Monday 0001 hour, under normal operating conditions.

**Member:**

“Member” shall have the meaning provided in the Operating Agreement.

**Merchant A.C. Transmission Facilities:**

“Merchant A.C. Transmission Facility” shall mean Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

**Merchant D.C. Transmission Facilities:**

“Merchant D.C. Transmission Facilities” shall mean direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Tariff, Part IV and Part VI.

**Merchant Network Upgrades:**

“Merchant Network Upgrades” shall mean additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer’s Upgrade Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

**Merchant Transmission Facilities:**

“Merchant Transmission Facilities” shall mean A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Tariff, Part IV and Part VI and that are so identified in Tariff, Attachment T, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Attachment T to the Tariff, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

**Merchant Transmission Provider:**

“Merchant Transmission Provider” shall mean an Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Tariff, Part IV, section 36, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Tariff, section 38.

**Metering Equipment:**

“Metering Equipment” shall mean all metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.



**Minimum Annual Resource Requirement:**

“Minimum Annual Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Annual Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Sub-Annual Resource Reliability Target for the RTO in Unforced Capacity]. For an LDA, the Minimum Annual Resource Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Sub-Annual Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Down Time:**

For all generating units that are not combined cycle units, “Minimum Down Time” shall mean the minimum number of hours under normal operating conditions between unit shutdown and unit startup, calculated as the shortest time difference between the unit’s generator breaker opening and after the unit’s generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For combined cycle units, “Minimum Down Time” shall mean the minimum number of hours between the last generator breaker opening and after first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero.

**Minimum Exposure:**

“Minimum Exposure” shall mean the greater of: (a) \$3,000 and (b) one percent (1%) of the greatest amount invoiced for the Participant’s transaction activity for all PJM Markets and services in any rolling one, two, or three-week period in the prior 52 weeks, rounded up to the nearest multiple of \$100; provided, however, that the Minimum Exposure shall be capped at a maximum of \$100,000.

**Minimum Extended Summer Resource Requirement:**

“Minimum Extended Summer Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Extended Summer Demand Resources and Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Extended Summer Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Limited Demand Resource Reliability Target for the PJM Region in Unforced Capacity]. For an LDA, the Minimum Extended Summer Resource Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Limited Demand Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Generation Emergency:**

“Minimum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection in which the Office of the Interconnection anticipates requesting one or more generating resources to operate at or below Normal Minimum Generation, in order to manage, alleviate, or end the Emergency.

**Minimum Participation Requirements:**

“Minimum Participation Requirements” shall mean a set of minimum training, risk management, communication and capital or collateral requirements required for Participants in the PJM Markets, as set forth herein and in the Form of Annual Certification set forth as Tariff, Attachment Q, Appendix 1. Participants transacting in FTRs in certain circumstances will be required to demonstrate additional risk management procedures and controls as further set forth in the Annual Certification found in Tariff, Attachment Q, Appendix 1.

**Minimum Run Time:**

For all generating units that are not combined cycle units, “Minimum Run Time” shall mean the minimum number of hours a unit must run, in real-time operations, from the time after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero, to the time of generator breaker opening, as measured by PJM's State Estimator. For combined cycle units, “Minimum Run Time” shall mean the time period after the first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero to the time of the last generator breaker opening as measured by PJM's State Estimator.

**Minimum Transfer Amount:**

“Minimum Transfer Amount” shall mean the greater of: (a) \$20,000 and (b) five percent (5%) of the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two, or three-week period in the prior 52 weeks, rounded up to the nearest multiple of \$100; provided, however, that the Minimum Transfer Amount shall be capped at a maximum of \$500,000.

**MISO:**

“MISO” shall mean the Midcontinent Independent System Operator, Inc. or any successor thereto.

**Mixed Technology Facility:**

“Mixed Technology Facility” shall mean a facility composed of distinct generation and/or electric storage technology types behind the same Point of Interconnection. Co-Located Resources and Hybrid Resources form all or part of Mixed Technology Facilities.

**MOPR Floor Offer Price:**

“MOPR Floor Offer Price” shall mean a minimum offer price applicable to certain Market Seller’s Capacity Resources under certain conditions, as determined in accordance with Tariff, Attachment DD, sections 5.14(h), 5.14(h-1), and 5.14(h-2).

**Multi-Driver Project:**

“Multi-Driver Project” shall mean a transmission enhancement or expansion that addresses more than one of the following: reliability violations, economic constraints or State Agreement Approach initiatives.

**Native Load Customers:**

“Native Load Customers” shall mean the wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner’s system to meet the reliable electric needs of such customers.

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**NERC Interchange Distribution Calculator:**

“NERC Interchange Distribution Calculator” shall mean the NERC mechanism that is in effect and being used to calculate the distribution of energy, over specific transmission interfaces, from energy transactions.

**NERC Reliability Standards:**

“NERC Reliability Standards” shall mean those standards that have been developed by NERC and approved by FERC to ensure the reliability of the electric bulk power system.

**Net Benefits Test:**

“Net Benefits Test” shall mean a calculation to determine whether the benefits of a reduction in price resulting from the dispatch of Economic Load Response exceeds the cost to other loads resulting from the billing unit effects of the load reduction, as specified in Operating Agreement, Schedule 1, section 3.3A.4 and the parallel provisions of Tariff, Attachment K-Appendix, section 3.3A.4.

**Net Cost of New Entry:**

“Net Cost of New Entry” shall mean the Cost of New Entry minus the Net Energy and Ancillary Service Revenue Offset.

**Net Obligation:**

“Net Obligation” shall mean the amount owed to PJMSettlement and PJM for purchases from the PJM Markets, Transmission Service, (under Tariff, Parts II and III , and other services pursuant to the Agreements, after applying a deduction for amounts owed to a Participant by PJMSettlement as it pertains to monthly market activity and services. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

**Net Sell Position:**

“Net Sell Position” shall mean the amount of Net Obligation when Net Obligation is negative.

**Network Customer:**

“Network Customer” shall mean an entity receiving transmission service pursuant to the terms of the Transmission Provider’s Network Integration Transmission Service under Tariff, Part III.

**Network External Designated Transmission Service:**

“Network External Designated Transmission Service” shall have the meaning set forth in Reliability Assurance Agreement, Article I.

**Network Integration Transmission Service:**

“Network Integration Transmission Service” shall mean the transmission service provided under Tariff, Part III. There are two types of firm Network Integration Transmission Service: Regional Network Integration Transmission Service and firm Cross-Border Network Integration Transmission Service. Non-firm Network Integration Transmission Service includes Secondary Service.

**Network Load:**

“Network Load” shall mean the load that a Network Customer designates for Network Integration Transmission Service under Tariff, Part III. The Network Customer’s Network Load shall include all load (including losses, Non-Dispatched Charging Energy, and Load Serving Charging Energy) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Tariff, Part II for any Point-To-Point Transmission Service that may be necessary for such non-designated load. Network Load shall not include Dispatched Charging Energy.

**Network Operating Agreement:**

“Network Operating Agreement” shall mean an executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Tariff, Part III.

**Network Operating Committee:**

“Network Operating Committee” shall mean a group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Tariff, Part III.

**Network Resource:**

“Network Resource” shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer’s Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

**Network Service User:**

“Network Service User” shall mean an entity using Network Transmission Service.

**Network Transmission Service:**

“Network Transmission Service” shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Tariff, Part III, or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider’s overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that are not part of an Affected System; only serve the Customer Interconnection Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Interconnection Customer must agree as to what constitutes Direct Connection Network Upgrades and identify them in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Interconnection Customer disagree

about whether a particular Network Upgrade is a Direct Connection Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Direct Connection Network Upgrade within 15 days of its determination.

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

**Neutral Party:**

“Neutral Party” shall have the meaning provided in Tariff, Part I, section 9.3(v).

**New Entry Capacity Resource with State Subsidy:**

“New Entry Capacity Resource with State Subsidy” shall mean (1) starting with the 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have not cleared in an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price or (2) starting with the Base Residual Auction for the 2022/2023 Delivery Year, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that was not included in an FRR Capacity Plan at the time of the Base Residual Auction or the subject of a Sell Offer in a Base Residual Auction occurring for a Delivery Year after it last cleared an RPM Auction and since then has yet to clear an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price. Notwithstanding the foregoing, any Capacity Resource that previously cleared an RPM Auction before it became entitled to receive a State Subsidy shall not be deemed a New Entry Capacity Resource, unless, starting with the Base Residual Auction for the 2022/2023 Delivery Year, the Capacity Resource with State Subsidy was not the subject of a Sell Offer in a Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for a Delivery Year after it last cleared an RPM Auction.

**New PJM Zone(s):**

“New PJM Zone(s)” shall mean the Zone included in the Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

**New Service Customers:**

“New Service Customers” shall mean all customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request, a Completed Application, or an Upgrade Request.

**New Services Queue:**

“New Services Queue” shall mean all Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each six-month period ending on March 31 and September 30 of each year shall collectively comprise a New Services Queue.

**New York ISO or NYISO:**

“New York ISO” or “NYISO” shall mean the New York Independent System Operator, Inc. or any successor thereto.

**Nodal Reference Price:**

The “Nodal Reference Price” at each location shall mean the 97th percentile price differential between day-ahead and real-time prices experienced over the corresponding two-month reference period in the prior calendar year. Reference periods will be Jan-Feb, Mar-Apr, May-Jun, Jul-Aug, Sept-Oct, Nov-Dec. For any given current-year month, the reference period months will be the set of two months in the prior calendar year that include the month corresponding to the current month. For example, July and August 2003 would each use July-August 2002 as their reference period.

**No-load Cost:**

“No-load Cost” shall mean the hourly cost required to theoretically operate a synchronized unit at zero MW. It consists primarily of the cost of fuel, as determined by the unit’s no load heat (adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, and emissions allowances.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Interconnection Customer’s Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer’s Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

**Nominated Demand Resource Value:**

“Nominated Demand Resource Value” shall mean the amount of load reduction that a Demand Resource commits to provide either through direct load control, firm service level or guaranteed load drop programs. For existing Demand Resources, the maximum Nominated Demand Resource Value is limited, in accordance with the PJM Manuals, to the value appropriate for the

method by which the load reduction would be accomplished, at the time the Base Residual Auction or Incremental Auction is being conducted.

**Nominated Energy Efficiency Value:**

“Nominated Energy Efficiency Value” shall mean the amount of load reduction that an Energy Efficiency Resource commits to provide through installation of more efficient devices or equipment or implementation of more efficient processes or systems.

**Non-Dispatched Charging Energy:**

“Non-Dispatched Charging Energy” shall mean all Direct Charging Energy that an Energy Storage Resource Model Participant receives from the electric grid that is not otherwise Dispatched Charging Energy.

**Non-Firm Point-To-Point Transmission Service:**

“Non-Firm Point-To-Point Transmission Service” shall mean Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Tariff, Part II, section 14.7. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

**Non-Firm Sale:**

“Non-Firm Sale” shall mean an energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

**Non-Firm Transmission Withdrawal Rights:**

“No-Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**Non-Performance Charge:**

“Non-Performance Charge” shall mean the charge applicable to Capacity Performance Resources as defined in Tariff, Attachment DD, section 10A(e).

**Nonincumbent Developer:**

“Nonincumbent Developer” shall mean: (1) a transmission developer that does not have an existing Zone in the PJM Region as set forth in Tariff, Attachment J; or (2) a Transmission



Owner that proposes a transmission project outside of its existing Zone in the PJM Region as set forth in Tariff, Attachment J..

**Non-Regulatory Opportunity Cost:**

“Non-Regulatory Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of starts or available run hours resulting from (i) the physical equipment limitations of the unit, for up to one year, due to original equipment manufacturer recommendations or insurance carrier restrictions, (ii) a fuel supply limitation, for up to one year, resulting from an event of Catastrophic Force Majeure; and, (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Non-Regulatory Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same period of time in which the unit is bound by the referenced restrictions, and is reflected in the rules set forth in PJM Manual 15. Non-Regulatory Opportunity Costs shall be limited to those resources which are specifically delineated in Operating Agreement, Schedule 2.

**Non-Retail Behind The Meter Generation:**

“Non-Retail Behind The Meter Generation” shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

**Non-Synchronized Reserve:**

“Non-Synchronized Reserve” shall mean the reserve capability of non-emergency generation resources that can be converted fully into energy within ten minutes of a request from the Office of the Interconnection dispatcher, and is provided by equipment that is not electrically synchronized to the Transmission System.

**Non-Synchronized Reserve Event:**

“Non-Synchronized Reserve Event” shall mean a request from the Office of the Interconnection to generation resources able and assigned to provide Non-Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes to increase the energy output by the amount of assigned Non-Synchronized Reserve capability.

**Non-Variable Loads:**

“Non-Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.6.

**Non-Zone Network Load:**

“Non-Zone Network Load shall mean Network Load that is located outside of the PJM Region.

**Normal Maximum Generation:**

“Normal Maximum Generation” shall mean the highest output level of a generating resource under normal operating conditions.

**Normal Minimum Generation:**

“Normal Minimum Generation” shall mean the lowest output level of a generating resource under normal operating conditions.

## **Definitions – O – P - Q**

### **Obligation:**

“Obligation” shall mean all amounts owed to PJM Settlement for purchases from the PJM Markets, Transmission Service, (under both Tariff, Part II and Tariff, Part III), and other services or obligations pursuant to the Agreements. In addition, aggregate amounts that will be owed to PJM Settlement in the future for capacity purchases within the PJM capacity markets will be added to this figure. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

### **Offer Data:**

“Offer Data” shall mean the scheduling, operations planning, dispatch, new resource, and other data and information necessary to schedule and dispatch generation resources and Demand Resource(s) for the provision of energy and other services and the maintenance of the reliability and security of the Transmission System in the PJM Region, and specified for submission to the PJM Interchange Energy Market for such purposes by the Office of the Interconnection.

### **Office of the Interconnection:**

“Office of the Interconnection” shall mean the employees and agents of PJM Interconnection, L.L.C. subject to the supervision and oversight of the PJM Board, acting pursuant to the Operating Agreement.

### **Office of the Interconnection Control Center:**

“Office of the Interconnection Control Center” shall mean the equipment, facilities and personnel used by the Office of the Interconnection to coordinate and direct the operation of the PJM Region and to administer the PJM Interchange Energy Market, including facilities and equipment used to communicate and coordinate with the Market Participants in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

### **On-Site Generators:**

“On-Site Generators” shall mean generation facilities (including Behind The Meter Generation) that (i) are not Capacity Resources, (ii) are not injecting into the grid, (iii) are either synchronized or non-synchronized to the Transmission System, and (iv) can be used to reduce demand for the purpose of participating in the PJM Interchange Energy Market.

### **Open Access Same-Time Information System (OASIS) or PJM Open Access Same-Time Information System:**

“Open Access Same-Time Information System,” “PJM Open Access Same-Time Information System” or “OASIS” shall mean the electronic communication and information system and

standards of conduct contained in Part 37 and Part 38 of the Commission’s regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS for the collection and dissemination of information about transmission services in the PJM Region, established and operated by the Office of the Interconnection in accordance with FERC standards and requirements.

**Open-Loop Hybrid Resource:**

“Open-Loop Hybrid Resource” shall mean a Hybrid Resource with a storage component that is physically and contractually capable of charging its storage component from the grid.

**Operating Agreement of the PJM Interconnection, L.L.C., Operating Agreement or PJM Operating Agreement:**

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C., on file with the Commission.

**Operating Day:**

“Operating Day” shall mean the daily 24 hour period beginning at midnight for which transactions on the PJM Interchange Energy Market are scheduled.

**Operating Margin:**

“Operating Margin” shall mean the incremental adjustments, measured in megawatts, required in PJM Region operations in order to accommodate, on a first contingency basis, an operating contingency in the PJM Region resulting from operations in an interconnected Control Area. Such adjustments may result in constraints causing Transmission Congestion Charges, or may result in Ancillary Services charges pursuant to the PJM Tariff.

**Operating Margin Customer:**

“Operating Margin Customer” shall mean a Control Area purchasing Operating Margin pursuant to an agreement between such other Control Area and the LLC.

**Operating Reserve Demand Curve:**

“Operating Reserve Demand Curve” shall mean a curve with prices on the y-axis and megawatts on the x-axis, which defines the relationship between each incremental megawatt of reserves that can be used to meet a given reserve requirement.

**Operationally Deliverable:**

“Operationally Deliverable” shall mean, as determined by the Office of the Interconnection, that there are no operational conditions, arrangements or limitations experienced or required that threaten, impair or degrade effectuation or maintenance of deliverability of capacity or energy from the external Generation Capacity Resource to loads in the PJM Region in a manner comparable to the deliverability of capacity or energy to such loads from Generation Capacity Resources located inside the metered boundaries of the PJM Region, including, without limitation, an identified need by an external Balancing Authority Area for a remedial action scheme or manual generation trip protocol, transmission facility switching arrangements that would have the effect of radializing load, or excessive or unacceptable frequency of regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability dispatch instructions and commitments.

**Opportunity Cost:**

“Opportunity Cost” shall mean a component of the Market Seller Offer Cap calculated in accordance with Tariff, Attachment DD, section 6.

**OPSI Advisory Committee:**

“OPSI Advisory Committee” shall mean the committee established under Tariff, Attachment M, section III.G.

**Option to Build:**

“Option to Build” shall mean the option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

**Optional Interconnection Study:**

“Optional Interconnection Study” shall mean a sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement:**

“Optional Interconnection Study Agreement” shall mean the form of agreement for preparation of an Optional Interconnection Study, as set forth in Tariff, Attachment N-3.

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part V:**

“Part V” shall mean Tariff, Part V, sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Participant:**

“Participant” shall mean a Market Participant and/or Transmission Customer and/or Applicant requesting to be an active Market Participant and/or Transmission Customer.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Peak-Hour Dispatch:**

“Peak-Hour Dispatch” shall mean, for purposes of calculating the Energy and Ancillary Services Revenue Offset under Tariff, Attachment DD, section 5, an assumption, as more fully set forth in the PJM Manuals, that the Reference Resource is committed in the Day-ahead Energy Market in

four distinct blocks of four hours of continuous output for each block from the peak-hour period beginning with the hour ending 0800 EPT through to the hour ending 2300 EPT for any day when the average day-ahead LMP for the area for which the Net Cost of New Entry is being determined is greater than, or equal to, the cost to generate (including the cost for a complete start and shutdown cycle), plus 10% of such costs *only for the 2022/2023 Delivery Year*, for at least two hours during each four-hour block, where such blocks shall be assumed to be committed independently; provided that, if there are not at least two economic hours in any given four-hour block, then the Reference Resource shall be assumed not to be committed for such block; and to the extent not committed in any such block in the Day-ahead Energy Market under the above conditions based on Day-Ahead LMPs, is dispatched in the Real-time Energy Market for such block if the Real-Time LMP is greater than or equal to the cost to generate, plus 10% of such costs *only for the 2022/2023 Delivery Year*, under the same conditions as described above for the Day-ahead Energy Market.

**Peak Market Activity:**

“Peak Market Activity” shall mean a measure of exposure for which credit is required, calculated in accordance with Tariff, Attachment Q, section VII.A.

**Peak Market Activity Shortfall:**

“Peak Market Activity Shortfall” shall mean, for any given week, the amount by which a Participant’s current Peak Market Activity exceeds such Participant’s Peak Market Activity credit requirement from the prior week.

**Peak Market Activity Surplus:**

“Peak Market Activity Surplus” shall mean, for any given week, the amount by which a Participant’s Peak Market Activity credit requirement from the prior week exceeds such Participant’s current Peak Market Activity.

**Peak Season:**

“Peak Season” shall mean the weeks containing the 24th through 36th Wednesdays of the calendar year. Each such week shall begin on a Monday and end on the following Sunday, except for the week containing the 36th Wednesday, which shall end on the following Friday.

**Percentage Internal Resources Required:**

“Percentage Internal Resources Required” shall have the meaning specified in the Reliability Assurance Agreement.

**Performance Assessment Interval:**

“Performance Assessment Interval” shall mean each Real-time Settlement Interval for which an Emergency Action has been declared by the Office of the Interconnection, provided, however,

that Performance Assessment Intervals for a Base Capacity Resource shall not include any intervals outside the calendar months of June through September.

**Permissible Technological Advancement:**

“Permissible Technological Advancement” shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the return of an executed Facilities Study Agreement (or, if a Facilities Study is not required, prior to the return of an executed Interconnection Service Agreement). Provided such change may not: (i) increase the capability of the Generating Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Administrative Service:**

“PJM Administrative Service” shall mean the services provided by PJM pursuant to Tariff, Schedule 9.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, acting pursuant to the Operating Agreement except when such term is being used in Tariff, Attachment M, in which case PJM Board shall mean the Board of Managers of PJM or its designated representative, exclusive of any members of PJM Management.

**PJM Control Area:**

“PJM Control Area” shall mean the Control Area recognized by NERC as the PJM Control Area.

**PJM Entities:**

“PJM Entities” shall mean PJM, including the Market Monitoring Unit, the PJM Board, and PJM’s officers, employees, representatives, advisors, contractors, and consultants.

**PJM Interchange:**



“PJM Interchange” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds, or is exceeded by, the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup; or (c) the interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller; or (e) the interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (f) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Interchange Energy Market:**

“PJM Interchange Energy Market” shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K – Appendix.

**PJM Interchange Export:**

“PJM Interchange Export” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load is exceeded by the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup sales; or (c) the interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller.

**PJM Interchange Import:**

“PJM Interchange Import” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds the sum of the interval outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup purchases; or (c) the interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (d) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Liaison:**

“PJM Liaison” shall mean the liaison established under Tariff, Attachment M, section III.I.

**PJM Management:**

“PJM Management” shall mean the officers, executives, supervisors and employee managers of PJM.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Markets:**

“PJM Markets” shall mean the PJM Interchange Energy Market, capacity markets, including the RPM auctions, and any other market operated by PJM, together with all bilateral or other wholesale electric power and energy transactions, capacity transactions, ancillary services transactions (including black start service), transmission transactions, Financial Transmission Rights transactions, or transactions in any other market operated under the Agreements within the PJM Region, wherein Market Participants may incur Obligations to PJM and/or PJMSettlement.

**PJM Market Rules:**

“PJM Market Rules” shall mean the rules, standards, procedures, and practices of the PJM Markets set forth in the PJM Tariff, the PJM Operating Agreement, the PJM Reliability Assurance Agreement, the PJM Consolidated Transmission Owners Agreement, the PJM Manuals, the PJM Regional Practices Document, the PJM-Midwest Independent Transmission System Operator Joint Operating Agreement or any other document setting forth market rules.

**PJM Net Assets:**

“PJM Net Assets” shall mean the total assets per PJM’s consolidated quarterly or year-end financial statements most recently issued as of the date of the receipt of written notice of a claim less amounts for which PJM is acting as a temporary custodian on behalf of its Members, transmission developers/Designated Entities, and generation developers, including, but not limited to, cash deposits related to credit requirement compliance, study and/or interconnection receivables, member prepayments, invoiced amounts collected from Net Buyers but have not yet been paid to Net Sellers, and excess congestion (as described in Operating Agreement, Schedule 1, section 5.2.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.6).

**PJM Region:**

“PJM Region” shall mean the aggregate of the Zones within PJM as set forth in Tariff, Attachment J..

**PJM Regional Practices Document:**

“PJM Regional Practices Document” shall mean the document of that title that compiles and describes the practices in the PJM Markets and that is made available in hard copy and on the Internet.

**PJM Region Installed Reserve Margin:**

“PJM Region Installed Reserve Margin” shall mean the percent installed reserve margin for the PJM Region required pursuant to RAA, Schedule 4.1, as approved by the PJM Board.

**PJM Region Peak Load Forecast:**

“PJM Region Peak Load Forecast” shall mean the peak load forecast used by the Office of the Interconnection in determining the PJM Region Reliability Requirement, and shall be determined on both a preliminary and final basis as set forth in Tariff, Attachment DD, section 5.

**PJM Region Reliability Requirement:**

“PJM Region Reliability Requirement” shall mean, for purposes of the Base Residual Auction, the Forecast Pool Requirement multiplied by the Preliminary PJM Region Peak Load Forecast, less the sum of all Preliminary Unforced Capacity Obligations of FRR Entities in the PJM Region; and, for purposes of the Incremental Auctions, the Forecast Pool Requirement multiplied by the updated PJM Region Peak Load Forecast, less the sum of all updated Unforced Capacity Obligations of FRR Entities in the PJM Region.

**PJM Settlement:**

“PJM Settlement” or “PJM Settlement, Inc.” shall mean PJM Settlement, Inc. (or its successor), established by PJM as set forth in Operating Agreement, section 3.3.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Plan:**

“Plan” shall mean the PJM market monitoring plan set forth in Tariff, Attachment M.

**Planned Demand Resource:**

“Planned Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planned External Financed Generation Capacity Resource:**

“Planned External Financed Generation Capacity Resource” shall mean a Planned External Generation Capacity Resource that, prior to August 7, 2015, has an effective agreement that is the equivalent of an Interconnection Service Agreement, has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close, and has

secured at least 50 percent of the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

**Planned External Generation Capacity Resource:**

“Planned External Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planned Financed Generation Capacity Resource:**

“Planned Financed Generation Capacity Resource” shall mean a Planned Generation Capacity Resource that, prior to August 7, 2015, has an effective Interconnection Service Agreement and has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close.

**Planned Generation Capacity Resource:**

“Planned Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Planning Period:**

“Planning Period” shall mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

**Planning Period Balance:**

“Planning Period Balance” shall mean the entire period of time remaining in the Planning Period following the month that a monthly auction is conducted.

**Planning Period Quarter:**

“Planning Period Quarter” shall mean any of the following three month periods in the Planning Period: June, July and August; September, October and November; December, January and February; or March, April and May.

**Point(s) of Delivery:**

“Point(s) of Delivery” shall mean the point(s) on the Transmission Provider’s Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Tariff, Part II. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**Point(s) of Receipt:**

“Point(s) of Receipt” shall mean point(s) of interconnection on the Transmission Provider’s Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Tariff, Part II. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point-To-Point Transmission Service:**

“Point-To-Point Transmission Service shall mean the reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Tariff, Part II.

**Power Purchaser:**

“Power Purchaser” shall mean the entity that is purchasing the capacity and energy to be transmitted under the Tariff.

**PRD Curve:**

“PRD Curve” shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Provider:**

“PRD Provider” shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Reservation Price:**

“PRD Reservation” Price shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Substation:**

“PRD Substation” shall have the meaning provided in the Reliability Assurance Agreement.

**Pre-Confirmed Application:**

“Pre-Confirmed Application” shall be an Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

**Pre-Emergency Load Response Program:**

“Pre-Emergency Load Response Program” shall be the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during pre-emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix, section 8.

**Pre-Expansion PJM Zones:**

“Pre-Expansion PJM Zones” shall be zones included in the Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Mid-Atlantic Interstate Transmission, LLC (“MAIT”) (MAIT owns and operates the transmission facilities in the Metropolitan Edison Company Zone and the Pennsylvania Electric Company Zone), PECO Energy Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

**Price Responsive Demand:**

“Price Responsive Demand” shall have the meaning provided in the Reliability Assurance Agreement.

**Primary Reserve:**

“Primary Reserve” shall mean the total reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within ten minutes of a request from the Office of the Interconnection dispatcher, and is comprised of both Synchronized Reserve and Non-Synchronized Reserve.

**Primary Reserve Alert**

“Primary Reserve Alert” shall mean a notification from PJM to alert Members of an anticipated shortage of Operating Reserve capacity for a future critical period.

**Primary Reserve Requirement:**

“Primary Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Primary Reserve absent any increase to account for additional reserves scheduled to address operational uncertainty. The Primary Reserve Requirement is calculated in accordance with the PJM Manuals. The requirement can be satisfied by any combination of Synchronized Reserve or Non-Synchronized Reserve resources.

**Principal:**

“Principal” shall mean (i) the chief executive officer or senior manager that controls or directs strategy for the Participant, (ii) the chief legal officer or general counsel, (iii) the chief financial

officer or senior manager that controls or directs the financial affairs and investments of the Participant, (iv) the chief risk officer or senior manager responsible for managing commodity and derivatives market risks, and (v) the officer or senior manager responsible for or to be responsible for transactions in the applicable PJM Markets. If, due to the Participant's business enterprise, structure or otherwise, the functions attributed to any of such Principals are performed by an individual or entity separate from the Participant (such as a risk management department in an affiliate, or a director or manager at an entity that controls or invests in the Participant), then for that Participant the term Principal shall mean that individual, or the senior officer or manager of that entity, that performs such function.

**Prior CIL Exception External Resource:**

“Prior CIL Exception External Resource” shall mean an external Generation Capacity Resource for which (1) a Capacity Market Seller had, prior to May 9, 2017, cleared a Sell Offer in an RPM Auction under the exception provided to the definition of Capacity Import Limit as set forth in RAA, Article I or (2) an FRR Entity committed, prior to May 9, 2017, in an FRR Capacity Plan under the exception provided in the definition of Capacity Import Limit. In the event only a portion (in MW) of an external Generation Capacity Resource has a Pseudo-Tie into the PJM Region, that portion of the external Generation Capacity Resource, which can include up to the maximum megawatt amount cleared in any prior RPM auction or committed in an FRR Capacity Plan (and no other portion thereof) is eligible for treatment as a Prior CIL Exception External Resource if such portion satisfies the requirements of the first sentence of this definition.

**Project Financing:**

“Project Financing” shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to which Interconnection Customer's obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

**Projected EAS Dispatch:**

“Projected EAS Dispatch” shall mean, for purposes of calculating the Net Energy and Ancillary Services Revenue Offset, a simulated dispatch with the objective of committing and dispatching a resource for the purpose of maximizing its net revenues. The calculation shall take inputs

including Forward Hourly LMPs, Forward Hourly Ancillary Service Prices, and Forward Daily Natural Gas Prices or forecasted fuel prices, as applicable, in addition to the operating parameters and costs of the specific resource, including the cost emission allowances. Using operating parameters, forward or forecasted fuel prices, as applicable and other cost pricing inputs, a composite, cost-based energy offer is created for the resource such that its commitment and dispatch is co-optimized between energy and ancillary services in the Day-Ahead Energy Market and then the Real-Time Energy Market considering the electricity and ancillary service price inputs. In the Real-Time Energy Market co-optimization, the resource is assumed to be operating in the hours it was scheduled in the Day-Ahead Energy Market but is dispatched according to the real-time price inputs. In the hours where the resource was not committed in the Day-Ahead Market, the resource may be committed and dispatched in real-time only subject to the real-time electricity and ancillary service price inputs and the resource's offer and operating parameters. For combustion turbine units only, the cost-based energy offer will include a 10 percent adder *only for the 2022/2023 Delivery Year*.

**Projected PJM Market Revenues:**

“Projected PJM Market Revenues” shall mean a component of the Market Seller Offer Cap calculated in accordance with Tariff, Attachment DD, section 6.

**Proportional Multi-Driver Project:**

“Proportional Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h).

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Pseudo-Tie:**

“Pseudo-Tie” shall have the same meaning provided in the Operating Agreement.

**Public Policy Objectives:**

“Public Policy Objectives” shall refer to Public Policy Requirements, as well as public policy initiatives of state or federal entities that have not been codified into law or regulation but which nonetheless may have important impacts on long term planning considerations.

**Public Policy Requirements:**



“Public Policy Requirements” shall refer to policies pursued by: (a) state or federal entities, where such policies are reflected in duly enacted statutes or regulations, including but not limited to, state renewable portfolio standards and requirements under Environmental Protection Agency regulations; and (b) local governmental entities such as a municipal or county government, where such policies are reflected in duly enacted laws or regulations passed by the local governmental entity.

**Qualifying Transmission Upgrade:**

“Qualifying Transmission Upgrade” shall mean a proposed enhancement or addition to the Transmission System that: (a) will increase the Capacity Emergency Transfer Limit into an LDA by a megawatt quantity certified by the Office of the Interconnection; (b) the Office of the Interconnection has determined will be in service on or before the commencement of the first Delivery Year for which such upgrade is the subject of a Sell Offer in the Base Residual Auction; (c) is the subject of a Facilities Study Agreement executed before the conduct of the Base Residual Auction for such Delivery Year and (d) a New Service Customer is obligated to fund through a rate or charge specific to such facility or upgrade.

**Queue Position:**

“Queue Position” shall mean the priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Tariff, Part VI.

## **Definitions – R - S**

### **Ramping Capability:**

“Ramping Capability” shall mean the sustained rate of change of generator output, in megawatts per minute.

### **Real-time Congestion Price:**

“Real-time Congestion Price” shall mean the Congestion Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Loss Price:**

“Real-time Loss Price” shall mean the Loss Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Energy Market:**

“Real-time Energy Market” shall mean the purchase or sale of energy and payment of Transmission Congestion Charges for quantity deviations from the Day-ahead Energy Market in the Operating Day.

### **Real-time Offer:**

“Real-time Offer” shall mean a new offer or an update to a Market Seller’s existing cost-based or market-based offer for a clock hour, submitted for use after the close of the Day-ahead Energy Market.

### **Real-time Prices:**

“Real-time Prices” shall mean the Locational Marginal Prices resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Settlement Interval:**

“Real-time Settlement Interval” shall mean the interval used by settlements, which shall be every five minutes.

### **Real-time System Energy Price:**

“Real-time System Energy Price” shall mean the System Energy Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Tariff, Part IV or Part VI, an Interconnection Service Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Receiving Party:**

“Receiving Party” shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

**Referral:**

“Referral” shall mean a formal report of the Market Monitoring Unit to the Commission for investigation of behavior of a Market Participant, of behavior of PJM, or of a market design flaw, pursuant to Tariff, Attachment M, section IV.I.

**Reference Resource:**

“Reference Resource” shall mean a combustion turbine generating station, configured with a single General Electric Frame 7HA turbine with evaporative cooling, Selective Catalytic Reduction technology all CONE Areas, dual fuel capability, and a heat rate of 9.134 Mmbtu/MWh.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Network Integration Transmission Service:**

“Regional Network Integration Transmission Service” shall mean firm transmission service taken by Network Customers that involves the delivery of energy and/or capacity from Network Resources physically interconnected to the Transmission Provider’s transmission system to Network Load physically interconnected to the Transmission Provider’s transmission system.

**Regional RTEP Project:**

“Regional RTEP Project” shall mean a transmission expansion or enhancement rated at 230 kV or above which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Tariff, Schedule 19 for the enhancement and expansion of the

Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Regional Transmission Group (RTG):**

“Regional Transmission Group” or “RTG” shall mean a voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

**Regulation:**

“Regulation” shall mean the capability of a specific generation resource or Demand Resource with appropriate telecommunications, control and response capability to separately increase and decrease its output or adjust load in response to a regulating control signal, in accordance with the specifications in the PJM Manuals.

**Regulation Zone:**

“Regulation Zone” shall mean any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

**Relevant Electric Retail Regulatory Authority:**

“Relevant Electric Retail Regulatory Authority” shall mean an entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Reliability Pricing Model Auction:**

“Reliability Pricing Model Auction” or “RPM Auction” shall mean the Base Residual Auction or any Incremental Auction, or, for the 2016/2017 and 2017/2018 Delivery Years, any Capacity Performance Transition Incremental Auction.

**Required Transmission Enhancements:**

“Regional Transmission Enhancements” shall mean enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to Tariff, Schedule 19 or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (“Appendix B Agreement”) designates one or more of the Transmission Owner(s) to construct and own or finance. Required Transmission Enhancements shall also include enhancements and expansions of facilities in another region or planning authority that meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities constructed pursuant to an Appendix B Agreement cost responsibility for which has been assigned at least in part to PJM pursuant to such Appendix B Agreement.

**Reserved Capacity:**

“Reserved Capacity” shall mean the maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider’s Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Tariff, Part II. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

**Reserve Penalty Factor:**

“Reserve Penalty Factor” shall mean the cost, in \$/MWh, associated with being unable to meet a specific reserve requirement in a Reserve Zone or Reserve Sub-zone. A Reserve Penalty Factor will be defined for each reserve requirement in a Reserve Zone or Reserve Sub-zone.

**Reserve Sub-zone:**

“Reserve Sub-zone” shall mean any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Reserve Zone:**

“Reserve Zone” shall mean any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Residual Auction Revenue Rights:**

“Residual Auction Revenue Rights” shall mean incremental stage 1 Auction Revenue Rights created within a Planning Period by an increase in transmission system capability, including the return to service of existing transmission capability, that was not modeled pursuant to Operating Agreement, Schedule 1, section 7.5 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.5 in compliance with Operating Agreement, Schedule 1, section 7.4.2 (h)

and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2(h), and, if modeled, would have increased the amount of stage 1 Auction Revenue Rights allocated pursuant to Operating Agreement, Schedule 1, section 7.4.2 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2; provided that, the foregoing notwithstanding, Residual Auction Revenue Rights shall exclude: 1) Incremental Auction Revenue Rights allocated pursuant to Tariff, Part VI; and 2) Auction Revenue Rights allocated to entities that are assigned cost responsibility pursuant to Tariff, Schedule 19 for transmission upgrades that create such rights.

**Residual Metered Load:**

“Residual Metered Load” shall mean all load remaining in an electric distribution company’s fully metered franchise area(s) or service territory(ies) after all nodally priced load of entities serving load in such area(s) or territory(ies) has been carved out.

**Resource Substitution Charge:**

“Resource Substitution Charge” shall mean a charge assessed on Capacity Market Buyers in an Incremental Auction to recover the cost of replacement Capacity Resources.

**Revenue Data for Settlements:**

“Revenue Data for Settlements” shall mean energy quantities used in accounting and billing as determined pursuant to Tariff, Attachment K-Appendix and the corresponding provisions of Operating Agreement, Schedule 1.

**RPM Seller Credit:**

“RPM Seller Credit” shall mean an additional form of Unsecured Credit defined in Tariff, Attachment Q, section IV.

**Scheduled Incremental Auctions:**

“Scheduled Incremental Auctions” shall refer to the First, Second, or Third Incremental Auction.

**Schedule of Work:**

“Schedule of Work” shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to

the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

**Seasonal Capacity Performance Resource:**

"Seasonal Capacity Performance Resource" shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Secondary Reserve:**

"Secondary Reserve" shall mean the reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within 30 minutes (less the capability of such resources to provide Primary Reserve), from the request of the Office of the Interconnection, regardless of whether the equipment providing the reserve is electrically synchronized to the Transmission System or not.

**Secondary Systems:**

"Secondary Systems" shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Second Incremental Auction:**

"Second Incremental Auction" shall mean an Incremental Auction conducted ten months before the Delivery Year to which it relates.

**Security:**

"Security" shall mean the security provided by the New Service Customer pursuant to Tariff, section 212.4 or Tariff, Part VI, section 213.4 to secure the New Service Customer's responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Tariff, Part VI, section 217.

**Segment:**

"Segment" shall have the same meaning as described in Operating Agreement, Schedule 1, section 3.2.3(e).

**Self-Supply:**

"Self-Supply" shall mean Capacity Resources secured by a Load-Serving Entity, by ownership or contract, outside a Reliability Pricing Model Auction, and used to meet obligations under this Attachment or the Reliability Assurance Agreement through submission in a Base Residual Auction or an Incremental Auction of a Sell Offer indicating such Market Seller's intent that

such Capacity Resource be Self-Supply. Self-Supply may be either committed regardless of clearing price or submitted as a Sell Offer with a price bid. A Load Serving Entity's Sell Offer with a price bid for an owned or contracted Capacity Resource shall not be deemed "Self-Supply," unless it is designated as Self-Supply and used by the LSE to meet obligations under this Attachment or the Reliability Assurance Agreement.

**Self-Supply Entity:**

"Self-Supply Entity" shall mean the following types of Load Serving Entity that operate under long-standing business models: single customer entity, public power entity, or vertically integrated utility, where "vertically integrated utility" means a utility that owns generation, includes such generation in its regulated rates, and earns a regulated return on its investment in such generation or receives any cost recovery for such generation through bilateral contracts; "single customer entity" means a Load Serving Entity that serves at retail only customers that are under common control with such Load Serving Entity, where such control means holding 51% or more of the voting securities or voting interests of the Load Serving Entity and all its retail customers; and "public power entity" means cooperative and municipal utilities, including public power supply entities comprised of either or both of the same and rural electric cooperatives, and joint action agencies.

**Self-Supply Seller:**

"Self-Supply Seller" shall mean, for purposes of evaluating Buyer-Side Market Power, the following types of Load Serving Entities that operate under long-standing business models: vertically integrated utility or public power entity, where "vertically integrated utility" means a utility that owns generation, includes such generation in its state-regulated rates, and earns a state-regulated return on its investment in such generation; and "public power entity" means electric cooperatives that are either rate regulated by the state or have their long-term resource plan approved or otherwise reviewed and accepted by a Relevant Electric Retail Regulatory Authority and municipal utilities or joint action agencies that are subject to direct regulation by a Relevant Electric Retail Regulatory Authority.

**Sell Offer:**

"Sell Offer" shall mean an offer to sell Capacity Resources in a Base Residual Auction, Incremental Auction, or Reliability Backstop Auction.

**Service Agreement:**

"Service Agreement" shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Service Commencement Date:**



“Service Commencement Date” shall mean the date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Tariff, Part II, section 15.3 or Tariff, Part III, section 29.1.

**Short-Term Firm Point-To-Point Transmission Service:**

“Short-Term Firm Point-To-Point Transmission Service” shall mean Firm Point-To-Point Transmission Service under Tariff, Part II with a term of less than one year.

**Short-term Project:**

“Short-term Project” shall mean a transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion.

**Short-Term Resource Procurement Target:**

“Short-Term Resource Procurement Target” shall mean, for Delivery Years through May 31, 2018, as to the PJM Region, for purposes of the Base Residual Auction, 2.5% of the PJM Region Reliability Requirement determined for such Base Residual Auction, for purposes of the First Incremental Auction, 2% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, for purposes of the Second Incremental Auction, 1.5% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, as to any Zone, an allocation of the PJM Region Short-Term Resource Procurement Target based on the Preliminary Zonal Forecast Peak Load, reduced by the amount of load served under the FRR Alternative. For any LDA, the LDA Short-Term Resource Procurement Target shall be the sum of the Short-Term Resource Procurement Targets of all Zones in the LDA.

**Short-Term Resource Procurement Target Applicable Share:**

“Short-Term Resource Procurement Target Applicable Share” shall mean, for Delivery Years through May 31, 2018: (i) for the PJM Region, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction and, as to the Third Incremental Auction for the PJM Region, 0.6 times such target; and (ii) for an LDA, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction for such LDA and, as to the Third Incremental Auction, 0.6 times such target.

**Site:**

“Site” shall mean all of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

**Small Commercial Customer:**

“Small Commercial Customer,” as used in RAA, Schedule 6 and Tariff, Attachment DD-1, shall mean a commercial retail electric end-use customer of an electric distribution company that participates in a mass market demand response program under the jurisdiction of a RERRA and satisfies the definition of a “small commercial customer” under the terms of the applicable RERRA’s program, provided that the customer has an annual peak demand no greater than 100kW.

**Small Generation Resource:**

“Small Generation Resource” shall mean an Interconnection Customer’s device of 20 MW or less for the production and/or storage for later injection of electricity identified in an Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities. This term shall include Energy Storage Resources and/or other devices for storage for later injection of energy.

**Small Inverter Facility:**

“Small Inverter Facility” shall mean an Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

**Small Inverter ISA:**

“Small Inverter ISA” shall mean an agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under Tariff, Part IV, section 112B.

**Special Member:**

“Special Member” shall mean an entity that satisfies the requirements of Operating Agreement, Schedule 1, section 1.5A.02, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.02, or the special membership provisions established under the Emergency Load Response and Pre-Emergency Load Response Programs.

**Spot Market Backup:**

“Spot Market Backup” shall mean the purchase of energy from, or the delivery of energy to, the PJM Interchange Energy Market in quantities sufficient to complete the delivery or receipt obligations of a bilateral contract that has been curtailed or interrupted for any reason.

**Spot Market Energy:**

“Spot Market Energy” shall mean energy bought or sold by Market Participants through the PJM Interchange Energy Market at System Energy Prices determined as specified in Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Start Additional Labor Costs:**

“Start Additional Labor Costs” shall mean additional labor costs for startup required above normal station manning levels.

**Start Fuel:**

For units without a soak process, “Start Fuel” shall consist of fuel consumed from first fire of the start process to first breaker closing, plus any fuel expended from last breaker opening to shutdown.

For units with a soak process, “Start Fuel” is fuel consumed from first fire of the start process (initial reactor criticality for nuclear units) to dispatchable output (including auxiliary boiler fuel), plus any fuel expended from last breaker opening to shutdown, excluding normal plant heating/auxiliary equipment fuel requirements. Start Fuel included for each temperature state from breaker closure to dispatchable output shall not exceed the unit specific soak time period reviewed and approved as part of the unit-specific parameter process detailed in Tariff, Attachment K-Appendix, section 6.6(c) or the defaults below:

- Cold Soak Time =  $0.73 * \text{unit specific Minimum Run Time (in hours)}$
- Intermediate Soak Time =  $0.61 * \text{unit specific Minimum Run Time (in hours)}$
- Hot Soak Time =  $0.43 * \text{unit specific Minimum Run Time (in hours)}$

**Start-Up Costs:**

“Start-Up Costs” shall consist primarily of the cost of fuel, as determined by the unit’s start heat input (adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, emissions allowances/adders, and station service cost. Start-Up Costs can vary with the unit offline time being categorized in three unit temperature conditions: hot, intermediate and cold.

For units with a steam turbine and a soak process (nuclear, steam, and combined cycle), “Start Fuel” is fuel consumed from first fire of start process (initial reactor criticality for nuclear units): Start-Up Costs shall mean the net unit costs from PJM’s notification to the level at which the unit can follow PJM’s dispatch, and from last breaker open to shutdown.

For units without a steam turbine and no soak process (engines, combustion turbines, Intermittent Resources, and Energy Storage Resources): Start-Up Costs shall mean the unit costs from PJM’s notification to first breaker close and from last breaker open to shutdown.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State Commission:**

“State Commission” shall mean any state regulatory agency having jurisdiction over retail electricity sales in any State in the PJM Region.

**State Estimator:**

“State Estimator” shall mean the computer model of power flows specified in Operating Agreement, Schedule 1, section 2.3 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.3.

**State Subsidy:**

“State Subsidy” shall mean a direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is as a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that

- (1) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce; or
- (2) will support the construction, development, or operation of a new or existing Capacity Resource; or
- (3) could have the effect of allowing the unit to clear in any PJM capacity auction.

Notwithstanding the foregoing, State Subsidy shall not include (a) payments, concessions, rebates, subsidies, or incentives designed to incent, or participation in a program, contract or other arrangement that utilizes criteria designed to incent or promote, general industrial development in an area or designed to incent siting facilities in that county or locality rather than another county or locality; (b) state action that imposes a tax or assesses a charge utilizing the parameters of a regional program on a given set of resources notwithstanding the tax or cost having indirect benefits on resources not subject to the tax or cost (e.g., Regional Greenhouse Gas Initiative); (c) any indirect benefits to a Capacity Resource as a result of any transmission project approved as part of the Regional Transmission Expansion Plan; (d) any contract, legally enforceable obligation, or rate pursuant to the Public Utility Regulatory Policies Act or any other state-administered federal regulatory program (e.g., the Cross-State Air Pollution Rule); (e) any revenues from the sale or allocation, either direct or indirect, to an Entity Providing Supply Services to Default Retail Service Provider where such entity’s obligations was awarded through a state default procurement auction that was subject to independent oversight by a consultant or manager who certifies that the auction was conducted through a non-discriminatory and competitive bidding process, subject to the below condition, and provided further that nothing herein would exempt a Capacity Resource that would otherwise be subject to the minimum offer price rule pursuant to this Tariff; (f) any revenues for providing capacity as part of an FRR

Capacity Plan or through bilateral transactions with FRR Entities; or (g) any voluntary and arm's length bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6), such as a power purchase agreement or other similar contract where the buyer is a Self-Supply Entity and the transaction is (1) a short term transaction (one-year or less) or (2) a long-term transaction that is the result of a competitive process that was not fuel-specific and is not used for the purpose of supporting uneconomic construction, development, or operation of the subject Capacity Resource, provided however that if the Self-Supply Entity is responsible for offering the Capacity Resource into an RPM Auction, the specified amount of installed capacity purchased by such Self-Supply Entity shall be considered to receive a State Subsidy in the same manner, under the same conditions, and to the same extent as any other Capacity Resource of a Self-Supply Entity. For purposes of subsection (e) of this definition, a state default procurement auction that has been certified to be a result of a non-discriminatory and competitive bidding process shall:

- (i) have no conditions based on the ownership (except supplier diversity requirements or limits), location (except to meet PJM deliverability requirements), affiliation, fuel type, technology, or emissions of any resources or supply (except state-mandated renewable portfolio standards for which Capacity Resources are separately subject to the minimum offer price rule or eligible for an exemption);
- (ii) result in contracts between an Entity Providing Supply Services to Default Retail Service Provider and the electric distribution company for a retail default generation supply product and none of those contracts require that the retail obligation be sourced from any specific Capacity Resource or resource type as set forth in subsection (i) above; and
- (iii) establish market-based compensation for a retail default generation supply product that retail customers can avoid paying for by obtaining supply from a competitive retail supplier of their choice.

### **State of Charge:**

“State of Charge” shall mean the quantity of physical energy stored in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

### **State of Charge Management:**

“State of Charge Management” shall mean the control of State of Charge of an Energy Storage Resource Market Participant or a storage component of a Hybrid Resource using minimum and maximum discharge (and, as applicable, charge) limits, changes in operating mode (as applicable), discharging (and, as applicable, charging) offer curves, and self-scheduling of non-dispatchable sales (and, as applicable, purchases) of energy in the PJM markets. State of Charge Management shall not interfere with the obligation of a Market Seller of an Energy Storage Resource Model Participant or of a Hybrid Resource to follow PJM dispatch, consistent with all other resources.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Sub-Annual Resource Constraint:**

“Sub-Annual Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and 2018/2019 Delivery Years, for the PJM Region or for each LDA for which the Office of the Interconnection is required under Tariff, Attachment DD, section 5.10(a) to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources and Extended Summer Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Sub-Annual Resource Reliability Target for the PJM Region or for such LDA, respectively, minus the Short-Term Resource Procurement Target for the PJM Region or for such LDA, respectively.

**Sub-Annual Resource Price Decrement:**

“Sub-Annual Resource Price Decrement” shall mean, for the 2017/2018 Delivery Year, a difference between the clearing price for Extended Summer Demand Resources and the clearing price for Annual Resources, representing the cost to procure additional Annual Resources out of merit order when the Sub-Annual Resource Constraint is binding.

**Sub-Annual Resource Reliability Target:**

“Sub-Annual Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of the combination of Extended Summer Demand Resources and Limited Demand Resources in Unforced Capacity determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity, that shall be used to calculate the Minimum Annual Resource Requirement for Delivery Years through May 31, 2017 and the Sub-Annual Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years. As more fully set forth in the PJM Manuals, PJM calculates the Sub-Annual Resource Reliability Target, by first determining a reference annual loss of load expectation (“LOLE”) assuming no Demand Resources. The calculation for the unconstrained portion of the PJM Region uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast and iteratively shifting the load distributions to result in the Installed Reserve Margin established for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). The calculation for each relevant LDA uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability

distributions developed for the Capacity Emergency Transfer Objective study for the Delivery Year in question). For the relevant LDA calculation, the weekly capacity distributions are adjusted to reflect the Capacity Emergency Transfer Limit for the Delivery Year in question.

For both the PJM Region and LDA analyses, PJM then models the commitment of varying amounts of DR (displacing otherwise committed generation) as interruptible from May 1 through October 31 and unavailable from November 1 through April 30 and calculates the LOLE at each DR level. The Extended Summer DR Reliability Target is the DR amount, stated as a percentage of the unrestricted peak load, that produces no more than a ten percent increase in the LOLE, compared to the reference value. The Sub-Annual Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Sub-meter:**

“Sub-meter” shall mean a metering point for electricity consumption that does not include all electricity consumption for the end-use customer as defined by the electric distribution company account number. PJM shall only accept sub-meter load data from end-use customers for measurement and verification of Regulation service as set forth in the Economic Load Response rules and PJM Manuals.

**Subregional RTEP Project:**

“Subregional RTEP Project” shall mean a transmission expansion or enhancement rated below 230 kV which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Supplemental Project:**

“Supplemental Project” shall mean a transmission expansion or enhancement that is not required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection and is not a state public policy project pursuant to Tariff, Schedule 19, section 1.5.9(a)(ii). Any system upgrades required to maintain the reliability of the system that are driven by a Supplemental Project are considered part of that Supplemental Project and are the responsibility of the entity sponsoring that Supplemental Project.

**Summer-Period Capacity Performance Resource:**

“Summer-Period Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Surplus Interconnection Customer:**

“Surplus Interconnection Customer” shall mean either an Interconnection Customer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Customer is not a New Service Customer.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Interconnection Customer, pursuant to Tariff, Attachment RR, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in an Interconnection Service Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

**Synchronized Reserve:**

“Synchronized Reserve” shall mean the reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within ten minutes from the request of the Office of the Interconnection dispatcher, and is provided by equipment that is electrically synchronized to the Transmission System.

**Synchronized Reserve Event:**

“Synchronized Reserve Event” shall mean a request from the Office of the Interconnection to generation resources and/or Economic Load Response Participant resources able, assigned or self-scheduled to provide Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes, to increase the energy output or reduce load by the amount of assigned or self-scheduled Synchronized Reserve capability.

**Synchronized Reserve Requirement:**



“Synchronized Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Synchronized Reserve, absent any increase to account for additional reserves scheduled to address operational uncertainty. The Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals. This requirement can only be satisfied by Synchronized Reserve resources.

**System Condition:**

“System Condition” shall mean a specified condition on the Transmission Provider’s system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Tariff, Part II, section 13.6. Such conditions must be identified in the Transmission Customer’s Service Agreement.

**System Energy Price:**

“System Energy Price” shall mean the energy component of the Locational Marginal Price, which is the price at which the Market Seller has offered to supply an additional increment of energy from a resource, calculated as specified in Operating Agreement, Schedule 1, section 2 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**System Impact Study:**

“System Impact Study” shall mean an assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii) the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment

and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

## **Definitions – T – U - V**

### **Tangible Net Worth:**

“Tangible Net Worth” shall mean total assets less goodwill and other intangible assets, minus total liabilities.

### **Target Allocation:**

“Target Allocation” shall mean the allocation of Transmission Congestion Credits as set forth in Operating Agreement, Schedule 1, section 5.2.3, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.3, or the allocation of Auction Revenue Rights Credits as set forth in Operating Agreement, Schedule 1, section 7.4.3, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.3.

### **Third Incremental Auction:**

“Third Incremental Auction” shall mean an Incremental Auction conducted three months before the Delivery Year to which it relates.

### **Third-Party Sale:**

“Third-Party Sale” shall mean any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

### **Tie Line:**

“Tie Line” shall mean a circuit connecting two balancing authority areas, Control Areas or fully metered electric system regions. Tie Lines may be classified as external or internal as set forth in the PJM Manuals.

### **Total Lost Opportunity Cost Offer:**

“Total Lost Opportunity Cost Offer” shall mean the applicable offer used to calculate lost opportunity cost credits. For pool-scheduled resources specified in PJM Operating Agreement, Schedule 1, section 3.2.3(f-1), and the parallel provisions of Tariff, Attachment K-Appendix, section 3.2.3(f-1), the Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, as determined by the greater of the Committed Offer or last Real-Time Offer submitted for the offer on which the resource was committed in the Day-ahead Energy Market for each hour in an Operating Day. For all other pool-scheduled resources, the Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, as determined by the offer curve associated with the greater of the Committed Offer or Final Offer for each hour in an Operating Day. For self-scheduled generation resources, the

Total Lost Opportunity Cost Offer shall equal the Real-time Settlement Interval offer integrated under the applicable offer curve for the LOC Deviation, where for self-scheduled generation resources (a) operating pursuant to a cost-based offer, the applicable offer curve shall be the greater of the originally submitted cost-based offer or the cost-based offer that the resource was dispatched on in real-time; or (b) operating pursuant to a market-based offer, the applicable offer curve shall be determined in accordance with the following process: (1) select the greater of the cost-based day-ahead offer and updated cost-based Real-time Offer; (2) for resources with multiple cost-based offers, first, for each cost-based offer select the greater of the day-ahead offer and updated Real-time Offer, and then select the lesser of the resulting cost-based offers; and (3) compare the offer selected in (1), or for resources with multiple cost-based offers the offer selected in (2), with the market-based day-ahead offer and the market-based Real-time Offer and select the highest offer.

**Total Net Obligation:**

“Total Net Obligation” shall mean all unpaid billed Net Obligations plus any unbilled Net Obligation incurred to date, as determined by PJMSettlement on a daily basis, plus any other Obligations owed to PJMSettlement at the time.

**Total Net Sell Position:**

“Total Net Sell Position” shall mean all unpaid billed Net Sell Positions plus any unbilled Net Sell Positions accrued to date, as determined by PJMSettlement on a daily basis.

**Total Operating Reserve Offer:**

“Total Operating Reserve Offer” shall mean the applicable offer used to calculate Operating Reserve credits. The Total Operating Reserve Offer shall equal the sum of all individual Real-time Settlement Interval energy offers, inclusive of Start-Up Costs (shut-down costs for Demand Resources) and No-load Costs, for every Real-time Settlement Interval in a Segment, integrated under the applicable offer curve up to the applicable megawatt output as further described in the PJM Manuals. The applicable offer used to calculate day-ahead Operating Reserve credits shall be the Committed Offer, and the applicable offer used to calculate balancing Operating Reserve credits shall be lesser of the Committed Offer or Final Offer for each hour in an Operating Day.

**Trade Reference:**

“Trade Reference” shall mean a reference from a contact or firm that had or has a material business relationship with a Participant.

**Transmission Congestion Charge:**

“Transmission Congestion Charge” shall mean a charge attributable to the increased cost of energy delivered at a given load bus when the transmission system serving that load bus is operating under constrained conditions, or as necessary to provide energy for third-party transmission losses which shall be calculated and allocated as specified in Operating Agreement,

Schedule 1, section 5.1 and the parallel provisions of Tariff, Attachment K-Appendix, section 5.1.

**Transmission Congestion Credit:**

“Transmission Congestion Credit” shall mean the allocated share of total Transmission Congestion Charges credited to each FTR Holder, calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.2, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.

**Transmission Constraint Penalty Factor:**

“Transmission Constraint Penalty Factor” shall mean the maximum cost of the re-dispatch incurred to control the flows across a transmission constraint and establishes the maximum limit on the Marginal Value.

**Transmission Customer:**

“Transmission Customer” shall mean any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission a proposed unexecuted Service Agreement, to receive transmission service under Tariff, Part II. This term is used in Tariff, Part I and Tariff, Part VI to include customers receiving transmission service under Tariff, Part II and Tariff, Part III.

Where used in Tariff, Attachment K-Appendix and the parallel provisions of Operating Agreement, Schedule 1, Transmission Customer shall mean an entity using Point-to-Point Transmission Service.

**Transmission Facilities:**

“Transmission Facilities” shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC's Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

**Transmission Forced Outage:**

“Transmission Forced Outage” shall mean an immediate removal from service of a transmission facility by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the transmission facility, as specified in the relevant portions of the PJM Manuals. A removal from service of a transmission facility at the request of the Office of the Interconnection to improve transmission capability shall not constitute a Forced Transmission Outage.

**Transmission Injection Rights:**

“Transmission Injection Rights” shall mean Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

**Transmission Interconnection Customer:**

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Tariff, Schedule 19).

**Transmission Interconnection Facilities Study:**

“Transmission Interconnection Facilities Study” shall mean a Facilities Study related to a Transmission Interconnection Request.

**Transmission Interconnection Feasibility Study:**

“Transmission Interconnection Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part IV, section 36.2.

**Transmission Interconnection Request:**

“Transmission Interconnection Request” shall mean a request by a Transmission Interconnection Customer pursuant to Tariff, Part IV to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

**Transmission Loading Relief:**

“Transmission Loading Relief” shall mean NERC’s procedures for preventing operating security limit violations, as implemented by PJM as the security coordinator responsible for maintaining transmission security for the PJM Region.

**Transmission Loss Charge:**

“Transmission Loss Charge” shall mean the charges to each Market Participant, Network Customer, or Transmission Customer for the cost of energy lost in the transmission of electricity from a generation resource to load as specified in Operating Agreement, Schedule 1, section 5, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Consolidated Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Transmission Owner Attachment Facilities:**

“Transmission Owner Attachment Facilities” shall mean that portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

**Transmission Owner Interconnection Facilities:**

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Tariff, Attachment P, Appendix 2, section 5.5 to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner’s side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System or interconnected distribution facilities.

**Transmission Owner Upgrade:**

“Transmission Owner Upgrade” shall mean an upgrade to a Transmission Owner’s own transmission facilities, which is an improvement to, addition to, or replacement of a part of, an existing facility and is not an entirely new transmission facility.

**Transmission Planned Outage:**

“Transmission Planned Outage” shall mean any transmission outage scheduled in advance for a pre-determined duration and which meets the notification requirements for such outages specified in Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K-Appendix or the PJM Manuals.

**Transmission Provider:**

The “Transmission Provider” shall be the Office of the Interconnection for all purposes, provided that the Transmission Owners will have the responsibility for the following specified activities:

- (a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to

direct the operation and maintenance of those transmission facilities that are not listed in the transmission facilities list maintained by PJM;

(b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and

(c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

**Transmission Provider’s Monthly Transmission System Peak:**

“Transmission Provider’s Monthly Transmission System Peak” shall mean the maximum firm usage of the Transmission Provider’s Transmission System in a calendar month.

**Transmission Service:**

“Transmission Service” shall mean Point-To-Point Transmission Service provided under Tariff, Part II on a firm and non-firm basis.

**Transmission Service Request:**

“Transmission Service Request” shall mean a request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

**Transmission System:**

“Transmission System” shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Tariff, Part II and Part III.

**Transmission Withdrawal Rights:**

“Transmission Withdrawal Rights” shall mean Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

**Turn Down Ratio:**

“Turn Down Ratio” shall mean the ratio of a generating unit’s economic maximum megawatts to its economic minimum megawatts.

**Unconstrained LDA Group:**



“Unconstrained LDA Group” shall mean a combined group of LDAs that form an electrically contiguous area and for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10. Any LDA for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10 shall be combined with all other such LDAs that form an electrically contiguous area.

**Unforced Capacity:**

“Unforced Capacity” shall have the meaning specified in the Reliability Assurance Agreement.

**Unsecured Credit:**

“Unsecured Credit” shall mean any credit granted by PJMSettlement to a Participant that is not secured by Collateral.

**Unsecured Credit Allowance:**

“Unsecured Credit Allowance” shall mean Unsecured Credit extended by PJMSettlement in an amount determined by PJMSettlement’s evaluation of the creditworthiness of a Participant. This is also defined as the amount of credit that a Participant qualifies for based on the strength of its own financial condition without having to provide Collateral. See also: “Working Credit Limit.”

**Updated VRR Curve:**

“Updated VRR Curve” shall mean the Variable Resource Requirement Curve for use in the Base Residual Auction of the relevant Delivery Year, updated to reflect any change in the Reliability Requirement from the Base Residual Auction to such Incremental Auction, and for Delivery Years through May 31, 2018, the Short-term Resource Procurement Target applicable to the relevant Incremental Auction.

**Updated VRR Curve Decrement:**

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E, and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**Updated VRR Curve Increment:**

“Updated VRR Curve Increment” shall mean the portion of the Updated VRR Curve to the right of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for

such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**Upgrade Construction Service Agreement:**

“Upgrade Construction Service Agreement” shall mean that agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Tariff, Part VI, Subpart B, and in the form set forth in Tariff, Attachment GG.

**Upgrade Customer:**

“Upgrade Customer” shall mean a customer that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Upgrade Feasibility Study:**

“Upgrade Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part IV, section 36.3.

**Upgrade-Related Rights:**

“Upgrade-Related Rights” shall mean Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights.

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Attachment EE, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Up-to Congestion Counterflow Transaction:**

“Up-to Congestion Counterflow Transaction” shall mean an Up-to Congestion Transaction will be deemed an Up-to Congestion Counterflow Transaction if the following value is negative: (a) when bidding, the lower of the bid price and the prior Up-to Congestion Historical Month’s average real-time value for the transaction; or (b) for cleared Virtual Transactions, the cleared day-ahead price of the Virtual Transactions.

**Up-to Congestion Historical Month:**

“Up-to Congestion Historical Month” shall mean a consistently-defined historical period nominally one month long that is as close to a calendar month as PJM determines is practical.

**Up-to Congestion Prevailing Flow Transaction:**

An Up-to Congestion Transaction shall mean an “Up-to Congestion Prevailing Flow Transaction” if it is not an Up-to Congestion Counterflow Transaction.

**Up-to Congestion Reference Price:**

“Up-to Congestion Reference Price” for an Up-to Congestion Transaction, shall be the specified percentile price differential between source and sink (defined as sink price minus source price) for real-time prices experienced over the prior Up-to Congestion Historical Month, averaged with the same percentile value calculated for the second prior Up-to Congestion Historical Month. Up-to Congestion Reference Prices shall be calculated using the following historical percentiles:

- For Up-to Congestion Prevailing Flow Transactions: 30<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when bid: 20<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when cleared: 5<sup>th</sup> percentile

**Up-to Congestion Transaction:**

“Up-to Congestion Transaction” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.10.1A, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1A.

**Variable Loads:**

“Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.6.

**Variable Resource Requirement Curve:**

“Variable Resource Requirement Curve” shall mean a series of maximum prices that can be cleared in a Base Residual Auction for Unforced Capacity, corresponding to a series of varying resource requirements based on varying installed reserve margins, as determined by the Office of the Interconnection for the PJM Region and for certain Locational Deliverability Areas in accordance with the methodology provided in Tariff, Attachment DD, section 5.

**Virtual Credit Exposure:**

“Virtual Credit Exposure” shall mean the amount of potential credit exposure created by a market participant’s bid submitted into the Day-ahead market, as defined in Tariff, Attachment Q.

**Virtual Transaction:**

“Virtual Transaction” shall mean a Decrement Bid, Increment Offer and/or Up-to Congestion Transaction.

**Virtual Transaction Screening:**

“Virtual Transaction Screening” shall be the process of reviewing the Virtual Credit Exposure of submitted Virtual Transactions against the Credit Available for Virtual Transactions. If the credit required is greater than credit available, then the Virtual Transactions will not be accepted.

**Virtual Transactions Net Activity:**

“Virtual Transactions Net Activity” shall mean the aggregate net total, resulting from Virtual Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Tariff, Attachment K-Appendix, and the parallel provisions of Operating Agreement, Schedule 1. Virtual Transactions Net Activity may be positive or negative.

**Voltage Reduction Action:**

“Voltage Reduction Action” shall mean a notification during capacity deficient conditions in which PJM notifies Members to reduce voltage on the distribution system in order to reduce demand and therefore provide a sufficient amount of reserves, maintain tie flow schedules and preserve limited energy sources.

**Voltage Reduction Alert:**

“Voltage Reduction Alert” shall mean a notification from PJM to alert Members that a voltage reduction may be required during a future critical period.

**Voltage Reduction Warning:**

“Voltage Reduction Warning” shall mean a notification from PJM to warn Members that PJM’s available Synchronized Reserve is less than the Synchronized Reserve Requirement and that present operations have deteriorated such that a voltage reduction may be required.

#### **15.4 Obligation to Provide Transmission Service that Requires Expansion or Modification of the Transmission System or Redispatch:**

(a) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on the Transmission System, the Transmission Owners will be obligated and shall use due diligence to expand or modify, the Transmission System to provide the requested Firm Transmission Service consistent with the planning obligations in Tariff, Schedule 19, provided the Transmission Customer agrees to compensate the Transmission Provider or the affected Transmission Owner(s) for such costs pursuant to the terms of Tariff, Part II, section 27. The Transmission Provider and the affected Transmission Owners will conform to Good Utility Practice and the planning obligations in Tariff, Schedule 19 in determining the need for new facilities and the affected Transmission Owner(s) will conform to Good Utility Practice in the design and construction of such facilities. The obligation applies only to those facilities that the Transmission Owners have the right to expand or modify.

(b) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will use due diligence to provide redispatch until Network Upgrades are completed for the Transmission Customer.

## **16.1 Conditions Required of Transmission Customers:**

Point-To-Point Transmission Service shall be provided by the Transmission Provider only if the following conditions are satisfied by the Transmission Customer:

- a. The Transmission Customer has pending a Completed Application for service;
- b. The Transmission Customer meets the creditworthiness criteria set forth in Tariff, Part I, section 11;
- c. The Transmission Customer will have arrangements in place for any other transmission service necessary to effect the delivery from the generating source to the Transmission Provider prior to the time service under Tariff, Part II commences;
- d. The Transmission Customer agrees to pay for any facilities constructed and chargeable to such Transmission Customer under Tariff, Part II, whether or not the Transmission Customer takes service for the full term of its reservation;
- e. The Transmission Customer provides the information required by the Transmission Provider's planning process established in Tariff, Schedule 19; and
- f. The Transmission Customer has executed a Point-To-Point Service Agreement or has agreed to receive service pursuant to Tariff, Part II, section 15.3.

## 17.2 Completed Application:

If requested by the Transmission Provider, a Completed Application shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the entity requesting service;
- (ii) A statement that the entity requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) The location of the Point(s) of Receipt and Point(s) of Delivery and the identities of the Delivering Parties and the Receiving Parties;
- (iv) The location of the generating facility(ies) supplying the capacity and energy and the location of the load ultimately served by the capacity and energy transmitted. The Transmission Provider will treat this information as confidential except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice or pursuant to Applicable Regional Entity transmission information sharing agreements. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations;
- (v) A description of the supply characteristics of the capacity and energy to be delivered;
- (vi) An estimate of the capacity and energy expected to be delivered to the Receiving Party;
- (vii) The Service Commencement Date and the term of the requested Transmission Service;
- (viii) The transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission Provider's Transmission System; customers may combine their requests for service in order to satisfy the minimum transmission capacity requirement;
- (ix) A statement indicating that, if the Eligible Customer submits a Pre-Confirmed Application, the Eligible Customer will execute a Service Agreement upon receipt of notification that Transmission Provider can provide the requested Transmission Service; and
- (x) Any additional information required by the Transmission Provider's planning process established in Tariff, Schedule 19.

The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.



## **28.2 Transmission Provider Responsibilities:**

In order to provide the Network Customer with Network Integration Transmission Service over the Transmission Provider's Transmission Systems: (a) the Transmission Provider will plan and operate the Transmission System in accordance with Good Utility Practice and its planning obligations in the Tariff; and (b) the Transmission Owners will be obligated to construct and maintain the Transmission System in accordance with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice. Each Transmission Owner, on behalf of its Native Load Customers, shall be required to designate resources and loads in the same manner as any Network Customer under Tariff, Part III. This information must be consistent with the information used by the Transmission Provider to calculate available transfer capability. The Transmission Provider shall include the Network Customer's Network Load in the Transmission System planning and the Transmission Owners shall, consistent with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice, endeavor to construct and place into service sufficient transfer capability to deliver the Network Customer's Network Resources to serve its Network Load on a basis comparable to the delivery of each Transmission Owner's own generating and purchased resources to its Native Load Customers.

## 29.2 Application Procedures:

An Eligible Customer requesting service under Tariff, Part III must submit an Application to the Transmission Provider as far as possible in advance of the month in which service is to commence. Unless subject to the procedures in Tariff, Part I, section 2, Completed Applications for Network Integration Transmission Service will be assigned a Project Identifier according to the date and time the Application is received, with the earliest Application receiving the highest priority. For Transmission Service requests that require a Phase I System Impact Study, a Completed Application must be submitted and received by the Transmission Provider by the cycle Application Deadline in order to be assigned a Project Identifier in such cycle. If requested by Transmission Provider, Applications should be submitted by entering the information listed below (except for applications for Network Integration Transmission Service pursuant to state required retail access programs for which Transmission Customers shall provide the information required under the Service Agreement) on the Transmission Provider's OASIS. For applications pursuant to state required retail access programs, the information required under the Service Agreement should be submitted on the Transmission Provider's specified electronic information system established for such programs. Each of these methods will provide a time-stamped record for establishing the service priority of the Application. If requested by Transmission Provider, a Completed Application (other than applications for Network Integration Transmission Service pursuant to a state required retail access program, which shall be governed by Tariff, Attachment F-1 and the specifications thereto) shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the party requesting service;
- (ii) A statement that the party requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) A description of the Network Load at each delivery point. This description should separately identify and provide the Eligible Customer's best estimate of the total loads to be served at each transmission voltage level, and the loads to be served from each Transmission Provider substation at the same transmission voltage level. The description should include a ten (10) year forecast of summer and winter load and resource requirements beginning with the first year after the service is scheduled to commence;
- (iv) The amount and location of any interruptible loads included in the Network Load. This shall include the summer and winter capacity requirements for each interruptible load (had such load not been interruptible), that portion of the load subject to interruption, the conditions under which an interruption can be implemented and any limitations on the amount and frequency of interruptions. An Eligible Customer should identify the amount of interruptible customer load (if any) included in the 10 year load forecast provided in response to (iii) above;

(v) A description of Network Resources (current and 10-year projection). For each on-system Network Resource, such description shall include:

- Unit size and amount of capacity from that unit to be designated as Network Resource
- VAR capability (both leading and lagging) of all generators
- Operating restrictions
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit
  - Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
- Approximate variable generating cost (\$/MWH) for redispatch computations
- Arrangements governing sale and delivery of power to third parties from generating facilities located in the Transmission Provider Control Areas, where only a portion of unit output is designated as a Network Resource
- For each off-system Network Resource, such description shall include:
  - Identification of the Network Resource as an off-system resource
- Amount of power to which the customer has rights
  - Identification of the control area from which the power will originate
  - Delivery point(s) to the Transmission Provider's Transmission System
  - Transmission arrangements on the external transmission system(s)
- Operating restrictions, if any
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit

- Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
  - Approximate variable generating cost (\$/MWH) for redispatch computations;
- (vi) Description of Eligible Customer's transmission system:
- Load flow and stability data, such as real and reactive parts of the load, lines, transformers, reactive devices and load type, including normal and emergency ratings of all transmission equipment in a load flow format compatible with that used by the Transmission Provider
  - Operating restrictions needed for reliability
  - Operating guides employed by system operators
  - Contractual restrictions or committed uses of the Eligible Customer's transmission system, other than the Eligible Customer's Network Loads and Resources
  - Location of Network Resources described in subsection (v) above
  - 10 year projection of system expansions or upgrades
  - Transmission System maps that include any proposed expansions or upgrades
  - Thermal ratings of Eligible Customer's Control Area ties with other Control Areas;
- (vii) Service Commencement Date and the term of the requested Network Integration Transmission Service. The minimum term for Network Integration Transmission Service is one year except that, for service provided with respect to a state required retail access program, the minimum term is one day;
- (viii) A statement signed by an authorized officer from or agent of the Network Customer attesting that all of the network resources listed pursuant to Tariff, Part III, section 29.2(v) satisfy the following conditions: (1) the Network Customer owns the resource, has committed to purchase generation pursuant to an executed contract, or has committed to purchase generation where execution of a contract is contingent upon the availability of transmission service under Tariff, Part III; and (2) the Network Resources do not include any resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program; and

(ix) Any additional information required of the Transmission Customer as specified in the Transmission Provider's planning process established in Tariff, Schedule 19.

In addition, a party requesting Transmission Service shall provide the information specified in, and otherwise comply with, the "PJM Credit Policy" set forth in Tariff, Attachment Q hereto. Unless the Parties agree to a different time frame, the Transmission Provider must acknowledge the request within ten (10) days of receipt. The acknowledgement must include a date by which a response, including a Service Agreement, will be sent to the Eligible Customer. If an Application fails to meet the requirements of this section, the Transmission Provider shall notify the Eligible Customer requesting service within fifteen (15) days of receipt and specify the reasons for such failure. Wherever possible, the Transmission Provider will attempt to remedy deficiencies in the Application through informal communications with the Eligible Customer. If such efforts are unsuccessful, the Transmission Provider shall return the Application without prejudice to the Eligible Customer filing a new or revised Application that fully complies with the requirements of this section. The Eligible Customer will be assigned a new Project Identifier consistent with the date of the new or revised Application. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

### **31.6 Annual Load and Resource Information Updates:**

Even if an Application is no longer required, the Network Customer shall provide the Transmission Provider with annual updates of Network Load and Network Resource forecasts consistent with those included in its Application for Network Integration Transmission Service under Tariff, Part III including, but not limited to, any information provided under Tariff, Part III, section 29.2(ix) pursuant to the Transmission Provider's planning process in Tariff, Schedule 19. Even if an Application is no longer required, the Network Customer also shall provide the Transmission Provider with timely written or electronic notice of material changes in any other information listed in Tariff, Part III, section 29.2 or provided in its Application relating to the Network Customer's Network Load, Network Resources, its transmission system or other aspects of its facilities or operations affecting the Transmission Provider's ability to provide reliable service.

### **36.1 General:**

Generation Interconnection Requests and Transmission Interconnection Requests shall be governed by Tariff, Part IV, Subpart A, section 36.

#### **36.1.01 Generation Interconnection Request:**

Except as otherwise provided in this Subpart A with respect to Behind The Meter Generation, an Interconnection Customer that seeks to interconnect new generation in, to increase the capacity of generation already interconnected in, the PJM Region shall submit to the Transmission Provider a Generation Interconnection Request. The Transmission Provider shall acknowledge receipt of the Generation Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Generation Interconnection Request.

1. Generation Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part IV, Preamble, section 201, a Generation Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment N. To be considered complete at the time of submission, the Interconnection Customer's Generation Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. specification of the location of the proposed Generating Facility site or existing Generating Facility (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. evidence of an ownership interest in, or right to acquire or control the Generating Facility site for a minimum of three years, such as a deed, option agreement, lease, or other similar document acceptable to the Transmission Provider; and
  - c. the MW size of the proposed Generating Facility or the amount of increase in MW capability of an existing Generating Facility, and identification of any MW portion of the facility's capability that will be a Capacity Resource; and
  - d. identification of the fuel type of the proposed generating unit or upgrade thereto; and
  - e. a description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the generating unit is a wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and

- f. the planned date the proposed generating unit or increase in MW capability of an existing generating unit will be in service, where such date is to be no more than seven years from the date that a complete and fully executed Generation Interconnection Feasibility Study Agreement is received by the Transmission Provider unless the Interconnection Customer demonstrates that engineering, permitting, and construction of the generating unit or increase in capability will take more than seven years; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals, including a description of how the full electrical generating capability of the generating unit will be limited to the Maximum Facility Output requested if the Maximum Facility Output of the generating unit is less than the full electrical generating capability of the Generating Facility; and
- h. if Behind The Meter Generation is identified in the Generation Interconnection Feasibility Study Agreement, all of the requirements in Tariff, Part IV, Subpart A, section 36.1A must also be met; and
- i. Deposit.
  - i. A deposit shall be submitted to Transmission Provider, as follows:
    - (1) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the first four calendar months of the current New Services Queue shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Generation Interconnection Request is received in the first four calendar months of the current New Services Queue; or
    - (2) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Generation Interconnection Request is received in the fifth calendar month of the current New Services Queue; or
    - (3) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000 a deposit of \$30,000 plus \$200 for each MW requested, if the Generation Interconnection Request is received in the sixth calendar month of the current New Services Queue.



- ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Generation Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Generation Interconnection Customer withdraws its Generation Interconnection Request, or the Generation Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:
  - (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
  - (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
  - (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
  - (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Generation Interconnection Request (to determine whether the Generation Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Generation Interconnection Feasibility Study; and
  - (4) If the Generation Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to

cover all of the costs incurred by the Transmission Provider up to the point of such Generation Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:

- (a) The costs of any restudies required as a result of the modification (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
- (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
- (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
- (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Generation Interconnection Customer in accordance with the PJM Manuals.

iv. Upon completion of the Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:

- (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Generation Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
- (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related

to prior Generation Interconnection Requests by the Interconnection Customer.

- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Generation Interconnection Customer.
  - vi. The Interconnection Customer must submit the total required deposit amount with the Generation Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Generation Interconnection Request, the Generation Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Generation Interconnection Request shall be terminated prior to reaching the deficiency review stage).
  - vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or in part to a different New Service Request or Interconnection Request or Queue Position.
  - j. Primary frequency response operating range for Energy Storage Resources.
2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Generation Interconnection Request to determine whether the Interconnection Customer submitted a valid Generation Interconnection Request.
- a. With the exception of evidence of an ownership interest in, or right to acquire or control the generating unit site for a minimum of three years, if a Generation Interconnection Request meets all requirements set forth above the Transmission Provider shall start the deficiency review. While deficiency reviews may commence for Generation Interconnection Requests that are submitted without site control evidence that is acceptable to the Transmission Provider, such Generation Interconnection Requests shall not be assigned a Queue Position until the Transmission Provider receives site control evidence that is acceptable to the Transmission Provider.
  - b. Pursuant to Tariff, Attachment N, section 9, Cost Responsibility, of the Generation Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed

the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.

- i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
  - (1) Withdraw the Generation Interconnection Request during the deficiency response period (as described below); or
  - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
  - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs, then the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- c. If there are deficiencies in the Generation Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Generation Interconnection Request that such Generation Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt

of the Generation Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.

- i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
- ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
  - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or evidence (such as generation site control) and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Generation Interconnection Request.
  - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review each Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Generation Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Generation

Interconnection Request shall be deemed to be terminated and withdrawn.

- iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
3. The Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement (Tariff, Attachment N) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Generation Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
4. In accordance with Tariff, Part VI, Preamble, section 201, the Transmission Provider shall assign Queue Positions as of the date and time of receipt of all information required pursuant to this section 36.1.01. If the information required pursuant to this section 36.1.01 is provided to the Transmission Provider in separate submissions, the Queue Position shall be assigned based on the date and time of receipt of the last required piece of information.
5. Deficiency notices shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
6. Transmission Provider Website Postings.
  - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Generation Interconnection Requests that identifies:
    - i. the proposed maximum summer and winter megawatt electrical output;
    - ii. the location of the generation by county and state;
    - iii. the station or transmission line or lines where the interconnection will be made;
    - iv. the facility's projected date of Initial Operation;
    - v. the status of the Generation Interconnection Request, including its Queue Position;

- vi. the type of Generation Interconnection Service requested;
  - vii. the availability of any studies related to the Interconnection Request;
  - viii. the date of the Generation Interconnection Request;
  - ix. the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and
  - x. for each Generation Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
- b. This list will not disclose the identity of the Generation Interconnection Customer, except as otherwise provided in Tariff, Part IV. The list and the priority of Generation Interconnection Requests shall be included on the Transmission Provider's website as part of the New Services Queue.

### **36.1.02 Generation Interconnection Requests of 20 Megawatts or Less:**

The Transmission Provider has developed streamlined processes for Generation Interconnection Requests involving new generation resources of 20 MW or less and increases in the capacity of a generating unit by 20 MW or less over any consecutive 24-month period. The processes for Generation Interconnection Requests involving increases in capacity by 20 MW or less are set forth in Tariff, Part IV, Subpart G and the PJM Manuals.

### **36.1.03 Transmission Interconnection Request:**

An Interconnection Customer that seeks to interconnect or add Merchant Transmission Facilities to the Transmission System, or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System shall submit to the Transmission Provider a Transmission Interconnection Request. The Transmission Provider shall acknowledge receipt of the Transmission Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Transmission Interconnection Request.

1. Transmission Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part VI, Preamble, section 201, a Transmission Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment S. To be considered complete at the time of submission, the Interconnection Customer's Transmission Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. the location of the proposed Merchant Transmission Facilities and of the substation(s) or other location(s) where the Transmission Interconnection

Customer proposes to interconnect or add its Merchant Transmission Facilities to the Transmission System; and

- b. a description of the proposed Merchant Transmission Facilities; and
- c. the nominal capability or increase in capability (in megawatts) of the proposed Merchant Transmission Facilities; and
- d. the planned date the proposed Merchant Transmission Facilities will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Transmission Interconnection Customer demonstrates that engineering, permitting, and construction of the Merchant Transmission Facilities will take more than seven years; and
- e. if the request relates to proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that will interconnect with the Transmission System and with another control area outside the PJM Region, the Transmission Interconnection Customer's election to receive either; and
  - i. Transmission Injection Rights and/or Transmission Withdrawal Rights, or
  - ii. Incremental Deliverability Rights, Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Available Transfer Capability Revenue Rights, associated with the capability of the proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities;
- f. if the Transmission Interconnection Customer will be eligible to receive Incremental Deliverability Rights under Tariff, Part VI, Subpart C, section 235, identification of the point on the Transmission System where the Transmission Interconnection Customer wishes to receive Incremental Deliverability Rights created by the construction or installation of its proposed Merchant Transmission Facilities; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- h. Deposit.
  - i. A deposit shall be submitted to the Transmission Provider as follows:
    - (1) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the first four calendar months of the current New Services Queue



shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Transmission Interconnection Request is received in the first four calendar months of the current New Services Queue; or

- (2) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Transmission Interconnection Request is received within the fifth calendar month of the current New Services Queue; or
- (3) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000, a deposit of \$30,000 plus \$200 for each MW requested, if the Transmission Interconnection Request is received within the sixth calendar month of the current New Services Queue.

ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Transmission Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Transmission Interconnection Customer withdraws its Transmission Interconnection Request, or the Transmission Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:

- (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
- (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Transmission Interconnection Request; and/or
- (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or

Generation Interconnection Requests by the  
Interconnection Customer.

- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
- (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Transmission Interconnection Request (to determine whether the Transmission Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Transmission Interconnection Feasibility Study; and
  - (4) If the Transmission Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to cover all of the costs incurred by the Transmission Provider up to the point of such Transmission Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:
    - (a) The costs of any restudies required as a result of the modification, rejection termination and/or withdrawal of such Transmission Interconnection Request; and/or
    - (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
    - (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service

Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.

- (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Interconnection Customer in accordance with the PJM Manuals.
- iv. Upon completion of the Transmission Interconnection Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:
  - (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Transmission Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
  - (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.
- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Interconnection Customer.
- vi. The Interconnection Customer must submit the total required deposit amount with the Transmission Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Transmission Interconnection Request, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Transmission Interconnection Request shall be terminated prior to reaching the deficiency review stage).
- vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or

in part to a different New Service Request or Interconnection Request or Queue Position.

2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Transmission Interconnection Request to determine whether the Interconnection Customer submitted a valid Transmission Interconnection Request.
  - a. If a Transmission Interconnection Request meets all requirements set forth above, the Transmission Provider shall start the deficiency review.
  - b. Pursuant to Tariff, Attachment S, section 9, Cost Responsibility, of the Transmission Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.
    - i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
      - (1) Withdraw the Interconnection Request during the deficiency response period (as described below); or
      - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
      - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
    - ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider

sending the Interconnection Customer notification of such estimated additional study costs, then the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- c. If there are deficiencies in the Transmission Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Transmission Interconnection Request that such Transmission Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt of the Transmission Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.
  - i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
  - ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
    - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Transmission Interconnection Request.
    - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
  - iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review the Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency

notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Transmission Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

3. The Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement (Tariff, Attachment S) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Transmission Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
4. The Transmission Provider shall assign Queue Positions pursuant to Tariff, Part VI, Preamble, section 201 on the date and time of receipt of all the required information set forth in this section 36.1.03.
5. Deficiencies shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
6. Adjacent Control Area Stipulation. If applicable, within 30 calendar days of submitting its Transmission Interconnection Request, the Interconnection Customer shall provide evidence acceptable to the Transmission Provider that Interconnection Customer has submitted a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Transmission Interconnection Customer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request

process for the relevant PJM Transmission Interconnection Request. If Interconnection Customer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

7. Transmission Provider Website Postings.
  - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Transmission Interconnection Requests that identifies:
    - i. in megawatts the potential nominal capability or increase in capability;
    - ii. the location of the Merchant Transmission Facilities by county and state;
    - iii. the station or transmission line or lines where the interconnection will be made;
    - iv. the facility's projected date of Initial Operation;
    - v. the status of the Transmission Interconnection Request, including its Queue Position;
    - vi. the availability of any studies related to the Interconnection Request;
    - vii. the date of the Transmission Interconnection Request;
    - viii. the type of Merchant Transmission Facilities to be constructed; and
    - ix. for each Transmission Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
  - b. This list will not disclose the identity of the Transmission Interconnection Customer, except as otherwise provided in Tariff, Part IV or Tariff, Part VI. The list and the priority of Transmission Interconnection Requests shall be included on the Transmission Provider's website as a part of the New Services Queue.

### **36.1.03A Transmission Interconnection Customers Requesting Merchant Network Upgrades**

Notwithstanding Tariff, Part IV, Subpart A, section 36.1.03, an Interconnection Customer that proposes Merchant Network Upgrades (including advancing pursuant to Tariff, Part VI, Subpart

B, section 220 or accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Tariff, Schedule 19) shall submit an Upgrade Request, with the required information and the required deposit for a System Impact Study, as set forth in Tariff, Attachment EE.

### **36.1.1 Interconnection Services for Generation:**

Generation Interconnection Customers may request either of two forms of Interconnection Service, i.e., interconnection as a Capacity Resource or as an Energy Resource. Energy Resource status allows the generator to participate in the PJM Interchange Energy Market pursuant to the PJM Operating Agreement. Capacity Resource status allows the generator to participate in the PJM Interchange Energy Market to be utilized by load-serving entities in the PJM Region to meet capacity obligations imposed under the Reliability Assurance Agreement and/or to be designated as a Network Resource under Tariff, Part III. Capacity Resources also may participate in Reliability Pricing Model Auctions and in Ancillary Services markets pursuant to the Tariff or the Operating Agreement. Capacity Resource status is based on providing sufficient transmission capability to ensure deliverability of generator output to the aggregate PJM Network Load and to satisfy the contingency criteria in the Applicable Standards. Specific tests performed during the Generation Interconnection Feasibility Study and later System Impact Study will identify those upgrades required to satisfy the contingency criteria applicable at the generator's location.

Consistent with Operating Agreement, Schedule 1, section 1.7.4(i), to the extent its Generating Facility is dispatchable, an Interconnection Customer shall submit an Economic Minimum in the real-time market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights.

#### **36.1.1A Service Below Generating Capability**

The Transmission Provider shall consider requests for Interconnection Service below the full electrical generating capability of the Generating Facility. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of determining Interconnection Facilities, Network Upgrades, and associated costs, but may be subject to other studies at the full electrical generating capability of the Generating Facility to ensure the safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (i) specify which additional Network Upgrade costs are based on which studies; and (ii) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrades costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of these technologies as set forth in the Interconnection Service Agreement. The necessary control technologies and protection systems shall be established in Tariff, Attachment O, Schedule K (Requirements for Interconnection



Service Below Full Electrical Generating Capability) of the executed, or requested to be filed unexecuted Interconnection Service Agreement.

### **36.1.1B Surplus Interconnection Service Request**

Requests for Surplus Interconnection Service may be made by the existing Interconnection Customer whose Generating Facility is already interconnected, or one of its affiliates, or by an unaffiliated Interconnection Customer. The existing Interconnection Customer or one of its affiliates has priority to use this service; however, if they do not exercise this priority, Surplus Interconnection Requests also may be made available to an unaffiliated Surplus Interconnection Customer. Surplus Interconnection Service is limited to utilizing or transferring an existing Generating Facility's Surplus Interconnection Service at the pre-existing Point of Interconnection of the existing Generating Facility and cannot exceed the existing Generating Facility's total amount of Interconnection Service, i.e., the total amount of Interconnection Service used by the Generating Facility requesting Surplus Interconnection Service and the existing Generating Facility shall not exceed the lesser of the Maximum Facility Output stated in the existing Generating Facility's Interconnection Service Agreement or the total "as-built capability" of the existing Generating Facility. If the Generating Facility requests Surplus Interconnection Service associated with an existing Generating Facility that is an Energy Resource, the Generating Facility requesting the Surplus Interconnection Service shall be an Energy Resource; and if the existing Generating Facility is a Capacity Resource, the Generating Facility requesting Surplus Interconnection Service associated with the Generating Facility may be an Energy Resource or a Capacity Resource (but only up to the amount of Capacity Interconnection Rights granted the existing Generating Facility). Surplus Interconnection Service cannot be granted if doing so would require new Network Upgrades or would have additional impacts affecting the determination of what Network Upgrades would be necessary to New Service Customers already in the New Services Queue or that have a material impact on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response.

1. Surplus Interconnection Request Requirements. A Surplus Interconnection Customer seeking Surplus Interconnection Service must submit a complete and fully executed Surplus Interconnection Study Agreement, which form is located at Tariff, Attachment RR. To be considered complete at the time of submission, the Surplus Interconnection Customer's Surplus Interconnection Study Agreement must include, at a minimum, each of the following:
  - a. Specification of the location of the proposed surplus generating unit site or existing surplus generating unit (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. Evidence of an ownership interest in, or right to acquire or control the surplus generating unit site for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider; and

- c. The MW size of the proposed surplus generating unit or the amount of increase in MW capability of an existing surplus generating unit; and Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- d. Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- e. A description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the surplus generating unit is wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and
- f. The planned date the proposed surplus generating unit or increase in MW capability of an existing surplus generating unit will be in service; and
- g. Any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- h. A description of the circumstances under which Surplus Interconnection Service will be available at the existing Generating Facility's Point of Interconnection; and
- i. A deposit in the amount of \$10,000 plus \$100 for each MW requested provided that the maximum total deposit amount for a Surplus Interconnection Request shall not exceed \$110,000. If any deposit monies remain after the Surplus Interconnection Study is complete and any outstanding monies owed by the Surplus Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Surplus Interconnection Requests by the Surplus Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Surplus Interconnection Customer; and
- j. Identification of the specific, existing Generating Facility already interconnected to the PJM Transmission System providing Surplus Interconnection Service, including whether the Surplus Interconnection Customer requesting Surplus Interconnection Service is the owner or affiliate of the existing Generating Facility; and
- k. If the Surplus Interconnection Customer is an unaffiliated third party, the Surplus Interconnection Customer must submit with its Surplus Interconnection Study Agreement the following information and documentation acceptable to the Transmission Provider:

- i. Written evidence from the owner of the existing Generating Facility granting Surplus Interconnection Customer permission to utilize the existing Generating Facility's unused portion of Interconnection Service established in the existing Generating Facility's Interconnection Service Agreement; and
  - ii. Written documentation stating that the owner of the surplus generating unit and the owner of the existing Generating Facility will have entered into, prior to the owner of the existing Generating Facility executing a revised Interconnection Service Agreement, a shared facilities agreement between the owner of the existing Generating Facility and the owner of the surplus generating unit detailing their respective roles and responsibilities relative to the Surplus Interconnection Service.
- 1. If an Energy Storage Resource, Surplus Interconnection Customer must submit primary frequency response operating range for the surplus generating unit.
- 2. **Deficiency Review.** Following the receipt of the Surplus Interconnection Study Agreement and requisite information and/or monies listed in section 36.1.1B.1.a – l above, Transmission Provider shall determine whether the listed requirements were submitted as valid or deficient. If deemed deficient by Transmission Provider, Surplus Interconnection Customer must submit the requisite information and/or monies acceptable to the Transmission Provider within ten Business Days of receipt of the Transmission Provider's notice of deficiency. Failure of the Interconnection Customer to timely provide information and/or monies identified in the deficiency notice shall result in the Surplus Interconnection Request being terminated and withdrawn. The Surplus Interconnection Service Request shall be considered valid as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information and/or monies deemed acceptable by the Transmission Provider to clear such deficiency notice.

**36.1.2 No Applicability to Transmission Service:**

Nothing in this Tariff, Part IV shall constitute a request for transmission service, or confer upon an Interconnection Customer any right to receive transmission service, under Tariff, Part II or Tariff, Part III.

**36.1.3 [Reserved]**

**36.1.4 [Reserved]**

**36.1.5 Scoping Meeting:**

After a valid Interconnection Request has been established, the Transmission Provider shall provide each Interconnection Customer with an opportunity for a scoping meeting among the Transmission Provider, the prospective Interconnected Transmission Owner and the Interconnection Customer. The purpose of the scoping meeting will be to identify one alternative Point(s) of Interconnection and configurations to evaluate in the Interconnection Studies and to attempt to select the best alternatives in a reasonable fashion given resources and information available. The Interconnection Customer may select a maximum of two Point(s) of Interconnection to be studied during the Interconnection Feasibility Study, a primary and secondary Point of Interconnection may be selected by the Interconnection Customer. After establishing a valid Interconnection Request, Transmission Provider shall offer to arrange, within seven Business Days of establishing such valid Interconnection Request, for the scoping meeting, and shall provide a minimum of three suggested meeting dates and times for the scoping meeting. The scoping meeting shall be held, or waived by mutual agreement of the parties within 45 days after establishment of a valid Interconnection Request if the valid Interconnection Request is established in the first four calendar months of the current New Services Queue; or within 30 days if the valid Interconnection Request is established within the fifth calendar month of the current New Services Queue; or in 20 days if the valid Interconnection Request is established in the sixth calendar month of the date of the beginning of the current New Services Queue. The Interconnection Customer may choose to divide the scoping meeting into two sessions, one between the Transmission Provider and Interconnection Customer and one among Transmission Provider, the Interconnection Customer and the prospective Interconnected Transmission Owner. Such meetings may be held consecutively on the same day. Scoping meetings may be held in person or by telephone or video conference. In the event the Interconnection Customer fails to waive or complete the scoping meeting requirement, its Interconnection Request shall be deemed to be terminated and withdrawn.

#### **36.1.6 Coordination with Affected Systems:**

The Transmission Provider will coordinate with Affected System Operators the conduct of any required studies in accordance with Tariff, Part VI, Subpart A, section 202.

#### **36.1.7 Base Case Data:**

Transmission Provider shall maintain base case power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on a password-protected website, subject to the confidentiality provisions of Tariff, Part VI, Subpart B, section 223. In addition, Transmission Provider shall maintain base case power flows and underlying assumptions on a password-protected website. Such base case power flows and underlying assumptions should reasonably represent those used during the most recent interconnection study. Transmission Provider may require Interconnection Customers and password-protected website users to sign any required confidentiality agreement(s) before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects, that are included in the then-current, approved Regional Transmission Expansion Plan.

### **212.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Interconnection Construction Service Agreement(s), for the construction of facilities and upgrades, determined in a manner consistent with Tariff, Schedule 19.

#### **212.4 Retaining Priority and Security:**

(a) **Retaining Priority:** To retain the assigned Queue Position of its Interconnection Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have executed the tendered Interconnection Service Agreement and it must be in the possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or (ii) that the Interconnection Service Agreement be filed unexecuted with the Commission. In addition, to retain the assigned priority, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have met the milestones specified in Tariff, Part VI, Subpart B, section 212.5.

(b) **Security:** (1) At the time the Interconnection Customer executes and returns to the Transmission Provider the Interconnection Service Agreement (or requests dispute resolution or that it be filed unexecuted), the Interconnection Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Non-Direct Connection Local Upgrades and Non-Direct Connection Network Upgrades, (ii) any Network Upgrades that the Interconnected Transmission Owner will be responsible for constructing (including with respect to both items (i) and (ii) required upgrades for which another Interconnection Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), and either (iii) the estimated cost of the work that the Transmission Owner will be responsible for performing on the required Attachment Facilities, Direct Connection Local Upgrades, and Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, or (iv) in the event that the Interconnection Customer exercises the Option to Build pursuant to Interconnection Construction Service Agreement, Tariff, Attachment P, Appendix 2, section 3.2.3.1 , all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs (i.e., costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Interconnection Customer is complying with the Transmission Owner's standards and specifications for the construction of facilities) associated with Interconnection Customer building Transmission Owner Attachment Facilities and Direct Connection Network Upgrades, including but not limited to Costs for tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. . Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment P, Appendix 2, section 3.2.3.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction. The Transmission Provider shall provide the affected Transmission Owner(s) with

a copy of the letter of credit or other form of security. After execution of the Interconnection Service Agreement, the amount of security required may be adjusted from time to time in accordance with the Interconnection Service Agreement, Tariff, Attachment O, Appendix 2, section 11.2.1

(2) Transmission Provider shall invoice Interconnection Customer for work by the Interconnected Transmission Owner and Transmission Provider on a quarterly basis for the costs to be expended in the subsequent three months. Interconnection Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. Interconnection Customer may request in the Interconnection Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment O, Appendix 2, section 11.2.3, Interconnection Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Transmission Provider shall hold the security related to construction until as-built drawings are received and settlement of the final invoice; security related to construction may be reduced as construction progresses.

(c) **Deferred Security:** Interconnection Customer may request to defer providing security under subsection (b) of this section 212.4 until no later than 120 days after Interconnection Customer executes the Interconnection Service Agreement. Upon Interconnection Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which Interconnection Customer has cost responsibility under the Interconnection Service Agreement. Interconnection Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided Interconnection Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the Interconnection Customer terminates the Interconnection Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to an Interconnection Customer upon Initial Operation.

(d) **Withdrawal:** If an Interconnection Customer fails to timely execute the Interconnection Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), meet the milestones (unless extended) set forth in Tariff, Part VI, Subpart B, section 212.5, or provide the security prescribed in this section 212.4, its Interconnection Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn Interconnection Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with Tariff, Part VI, Subpart C, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the

Facilities Study, shall re-determine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned priority pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement with each remaining Interconnection Customer setting forth its revised cost obligation. In such event, if the amount of an Interconnection Customer's cost responsibility increases, the Interconnection Customer shall provide additional security pursuant to this section 212.4.



## **212.6 Interconnection Construction Service Agreement and Commencement of Construction:**

For all interconnections within the scope of this section 212 for which construction of facilities is required, Transmission Provider shall tender to the Interconnection Customer an Interconnection Construction Service Agreement relating to such facilities within 45 days after receipt of the executed Interconnection Service Agreement. In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Interconnection Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. The Transmission Provider shall provide the Transmission Owner(s) with a copy of the Interconnection Construction Service Agreement when this agreement is provided to the Interconnection Customer for execution. Within ninety (90) calendar days of receipt thereof, unless otherwise specified in the project specific milestones of the Interconnection Service Agreement, Interconnection Customer either shall have executed the tendered Interconnection Construction Service Agreement and it must be in possession of the Transmission Provider, or, alternatively, shall request dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or that the Interconnection Construction Service Agreement be filed unexecuted with the Commission. In the event that the Interconnection Customer has requested dispute resolution or that the Interconnection Service Agreement be filed unexecuted, construction of facilities and upgrades shall be deferred until any disputes are resolved, unless otherwise agreed by the Interconnection Customer, the Interconnected Transmission Owner and the Transmission Provider.

### **213.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Tariff, Schedule 19.

#### **213.4 Retaining Priority and Security:**

(a) **Retaining Priority:** To retain the assigned Queue Position of its New Service Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study), the New Service Customer either shall have executed the tendered Upgrade Construction Service Agreement and it must be in possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or (ii) that the Upgrade Construction Service Agreement be filed unexecuted with the Commission.

(b) **Security:** (1) At the time the New Service Customer executes and returns to the Transmission Provider the Upgrade Construction Service Agreement (or requests dispute resolution or that it be filed unexecuted), the New Service Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Direct Assignment Facilities, Non-Direct Connection Local Upgrades and/or Non-Direct Connection Network Upgrades (including required upgrades for which another New Service Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), (ii) the estimated cost of work that the New Service Customer will be responsible for performing on the required Direct Assignment Facilities, Direct Connection Local Upgrades, and/or Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, and (iii) in the event that the New Service Customer exercised the Option to Build pursuant to Upgrade Construction Service Agreement, Tariff, Attachment GG, Appendix III, section 6.2.1 , all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs associated with the New Service Customer's building Direct Assignment Facilities and/or Direct Connection Network Upgrades, including but not limited to Costs for inspections, testing, and tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment GG, Appendix III, section 6.2.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction.

The Transmission Provider shall provide the affected Transmission Owner(s) with a copy of the letter of credit or other form of security. After execution of the Upgrade Construction Service Agreement, the amount of Security required may be adjusted from time to time in accordance with Tariff, Attachment GG, Appendix III, section 9.1 of the Upgrade Construction Service Agreement.

(2) Transmission Provider shall invoice New Service Customer for work by the Transmission Owner on a quarterly basis for the costs to be expended in the subsequent three months.

Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. New Service Customer may request in the Upgrade Construction Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment GG, Appendix III, section 9.3 of the Upgrade Construction Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Security related to construction of Local Upgrades and/or Network Upgrades may be reduced as construction progresses.

(c) **Deferred Security:** New Service Customer may request to defer providing security under subsection (b) of this section 213.4 until no later than 120 days after New Service Customer executes the Upgrade Construction Service Agreement. Upon New Service Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which New Service Customer has cost responsibility under the Upgrade Construction Service Agreement. New Service Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided New Service Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the New Service Customer terminates the Upgrade Construction Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to a New Service Customer upon Stage Two Energization of Completed Facilities.

(d) **Withdrawal:** If a New Service Customer fails to timely execute the Upgrade Construction Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), or to provide the security prescribed in this Section, its New Service Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn New Service Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with the Upgrade Construction Service Agreement, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the Facilities Study, shall redetermine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned Queue Position pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, with each remaining New Service Customer setting forth its revised cost obligation. In such event, if the amount of a New Service Customer's cost responsibility increases, the New Service Customer shall provide additional security pursuant to this section.

## **216 Interconnection Requests Designated as Market Solutions:**

The provisions of this section shall apply to any Interconnection Request related to a project that Transmission Provider determines, in accordance with Tariff, Schedule 19, section 1.5.7(h) could relieve a transmission constraint and which, in the judgment of the Transmission Provider, is economically justified (hereafter, a “market solution”).

#### **217.4 Additional Upgrades:**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request. The New Service Customer shall have the right of first refusal to pay for any or all of the upgrades in addition to the minimum, and to hold all rights associated with the additional upgrades for which it agrees to pay, in accordance with Tariff, Part VI, Subpart C. The remaining costs shall be borne by the Transmission Owners in accordance with Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners. If, based upon the date of the submission of a subsequent New Service Request, the Transmission Provider determines that a New Service Customer will make use of additional economic capacity that exists or will exist as a result of facilities and upgrades constructed as a result of an earlier New Service Request, then the Transmission Provider may require the subsequent New Service Customer to pay an appropriate portion of the cost of the facilities and upgrades that produced the additional economic capacity.

### **217.5 Specification of Costs in Agreement:**

The cost responsibility of a New Service Customer shall be specified, (a) in the case of an Interconnection Customer that proposes facilities other than Merchant Network Upgrades, in the Interconnection Service Agreement, and (b) in the case of all other New Service Customers, in the Upgrade Construction Service Agreement. If a New Service Customer does not agree with the Transmission Provider's determination of such cost responsibility, it may request that the matter be submitted to Dispute Resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or request that an unexecuted Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, be filed with the Commission in accordance with the Tariff.

### **221.1 Construction Obligation:**

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VI, Subpart B, section 218.2, shall be made in the same manner as such responsibilities are determined under Tariff, Schedule 19. Except to the extent otherwise provided in a Construction Service Agreement entered into pursuant to this Tariff, Part VI, the Transmission Owners shall own all Attachment Facilities, Direct Assignment Facilities, Local Upgrades, and Network Upgrades constructed to accommodate New Service Requests.



## **221.2 Alternative Facilities and Upgrades:**

Upon completion of the studies of a New Service Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s) or the New Service Customer may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s) or the New Service Customer may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. The affected New Service Customer may participate in any such Dispute Resolution process.

**230.1 Purpose:**

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

## **236.2 Upgrades to Merchant Transmission Facilities:**

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of Tariff, Schedule 19 that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with Tariff, Schedule 19. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

## **237.4 Confirmation by Transmission Provider:**

### **237.4.1**

Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to section 237.6 below. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.

### **237.4.2**

To the extent that an election of the Buyer Customer under section 237.2.2(b) above or section 237.3 above to terminate participation in any Network Upgrade or Local Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VI, Subpart B, section 217, as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VII, Subpart A, section 301(A)(3)(b).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Tariff, Part VII, Subpart D, section 314**  
**Final Agreement Negotiation Phase**

- A. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the end of Phase III, and shall run concurrently with Decision Point III. New Service Requests that enter Decision Point III will also enter the Final Agreement Negotiation Phase. The purpose of the Final Agreement Phase is to negotiate, execute and enter into a final interconnection related service agreement found in Tariff, Part IX, as applicable to a New Service Request or Upgrade Request; adjust the Security obligation based on New Service Requests or Upgrade Request withdrawn during Decision Point III and/or during the Final Agreement Negotiation Phase; and conduct any remaining analyses or updated analyses based on New Service Requests or Upgrade Request withdrawn during Decision Point III. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
1. If a New Service Request or Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the New Service Request or Upgrade Request from the Cycle, and adjust the Security obligations of other New Service Requests based on the withdrawal.
- B. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:
1. Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX, as applicable to the Project Developer's or Eligible Customer's New Service Request, along with any applicable draft schedules, to the parties to such interconnection related agreement prior to the start of the Final Agreement Negotiation Phase.
    - a. Subject to any withdrawn New Service Requests during Decision Point III that require Transmission Provider to update study results, the draft interconnection related agreement shall be prepared using the study results available from Phase III or the most-recently completed studies conducted during the Final Agreement Negotiation Phase.
      - i. If a different New Service Request is withdrawn during Decision Point III after a draft agreement has been tendered to Project Developer or Eligible Customer, and that withdrawn New Service Request impacts the Project Developer's or Eligible Customer tendered draft, Transmission Provider shall use Reasonable Efforts to update and reissue the tendered draft within 15 Business Days.
  2. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business

Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC, or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
  - iv. and provide any required adjustments to Security.



- b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
- 5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart E, section 323**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VII, Subpart E, section 324**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VII, Subpart E, section 324 by submitting an IDR Transfer Agreement in accordance with Tariff, Part VII, Subpart E, section 324(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VII, Subpart E, section 324(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VII, Subpart E, section 324(B) the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;

- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of an Interconnection Service Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VII, Subpart E, section 324(B).

4. Confirmation by Transmission Provider:

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VII, Subpart E, section 324. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VII, Subpart E, sections 324(B)(2)(b) and 324(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VII, Subpart D, section 307(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request

In the event that the Buyer Customer, pursuant to a confirmed election under this section 324(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.

**Tariff, Part VII, Subpart E, section 326**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VII, Subpart G, section 336, shall be made in the same manner as such responsibilities are determined under Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Tariff, Part VII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VII, Subpart E, section 328**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VII, Subpart E, section 328 shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a Generation Capacity Resource fails to meet the operational standards set forth in



Tariff, Part VII, Subpart E, section 328(C)(1) for any consecutive three-year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VII, Subpart E, section 328(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VII, Subpart C, section 306(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection Rights will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 328(C) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VII, Subpart E, section 330**  
**Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this section 330, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VII, Subpart E, section 330(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 330(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a

Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of Tariff, Schedule 19 that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with Tariff, Schedule 19. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VII, Subpart E, section 330, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VII, Subpart E, section 330 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.

**Tariff, Part VII, Subpart G, section 336**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VII, Subpart D, section 310, as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.



- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
  - b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
  - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - i. Affected System Customer is responsible for, and must pay, all actual study costs.
    - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VII.
  - b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission

Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.

- i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with the FERC.
  - d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall elect one of the following:

- i. to execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement in unexecuted form.
    - (a) The unexecuted Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider.
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart H, section 337**  
**Upgrade Requests**

A. Applicability

Tariff, Part VII Subpart H applies to valid Upgrade Requests submitted on or after October 1, 2020 and up to and including September 10, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30

days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- i. Readiness Deposit refunds will be handled as follows:
    - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
    - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
  - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.
  6. Tariff, Part VII, Subpart C (Base Case Data) requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
  7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and

acquires all rights and obligations as identified in the Upgrade Request for such project.

8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.
2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.
  - a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
5. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven years; and
6. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:



1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.
- c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

- (i) **Load Flow Violations**  
Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.
- (ii) **Short Circuit Violations**  
Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.
- (iii) **Stability and Dynamic Criteria Violations**  
Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. **System Impact Study Results**

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
- d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
- e. Upgrade Customer may not elect Option to Build after such date.

4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report,

Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall

conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse

If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall elect one of the following:

(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or

(c) to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate

by Transmission Provider, and provide any required adjustments to Security.

- ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - (a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - (b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. In order to exercise the Option to Build, as set forth in Upgrade Construction Service Agreement, Tariff, Part IX, Subpart E, Appendix III, section 6.2.1, Upgrade Customer must provide Transmission Provider and the Transmission Owner with written notice of its election to exercise the option no later than 30 days from the date the Upgrade Customer receives the results of the Facilities Study (or the System Impact performed, if a Facilities Study was not required).

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected

Transmission Owners) for the Costs, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VII, Subpart H, section 337(H)(1) to the affected Transmission Owner(s).

2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330, except to the extent the applicable terms of Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90

percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.

- c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VIII, Subpart A, section 401(D).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VIII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.



**Tariff, Part VIII, Subpart A, section 400**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Tariff, Part VIII, Subpart D, section 411**  
**Final Agreement Negotiation Phase**

- A. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the end of Phase III, and shall run concurrently with Decision Point III. New Service Requests that enter Decision Point III will also enter the Final Agreement Negotiation Phase. The purpose of the Final Agreement Phase is to negotiate, execute and enter into a final interconnection related service agreement found in Tariff, Part IX, as applicable to a New Service Request; adjust the Security obligation based on New Service Requests withdrawn during Decision Point III and/or during the Final Agreement Negotiation Phase; and conduct any remaining analyses or updated analyses based on New Service Requests withdrawn during Decision Point III. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
1. If a New Service Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the New Service Request from the Cycle, and adjust the Security obligations of other New Service Requests based on the withdrawal.
- B. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:
1. Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX (as applicable to the Project Developer's or Eligible Customer's New Service Request), along with any applicable draft schedules, to the parties to such interconnection related agreement prior to the start of the Final Agreement Negotiation Phase.
    - a. Subject to any withdrawn New Service Requests during Decision Point III that require Transmission Provider to update study results, the draft interconnection related agreement shall be prepared using the study results available from Phase III or the most-recently completed studies conducted during the Final Agreement Negotiation Phase.
      - i. If a different New Service Request is withdrawn during Decision Point III after a draft agreement has been tendered to Project Developer or Eligible Customer, and that withdrawn New Service Request impacts the Project Developer's or Eligible Customer tendered draft, Transmission Provider shall use Reasonable Efforts to update and reissue the tendered draft within 15 Business Days.

2. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or

- iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
  - iv. and provide any required adjustments to Security.
- b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart E, section 421**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VIII, Subpart E, section 422**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VIII, Subpart C, section 404(A)(5) by submitting an IDR Transfer Agreement in accordance with Tariff, Part VIII, Subpart E, section 422(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VIII, Subpart E, section 422(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B), the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VIII, Subpart E, section 422(B), the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;

- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of a Generation Interconnection Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VIII, Subpart E, section 422(B)(4).

4. Confirmation by Transmission Provider

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VIII, Subpart E, section 422(B)(6). Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VIII, Subpart E, section 422(B)(2)(b) or section 422(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VIII, Subpart C, section 404(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request



In the event that the Buyer Customer, pursuant to a confirmed election under this Tariff, Part VIII, Subpart E, section 422(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VIII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.

**Tariff, Part VIII, Subpart E, section 424**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VIII, Subpart G, section 434, shall be made in the same manner as such responsibilities are determined under Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Part VIII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VIII, Subpart E, section 426**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VIII, Subpart E, section 426(C)(2) shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a Generation Capacity Resource fails to meet the operational standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) for any consecutive three-

year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VIII, Subpart B, section 403(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection Rights will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 426(C)(2) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VIII, Subpart E, section 428**  
**Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this Tariff, Part VIII, Subpart E, section 428, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VIII, Subpart E, section 428(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 428(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a



Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of Tariff, Schedule 19 that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with Tariff, Schedule 19. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VIII, Subpart E, section 428, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VIII, Subpart E, section 428 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.

**Tariff, Part VIII, Subpart G, section 434**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VIII, Subpart C, section 407(A)(1)(c), as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
    - b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
    - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
      - i. Affected System Customer is responsible for, and must pay, all actual study costs.
      - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VIII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
  - i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement with the FERC.

- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall either:
  - i. execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement or Network Upgrade Cost Responsibility Agreement unexecuted, with the unexecuted Construction Service Agreement or Network Upgrade Cost Responsibility Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement unexecuted, with the unexecuted Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after

such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart H, section 435**  
**Upgrade Requests**

A. Applicability

Tariff, Part VIII, Subpart H, section 435 applies to valid Upgrade Requests submitted on or after October 1, 2020, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction



Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to

- complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30<sup>th</sup> day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.
    - i. Readiness Deposit refunds will be handled as follows:
      - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
      - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
  - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.

6. Tariff, Part VIII, Subpart E, section 416, Base Case Data, requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.
8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.

2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.

a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
- v. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and

construction of the Merchant Network Upgrade will take more than seven years; and

- vi. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.

c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

#### F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

#### G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade

Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation  
Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60<sup>th</sup> day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse  
If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. If



Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or

(c) request in writing that Transmission Provider file with FERC the final interconnection related service agreement unexecuted, with the final interconnection related service agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the

Consolidated Transmission Owners Agreement, as applicable; or

- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system.

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5) of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VIII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VIII, Subpart H, section 435 to the affected Transmission Owner(s).

##### 2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430, except to the extent the applicable terms of Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VIII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

### **Tariff, Part IX, Section 500, Execution Deadlines**

Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer or Upgrade Customer, and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider's tender for execution of such agreement, Project Developer, Eligible Customer or Upgrade Customer, shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer or Upgrade Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer or Upgrade Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.

With the filing of any unexecuted agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between the parties.

(Project Identifier #\_\_\_\_)

**GENERATION INTERCONNECTION AGREEMENT**  
**By and Between**  
**PJM INTERCONNECTION, L.L.C.**  
**And**

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**And**

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**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_)

- 1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), \_\_\_\_\_ (“Project Developer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA reflects amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]
- 2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a Generation Interconnection Agreement under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.
- 3.0 Generating Facility or Merchant Transmission Facility Specifications. Attached are Specifications for the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect with the Transmission System. Project Developer represents and warrants that, upon completion of construction of such facilities, it will own or control the Generating Facility or Merchant Transmission Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that

Project Developer will not own the Generating Facility or Merchant Transmission Facility, Project Developer represents and warrants that it is authorized by the owner(s) thereof to enter into this GIA and to represent such control.

- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this GIA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is filed with FERC unexecuted, upon the date specified by FERC. This GIA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this GIA. The term of the GIA shall be as provided in section 1.3 of Appendix 2 to this GIA. Interconnection Service shall commence as provided in section 1.2 of Appendix 2 to this GIA.
- 5.0 Security. In accord with the GIP, Project Developer shall provide the Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmissions Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$\_\_\_\_\_. Such Security can also be applied to unpaid Cancellation Costs and for completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades. This amount represents the sum of the estimated Costs, determined in accordance with the GIP for which the Project Developer will be responsible, less any Costs already paid by Project Developer. Project Developer acknowledges that its ultimate cost responsibility will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.
- 6.0 Project Specific Milestones. In addition to the milestones stated in the GIP as applicable, during the term of this GIA, Project Developer shall ensure that it meets each of the following development milestones:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand (sections should be renumbered as appropriate):]

- 6.1 Substantial Site work completed. On or before \_\_\_\_\_, Project Developer must demonstrate completion of at least 20 percent of project site construction. At this time, Project Developer must submit to Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities.
- 6.2 Delivery of major electrical equipment. On or before \_\_\_\_\_, Project Developer must demonstrate that \_\_\_\_ generating units have been delivered to Project Developer’s project site.  
[Instructions: the following provisions can be used be as mutually agreed upon, and as an alternative to the milestones set forth in the GIP (renumber sections as appropriate):]



6.2.1 \_\_\_\_\_ Fuel delivery agreement and water agreement. Project Developer must demonstrate it has entered into a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnection by \_\_\_\_\_.

6.2.2 \_\_\_\_\_ Local, county, and state site permits. Project Developer must obtain all necessary local, county, and state site permits by \_\_\_\_\_.

[Instruction to be used if the Project Developer has not provided evidence of the 100 percent Site Control for the Project Developer's Interconnection Facilities, and any Transmission Owner's Interconnection Facilities or Transmission Owner Upgrades at the Point of Interconnection that the Project Developer will develop prior to entering to a GIA (renumber remaining sections as appropriate):]

6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

6.3 Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of all generating units in order to achieve the full Maximum Facility Output set forth in section 1.0(c) of the Specifications to this GIA. Failure to achieve this Maximum Facility Output may result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes achieving Initial Operation in accordance with section 1.4 of Appendix 2 to this GIA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Instructions: If this GIA is for an incremental increase in output for a facility that already is in commercial operation (i.e., an uprate), then, instead of the above, use the following language for the Commercial Operation milestone.]

[For an uprate where MFO and CIRs will increase, use this alternate language:]

Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase over Project Developer's previous interconnection, as set forth in Specifications, section 1.0(c) of this GIA for increases in Maximum Facility Output and in Specifications, section 2.1 of this GIA for increases in Capacity Interconnection Rights. This incremental increase is a result of the Interconnection Request associated with this GIA. Failure to achieve this Maximum Facility Output shall result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[For CIR-only uprates, use the alternate language that follows. The September 1, \_\_\_\_\_ date for CIR-only uprates is meant to align with Summer Capability Testing for the unit(s). Without this Commercial Operation milestone that is specific to CIR-only uprates, it can be difficult to implement or enforce a Commercial Operation milestone for CIR-only uprates, because the unit is already in Commercial Operation at its specified MFO:]

Commercial Operation. On or before September 1, \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase in Capacity Interconnection Rights over Project Developer's previous interconnection, as set forth in Specifications, section 2.1 of this GIA. Failure to achieve this level of Capacity Interconnection Rights shall result in a permanent reduction of the Capacity Interconnection Rights to the level achieved. This incremental increase in Capacity Interconnection Rights is a result of the Interconnection Request associated with this GIA. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Additional instructions (separate from the Commercial Operation Date provisions): if a specific situation requires a separate Construction Service Agreement by a certain date then use the following:]

Construction Service Agreement. On or before \_\_\_\_\_, Project Developer must have either (a) executed a Construction Service Agreement for Interconnection Facilities or Transmission Owner Upgrades for which Project Developer has cost responsibility; (b) requested dispute resolution under section 12 of the PJM Tariff, or if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or (c) requested

that the Transmission Provider file the Construction Service Agreement unexecuted with FERC.

- 6.4 Within one month following commercial operation of generating unit(s), Project Developer must provide certified documentation demonstrating that “as-built” Generating Facility or the Merchant Transmission Facilities, and Project Developer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Project Developer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

**[Add Additional Project Specific Milestones as appropriate]**

Project Developer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Project Developer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. Project Developer shall also have a one-time option to extend its milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. This option may only be applied one time for an Interconnection Request, and may only be applied to one single milestone specified in this GIA. Other milestone dates stated in this GIA shall be deemed to be extended coextensively with Project Developer’s use of this provision. Once this extension is used, it is no longer available with regard to any other milestones or other deadlines in this GIA. If the Project Developer fails to meet any of the milestones set forth above, including any extended milestones, its Interconnection Request shall be terminated and withdrawn, in accordance with the provisions of Appendix 2, sections 15 and 16. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

- 7.0 Provision of Interconnection Service. Transmission Provider and Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Project Developer’s Generating Facility or Merchant Transmission Facility identified in the Specifications in accordance with the GIP, the Operating Agreement, and this GIA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 System Impact Study(ies) and/or Facilities Study(ies). In analyzing and preparing the [System Impact Study(ies) and/or Facilities Study(ies)], and in designing and constructing the Distribution Upgrades, Network Upgrades, Stand Alone Network

Upgrades and/or Transmission Owner Interconnection Facilities described in the Specifications attached to this GIA, Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY(IES) AND/OR FACILITIES STUDY(IES) OF THE DISTRIBUTION UPGRADES, NETWORK UPGRADES, STAND ALONE NETWORK UPGRADES AND/OR TRANSMISSION OWNER INTERCONNECTION FACILITIES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.0 Construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

10.1. Cost Responsibility. Project Developer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Generating Facility or Merchant Transmission Facility as specified in the GIP. These Costs may include, but are not limited to, a Distribution Upgrades charge, Network Upgrades charge, Stand Alone Network Upgrades charge, Transmission Owner Interconnection Facilities charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in sections 3.0 and 4.0 of the Specifications to this GIA.

10.2. Billing and Payments. Transmission Provider shall bill the Project Developer for the Costs associated with the facilities contemplated by this GIA, estimates of which are set forth in the Specifications to this GIA, and the Project Developer shall pay such Costs, in accordance with section 11 of Appendix 2 to this GIA and the applicable provisions of Schedule L. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the applicable Transmission Owner. Project Developer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

\_\_\_\_\_ No

10.3. Contract Option. In the event that the Project Developer and Transmission Owner agree to utilize the Negotiated Contract Option as set forth in Schedule L, Appendix 1 to establish, subject to FERC acceptance, non-standard terms regarding cost responsibility, payment, billing and/or financing, the terms of sections 10.1 and/or 10.2 of this section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in Schedule L to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement if all Project Developers and the relevant Transmission Owner agree.

\_\_\_\_\_ Yes

\_\_\_\_\_ No

#### 10.4 Interconnection Construction Terms and Conditions

10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any there are Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.

10.4.2 In the event that the Project Developer elects to construct some or all of the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades under the Option to Build, billing and payment for the Costs associated with the facilities contemplated by this GIA shall relate only to such portion of the Interconnection Facilities and Transmission Owner Upgrades as the Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this GIA.

11.2 List and Ownership of Interconnection Facilities and Transmission Owner Upgrades. The Interconnection Facilities and Transmission Owner Upgrades and Transmission Owner Upgrades to be constructed and ownership of the

components thereof are identified in section 3.0 of the Specifications attached to this GIA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this GIA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades are identified in Schedule D to this GIA.

## 12.0 Power Factor Requirement.

Consistent with section 4.6 of Appendix 2 to this GIA, the power factor requirement is as follows:

[For Generation Project Developers]

{The following language should be included for new large and small synchronous generation facilities that will have the Tariff specified power factor. This section does not apply if the Interconnection Request is for an incremental increase in generating capability.}

The Project Developer shall design its Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{Include the following language if the Interconnection Request is for an incremental increase in capacity or energy output to a synchronized generation facility}

The existing \_\_ MW portion of the Generating Facility shall retain its existing ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

The increase of \_\_\_ MW to the Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 1.0 (unity) to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{For new wind or non-synchronous generation facilities which have submitted a New Service Request. after November 1, 2016, the following applies:}

The Generation Project Developer shall design its [wind-powered] [non-synchronous] Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

{For all wind or non-synchronous generation facilities requesting an incremental increase in capacity or energy output which have entered the New Services Queue after November 1, 2016, and were not commercially operable prior to November 1, 2016 include the following requirements:}

The existing [wind-powered] [non-synchronous] \_\_ MW portion of the Customer Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

The increase of \_\_ MW to the [wind-powered] [non-synchronous] Customer Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

[For Transmission Project Developers]

{The following language should be included only for new Merchant Transmission Facilities}

Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.

- 13.0 Charges. In accordance with sections 10 and 11 of Appendix 2 to this GIA, the Project Developer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this GIA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this GIA, except, however, that, subject to modification of the payment terms stated in section 10 of this GIA pursuant to the Negotiated Contract Option, payment obligations imposed on Project Developer under this GIA are agreed and acknowledged to be for the benefit of the Transmission Owner(s). Project Developer expressly agrees that the Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Project Developer for the payment of any Costs or charges authorized under this GIA or the GIP with respect to Interconnection Service for which Project Developer fails, in whole or in part, to pay as provided in this GIA, the GIP and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this GIA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.

- 16.0 Amendment. Except as set forth in Appendix 2, section 12.0 of this GIA, this GIA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 17.0 Construction With Other Parts of The Tariff. This GIA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this GIA shall be made, in accordance with the terms of Appendix 2 to this GIA, to the representatives of the other party and as applicable, to the Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmission Owner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 19.0 Incorporation of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this GIA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this GIA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this GIA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section



24.1 of Appendix 2 to this GIA, Schedule G to this GIA shall set forth the Project Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this GIA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this GIA.
- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 24.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this GIA to be executed by their respective authorized officials.

(Project Identifier # \_\_\_)

Transmission Provider: **PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

## **22 Miscellaneous**

### **22.1 Regulatory Filing:**

In the event that this Generation Interconnection Agreement contains any terms that deviate materially from the form included in the Tariff, Transmission Provider shall file the Generation Interconnection Agreement on behalf of itself and the Transmission Owner with FERC as a service schedule under the Tariff within 30 days after execution. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 17 of this Appendix 2. An Project Developer shall have the right, with respect to any Generation Interconnection Agreement tendered to it, to request (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted Generation Interconnection Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between or among the Interconnection Parties.

### **22.2 Waiver:**

Any waiver at any time by an Interconnection Party of its rights with respect to a Breach or Default under this Generation Interconnection Agreement or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any subsequent Breach or Default or other matter.

### **22.3 Amendments and Rights Under the Federal Power Act:**

This Generation Interconnection Agreement may be amended or supplemented only by a written instrument duly executed by all Interconnection Parties. An amendment to the Generation Interconnection Agreement shall become effective and a part of this Generation Interconnection Agreement upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the foregoing, nothing contained in this Generation Interconnection Agreement shall be construed as affecting in any way any of the rights of any Interconnection Party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Interconnection Party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this Generation Interconnection Agreement and every appendix referred to therein shall be amended, as mutually agreed by the Interconnection Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

### **22.4 Binding Effect:**

This Generation Interconnection Agreement, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the Interconnection Parties.

## **22.5 Regulatory Requirements:**

Each Interconnection Party's performance of any obligation under this Generation Interconnection Agreement for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Interconnection Party, or the Interconnection Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Interconnection Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

**APPENDIX 2**  
**STANDARD TERMS AND CONDITIONS**

## **Preamble**

The cost responsibility of any Common Use Upgrades required to interconnect a Generating Facility or Merchant Transmission Facility with the Transmission System shall be in accordance with the following Standard Construction Terms and Conditions.

### **1 Facilitation by Transmission Provider**

Transmission Provider shall keep itself apprised of the status of the construction-related activities of the parties to this NUCRA and, upon request of any of them, Transmission Provider shall meet with the parties separately or together to assist them in resolving issues between them regarding their respective activities, rights and obligations under this NUCRA. Each party shall cooperate in good faith with the other parties in Transmission Provider's efforts to facilitate resolution of disputes.

### **2 Common Use Upgrade Cost Responsibility**

Responsibility for the Costs of Common Use Upgrades shall be assigned in accordance with the GIP. The cost responsibility of each Project Developer shall be shown in Schedule B.

### **3 Security, Billing and Payments**

#### **3.1 Security:**

Security associated with this NUCRA shall be the Security provided by each Project Developer as set forth in section 7 of this NUCRA above.

#### **3.2 Adjustments to Security:**

The Security provided by each Project Developer at or before execution of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to shall be increased or decreased in accordance with the provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to, and consistent with the Project Developer's cost responsibility set forth in Schedule B of this NUCRA.

#### **3.3 Invoice:**

In addition to the invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, Transmission Provider shall bill the Project Developers in accordance with the cost responsibility set forth in Schedule B of this NUCRA.

### **3.4 Final Invoice:**

In addition to the final invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, the accounting and payments shall be in accordance with the cost responsibility set forth in Schedule B of this NUCRA.

### **3.5 Disputes:**

In the event of a billing dispute between any of the parties to this NUCRA, Transmission Provider shall continue to perform its obligations pursuant to this NUCRA so long as (a) Project Developer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Project Developer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Project Developer fails to meet any of these requirements, then Transmission Provider shall so inform the other parties to this NUCRA and Transmission Provider may provide notice to Project Developer of a Breach pursuant to section 6 of this Appendix 2.

### **3.6 No Waiver:**

Payment of an invoice shall not relieve Project Developer from any other responsibilities or obligations it has under this NUCRA, nor shall such payment constitute a waiver of any claims arising hereunder.

### **3.7 Interest:**

Interest on any unpaid, delinquent amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment.

## **4 Assignment**

### **4.1 Assignment with Prior Consent:**

Except as provided in section 4.2 to this Appendix 2, no party to this NUCRA shall assign its rights or delegate its duties, or any part of such rights or duties, under this NUCRA without the written consent of the other parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. A party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of the Common Use Upgrades which it owns or will own upon completion of construction and the transfer of title required by the applicable GIA or Construction Service Agreement, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this NUCRA.

## **4.2 Assignment Without Prior Consent:**

### **4.2.1 Assignment to Owners:**

Project Developer may assign the NUCRA without the prior consent of any other party to the NUCRA to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Common Use Upgrades, provided that prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical and operational competence to comply with the requirements of this NUCRA and assumes in a writing provided to the Transmission Provider all rights, duties, and obligations of Project Developer arising under this NUCRA. However, any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider, such consent not to be unreasonably withheld, conditioned or delayed. Project Developer shall provide Transmission Provider with notice of any such assignment in accordance with the PJM Manuals.

### **4.2.2 Assignment to Lenders:**

Project Developer may, without the consent of any other party to this NUCRA, assign the NUCRA to any Project Finance Entity(ies), provided that such assignment shall not alter or diminish Project Developer's duties and obligations under this NUCRA. If Project Developer provides the parties to this NUCRA with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2, the Transmission Provider shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Appendix 2 in accordance with this Appendix 2. Transmission Provider shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the NUCRA, provided that such documents do not alter or diminish the rights of the Transmission Provider under this Appendix 2, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider's invoice therefor, Project Developer shall pay the Transmission Provider reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider.

## **4.3 Successors and Assigns:**

This NUCRA and all of its provisions are binding upon, and inure to the benefit of, the parties to this NUCRA and their respective successors and permitted assigns.

## **5 Indemnity**

### **5.1 Indemnity:**

Each Project Developer to this NUCRA shall indemnify and hold harmless the other parties to this NUCRA, and the other parties' officers, shareholders, stakeholders, members, managers,



representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with, or resulting from (i) the indemnifying party's breach of any of the representations or warranties made in, or failure of the indemnifying party or any of its subcontractors to perform any of its obligations under, this NUCRA (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying party or its contractors; provided, however, that no party shall have any indemnification obligations under this section 5.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the party seeking indemnity.

## **5.2 Indemnity Procedures:**

Promptly after receipt by a party entitled to indemnity ("Indemnified Person") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in section 5.1 may apply, the Indemnified Person shall notify the indemnifying party(ies) of such fact. Any failure of or delay in such notification shall not affect the indemnifying party's(ies) indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party(ies). The Indemnified Person shall cooperate with the indemnifying party(ies) with respect to the matter for which indemnification is claimed. The indemnifying party(ies) shall have the right to assume the defense thereof with counsel designated by such indemnifying party(ies) and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying party(ies) and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying party(ies), the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying party(ies) shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying party(ies). Notwithstanding the foregoing, the indemnifying party(ies) (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying party(ies), in such event the indemnifying party(ies) shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

### **5.3 Indemnified Person:**

If an Indemnified Person is entitled to indemnification under this section 5 as a result of a claim by a third party, and the indemnifying party(ies) fails, after notice and reasonable opportunity to proceed under section 5.2 of this Appendix 2, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying party(ies) contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

### **5.4 Amount Owing:**

If an indemnifying party(ies) is obligated to indemnify and hold any Indemnified Person harmless under this section 5, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

### **5.5 Limitation on Damages:**

Except as otherwise provided in this section 5, the liability of a party(ies) under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any party(ies) or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this section 5.5 are without regard to the cause or causes related thereto, including the negligence of any party(ies), whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this section 5.5 shall survive the termination or expiration of this NUCRA.

### **5.6 Limited Liability in Emergency Conditions:**

Except as otherwise provided in the Tariff or the Operating Agreement, no party shall be liable to any other party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or of the Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Project Developer shall be liable in the event that it fails to comply with any instructions of Transmission Provider or the Transmission Owner related to an Emergency Condition.

## **6 Breach, Cure and Default**

### **6.1 Breach:**

A Breach of the NUCRA shall include, but not be limited to:

- (a) The failure to pay any amount when due;

(b) The failure to comply with any material term or condition of this NUCRA including but not limited to any material breach of a representation, warranty or covenant (other than in sections 6.1(a) and (c)-(d) hereof) made in this Appendix 2;

(c) Assignment of the NUCRA in a manner inconsistent with the terms of this Appendix 2; or

(d) Failure of any party to provide information or data required to be provided to another party under this Appendix 2 for such other party to satisfy its obligations under this NUCRA.

## **6.2 Notice of Breach:**

A party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Project Developer, Transmission Provider agrees to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2.

## **6.3 Cure and Default:**

A party that commits a Breach and does not take steps to cure the Breach pursuant to this section 6.3 is automatically in Default of this Appendix 2 and of the NUCRA without further notice from the non-Breaching Parties.

## **6.4 Cure of Breach:**

**6.4.1** Except for the event of Breach set forth in section 6.1(a) above, the Breaching Party (a) may cure the Breach within 30 days of the time the non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within 30 days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such 30 day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the parties to the NUCRA. Such agreement shall not be unreasonably withheld.

**6.4.2** In an event of Breach set forth in section 6.1(a), the Breaching Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Party is a Project Developer, and the Project Developer fails to pay an amount due within five days from the receipt of notice of the Breach, Transmission Provider may use the Security provided by the Project Developer as set forth in section 7.0

of this NUCRA. Upon drawing on such Security, Project Developer shall automatically be deemed in default of this NUCRA.

## **6.5 Right to Compel Performance:**

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting party(ies) shall be entitled to exercise such other rights and remedies as it may have in equity or at law. Subject to section 11 of this Appendix 2, no remedy conferred by any provision of this Appendix 2 is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **7 Termination**

### **7.1 Termination of the NUCRA:**

This NUCRA may be terminated by the following means:

#### **7.1.1 By Mutual Consent:**

This NUCRA may be terminated as of the date on which the parties mutually agree to terminate this NUCRA.

#### **7.1.2 By All Project Developers:**

Subject to payment of Cancellation Costs and of all other unpaid Costs, all Project Developers that are parties to this NUCRA may at the same time unilaterally terminate the NUCRA pursuant to Applicable Laws and Regulations upon providing Transmission Provider sixty days prior written notice thereof. Termination under this section must be performed in parallel with the termination provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party. Project Developers' terminating under this section forfeit Security provided related to the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party.

#### **7.1.3 Notification of Final Payment:**

This NUCRA shall terminate upon the date Transmission Provider receives written notice, in a form acceptable to the Transmission Provider from the Transmission Owner that Transmission Owner has received final payment of all Costs for the Common Use Upgrades shown on Schedule A.

### **7.2 Upon Default by Project Developer:**

#### **7.2.1 Consequences of Default by Project Developer:**

If one or more, but not all, Project Developers that are parties to this NUCRA are in Default, such Project Developers shall remain liable for any portion of their cost responsibility for the Costs of the Common Use Upgrades, and Cancellation Costs, in accordance with Schedule B of this NUCRA. Transmission Provider shall draw on and apply such defaulting Project Developer's Security to any amount under this NUCRA not paid by that Project Developer. Upon drawing on such Security, Project Developer is automatically in default of this NUCRA, and Project Developer's GIA and Construction Service Agreement; and all such agreements shall be deemed terminated and withdrawn, and Project Developer's project shall be removed from the relevant Cycle.

### **7.2.2 Reallocation of Costs upon Default by Project Developer:**

If a defaulting Project Developer cannot pay its amount due after exhausting all available Security, the unpaid costs shall be reallocated to the remaining Project Developers in proportion to the cost responsibility percentages set forth in Schedule B. A remaining Project Developer shall be entitled to exercise such other rights and remedies as it may have in equity or at law against the defaulting Project Developer that caused the reallocation of Costs under this section.

### **7.3 Survival of Rights:**

The obligations of the parties to this NUCRA with respect to payments, Cancellation Costs, warranties, liability and indemnification shall survive termination to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while the NUCRA was in effect. In addition, applicable provisions of this NUCRA will continue in effect after expiration, cancellation or termination to the extent necessary to provide for final billings, payments, and billing adjustments.

## **8 Force Majeure**

### **8.1 Notice:**

A party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify each other party in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

### **8.2 Duration of Force Majeure:**

A party shall not be considered to be in Default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other parties in writing as soon as reasonably possible after the occurrence of the cause relied upon. Those notices shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. Written notices given pursuant to this Article shall be acknowledged in writing as soon as reasonably possible. The party affected shall exercise

Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance. The party affected has a continuing notice obligation to the other parties, and must update the particulars of the original Force Majeure notice and subsequent notices, in writing, as the particulars change. The affected party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such party shall resume performance and give prompt written notice thereof to the other parties.

### **8.3 Obligation to Make Payments:**

Any party's obligation to make payments pursuant to applicable GIA, Construction Service Agreement, this NUCRA, or other relevant NUCRAs to which the Project Developer is a party shall not be suspended by Force Majeure.

### **8.4 Definition of Force Majeure:**

For the purposes of this section, shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or any other cause beyond a party's control that, in any of the foregoing cases, by exercise of due diligence, such party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force majeure does not include (i) a failure of performance that is due to an affected party's own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected party.

## **9 Confidentiality**

The Confidentiality provisions of the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party are incorporated by reference and shall apply to this NUCRA.

## **10 Information Access and Audit Rights**

### **10.1 Information Access:**

Subject to Applicable Laws and Regulations, each party to this NUCRA shall make available to each other party information necessary (i) to verify the costs incurred by the other party for which the requesting party is responsible under this Appendix 2, and (ii) to carry out obligations and responsibilities under this Appendix 2. The parties shall not use such information for

purposes other than those set forth in this section and to enforce their rights under this Appendix 2.

### **10.2 Reporting of Non-Force Majeure Events:**

Each party to this NUCRA shall notify each other party when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than an event of force majeure as defined in section 8 of this Appendix 2. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this section shall not entitle the receiving party to allege a cause of action for anticipatory breach of this Appendix 2.

### **10.3 Audit Rights:**

Subject to the requirements of confidentiality under section 9 of this Appendix 2, each party to this NUCRA shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent party, to audit at its own expense the other party's accounts and records pertaining to such party's performance and/or satisfaction of obligations arising under this NUCRA. Any audit authorized by this section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the other party not later than 24 months after the event as to which the audit is sought. Each party shall preserve all records held by it for the duration of the audit period.

## **11 Disputes**

### **11.1 Submission:**

Any claim or dispute that any party to this NUCRA may have against another party arising out of this Appendix 2 may be submitted for resolution in accordance with the dispute resolution provisions of Tariff, Part I, section 12.

### **11.2 Rights Under The Federal Power Act:**

Nothing in this section shall restrict the rights of any party to file a complaint with FERC under relevant provisions of the Federal Power Act.

### **11.3 Equitable Remedies:**

Nothing in this section shall prevent any party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations.

## **12 Notices**

### **12.1 General:**

Any notice, demand or request required or permitted to be given by any party to this NUCRA to another and any instrument required or permitted to be tendered or delivered by any party, in writing to another shall be provided electronically or may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the party, or personally delivered to the party, at the electronic or other address specified in the NUCRA.

### **12.2 Operational Contacts:**

Each party shall designate, and shall provide to each other party contact information concerning, a representative to be responsible for addressing and resolving operational issues as they arise during the term of the NUCRA.

## **13 Miscellaneous**

### **13.1 Regulatory Filing:**

In the event that this NUCRA contains any terms that deviate materially from the form included in Tariff, Part IX or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed NUCRA on behalf of itself with FERC as a service schedule under the Tariff. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 9 of this Appendix 2. A Project Developer shall have the right, with respect to any NUCRA tendered to it, to request in writing (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted NUCRA, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any parties to this NUCRA.

### **13.2 Waiver:**

Any waiver at any time by any party of its rights with respect to a Breach or Default under this Appendix 2, or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any other Breach or Default or other matter.

### **13.3 Amendments and Rights Under the Federal Power Act:**

This NUCRA may be amended or supplemented only by a written instrument duly executed by all parties to this NUCRA. An amendment to the NUCRA shall become effective and a part of this NUCRA upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the



foregoing, nothing contained in this NUCRA shall be construed as affecting in any way any of the rights of any party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this NUCRA and every appendix referred to therein shall be amended, as mutually agreed by the parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

#### **13.4 Binding Effect:**

This NUCRA, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the parties.

#### **13.5 Regulatory Requirements:**

Each party's performance of any obligation under this NUCRA for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving party, or the party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

### **14 Representations and Warranties**

#### **14.1 General:**

Each party to this NUCRA hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the party during the time the NUCRA is effective:

##### **14.1.1 Good Standing:**

Such party is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated and operates as stated in the NUCRA.

##### **14.1.2 Authority:**

Such party has the right, power and authority to enter into the NUCRA, to become a party hereto and to perform its obligations hereunder. The NUCRA is a legal, valid and binding obligation of such party, enforceable against such party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

### **14.1.3 No Conflict:**

The execution, delivery and performance of the NUCRA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the party, or with any judgment, license, permit, order, material agreement or instrument applicable to or binding upon the party or any of its assets.

### **14.1.4 Consent and Approval:**

Such party has sought or obtained, or, in accordance with the NUCRA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of the NUCRA and it will provide to any Governmental Authority notice of any actions under this Appendix 2 that are required by Applicable Laws and Regulations.

**SCHEDULE 12**  
**Transmission Enhancement Charges**

**(a) Establishment of Transmission Enhancement Charges.**

**(i) Establishment of Transmission Enhancement Charges by Transmission Owners and Entities That Will Become Transmission Owners.** One or more of the Transmission Owners may be designated to construct and own and/or finance Required Transmission Enhancements by (1) the Regional Transmission Expansion Plan periodically developed pursuant to Tariff, Schedule 19 or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (“Appendix B Agreement”) (collectively, for purposes of this Schedule 12 only, “Regional Transmission Expansion Plan”). Tariff, Schedule 19, section 1.7 recognizes that Transmission Owners, subject to obtaining any necessary regulatory approvals, may seek to recover the costs of Required Transmission Enhancements and obligates PJM Settlement to collect on behalf of Transmission Owner(s) any charges established by Transmission Owners to recover the costs of Required Transmission Enhancements. If a Transmission Owner is designated by the Regional Transmission Expansion Plan to construct and own and/or finance a Required Transmission Enhancement, such Transmission Owner may choose any of the following cost recovery mechanisms, subject to the crediting procedures set forth in section (e) below:

- (1) Decline to seek to recover the costs of Required Transmission Enhancements from customers until such time as it makes a filing pursuant to Section 205 of the Federal Power Act to revise its Network Integration Transmission Service rates;
- (2) Make a filing pursuant Section 205 of the Federal Power Act and the FERC’s rules and regulations to establish the revenue requirement with respect to a Required Transmission Enhancement, without filing to revise its rates for Network Integration Transmission Service generally; or
- (3) Establish the revenue requirement with respect to a Required Transmission Enhancement through the operation of a formula rate in effect applicable to its rates for Network Integration Transmission Service.

A charge established to recover the revenue requirement with respect to a Required Transmission Enhancement is hereafter referred to as a “Transmission Enhancement Charge.” Transmission Enhancement Charges of one or more Transmission Owners for Required Transmission Enhancements shall be established in accordance with this Schedule 12.

**(ii) Establishment of Transmission Enhancement Charges With Respect to Required Transmission Enhancements Constructed by Entities in Another Region.** The revenue requirement with respect to a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement in another region by an entity designated by such other region shall be governed by the tariffs or agreements in effect in such region. Transmission Enhancement Charges to recover the costs of such Required Transmission Enhancement for which PJM is

responsible shall be determined in accordance with this Schedule 12. Other than with respect to a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement, no PJM Network or Transmission Customer will bear cost responsibility for any required transmission upgrades in another region as a consequence of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan.

**(iii) Transmission Facilities Not Eligible for Cost Responsibility Assignment.** Any alternating current (“A.C.”) facilities or direct current (“D.C.”) facilities that are Attachment Facilities, Local Upgrades, Merchant Network Upgrades, Merchant Transmission Facilities, Network Upgrades, Supplemental Projects, or any other Transmission Facilities that operate or are planned to be operated in a manner that requires customers to subscribe to transmission service over such facilities or to a portion of the electric capability of such facilities shall not be eligible for cost responsibility assignment pursuant to this Schedule 12.

**(iv) Entities Not Yet Eligible to Become Transmission Owners.** For purposes of this Schedule 12 only, the term, “Transmission Owner,” shall include any entity that undertakes to construct and own and/or finance a Required Transmission Enhancement pursuant to a designation in the Regional Transmission Expansion Plan to construct and own and/or finance such Required Transmission Enhancement, even if such entity is not yet eligible to become a party to the Consolidated Transmission Owners Agreement. Nothing in the PJM Tariff nor the Consolidated Transmission Owners Agreement shall prevent an entity that undertakes to construct and own and/or finance a Required Transmission Enhancement pursuant to a designation in the Regional Transmission Expansion Plan to construct and own and/or finance such Required Transmission Enhancement from recovering the costs of such Required Transmission Enhancement through this Schedule 12.

**(v) Effective Date.** The assignment of cost responsibility or classification of Required Transmission Enhancements either (1) made by the Transmission Provider prior to February 1, 2013, or (2) applicable to Required Transmission Enhancements approved by the PJM Board prior to February 1, 2013 are set forth in Tariff, Schedule 12-Appendix. Except as specifically set forth herein, nothing in this Schedule 12 shall change the assignment of cost responsibility or classification of Required Transmission Enhancements included in Tariff, Schedule 12-Appendix. The assignment of cost responsibility or classification of all other Required Transmission Enhancements shall be set forth in Tariff, Schedule 12-Appendix A.

**(b) Designation of Customers Subject to Transmission Enhancement Charges.**

**(i) Regional Facilities and Necessary Lower Voltage Facilities.** Transmission Provider shall assign cost responsibility on a region-wide basis for Required Transmission Enhancements included in the Regional Transmission Expansion Plan that (1) (a) are A.C. facilities that operate at or above 500 kV; (b) constitute a single Required Transmission Enhancement comprising two A.C. circuits operating at or above 345 kV and below 500 kV, where both circuits originate from a single substation or switching station at one end and terminate at a single substation or switching station at the other end, regardless of whether or not the two circuits are routed in the same right-of-way (“Double-circuit 345 kV Required

Transmission Enhancement”); (c) are A.C. or D.C. shunt reactive resources (such as capacitors, static var compensators, static synchronous condenser (STATCON), synchronous condensers, inductors, other shunt devices, or their equivalent) connected to a Transmission Facility described in clause (a) or (b) of this subsection, or (d) are D.C. facilities meeting the criteria set forth in subsection (b)(i)(D) (collectively, “Regional Facilities”), or (2) new A.C. Transmission Facilities or expansions or enhancements to existing Transmission Facilities that operate below 500 kV (or 345 kV in the case of a Regional Facility described in clause (1)(b) of this subsection) or new D.C. Transmission Facilities that do not meet the criteria of subsection (b)(i)(D) that must be constructed or strengthened to support new Regional Facilities, based on the planning criteria used by the Transmission Provider in developing the applicable Regional Transmission Expansion Plan (“Necessary Lower Voltage Facilities”) as follows:

(A) Cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities shall be allocated among Responsible Customers as defined in this Schedule 12 as follows:

(1) Fifty percent (50%) shall be assigned annually on a load-ratio share basis as follows:

(a) With respect to each Zone, using, consistent with Tariff, Part III, section 34.1, the applicable zonal loads at the time of such Zone’s annual peak load from the 12-month period ending October 31 preceding the calendar year for which the annual cost responsibility allocation is determined; and

(b) With respect to Merchant Transmission Facilities, (1) for the calendar year following the year in which it initiates operation, the actually awarded Firm Transmission Withdrawal Rights associated with its existing Merchant Transmission Facility; and (2) for all subsequent calendar years, the annual peak load of the Merchant Transmission Facility (not to exceed its actual Firm Transmission Withdrawal Rights) from the 12-month period ending October 31 of the calendar year preceding the calendar year for which the annual cost responsibility allocation is determined.

(2) Fifty percent (50%) shall be assigned as follows:

(a) In the case of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan to address one or more reliability violations or to address operational adequacy and performance issues (collectively, “Reliability Project”), in accordance with the distribution factor (“DFAX”) analysis described in subsection (b)(iii) or the analysis applicable to Regional Facilities that address stability issues described in subsection (b)(xviii) of this Schedule 12 as applicable; and

(b) In the case of a Required Transmission Enhancement included in the Regional Transmission Expansion Plan to relieve one or more economic constraints as described in Tariff, Schedule 19, section 1.5.7(b)(iii) (“Economic Project”), in accordance with the methodology described in subsection (b)(v) of this Schedule 12.

(B) (1) Except for transformers that are an integral component of a Regional Facility, transformers connected to Lower Voltage Facilities, as defined in section (b)(ii) of this Schedule 12, shall not be considered Regional Facilities or Necessary Lower Voltage Facilities; and (2) Transmission Facilities that are not Regional Facilities and deliver energy from a Regional Facility to load shall not be considered Necessary Lower Voltage Facilities.

(C) With respect Required Transmission Enhancements that qualify as Regional Facilities under subsection (b)(i)(1)(b) or subsection (b)(i)(D)(2) of this Schedule 12:

(1) where the Required Transmission Enhancement includes both new Transmission Facilities and pre-existing Transmission Facilities, cost responsibility under this section (b)(i) shall apply only to the cost of the new Transmission Facilities plus the original cost less accumulated depreciation of pre-existing Transmission Facilities that are included in Tariff, Schedule 12-Appendix or Tariff, Schedule 12-Appendix A;

(2) cost responsibility shall be assigned under this section (b)(i) only after the Required Transmission Enhancement goes into service as a Double-circuit 345 kV Required Transmission Enhancement or a Double-circuit D.C. Required Transmission Enhancement; and

(3) cost responsibility shall be assigned under this section (b)(i) for any CWIP permitted to be recovered before the Required Transmission Enhancement goes into service only after such Transmission Facilities are approved in a Regional Transmission Expansion Plan as a Double-circuit 345 kV Required Transmission Enhancement or a Double-circuit D.C. Required Transmission Enhancement.

(D) A Required Transmission Enhancement included in the Regional Transmission Expansion Plan that is a D.C. facility, consisting of D.C. lines (i.e., wires or cables) and A.C./D.C. converters, shall be a Regional Facility only if:

(1) such D.C. facility comprises two poles and operates at a voltage of  $\pm 433$  kV D.C. or above; or

(2) such D.C. Facility constitutes a single Required Transmission Enhancement comprising two D.C. circuits where (i) both circuits originate from a single substation or switching station at one end and terminate at a single substation or switching station at the other end, regardless of whether or not both circuits are routed in the same right-of-way, and (ii) each such circuit consists of two poles and operates at a voltage of  $\pm 298$  kV D.C. or above (“Double-circuit D.C. Required Transmission Enhancement”).

**(ii) Lower Voltage Facilities.** Transmission Provider shall assign cost responsibility for Required Transmission Enhancements that (a) are not Regional Facilities; and (b) are not “Necessary Lower Voltage Facilities” as defined in section (b)(i) of this Schedule 12 (collectively “Lower Voltage Facilities”), as follows:

(A) If the Lower Voltage Facility is a Reliability Project, Transmission Provider shall use the DFAX analysis described in subsection (b)(iii) or the analysis applicable to

Regional Facilities that address stability issues described in subsection (b)(xviii) of this Schedule 12 as applicable; and

(B) If the Lower Voltage Facility is an Economic Project, Transmission Provider shall use the methodology described in subsection (b)(v) of this Schedule 12.

**(iii) DFAX Analysis for Reliability Projects.**

(A) For purposes of the assignment of cost responsibility for Reliability Projects under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12, the Transmission Provider, based on a computer model of the electric network and using power flow modeling software, shall calculate distribution factors, represented as decimal values or percentages, which express the portions of a transfer of energy from a defined source to a defined sink that will flow across a particular transmission facility or group of transmission facilities. These distribution factors represent a measure of the use by the load of each Zone or Merchant Transmission Facility (collectively, “Responsible Zone”) of the Required Transmission Enhancement, as determined by a power flow analysis. In general, a distribution factor can be represented as:

Distribution Factor = (After-shift power flow – pre-shift power flow) / Total amount of power shifted

Total amount of power shifted = Modeled incremental megawatt transfer to a given Load Deliverability Area or Merchant Transmission Facility

Pre-shift power flow = Megawatt flow over the Required Transmission Enhancement before the incremental megawatt transfer

After-shift power flow = Megawatt flow over the Required Transmission Enhancement after the incremental megawatt transfer

When calculating such distribution factors:

(1) All distribution factors are calculated with respect to the Required Transmission Enhancement subject to cost allocation under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12.

(2) The calculation of distribution factors shall be determined using linear matrix algebra, such that distribution factors represent the ratio of (i) a change in megawatt flow on a Required Transmission Enhancement to (ii) a change in megawatts transferred to aggregate load within a Zone or, in the case of a Merchant Transmission Facility, the point of withdrawal associated with Firm Transmission Withdrawal Rights over such Merchant Transmission Facility.

(3) With respect to a Merchant Transmission Facility, zonal peak load shall mean (i) the existing Firm Transmission Withdrawal Rights of the Merchant Transmission

Facility being evaluated, if the Merchant Transmission Facility is in service, or (ii) for a Merchant Transmission Facility that is not yet in service, the planned Firm Transmission Withdrawal Rights of the Merchant Transmission Facility being evaluated as identified in the Interconnection Service Agreement in effect for such Merchant Transmission Facility.

(4) In the DFAX analysis, when Transmission Provider models a transfer from generation to all load within an individual Zone, Transmission Provider shall model the transfer to the Zone as a whole (not on a bus-by-bus basis).

(5) In the DFAX analysis, Transmission Provider shall model generation both external and internal to individual Responsible Zones to reflect (a) the boundaries of Locational Deliverability Areas (“LDAs”), and (b) limitations with respect to the reliability objective for moving generation capacity across the transmission system. Transmission Provider shall adopt the Capacity Emergency Transfer Objective (“CETO”), associated with that LDA and calculated for the applicable planning year to be the transfer limitation into the LDA. In modeling the system generation and load, Transmission Provider shall assume that the percentage of the zonal load in the LDA served by external (or internal) generation to the LDA shall equal the ratio of (i) the CETO associated within that LDA (or generation internal with the LDA) to (ii) the sum of (a) the internal generation within the LDA and (b) the CETO associated with that LDA. For the generation dispatch used in calculating the distribution factor, Transmission Provider shall distribute these amounts of external/internal generation among all generation in the PJM Region external to/internal within the LDA, respectively, in proportion to their capacity. For Responsible Zones that are located within LDAs that are also entirely contained in other larger LDAs, the modeling approach and distribution factor calculations shall be repeated for such Responsible Zones for each LDA. The lowest distribution factor derived from these calculations shall be applied to the Responsible Zone in the calculation of the use of the Required Transmission Enhancement.

(6) Except as provided in this subsection, no cost responsibility shall be assigned to a Responsible Zone unless the magnitude of the distribution factor is greater than or equal to 0.01, and any distribution factor of a smaller magnitude shall be set equal to zero. This rule shall not apply to the Zone(s) in which the Required Transmission Enhancement is located, which shall be assigned cost responsibility based on its distribution factor, regardless of the magnitude.

(B) The DFAX analysis will be performed in accordance with the following steps:

(1) Transmission Provider shall calculate a distribution factor and a direction of use for each Responsible Zone by modeling a transfer from all generation in the PJM Region to each Responsible Zone. To establish the use by a Responsible Zone, in megawatts, of a Required Transmission Enhancement, the distribution factor of a Required Transmission Enhancement associated with the resulting transfer modeled by the Transmission Provider to each Responsible Zone shall be multiplied by the Responsible Zone’s peak load.



(2) The Transmission Provider shall separately determine the relative use of the Required Transmission Enhancement by each Responsible Zone in each direction by dividing the megawatts of use by each Responsible Zone determined in section (iii)(B)(1) above by the total use of all Responsible Zones using the Required Transmission Enhancement in the same direction of use.

(3) Transmission Provider shall determine the direction of use percentage of the Required Transmission Enhancement in each direction using a production cost analysis to determine the total use, in megawatt-hours, of the Required Transmission Enhancement by all Zones and Merchant Transmission Facilities in each direction over the course of a year. The Transmission Provider shall calculate the percentage use in each direction by dividing the megawatt-hours of use in each direction by total use in megawatt-hours in both directions of use.

(4) The Transmission Provider shall multiply the relative use by each Responsible Zone of the Required Transmission Enhancement in each direction of use determined in section (iii)(B)(2) above, by the applicable direction of use percentage determined in section (iii)(B)(3) above.

(5) The products of the calculation performed in section (iii)(B)(4) above, shall determine the relative allocation to each Responsible Zone of cost responsibility for the Required Transmission Enhancement.

(C) In the DFAX analysis, the Zones of Public Service Electric and Gas Company and Rockland Electric Company will be treated as one Zone unless and until Rockland Electric Company elects to be treated as a separate Zone in accordance with the terms of the Settlement Agreement And Offer Of Partial Settlement approved by FERC in Docket Nos. ER06-456-000, et al.

(D) Transmission Provider shall round cost responsibility assignments determined using the DFAX analysis described in subsection (b)(iii) of this Schedule 12 to the nearest one-hundredth of one percent.

(E) Transmission Provider shall not account for the ability to adjust use of phase angle regulators (“PARs”) in the DFAX analysis described in subsection (b)(iii) of this Schedule 12. In the DFAX analysis, all PAR angles shall be fixed at their base case settings.

(F) In the DFAX analysis, if the Required Transmission Enhancement is a D.C. facility, the Transmission Provider shall determine cost responsibility assignment as follows:

(1) The Required Transmission Enhancement shall be replaced in the model with a comparable proxy A.C. facility, the impedance of which shall be calculated based on the length of the D.C. facility that was removed from the model multiplied by an approximate per unit/mile impedance value for the proxy A.C. facility.

(2) Where a D.C. facility is an integral part of a Required Transmission Enhancement that also includes A.C. facilities, the methodology described in subsection (b)(iii)(F)(1) above shall be used only for the D.C. facility segment of such Required Transmission Enhancement.

(3) A D.C. facility used to control flow over portions of the Transmission System shall be modeled with a zero impedance and no control shall be applied.

(G) If Transmission Provider determines in its reasonable engineering judgment that, as a result of applying the provisions in section (b)(iii) of this Schedule 12, the DFAX analysis cannot be performed or that the results of such DFAX analysis are objectively unreasonable, the Transmission Provider may use an appropriate substitute proxy for the Required Transmission Enhancement in conducting the DFAX analysis. If a proxy is used that is not specified in this Schedule 12, Transmission Provider shall state in a written report (a) the reasons why it determined the DFAX analysis could not be performed or that the results of the DFAX analysis were objectively unreasonable; (b) why the substitute proxy produced objectively reasonable results; and (3) a recommendation as to what changes, if any, should be considered in conducting the DFAX analysis.

(H) The Transmission Provider shall make a preliminary cost responsibility determination for each Required Transmission Enhancement subject to section (b)(iii) of this Schedule 12 at the time such Required Transmission Enhancement is included in the Regional Transmission Expansion Plan.

(1) When CWIP in connection with a Required Transmission Enhancement subject to this section (b)(iii) of this Schedule 12 is entitled to be recovered, the preliminary determination of cost responsibility made at the time that the Required Transmission Enhancement was included in the Regional Transmission Expansion Plan shall be used to assign cost responsibility for such CWIP and such cost responsibility shall remain unchanged until the date the Required Transmission Enhancement goes into service. Once a Required Transmission Enhancement has gone into service, the updated cost responsibility determination provided for in subsection (b)(iii)(H)(2) below shall apply.

(2) Beginning with the calendar year in which a Required Transmission Enhancement is scheduled to enter service, and thereafter annually at the beginning of each calendar year, the Transmission Provider shall update the preliminary cost responsibility determination for each Required Transmission Enhancement using the values and inputs used in the base case of the most recent Regional Transmission Expansion Plan approved by the PJM Board prior to the date of the update. All values and inputs used in the calculation of the distribution factor in a determination of cost responsibility shall be the same values and inputs as used in the base case of the most recent Regional Transmission Expansion Plan approved by the PJM Board prior to the determination of cost responsibility.

**(iv) Spare Parts, Replacement Equipment And Circuit Breakers.** Transmission Provider shall assign cost responsibility for spare parts, replacement equipment, and circuit

breakers and associated equipment, included in the Regional Transmission Expansion Plan as follows:

(A) Spare parts that are part of the design specifications of a Required Transmission Enhancement at the time such Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in subsection (b)(vi) of this Schedule 12 and cost responsibility for such spare parts shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for spare parts independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a Required Transmission Enhancement as described above in this subsection shall be assigned to the Zone of the owner of the spare part, if the owner of the spare part is a Transmission Owner listed in Tariff, Attachment J. If the owner of the spare part is not a Transmission Owner listed in Tariff, Attachment J, cost responsibility shall be assigned on a pro rata basis to the zones that bear cost responsibility for the owner's Required Transmission Enhancements.

(B) Replacement equipment that is part of the design specifications of a Required Transmission Enhancement at the time the Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in section (b)(vi) of this Schedule 12 and cost responsibility for such replacement equipment shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for Required Transmission Enhancement replacement equipment independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a Required Transmission Enhancement as described above in this subsection, shall be assigned to the same Zones and/or Merchant Transmission Facilities and in the same proportions as the then-existing assignments of cost responsibility for the facilities that the replacement equipment is replacing.

(C) Circuit breakers and associated equipment that are part of the design specifications of a Required Transmission Enhancement at the time the Required Transmission Enhancement is first included in the Regional Transmission Expansion Plan shall be considered part of the Required Transmission Enhancement for the purpose of applying the cost threshold described in subsection (b)(vi) of this Schedule 12 and cost responsibility for such circuit breakers and associated equipment shall be assigned in the same manner as the Required Transmission Enhancement. Cost responsibility for circuit breakers and associated equipment independently included in the Regional Transmission Expansion Plan and not a part of the design specifications of a transmission element of a Required Transmission Enhancement as described above in this subsection, shall be assigned to the Zone of the owner of the circuit breaker and associated equipment if the owner of the circuit breaker is a Transmission Owner listed in Tariff, Attachment J. If the owner of the circuit breaker is not a Transmission Owner listed in Tariff, Attachment J, cost responsibility shall be assigned on a pro rata basis to the zones that bear cost responsibility for the owner's Required Transmission Enhancements.

(v) **Economic Projects.** Transmission Provider shall assign (i) fifty percent (50%) of cost responsibility for Economic Projects that are Regional Facilities; and (ii) full cost responsibility for Economic Projects that are Lower Voltage Facilities; as follows:

(A) Transmission Provider shall assign cost responsibility for Economic Projects that are accelerations of Reliability Projects as described in Tariff, Schedule 19, section 1.5.7(b)(i) (“Acceleration Projects”) by performing and comparing (1) a DFAX analysis consistent with the methodology described in subsection (b)(iii) of this Schedule 12, and (2) a methodology that is intended to act as a proxy for expected economic benefits from reduced Locational Marginal Prices (“LMP Benefit”) over the period that the reliability-based enhancement or expansion is to be accelerated (“LMP Benefits Methodology”). The LMP Benefits Methodology shall determine cost responsibility assignment percentages to Zones and Merchant Transmission Facilities in the following manner. The LMP Benefit to a Zone shall be deemed to be equal to the reduction in Locational Marginal Price payments made by Load Serving Entities as a result of the Acceleration Project assuming the customers purchase all energy needs from the PJM Interchange Energy Market, and LMP Benefits so calculated shall be converted into percentage cost responsibility assignments for the affected Zones. The LMP Benefits Methodology shall not incorporate the financial effects of allocations of Auction Revenue Rights or Financial Transmission Rights. The LMP Benefit to a Merchant Transmission Facility shall be deemed to be equal to the proportionate share of assigned cost responsibility using the DFAX analysis and the assignments of cost responsibility to other Zones in the LMP Benefits Methodology shall be proportionately adjusted, as necessary, to reflect this treatment of Merchant Transmission Facilities to ensure that the total allocation for any economic-based Required Transmission Enhancement equals one hundred percent. If, after performing both analyses and comparing the percentage cost responsibility assignments for the affected Zones calculated pursuant to the DFAX analysis and the LMP Benefits Methodology, the results do not indicate at least a ten percentage point cost responsibility assignment differential between the two methods for any Zone, cost responsibility for the Acceleration Project shall be assigned using the DFAX analysis. If, after performing both analyses and comparing the percentage cost responsibility assignments for the affected Zones calculated pursuant to the DFAX analysis and LMP Benefits Methodology, the results indicate at least a ten percentage point cost responsibility assignment differential between the DFAX analysis and the LMP Benefits Methodology for any Zone, cost responsibility for the Acceleration Project for the period of time the Reliability Project is accelerated (i.e. the period between the date the Reliability Project actually goes into service and the date the Reliability Project originally was scheduled to go in service in the PJM Board approved Regional Transmission Expansion Plan) shall be assigned using the LMP Benefits Methodology. For all periods other than the period of time the Reliability Project is accelerated, cost responsibility for such an Acceleration Project shall be assigned in accordance with the provisions of this Schedule 12 governing the assignment of cost responsibility of Regional Facility Reliability Projects or Lower Voltage Facility Reliability Projects, as applicable.

(B) Transmission Provider shall assign cost responsibility for Economic Projects that are modifications to Reliability Projects as described in Tariff, Schedule 19, section 1.5.7(b)(ii) in accordance with the provisions of this Schedule 12 governing the assignment of

cost responsibility of Regional Facility Reliability Projects or Lower Voltage Facility Reliability Projects, as applicable.

(C) Transmission Provider shall assign cost responsibility for Economic Projects that are new enhancements or expansions that could relieve one or more economic constraints as described in Tariff, Schedule 19, section 1.5.7(b)(iii) to the Zones that show a decrease in the net present value of the Changes in Load Energy Payment. The Change in Load Energy Payment for each year shall be determined using the methodology set forth in Tariff, Schedule 19, section 1.5.7(d) for the period specified in that section. Cost responsibility shall be assigned based on each Zone's pro rata share of the sum of the net present values of the Changes in Load Energy Payment only of the Zones in which the net present value of the Changes in Load Energy Payment shows a decrease.

**(vi) Required Transmission Enhancements Costing Less Than \$5 Million.**

Notwithstanding sections (b)(i), (b)(ii), (b)(iv) and (b)(v) of this Schedule 12, cost responsibility for a Required Transmission Enhancement for which the good faith estimate of the cost of the Required Transmission Enhancement (a) prepared in connection with the development of the Regional Transmission Expansion Plan and (b) provided to the PJM Board at the time the Required Transmission Enhancement is included for the first time in the Regional Transmission Expansion Plan, does not equal or exceed \$5 million shall be assigned to the Zone where the Required Transmission Enhancement is to be located. The determination of whether the estimated cost of a Required Transmission Enhancement does not equal or exceed \$5 million shall be based solely on such good faith estimate of the cost of the Required Transmission Enhancement regardless of the actual costs incurred. The estimated cost of a Required Transmission Enhancement shall include the aggregate estimated costs of all of the transmission elements approved by the PJM Board at the time such elements are included in the Regional Transmission Expansion Plan that collectively are intended (i) in the case of a Reliability Project, to resolve a specific reliability criteria violation, or (ii) in the case of an Economic Project, provide a specific LMP Benefit. Where a Required Transmission Enhancement subject to this section (b)(vi) consists of a single transmission element or multiple transmission elements that will be located in more than one Zone, each Zone shall be assigned cost responsibility for the transmission elements or portions of the transmission elements located in such Zone. Merchant Transmission Facilities shall not be assigned cost responsibility for a Required Transmission Enhancement subject to this section (b)(vi).

**(vii) Modifications of Required Transmission Enhancements.** Once a Required Transmission Enhancement is included in the Regional Transmission Expansion Plan, any modification to such Required Transmission Enhancement that subsequently is included in the Regional Transmission Expansion Plan as a separate Reliability or Economic Project shall be considered a separate and distinct Required Transmission Enhancement for purposes of cost responsibility assignment under this Schedule 12. Except as provided in sections (b)(iv) and (b)(xiv) of this Schedule 12, any cost responsibility assignment that has been made for a previously approved Required Transmission Enhancement shall have no impact on the cost responsibility assignment of such modification.

**(viii) FERC Filing.** Within 30 days of the approval of each Regional Transmission Expansion Plan or an addition to such plan by the PJM Board pursuant to Tariff, Schedule 19, section 1.6, the Transmission Provider shall designate in the Tariff, Schedule 12-Appendix A and in a report filed with the FERC the customers using Point-to-Point Transmission Service and/or Network Integration Transmission Service and Merchant Transmission Facility owners that will be subject to each such Transmission Enhancement Charge (“Responsible Customers”) based on the cost responsibility assignments determined pursuant to this Schedule 12. Those customers designated by the Transmission Provider as Responsible Customers shall have 30 days from the date the filing is made with the FERC to seek review of such designation. Such cost responsibility designations shall be the same as those made for the relevant Regional Facility, Necessary Lower Voltage Facility, or Lower Voltage Facility in the Regional Transmission Expansion Plan.

**(ix) Regions With Which PJM Has Entered Into an Agreement Listed in Schedule 12-Appendix B .** For purposes of this Schedule 12, where costs of a Required Transmission Enhancement are allocated to a region other than PJM pursuant to an agreement set forth in Tariff, Schedule 12-Appendix B, Responsible Customers for such costs shall be customers in such region. Cost responsibility with respect to the costs of a Required Transmission Enhancements allocated to a region other than PJM shall be allocated within such region in accordance with the applicable tariff or agreement governing the allocation of such costs in such region.

**(x) Merchant Transmission Facilities.**

(A) For purposes of this Schedule 12, where the Transmission Provider has allocated all or a portion of a Required Transmission Enhancement to a Merchant Transmission Facility, the owner of the Merchant Transmission Facility shall be the Responsible Customer with respect to such Required Transmission Enhancement, and shall pay the Transmission Enhancement Charges associated with the Required Transmission Enhancement.

(B) (1) Transmission Provider shall defer collection of Transmission Enhancement Charges from a Merchant Transmission Facility until the Merchant Transmission Facility goes into commercial operation; provided, however, in the event the commercial operation of a Merchant Transmission Facility is delayed beyond the commercial operation milestone date(s) specified in the Interconnection Service Agreement associated with the Merchant Transmission Facility and the Transmission Provider or Transmission Owner constructing the Required Transmission Enhancement demonstrates that the Merchant Transmission Facility is responsible for such delay, Transmission Provider may begin collecting Transmission Enhancement Charges from the Merchant Transmission Facility prior to the Merchant Transmission Facility going into commercial operation. Transmission Enhancement Charges allocated to a Merchant Transmission Facility for which collection is deferred in accordance with this section (b)(x)(B)(1) shall be recorded in appropriate Transmission Provider accounts for deferred charges and collected in accordance with section (b)(x)(B)(3) below.

(2) Transmission Provider shall base the collection of Transmission Enhancement Charges associated with Required Transmission Enhancements from a Merchant

Transmission Facility on the actual Firm Transmission Withdrawal Rights that have been awarded to the Merchant Transmission Facility; provided, however, to the extent that a Merchant Transmission Facility has been awarded less than the amount of Firm Transmission Withdrawal Rights specified in the Interconnection Service Agreement associated with the Merchant Transmission Facility, then Transmission Provider shall record the difference between the amount of Transmission Enhancement Charges collected based on the lesser amount of Firm Transmission Withdrawal Rights and the amount of Transmission Enhancement Charges based on the full amount of Firm Transmission Withdrawal Rights specified in the applicable Interconnection Service Agreement in appropriate accounts for deferred charges and, after the Merchant Transmission Facility has been awarded the full amount of Firm Transmission Withdrawal Rights specified in the Interconnection Service Agreement, collect such deferred amounts in accordance with section (b)(x)(B)(3) below. Notwithstanding the foregoing, Transmission Provider may collect Transmission Enhancement Charges based on more than a Merchant Transmission Facility's actually awarded Firm Transmission Withdrawal Rights (not to exceed the Firm Transmission Withdrawal Rights specified in the applicable Interconnection Service Agreement) if the Transmission Provider or Transmission Owner demonstrates that the Merchant Transmission Facility is responsible for receiving fewer Firm Transmission Withdrawal Rights than are specified in the applicable Interconnection Service Agreement.

(3) Transmission Provider shall record: (i) in an appropriate deferred asset account, the Transmission Enhancement Charges associated with Required Transmission Enhancements for which collection is deferred in accordance with sections (b)(x)(B)(1) and (b)(x)(B)(2) above; and (ii) in an appropriate deferred liability account, the revenues associated with the Transmission Enhancement Charges that, absent the deferred charges, would have been due to Transmission Owners or to Transmission Owners' customers as directed by the applicable Transmission Owner. At such time as collection of such deferred Transmission Enhancement Charges are permitted in accordance with sections (b)(x)(B)(1) and (b)(x)(B)(2) above, the deferred charges (along with appropriate interest) shall be collected from the Merchant Transmission Facility in equal installments over the twelve months following the commencement of the collection of the deferred charges. Such amounts shall be distributed to Transmission Owners or to Transmission Owners' customers as directed by the applicable Transmission Owner, and the Transmission Provider shall make appropriate adjustments to the deferred asset and liability accounts. Transmission Provider shall not be responsible for distributing revenues associated with deferred Transmission Enhancement Charges unless and until such charges are collected in accordance with this section (b)(x)(B), and uncollected deferred Transmission Enhancement Charges shall not be subject to Default Allocation Assessments to the Members pursuant to Operating Agreement, section 15.2.

**(xi) Consolidated Edison Company of New York.** (A) Cost responsibility assignments to Consolidated Edison Company of New York for Required Transmission Enhancements pursuant to this Schedule 12 with respect to the Firm Point-To-Point Service Agreements designated as Original Service Agreement No. 1873 and Original Service Agreement No. 1874 accepted by the Commission in Docket No. ER08-858 ("ConEd Service Agreements") shall be in accordance with the terms and conditions of the settlement approved by the FERC in Docket No. ER08-858-000. (B) All cost responsibility assignments for Required Transmission Enhancements pursuant to this Schedule 12 shall be adjusted at the commencement

and termination of service under the ConEd Service Agreements to take account of the assignments under subsection (xi)(A) of this section.

**(xii) Public Policy Projects.**

(A) Transmission Facilities as defined in Consolidated Transmission Owners Agreement, section 1.27 constructed by a Transmission Owner pursuant to a Public Policy Requirement but not included in a Regional Transmission Expansion Plan as a Required Transmission Enhancement, shall be as considered a Supplemental Project.

(B) If a transmission enhancement or expansion is proposed pursuant to Tariff, Schedule 19, section 1.5.9(a) which is not a Supplemental Project (“State Agreement Public Policy Project”), the Transmission Provider shall submit the assignment of costs to Responsible Customers proposed in connection with such State Agreement Public Policy Project to the Transmission Owners Agreement Administrative Committee for consideration and filing pursuant to Consolidated Transmission Owners Agreement, section 7.3 and Tariff, Part I, section 9.1(a). Nothing in this section (b)(xii) shall prevent the Transmission Provider or the state governmental entities proposing such State Agreement Public Policy Project from filing a proposed assignment of costs to Responsible Customers for such project pursuant to Section 206 of the Federal Power Act.

**(xiii) Replacement of Transmission Facilities.** Unless determined by PJM to be a Required Transmission Enhancement included in a Regional Transmission Expansion Plan, cost responsibility for the replacement of Transmission Facilities, as defined in Consolidated Transmission Owners Agreement, section 1.27, shall be assigned to the Zonal loads and Merchant Transmission Facilities responsible for the costs of the Transmission Facilities being replaced.

**(xiv) Multi-Driver Projects.**

(A) Assignment of Proportional Multi-Driver Project Costs. The Transmission Provider shall assign cost responsibility for Proportional Multi-Driver Projects in proportion to the relative percentage benefit that each driver of a Proportional Multi-Driver Project addresses, respectively, reliability violations or operational performance (“reliability”), economic constraints (“economic”) and/or Public Policy Requirements (“public policy”) as follows:

(1) As part of the open planning process provided for in Tariff, Schedule 19, section 1.5.10(h), the Transmission Provider employs the Proportional Method to develop a Proportional Multi-Driver Project, by determining which of the following drivers a Proportional Multi-Driver Project addresses: reliability, economic, or public policy, and the extent to which each such driver contributes to the size, scope, and estimated costs of such Proportional Multi-Driver Project (irrespective of the reliability cost allocation treatment that is otherwise accorded an incremental market efficiency modification thereto pursuant to section (b)(v)(B) of this Schedule 12). The Transmission Provider shall identify the contribution of each driver in terms of a



percentage totaling 100 percent for all such drivers at the time that each Proportional Multi-Driver Project is submitted to the PJM Board for approval and included in the Regional Transmission Expansion Plan. The percentage contribution of each driver shall be based on the ratio of the estimated cost of each project that the Multi-Driver Project replaces to the total of the estimated costs of all projects combined into the Multi-Driver Project.

(2) Once a Proportional Multi-Driver Project is approved by the PJM Board, the percentage contributions of each driver shall not be changed unless the PJM Board subsequently approves an upgrade or modification to the Proportional Multi-Driver Project. In that event, the cost responsibility for the Proportional Multi-Driver Project, including any costs incurred prior to the upgrade or modification, will be determined as if it were a new Proportional Multi-Driver Project, such that the percentage contribution for each driver shall be established anew.

(B) Assignment of Incremental Multi-Driver Project Costs. The Transmission Provider shall assign cost responsibility for Incremental Multi-Driver Projects as defined in Tariff, Schedule 19, section 1.15B using the same methodology described in section (b)(xiv)(A)(1) above treating the estimated cost of modifying the original project as if it were the estimated cost of a separate project included in a Proportional Multi-Driver Project. Any costs that had been expended on the original project prior its designation by Transmission Provider as an Incremental Multi-Driver Project shall be included in the calculation of the Incremental Multi-Driver Project pursuant to this section (b)(xiv)(B).

(C) The Transmission Provider shall separately assign cost responsibility for the costs assigned to each driver pursuant to this section (b)(xiv) in accordance with the provisions of this Schedule 12 governing the assignment of cost responsibility for a single driver project of each driver's respective type (reliability, economic or public policy). Except as provided in section (b)(xiv)(D) below, cost responsibility will be assigned based on the final voltage and configuration of the Multi-Driver Project determined in accordance with sections (b)(i), (b)(ii), or (b)(vi) of this Schedule 12.

(D) Notwithstanding the cost assignments that would otherwise be provided for in section (b)(xiv)(C) above, if a Multi-Driver Project includes a public policy driver that is the result of the State Agreement Approach provided for in Tariff, Schedule 19, section 1.5.9 and is a Regional Facility as defined in section (b)(i) of this Schedule 12 and such Multi-Driver Project would not be a Regional Facility but for the inclusion of the public policy driver, then the percentage of costs of such Multi-Driver Project assigned to the non-public policy drivers in accordance with the procedures set forth in in section (b)(i)(A)(1) above shall be twenty percent (20%) and the percentage of costs assigned to the non-public policy drivers of such Multi-Driver Project in accordance section (b)(i)(A)(2) above shall be eighty percent (80%), and not the fifty percent (50%) cost responsibility percentages provided for in section (b)(i)(A)(i) and section (b)(i)(A)(2), respectively, of this Schedule 12.

**(xv) Reserved.**

**(xvi) Required Transmission Enhancements Designed to Address Reliability Violations on Transmission Facilities Operating Below 200 kV.** Notwithstanding section (b)(ii), above, cost responsibility for any Required Transmission Enhancements that are included in the Regional Transmission Expansion Plan to address reliability violations on Transmission Facilities that are designed to operate at below 200 kV and, pursuant to Tariff, Schedule 19, section 1.5.8(n), were not included in an Tariff, Schedule 19, section 1.5.8(c) proposal window, shall be assigned to the Responsible Customers in the Zone where the Required Transmission Enhancement is to be located.

**(xvii) Required Transmission Enhancements Constructed As Targeted Market Efficiency Projects Under The Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. Coordinated System Plan.** Notwithstanding sections (b)(i), (b)(ii), (b)(iv), (b)(v), (b)(vi) and (b)(x)(B)(2) of this Schedule 12, cost responsibility for the costs of a Required Transmission Enhancement that is included in the Regional Transmission Expansion Plan because it is a Targeted Market Efficiency Project (“TMEP”) identified in the Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (“PJM-MISO JOA”) and assigned to PJM pursuant to PJM-MISO JOA, section 9.4.4.2.5, shall be assigned among Zones and Merchant Transmission Facilities in accordance with this section (b)(xvii). Using the Targeted Market Efficiency Project study conducted pursuant to PJM-MISO JOA, section 9.3.7.2(c) of in which the TMEP was identified, the Transmission Provider shall determine, in accordance with Tariff, Attachment K-Appendix, section 5.1, the average annual Transmission Congestion Charges experienced by Market Buyers in Zones and at Merchant Transmission Facilities attributable to the targeted Reciprocal Coordinated Flowgate during the two historical calendar years prior to the study year of the Targeted Market Efficiency Project study. In making this determination, the Transmission Provider shall net any increases in Day-ahead and Real-time Prices paid by Market Buyers in a Zone or at a Merchant Transmission Facility against any decreases in Day-ahead and Real-time Prices paid by Market Buyers in such Zone or at such Merchant Transmission Facility attributable to the targeted Reciprocal Coordinated Flowgate. Where a single TMEP is constructed to reduce Transmission Congestion Charges attributable to more than one targeted Reciprocal Coordinated Flowgate, the Transmission Provider shall net any increases in Day-ahead and Real-time Prices paid by Market Buyers in a Zone or at a Merchant Transmission Facility against any decreases in Day-ahead and Real-time Prices paid by Market Buyers in such Zone or at such Merchant Transmission Facility attributable to all targeted Reciprocal Coordinated Flowgates. Cost responsibility shall be assigned based on each Zone’s and Merchant Transmission Facility’s pro rata share of the sum of the net Transmission Congestion Charges paid by Market Buyers only of the Zones and Merchant Transmission Facilities in which Market Buyers experienced net Transmission Congestion Charges.

**(xviii) Required Transmission Enhancements Designed to Address Stability Issues.** For purposes of the assignment of cost responsibility for Reliability Projects designed to address stability issues under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12, the Transmission Provider shall, using the same inputs and assumptions from the simulation that originally drove the need for the stability upgrade, perform a stability simulation that includes the stability upgrade under the worst fault condition. The worst fault condition shall be the fault

condition in the simulation that produces the maximum rotor angle swing with the stability upgrade included. For each load bus on the system, the difference between the highest and lowest voltage angle that occurs during the simulation of the worst fault condition will be recorded. Load buses having a voltage angle deviation less than 25 percent of the load bus with the largest voltage angle deviation will not be included in the cost allocation calculation. For the remaining load buses, the voltage angle deviation will be multiplied by the megawatt load at the bus obtained from the stability simulation model, or, in the case of a Merchant Transmission Facility, the Firm Transmission Withdrawal Rights at the bus. The products of the voltage angle deviation and megawatt load at each bus will be summed for each Responsible Zone. The Stability Deviation cost allocation for a Responsible Zone or Merchant Transmission Facility will be determined by dividing the sum of the load-weighted angle deviations for the Responsible Zone or Merchant Transmission Facility by the sum of the load-weighted angle deviations for each Responsible Zone and Merchant Transmission Facility. Transmission Provider shall round cost responsibility assignments to the nearest one-hundredth of one percent.

**(c) Determination of Transmission Enhancement Charges.** In the event that any Transmission Owner recovers the cost of a Required Transmission Enhancement through a Transmission Enhancement Charge, such charge shall be determined as follows:

- (1) Transmission Provider shall identify in writing and post on the PJM Internet site the Required Transmission Enhancement(s) to which each Transmission Enhancement Charge corresponds. The Transmission Enhancement Charge with respect to a Required Transmission Enhancement shall recover the applicable Transmission Owner's annual transmission revenue requirement associated with the Required Transmission Enhancement.
- (2) Each Transmission Enhancement Charge shall be a monthly charge based on all costs and applicable incentives associated with a particular Required Transmission Enhancement for which the Transmission Owner is responsible.
- (3) A Transmission Owner's annual transmission revenue requirement associated with a Required Transmission Enhancement shall be determined pursuant to either (i) a unilateral filing by the Transmission Owner under Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder; or (ii) a formula rate in effect applicable to the Transmission Owner's rates for Network Integration Transmission Service, including the costs associated with Required Transmission Enhancements.
- (4) Each Transmission Enhancement Charge applicable to Network Customers and Non-Zone Network Customers shall be recalculated annually to reflect the annual revisions to the billing determinants used by the Transmission Provider to calculate charges to Network Customers for Network Integration Transmission Service under Tariff, Part III, section 34.1. The Transmission Provider shall post on its Internet site by October 31 of each calendar year each recalculated Transmission Enhancement Charge that shall be effective during the subsequent calendar year.

(5) Each Transmission Enhancement Charge applicable to customers using Point-To-Point Transmission Service shall be calculated monthly to reflect the billing determinants used by the Transmission Provider to determine charges for customers of Point-To-Point Transmission Service in accordance with Tariff, Part II, section 25.

(6) Each Transmission Enhancement Charge payable by an owner of a Merchant Transmission Facility pursuant to section (b) of this Schedule 12 shall be calculated as a fixed monthly charge.

(7) If a Transmission Owner chooses to recover the cost of Required Transmission Enhancements through the operation of a formula rate as described in section (a) of this Schedule 12, the Transmission Owner must make an informational filing with the Commission one year from the date the selecting Transmission Owner's formula rates go into effect, and each year thereafter, providing a detailed list of the costs the Transmission Owner has incurred, and the revenues the Transmission Owner has received to provide service.

**(d) Recovery of Transmission Enhancement Charges.**

(1) Responsible Customers shall pay Transmission Provider all applicable Transmission Enhancement Charges as required by this Schedule 12 in addition to all other charges for transmission service for which such Responsible Customers are responsible under the Tariff.

(2) Transmission Provider shall collect all applicable Transmission Enhancement Charges from each Responsible Customer on a monthly basis. Transmission Provider shall remit or credit all revenues received from Responsible Customers under this Schedule 12 to the Transmission Owner(s) that established such charge or to the appropriate authority in a region other than PJM in the case of Transmission Enhancement Charges established in such region in connection with a Required Transmission Enhancement constructed pursuant to an Appendix B Agreement, to be distributed in accordance with the applicable tariff or agreement governing the distribution of such charges in such region.

**(e) Crediting of Revenue from Transmission Enhancement Charges.** In recognition that a Transmission Owner's charges for Network Integration Transmission Service set forth in Tariff, Attachment H are established based upon the Transmission Owner's total cost of providing FERC-jurisdictional transmission service, including the costs associated with Required Transmission Enhancements, revenue from a Transmission Owner's Transmission Enhancement Charges for a billing month shall be credited pursuant to this Schedule 12 to the Network Customers in the Transmission Owner's Zone (including, where applicable, the Transmission Owner) and Transmission Customers purchasing Firm Point-to-Point Transmission Service for delivery in the Transmission Owner's Zone in proportion to their Demand Charges (including any imputed Demand Charges for bundled service to Native Load Customers) for Network Integration Transmission Service and Reserved Capacity for Firm Point-to-Point Transmission

Service; provided that such credits shall be reduced by the amount of any applicable incentives included in such Transmission Enhancement Charges.

## **SCHEDULE 12 – APPENDIX A**

### **Required Transmission Enhancements Approved By The PJM Board On Or After February 1, 2013, Responsible Customers And Associated Transmission Owner Revenue Requirements.**

This Schedule 12 – Appendix A applies only to the assignment of cost responsibility or classification of Required Transmission Enhancements either (1) made by the Transmission Provider on or after February 1, 2013, or (2) applicable to Required Transmission Enhancements approved by the PJM Board on or after such effective date.

Required Transmission Enhancements that have been placed in service in PJM, the Transmission Owner(s) responsible for constructing and owning and/or financing such Required Transmission Enhancements, the Responsible Customers and the annual revenue requirement upon which Transmission Enhancement Charges determined in accordance with section (c) of Schedule 12 are based, are set forth below. Unless otherwise stated, all designations of Responsible Customers refer collectively to all Firm Point-to-Point Transmission Service and Network Integration Transmission Service customers in each indicated Zone and state the proportional (percentage) cost responsibility allocated to the indicated customers in each Zone. Zones are identified using the short names stated in Attachment J to the Tariff.

## SCHEDULE 12 – APPENDIX B

### **Joint Planning Or Coordination Agreements Between PJM And Other Regions Or Transmission Planning Authorities**

1. Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C., which can be found at [miso-joa.pdf \(pjm.com\)](#);
2. Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. and The Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol, which can be found at <https://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
3. Interregional transmission coordination between Southeastern Regional Transmission Planning region participants and PJM pursuant to Tariff, Schedule 12-B and Schedule 19-A and the corresponding provisions of the tariffs of the jurisdictional Southeastern Regional Transmission Planning region participants;
4. Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C., which is found at [nyiso-joa.ashx \(pjm.com\)](#);
5. Joint Reliability Coordination Agreement among and between Tennessee Valley Authority, Louisville Gas and Electric Co. and Kentucky Utilities Co., and PJM Interconnection, L.L.C., which can be found at [joint-reliability-agreement-jrca-pjm-tva.ashx](#);
6. Adjacent Reliability Coordinator Coordination Agreement between PJM Interconnection, L.L.C. VACAR South RC, those being Duke Energy Progress, Inc., Duke Energy Carolinas, LLC, South Carolina Electric & Gas Company, South Carolina Public Service Authority and Cube Hydro Carolinas, LLC, which can be found at <https://www.pjm.com/~media/documents/agreements/executed-pjm-vacar-rc-agreement.ashx>; and
7. Amended and Restated Agreement Joint Operating Agreement Among and Between PJM Interconnection L.L.C., and Duke Energy Progress, L.L.C, which is found at [progress-joa.pdf \(pjm.com\)](#).

## **Schedule 12 - Appendix C**

### **State Agreement Public Policy Projects Constructed Pursuant to the State Agreement Approach**

This Schedule 12 - Appendix C applies only to the assignment of cost responsibility of State Agreement Public Policy Projects constructed in accordance with Tariff, Schedule 19, section 1.5.9 among Responsible Customers.



**(1) Rate Schedule FERC No. 49, State Agreement Approach Agreement By and Among PJM Interconnection, L.L.C. and New Jersey Board of Public Utilities**

In accordance with the FERC order in Docket Nos. ER22-2690-000 and -001, 181 FERC ¶ 61,178 (2022), cost responsibility for the State Agreement Public Policy Projects shall be assigned annually on a load-ratio share basis among Network Customers in the State of New Jersey determined in accordance with Schedule 12, section (c)(4), and customers using Point-to-Point Transmission Service with a Point of Delivery within the State of New Jersey determined in accordance with Schedule 12, section (c)(5), as follows:

With respect to each Zone located in the State of New Jersey, using, consistent with Tariff, Part III, section 34.1, the applicable zonal loads at the time of such Zone’s annual peak load from the 12-month period ending October 31 preceding the calendar year for which the annual cost responsibility allocation is determined.

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.1	Reconfigure Larrabee 230 kV substation	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.2	Larrabee substation – 230 kV equipment for direct connection	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.3	Lakewood Generator substation – Update relay settings on the Larrabee 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.4	B54 Larrabee – South Lockwood 34.5 kV line transfer	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.5	Larrabee Collector station – Larrabee 230 kV new line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.6	Larrabee Collector station – Smithburg No.1 500 kV line (new asset). New 500 kV line will be built double circuit to accommodate a 500 kV line and a 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.7	Rebuild G1021 Atlantic – Smithburg 230 kV line between the Larrabee and Smithburg substations as a double circuit 500 kV/230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.8	Smithburg substation 500 kV expansion to 4-breaker ring	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.9	Larrabee substation upgrades	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.10	Atlantic 230 kV substation – Convert to double-breaker double-bus	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.11	Freneau substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.12	Smithburg substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.13	Oceanview substation – Update relay settings on the Atlantic 230 kV lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.14	Red Bank substation – Update relay settings on the Atlantic 230 kV lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.15	South River substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.16	Larrabee substation – Update relay settings on the Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.17	Atlantic substation – Construct a new 230 kV line terminal position to accept the generator lead line from the offshore wind Larrabee Collector station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.18	G1021 (Atlantic – Smithburg) 230 kV upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.19	R1032 (Atlantic – Larrabee) 230 kV upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.20	New Larrabee Collector station – Atlantic 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.21	Larrabee – Oceanview 230 kV line upgrade	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.22	Construct the Larrabee Collector station AC switchyard, composed of a 230 kV 3 bay breaker and a half substation with a nominal current rating of 4000 A and four single phase 500/230 kV 450 MVA autotransformers to step up the voltage for connection to the Smithburg substation. Procure land adjacent to the AC switchyard, and prepare the site for construction of future AC to DC converters for future interconnection of DC circuits from offshore wind generation. Land should be suitable to accommodate installation of four individual converters to accommodate circuits with equivalent rating of 1400 MVA at 400 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.23	Rebuild the underground portion of Richmond – Waneeta 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.24	Upgrade Cardiff – Lewis 138 kV by replacing 1590 kcmil strand bus inside Lewis substation	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.25	Upgrade Lewis No. 2 – Lewis No. 1 138 kV by replacing its bus tie with 2000 A circuit breaker	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.26	Upgrade Cardiff – New Freedom 230 kV by modifying existing relay setting to increase relay limit	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.27	Rebuild approximately 0.8 miles of the D1018 (Clarksville –Lawrence 230 kV) line between Lawrence substation (PSEG) and structure No. 63	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.28	Reconductor Kilmer I – Lake Nelson I 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.29	Convert the six-wired East Windsor – Smithburg E2005 230 kV line (9.0 miles) to two circuits: One a 500 kV line and the other a 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.30	Add third Smithburg 500/230 kV transformer	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.31	Additional reconductoring required for Lake Nelson I –Middlesex 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.32	Rebuild Larrabee – Smithburg No. 1 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.33	Reconductor Red Oak A – Raritan River 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.34	Reconductor Red Oak B – Raritan River 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.35	Reconductor small section of Raritan River – Kilmer I 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.36	Replace substation conductor at Kilmer and reconductor Raritan River – Kilmer W 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.37	Add a third set of submarine cables, rerate the overhead segment, and upgrade terminal equipment to achieve a higher rating for the Silver Run – Hope Creek 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.38	Linden subproject: Install a new 345/230 kV transformer at the Linden 345 kV switching station, and relocate the Linden – Tosco 230 kV (B-2254) line from the Linden 230 kV to the existing 345/230 kV transformer at Linden 345 kV station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.39	Bergen subproject: Upgrade the Bergen 138 kV ring bus by installing a 80 kA breaker along with the foundation, piles, and relays to the existing ring bus, install breaker isolation switches on existing foundations and modify and extend bus work	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.40	Windsor to Clarksville subproject: Create a paired conductor path between Clarksville 230 kV and JCPL Windsor Switch 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.41	Windsor to Clarksville subproject: Upgrade all terminal equipment at Windsor 230 kV and Clarksville 230 kV as necessary to create a paired conductor path between Clarksville and JCPL East Windsor Switch 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.42	Upgrade inside plant equipment at Lake Nelson I 230 kV station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.43	Upgrade Kilmer W – Lake Nelson W 230 kV line drop and strain bus connections at Lake Nelson 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.44	Upgrade Lake Nelson – Middlesex – Greenbrook W 230 kV line drop and strain bus connections at Lake Nelson 230 kV	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.45	Reconductor 0.33 miles of PPL’s portion of the Gilbert –Springfield 230 kV line	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.46	Install a new breaker at Graceton 230 kV substation to terminate a new 230 kV line from the new greenfield North Delta station	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

Identifier	Description	Responsible Customers (percentage share)
b3737.47 <sup>+</sup>	Build a new North Delta 500 kV substation with four bay breaker and half configuration. The substation will include 12 500 kV breakers and one 500/230 kV transformers, will allow the termination of six 500 kV lines	<p align="center"><b>Reliability Driver (26.73%):</b></p> <p align="center"><b>Load-Ratio Share Allocation:</b>  AEC (1.65%) / AEP (13.68%) / APS (5.76%) / ATSI (8.04%) / BGE (4.11%) / ComEd (13.39%) / Dayton (2.12%) / DEOK (3.25%) / DL (1.71%) / Dominion (13.32%) / DPL (2.60%) / EKPC (1.89%) / JCPL (3.86%) / ME (1.90%) / NEPTUNE* (0.42%) / OVEC (0.08%) / PECO (5.40%) / PENELEC (1.78%) / PEPCO (3.67%) / PPL (4.72%) / PSEG (6.39%) / RE (0.26%)</p> <p align="center"><b>DFAX Allocation:</b>  PECO (100%)</p> <hr/> <p align="center"><b>Public Policy Driver (73.27%):</b>  AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)</p>
b3737.48	Build a new North Delta – Graceton 230 kV line by rebuilding 6.07 miles of the existing Cooper – Graceton 230 kV line to double circuit	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.49	Bring the Cooper – Graceton 230 kV line “in and out” of North Delta by constructing a new double-circuit North Delta – Graceton 230 kV (0.3 miles) and a new North Delta – Cooper 230 kV (0.4 miles) cut-in lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)

<sup>+</sup> b3737.47 is an Incremental Multi-Driver Project that includes both a reliability driver and a public policy driver. Accordingly, b3737.47 is included on both Tariff, Schedule 12–Appendix A, section 28 and Tariff, Schedule 12–Appendix C, section 1.

<b>Identifier</b>	<b>Description</b>	<b>Responsible Customers (percentage share)</b>
b3737.50	Bring the Peach Bottom – Delta Power Plant 500 kV line “in and out” of North Delta by constructing a new Peach Bottom – North Delta 500 kV (0.3 miles) cut-in and cut-out lines	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.51	Replace four 63 kA circuit breakers "205," "235," "225" and "255" at Peach Bottom 500 kV with 80 kA	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.52	Replace one 63 kA circuit breaker "B4" at Conastone 230 kV with 80 kA	AEC (13.64%) / JCPL (31.98%) / PSEG (52.17%) / RE (2.21%)
b3737.53	Remove the existing E83 115 kV line (not in-service) to accommodate the new 500 kV/230 kV lines (approximately 7.7 miles)	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.54	Remove the existing H2008 Larrabee – Smithburg No. 2 230 kV line to accommodate the new 500 kV/230 kV lines	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.55	Middlesex substation 230 kV – Replace the 2000A circuit switcher at Middlesex switch point for the Lake Nelson I1023 230 kV exit	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.56	Build a new North Delta – Graceton 230 kV line by rebuilding 6.26 miles of the existing Cooper – Graceton 230 kV line to double circuit. Cooper-Graceton is jointly owned by PECO and BGE. This subproject is for BGE's portion of the line rebuild, which is 2.16 miles	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.59	Windsor to Clarksville subproject: Upgrade terminal equipment at Windsor 230 kV station	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)
b3737.60	Perform a Pre-build Infrastructure evaluation study in alignment with the NJBPU Solicitation Guidance Document requirements	AEC (13.55%) / JCPL (31.74%) / PSEG (52.60%) / RE (2.11%)

## SCHEDULE 12-B

### Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions

1. **Cost Allocation:** The PJM Region portion determined under Section 3 of this Schedule 12-B of the cost of an interregional transmission project located in the PJM Region and the Southeastern Regional Transmission Planning Process (“SERTP”) region shall be allocated in accordance with Schedule 12 of the Tariff, provided that the interregional transmission project satisfies all of the criteria in Section 2 of this Schedule 12-B.

2. **Proposal of Interregional Transmission Projects for Interregional Cost Allocation Purposes:** For an interregional transmission project to be eligible for interregional cost allocation purposes within the SERTP region and the PJM Region, all of the following criteria must be met:

A. The interregional transmission project must be interregional in nature, which requires that it must:

- Be physically located in both the SERTP region and the PJM Region;
- Interconnect to transmission facilities in both the PJM and SERTP regions. The facilities to which the project is proposed to interconnect may be either existing transmission facilities or transmission projects included in the regional transmission expansion plan that are currently under development; and
- Meet the threshold criteria for transmission projects potentially eligible to be included in the regional transmission plans for purposes of cost allocation in both the SERTP region and the PJM Region, pursuant to the regional transmission planning process of the SERTP region and the Regional Transmission Expansion Plan prepared by the Office of the Interconnection pursuant to Tariff, Schedule 19, respectively.

B. The interregional transmission project must be proposed for purposes of cost allocation in both the SERTP region and the PJM Region:

- The transmission developer and project submittal must satisfy all criteria specified in the respective regional transmission processes; and
- The proposal should be submitted in the timeframes outlined in the respective regional transmission planning processes.

C. The interregional transmission project must be selected both in the regional transmission plan of the SERTP region and in the Regional Transmission Expansion Plan prepared by the Office of the Interconnection for the PJM Region:

- The costs of the interregional transmission project eligible for interregional cost allocation shall only be allocated to a region if that region has selected the interregional transmission project in its regional transmission plan for purposes of cost allocation; and



- No cost shall be allocated to a region that has not selected the interregional transmission project in its regional transmission plan for purposes of cost allocation.

**3. Allocation of Costs for Interregional Transmission Projects Between the SERTP and PJM Regions:** The cost of an interregional transmission project selected for purposes of cost allocation in the regional transmission plans of both the SERTP region and PJM Region shall be allocated for interregional cost allocation purposes to those regions as provided below:

A. The share of the costs of an interregional transmission project allocated to a region will be determined by the ratio of the present value(s) of the estimated costs of such region's displaced regional transmission project(s) to the total of the present values of the estimated costs of the displaced regional transmission projects in all regions that have selected the interregional transmission project in their regional transmission plans for purposes of cost allocation. The present values used in the cost allocation shall be based on a common date, comparable cost components, and the latest cost estimates used in the determination to include the interregional transmission project in the respective regional plans for purposes of cost allocation. The applicable discount rate(s) used for the SERTP region for interregional cost allocation purposes will be based upon the after-tax weighted average cost of capital of the SERTP transmission owners whose projects would be displaced by the proposed interregional transmission project. The applicable discount rate for the PJM Region shall be the discount rate included in the assumptions that are reviewed with the PJM Board of Managers each year for use in the economic planning process.

B. When all or a portion of an interregional transmission project is to be located within a region in which there is no displaced regional transmission project, such region may, at its sole discretion, select the interregional transmission project for inclusion in its regional transmission plan; provided, however, that no portion of the costs of the interregional transmission project shall be allocated to such region pursuant to Section 3(A).

C. Nothing in this Schedule 12-B shall govern the further allocation of costs allocated to a region pursuant to this Section 3 within such region. For purposes of clarification, the further allocation of costs allocated by this Section 3 within the PJM Region shall be governed by the applicable provisions of Schedule 12 of the Tariff.

- D. The following example illustrates the cost allocation provisions in Section 3:
- Regions A and B, through the joint evaluation process prescribed in Tariff, Schedule 19-A have included Transmission Project Z in their respective regional plans for purposes of cost allocation. Transmission Project Z was determined to address both regions' needs more efficiently or cost effectively than Transmission Project X in Region A and Transmission Project Y in Region B.
  - The estimated cost of Transmission Projects X and Y are Cost (X) and Cost (Y) respectively. As described in Section 3(A), these costs shall be based upon common cost components.

- The number of years from the common present value date to the year associated with the cost estimates of Transmission Projects X and Y are N(X) and N(Y) respectively.
- Recognizing that the regions may have different discount rates, for purposes of this example  $D_A$  is the discount rate used for Transmission Project X and  $D_B$  is the discount rate used for Transmission Project Y.
- Based on the foregoing assumptions and the allocation of costs based upon displaced regional transmission projects as prescribed in Section 3(A), the following illustrative formulas would be used:
  - Present Value of Cost (X) = PV Cost (X) = Cost (X) /  $(1 + D_A)^{N(X)}$
  - Present Value of Cost (Y) = PV Cost (Y) = Cost (Y) /  $(1 + D_B)^{N(Y)}$
  - Cost Allocation to Region A = PV Cost (X) / [PV Cost (X) + PV Cost (Y)]
  - Cost Allocation to Region B = PV Cost (Y) / [PV Cost (X) + PV Cost (Y)]
- Applying the above formulas, if:
  - Cost (X) = \$60 Million and N(X) = 8.25 years
  - Cost (Y) = \$40 Million and N(Y) = 4.50 years
  - $D_A = 7.5\%$  per year
  - $D_B = 7.4\%$  per year
- Then:
  - PV Cost (X) =  $60 / (1 + 0.075)^{8.25} = 33.0$  Million
  - PV Cost (Y) =  $40 / (1 + 0.074)^{4.50} = 29.0$  Million
  - Cost Allocation to Region A =  $33.0 / (33.0 + 29.0) = 53.2\%$  of the cost of Transmission Project Z
  - Cost Allocation to Region B =  $29.0 / (33.0 + 29.0) = 46.8\%$  of the cost of Transmission Project Z

4. **Merchant Transmission and Transmission Owner Projects:** Nothing in this Schedule 12-B shall preclude the development of interregional transmission projects that are funded by merchant transmission developers or by individual transmission owners.

5. **Exclusivity with Respect to Interregional Transmission Projects Selected for Interregional Cost Allocation Purposes:** The following provisions shall apply regarding other cost allocation arrangements:

A. Except as provided in Section 5(B), the provisions in this Schedule 12-B are the exclusive means by which any costs of an interregional transmission project selected for interregional cost allocation purposes between the SERTP region and the PJM Region may be allocated between or among those regions.

B. A transmission owner(s) or transmission developer(s) may propose to fund or allocate, on a voluntary basis, the cost of an interregional transmission project selected for interregional cost allocation purposes using an allocation other than the allocation that results from the methodology set forth in Section 3, provided that, should the allocation of cost of such

interregional transmission project be subject to the Commission's jurisdiction, such allocation proposal is accepted for filing by the Commission in accordance with the filing rights with respect to cost allocation set forth in Section 6 of this Schedule 12-B and provided further that no allocation shall be made to any region that has not agreed to that allocation.

**6. Section 205 Filing Rights with Respect to Interregional Transmission Projects Selected for Interregional Cost Allocation Purposes:** Solely with respect to interregional transmission projects evaluated under Tariff, Schedule 19-A and selected by the SERTP and PJM regional transmission planning processes for purposes of interregional cost allocation purposes, the following provisions shall apply:

A. Except as provided in Sections 5 and 6(B) of this Schedule 12-B, nothing in this Schedule 12-B will convey, expand, limit or otherwise alter any rights of the transmission owners, transmission developers or other market participants to submit filings under Section 205 of the Federal Power Act ("FPA") regarding cost allocation or any other matter.

B. The cost allocation provisions in this Schedule 12-B shall not be modified under Section 205 of the FPA without the mutual consent of the holders of the FPA Section 205 rights with respect to interregional cost allocation in the SERTP region and the PJM Region.

**7. Consequences to Other Regions from Interregional Transmission Projects:** Except as provided in this Schedule 12-B, or in other documents, agreements or tariffs on file with the Commission, neither the PJM Region nor the transmission providers in the SERTP region shall be responsible for compensating another planning region for required upgrades or for any other consequences in another planning region associated with interregional transmission projects identified pursuant to Tariff, Schedule 19-A.

**SCHEDULE 19 -  
REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

References to section numbers in this Schedule 19 refer to sections of this Schedule 19, unless otherwise specified.

**1. REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

## **1.1 Purpose and Objectives.**

This Regional Transmission Expansion Planning Protocol (“Protocol”) shall govern the process by which the Members shall rely upon the Office of the Interconnection to prepare a plan for the enhancement and expansion of the Transmission Facilities in order to meet the demands for firm transmission service, and to support competition, in the PJM Region. The Regional Transmission Expansion Plan (also referred to as “RTEP”) to be developed shall enable the transmission needs in the PJM Region to be met on a reliable, economic and environmentally acceptable basis.

## **1.2 Conformity with NERC *Reliability Standards* and Other Applicable Reliability Criteria.**

- (a) NERC establishes Reliability Standards to promote the reliability, adequacy and security of the North American bulk power supply as related to the operation and planning of electric systems.
- (b) ReliabilityFirst Corporation is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the geographic region described in the applicable agreements between NERC and ReliabilityFirst Corporation, as approved by the FERC, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the ReliabilityFirst Corporation.
- (c) [Reserved]
- (c.01) [Reserved]
- (c.02) SERC is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the VACAR subregion of SERC. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.
- (d) The Regional Transmission Expansion Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals.
- (e) The Regional Transmission Expansion Plan planning criteria shall include, Office of the Interconnection planning procedures, NERC Reliability Standards, Regional Entity reliability principles and standards, and the individual Transmission Owner FERC filed planning criteria as filed in FERC Form No. 715, and posted on the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Critical Energy Infrastructure Information (CEII) requirements.
- (f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

### **1.3 Establishment of Committees.**

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee participants shall be given an opportunity to provide advice and recommendations for consideration by the Office of the Interconnection regarding sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives in the studies and analyses to be conducted by the Office of the Interconnection. The Transmission Expansion Advisory Committee participants shall be given the opportunity to review and provide advice and recommendations on the projects to be included in the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional planning issues, as required. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates; and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series) and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committees established by the Office of the Interconnection shall facilitate the development and review of the Local Plans. The Subregional RTEP Committees will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. A Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the Transmission Expansion Advisory Committee for further review, advice and recommendations.



(d) The Subregional RTEP Committees shall be responsible for the timely review of the criteria, assumptions and models used to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements, proposed solutions and written comments prior to finalizing the Local Plan, the coordination and integration of the Local Plans into the RTEP, and addressing any stakeholder issues unresolved in the Local Plan process. The Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the criteria, assumptions, and models used in local planning activities prior to finalizing the Local Plan. The Subregional RTEP Committees shall also be responsible for the timely review of the Transmission Owners' criteria, assumptions, and models used to identify Supplemental Projects that will be considered for inclusion in the Local Plan for each Subregional RTEP Committee. The Subregional RTEP Committees meetings shall include discussions addressing interregional planning issues, as required. Once finalized, the Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the Local Plans as integrated into the RTEP, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval. In addition, the Subregional RTEP Committees will provide sufficient opportunity to review and provide written comments to the Transmission Owners on any Supplemental Projects included in the Local Plan, in accordance with Additional Procedures for Planning of Supplemental Projects set forth in Tariff, Attachment M-3.

(e) The Subregional RTEP Committees shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates and (v) any other interested entities or persons.

(f) Each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions and models to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements. Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting, per planning cycle, and as required to review the identified criteria violations and potential solutions. The Subregional RTEP Committees may facilitate additional meetings to incorporate more localized areas in the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas.

(g) The Subregional RTEP Committees shall schedule and facilitate meetings regarding Supplemental Projects, as described in the Tariff, Attachment M-3.

(h) The Subregional RTEP Committees shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional

Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.

#### **1.4 Contents of the Regional Transmission Expansion Plan.**

- (a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of (i) maintaining the reliability of the PJM Region in an economic and environmentally acceptable manner, (ii) supporting competition in the PJM Region, (iii) striving to maintain and enhance the market efficiency and operational performance of wholesale electric service markets and (iv) considering federal and state Public Policy Requirements.
- (b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule 19, transmission enhancements and expansions; load forecasts; and capacity forecasts, including expected generation additions and retirements, demand response, and reductions in demand from energy efficiency and price responsive demand for at least the ensuing ten years.
- (c) The Regional Transmission Expansion Plan shall, at a minimum, include a designation of the Transmission Owner(s) or other entity(ies) that will construct, own, maintain, operate, and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.
- (d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vi) strive for consistency in planning data and assumptions that may relieve transmission congestion across multiple regions.

## **1.5 Procedure for Development of the Regional Transmission Expansion Plan.**

### **1.5.1 Commencement of the Process.**

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b), constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to the Operating Agreement, Schedule 1, section 7.8. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

### **1.5.2 Development of Scope, Assumptions and Procedures.**

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

### **1.5.3 Scope of Studies.**

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs. The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to the Operating Agreement, Schedule 1, section 7.8.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b). Enhancements and expansions related to stage 1A

Auction Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Tariff, Schedule 19, section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to the Tariff, Schedule 19, section 1.5.6(m) and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

#### **1.5.4 Supply of Data.**

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current local planning information, including all criteria, assumptions and models used by the Transmission Owners, such as those used to develop Supplemental Projects. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's local planning information, including all criteria, assumptions and models

used by the Transmission Owners in their internal planning processes, including the development of Supplemental Projects (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in the Operating Agreement, section 18.17; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in the Operating Agreement, section 18.17 and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

### **1.5.5 Coordination of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements:

- Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at Tariff, Schedule 19-B and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at Tariff, Schedule 19-A ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at Tariff, Schedule 12-B;
- Joint Reliability Coordination Agreement Between the Midwest Independent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas.

(i) Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(ii) An entity, including existing Transmission Owners and Nonincumbent Developers, may submit potential Interregional Transmission Projects pursuant to Tariff, Schedule 19, section 1.5.8.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

#### **1.5.6 Development of the Recommended Regional Transmission Expansion Plan.**

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Requirements identified by the states for consideration in the Office of the Interconnection's transmission planning analyses; (iii) Public Policy Objectives identified by stakeholders for consideration in the Office of the Interconnection's transmission planning analyses; (iv) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (v) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (v) of this subsection. Following the assumptions meeting and prior to performing the evaluation and analyses of transmission needs, the Office of the Interconnection shall determine the range of assumptions to be used in the studies and



scenario analyses, based on the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees and, through the Independent State Agencies Committee, the statement of Public Policy Requirements provided individually by the states and any state member's assessment or prioritization of Public Policy Objectives proposed by other stakeholders. The Office of the Interconnection shall document and publicly post its determination for review. Such posting shall include an explanation of those Public Policy Requirements and Public Policy Objectives adopted at the assumptions stage to be used in performing the evaluation and analysis of transmission needs. Following identification of transmission needs and prior to evaluating potential enhancements and expansions to the Transmission System the Office of the Interconnection shall publicly post all transmission need information identified as described further in the Tariff, Schedule 19, section 1.5.8(b) herein to support the role of the Subregional RTEP Committees in the development of the Local Plan and support the role of Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection shall also post an explanation of why other Public Policy Requirements and Public Policy Objectives introduced by stakeholders at the assumptions stage were not adopted.

(c) The Subregional RTEP Committees shall also schedule and facilitate meetings related to Supplemental Projects, as described in the Tariff, Attachment M-3.

(d) After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in the Tariff, Schedule 19, sections 1.3(b) and 1.3(c)) to review, evaluate and offer comments and alternatives to the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

(e) In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the

current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in section (b), above.

(f) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in the Tariff, Schedule 19, section 1.5.8(b) to afford entities an opportunity to submit proposed enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in the Tariff, Schedule 19, section 1.5.8(c). Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to the Tariff, Schedule 19, section 1.5.8(c); (ii) consider proposals submitted during the proposal windows consistent with the Tariff, Schedule 19, section 1.5.8(d) and develop a recommended plan. Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to the Tariff, Schedule 19, section 1.5.3, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(h) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(i) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in

accordance with the procedures, criteria and analyses described in the Tariff, Schedule 19, sections 1.5.7 and 1.5.8.

(j) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to the Tariff, Schedule 19, section 1.5.9.

(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Tariff, Schedule 19, section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(m) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff, (2) in the event and to the extent that no provision of the PJM Tariff assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to the Tariff, Schedule 12, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint

Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to the Tariff, Schedule 12 that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under the Tariff, Schedule 19, sections 1.5.6(i) and 1.5.7, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7 shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under the Tariff, Schedule 12, section (b) for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in the Tariff, Attachment DD, section 15 shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(n) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

#### **1.5.7 Development of Economic-based Enhancements or Expansions.**

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Tariff, Schedule 19, section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in the Operating Agreement, Schedule 1, section 7.4.2(c); or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items in the Tariff, Schedule 19, section 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the

Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional Economic-based Enhancements or Expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to the Tariff, Schedule 19, section 1.5.8(c), any market participant may submit to the Office of the Interconnection a proposal to construct an additional Economic-based Enhancement or Expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed Economic-based Enhancements or Expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new Economic-based Enhancements or Expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new Economic-based Enhancements or Expansions for inclusion in the Regional Transmission Expansion Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional Economic-based Enhancements or Expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional Economic-based Enhancements or Expansions pursuant to the Tariff, Schedule 19, section 1.5.6(m). In the event the entity or entities designated as responsible for construction, owning or financing a designated new Economic-based Enhancement or Expansion declines to construct, own or finance the new Economic-based Enhancement or Expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with the Tariff, Schedule 19, sections 1.6 and 1.7. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional Economic-based Enhancements or Expansions and whether such Economic-based Enhancements or Expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional Economic-based Enhancements or Expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this Tariff, Schedule 19, section 1.5.7(d). An Economic-based Enhancement or Expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the Economic-based Enhancement or Expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for the 15 year period starting with the RTEP Year (defined as current year plus five) minus benefits for years when the project is not yet in-service] ÷ [Present value of the Total Enhancement Cost for the same 15 year period]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Energy Market Benefit is as follows:

$$\text{Energy Market Benefit} = [.50] * [\text{Change in Total Energy Production Cost}] + [.50] * [\text{Change in Load Energy Payment}]$$

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Energy Market Benefit is as follows:

$$\text{Energy Market Benefit} = [1] * [\text{Change in Load Energy Payment}]$$

and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the Economic-based Enhancement or Expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the Economic-based Enhancement or Expansion]. The change in costs for purchases from outside of the PJM Region and sales to outside the PJM Region will be captured, if appropriate. Purchases will be valued at the Load Weighted LMP and sales will be valued at the Generation Weighted LMP.

and

$$\text{Change in Load Energy Payment} = [\text{the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone without the Economic-based Enhancement or Expansion)}] - [\text{the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each} ]$$

Zone with the Economic-based Enhancement or Expansion)] – [the change in value of transmission rights for each Zone with the Economic-based Enhancement or Expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion)]. The Change in the Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in the Load Energy Payment.

And

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [.50] * [\text{Change in Total System Capacity Cost}] + [.50] * [\text{Change in Load Capacity Payment}]$$

and

For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [1] * [\text{Change in Load Capacity Payment}]$$

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD without the Economic-based Enhancement or Expansion) \* (the number of



days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion. The Change in the Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in the Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the Economic-based Enhancement or Expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new Economic-based Enhancement or Expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the

Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new Economic-based Enhancements or Expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the Economic-based Enhancement or Expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of the Tariff, Schedule 19, section 1.5.7(i). The Office of the Interconnection will not be required to review annually the costs and benefits of constructing Economic-based Enhancements or Expansions with capital costs less than \$20 million if, based on updated cost estimates and the original benefits, the Benefit/Cost Ratio remains at or above 1.25. The Office of the Interconnection shall no longer be required to review costs and benefits of constructing Economic-based Enhancements and Expansions once: (i) a certificate of public convenience and necessity or its equivalent is granted by the state or relevant regulatory authority in which such enhancements or expansions will be located; or (ii) if a certificate of public convenience and necessity or its equivalent is not required by the state or relevant regulatory authority in which an economic-based enhancement or expansion will be located, once construction activities commence at the project site.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new Economic-based Enhancements or Expansions is consistent with the new Economic-based Enhancements or Expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to the Tariff, Parts IV and VI that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, the Tariff, Part VI, Subpart B, section 216, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (ii) Availability of Generation Capacity Resources, as defined by the RAA, section 1.33, that are committed to the PJM Region as a

result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

- (iii) Availability of Demand Resources that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iv) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues to determine the likelihood of a Customer Facility, pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on

type and location of generation in existing PJM interconnection queues and, if necessary, add transmission enhancements to address congestion that arises from such modeling.

- (viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an Economic-based Enhancement or Expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the Economic-based Enhancement or Expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to Economic-based Enhancements or Expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with the Tariff, Schedule 19, section 1.5.3 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

### **1.5.8 Development of Long-lead Projects, Short-term Projects, Immediate-need Reliability Projects, and Economic-based Enhancements or Expansions.**

#### **(a) Pre-Qualification Process.**

(a)(1) On September 1 of each year, the Office of the Interconnection shall open a thirty-day pre-qualification window for entities, including existing Transmission Owners and Nonincumbent Developers, to submit to the Office of the Interconnection: (i) applications to pre-qualify as eligible to be a Designated Entity; or (ii) updated information as described in the Tariff, Schedule 19, section 1.5.8(a)(3). Pre-qualification applications shall contain the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the

financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's, or parent company's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities; (ix) a description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Tariff, Schedule 19, section 1.5.8(a).

(a)(2) No later than October 31, the Office of the Interconnection shall notify the entities that submitted pre-qualification applications or updated information during the annual thirty-day pre-qualification window, whether they are, or will continue to be, pre-qualified as eligible to be a Designated Entity. In the event the Office of the Interconnection determines that an entity (i) is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, or (ii) provided insufficient information to determine pre-qualification, the Office of the Interconnection shall inform that the entity it is not pre-qualified and include in the notification the basis for its determination. The entity then may submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is, or will continue to be, pre-qualified as eligible to be a Designated Entity. If the entity submits additional information by November 30, the Office of the Interconnection shall notify the entity of the results of its re-evaluation no later than December 15. If the entity submits additional information after November 30, the Office of the Interconnection shall use reasonable efforts to re-evaluate the application, with the additional information, and notify the entity of its determination as soon as practicable. No later than December 31, the Office of the Interconnection shall post on the PJM website the list of entities that are pre-qualified as eligible to be Designated Entities. If an entity is notified by the Office of the Interconnection that it does not pre-qualify or will not continue to be pre-qualified as eligible to be a Designated Entity, such entity may request dispute resolution pursuant to dispute resolution procedures in the Tariff or the Consolidated Transmission Owner Agreement, as applicable.

(a)(3) In order to continue to pre-qualify as eligible to be a Designated Entity, such entity must confirm its information with the Office of the Interconnection no later than three years following its last submission or sooner if necessary as required below. In the event the information on which the entity's pre-qualification is based changes with respect to the upcoming year, such entity must submit to the Office of the Interconnection all updated information during the annual thirty-day pre-qualification window and the timeframes for notification in the Tariff, Schedule 19, section 1.5.8(a)(2) shall apply. In the event the information on which the entity's pre-qualification is based changes with respect to the current year, such entity must submit to the Office of the Interconnection all updated information at the time the information changes and the Office of the Interconnection shall use reasonable efforts to evaluate the updated information and notify the entity of its determination as soon as practicable.

(a)(4) As determined by the Office of the Interconnection, an entity may submit a pre-qualification application outside the annual thirty-day pre-qualification window for good cause shown. For a pre-qualification application received outside of the annual thirty-day pre-qualification window, the Office of the Interconnection shall use reasonable efforts to process the application and notify the entity as to whether it pre-qualifies as eligible to be a Designated Entity as soon as practicable.

(a)(5) To be designated as a Designated Entity for any project proposed pursuant to the Tariff, Schedule 19, section 1.5.8, existing Transmission Owners and Nonincumbent Developers must be pre-qualified as eligible to be a Designated Entity pursuant to this Tariff, Schedule 19, section 1.5.8(a). This Tariff, Schedule 19, section 1.5.8(a) shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Following identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Tariff, Schedule 19 and the PJM Manuals, and after consideration of non-transmission solutions, and prior to evaluating potential enhancements and expansions to the Transmission System, the Office of the Interconnection shall publicly post on the PJM website all transmission need information, including violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in the Tariff, Schedule 19, section 1.5.9, as applicable. Such posting shall support the role of the Subregional RTEP Committees in the development of the Local Plans and support the role of the Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 60-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects and Economic-based Enhancements or Expansions. The specifics regarding whether or not the following types of violations or projects are subject to a proposal window are detailed in the Tariff, Schedule 19, section 1.5.8(m) for Immediate-need Reliability Projects; Tariff, Schedule 19, section 1.5.8(n) for reliability violations on transmission facilities below 200 kV; and Tariff, Schedule 19, section 1.5.8(p) for violations on transmission substation equipment. The Office of Interconnection may shorten a proposal window should an identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions, or extend a proposal window as needed to accommodate updated information regarding system conditions. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on one or more of the following criteria: (1) complexity of the violation or system condition; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. The Office of

the Interconnection may lengthen a proposal window that already is opened based on or more of the following criteria: (i) changes in assumptions or conditions relating to the underlying need for the project, such as load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change in the proposal window period. During these windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) All proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(1)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Transmission Provider to evaluate the submitted project proposal. To the extent the Transmission Provider incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Transmission Provider shall invoice equal shares of the non-severable costs among the project proposals that cause such non-severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(1)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Transmission Provider as a result of the evaluation of a submitted project proposal.

(c)(1)(iii) Following the close of a proposal window but before the Transmission Provider incurs any third-party consultant work costs to evaluate a submitted project proposal, the Transmission Provider will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Transmission Provider may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the

Transmission Provider receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(1)(iv) At the completion of the evaluation activities associated with a project proposal, the Transmission Provider will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(1)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Transmission Provider sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Transmission Provider. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Transmission Provider in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Transmission Provider as a result of the evaluation of the proposing entity's project proposal(s).

(c)(2) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to the Tariff, Schedule 19, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost containment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. PJM may not alter the requirements for proposal submission to require the submission of a binding cost containment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.



(c)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in the Tariff, Schedule 19, sections 1.5.8(e) and 1.5.8(f). If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the Tariff, Schedule 19, section 1.5.8(c)(3) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(c)(5) Within 30 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to the Tariff, Schedule 19, section 1.5.8(c). All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with the Tariff, Schedule 19, section 1.5.9. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the Tariff, Schedule 19, sections 1.5.8(e) and 1.5.8(f). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After

consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Tariff, Schedule 19.

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to the Tariff, Schedule 19, section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to the Tariff, Schedule 19, section 1.5.3, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to the Tariff, Schedule 19, section 1.5.7(d); (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) the ability to timely complete the project, and project development feasibility; and (v) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each project finalist's proposal, including any Transmission Owner Upgrades, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the Transmission Expansion Advisory Committee for review and comment. In evaluating any cost, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates from the Commission. PJM may modify the technical specifications of a proposal, as outlined in the PJM Manuals, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board. Neither PJM, the Designated Entity nor any stakeholders are waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

(f) **Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project, Long-lead Project or Economic-based Enhancement or Expansion recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal,

the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Tariff, Schedule 19, section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to the Tariff, Schedule 19, section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

**(g) Procedures if No Long-lead Project or Economic-based Enhancement or Expansion Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, or system condition, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, or system conditions pursuant to the Tariff, Schedule 19, section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office of the Interconnection shall propose a project to solve the posted violation, or system condition for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall develop and post on the PJM website a transmission solution construction timeline for input and review by the Transmission Expansion Advisory Committee that will include factors such as, but not limited to: (i) deadlines for obtaining regulatory approvals, (ii) dates by which long lead equipment should be acquired, (iii) the time necessary to complete a proposed solution to meet the required in-service date, and (iv) other time-based factors impacting the feasibility of achieving the required in-service date. Based on input from the Transmission Expansion Advisory Committee and the time frames set forth in the construction timeline, the Office of the Interconnection shall determine whether there is sufficient time to conduct a re-evaluation and re-post and timely address the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion. To the extent that an economic constraint remains unaddressed, the economic constraint will be re-evaluated and re-posted.

(h) **Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) **Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

(j) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause shown, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. In the alternative, the Designated Entity may request dispute resolution pursuant to the dispute resolution procedures in the Tariff or the Consolidated Transmission Owner Agreement, as applicable, or request that the Designated Entity Agreement be filed unexecuted with the Commission.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to comply with one or more of the requirements of the Tariff, Schedule 19, section 1.5.8(j); or fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Tariff, Schedule 19, section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a project proposed pursuant to the Tariff, Schedule 19, section 1.5.8(c) is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

(m) **Immediate-need Reliability Projects:**

(m)(1) Pursuant to the expansion planning process set forth in Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify immediate reliability needs that must be addressed within three years or less. For those immediate reliability needs for which PJM determines a proposal window may not be feasible, PJM shall identify and post such immediate need reliability criteria violations and system conditions for review and comment by the Transmission Expansion Advisory Committee and other stakeholders. Following review and comment, the Office of the Interconnection shall develop Immediate-need Reliability Projects for which a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2) is infeasible. The Office of the Interconnection shall consider the following factors in determining the infeasibility of such a proposal window: (i) nature of the reliability criteria violation; (ii) nature and type of potential solution required; and (iii) projected construction time for a potential

solution to the type of reliability criteria violation to be addressed. The Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the Immediate-need Reliability Projects for which a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2) is infeasible. Stakeholders shall be afforded no less than ten days to review Immediate-need Reliability Project materials prior to providing comments at stakeholder meetings. However, PJM may review Immediate-need Reliability Project materials with stakeholders without the requisite ten-day notice so long as: (i) stakeholders do not object to reviewing the materials or (ii) PJM identifies in its posting to the meeting materials extenuating circumstances identified by PJM that require review of the materials at the stakeholder meeting. The descriptions shall include an explanation of the decision to designate the Transmission Owner as the Designated Entity for the Immediate-need Reliability Project rather than conducting a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(m)(2), including an explanation of the time-sensitive need for the Immediate-need Reliability Project, other transmission and non-transmission options that were considered but concluded would not sufficiently address the immediate reliability need, the circumstances that generated the immediate reliability need, and why the immediate reliability need was not identified earlier. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments to the Office of the Interconnection. All comments received by the Office of the Interconnection shall be publicly available on the PJM website. Based on the comments received from stakeholders and the review by Transmission Expansion Advisory Committee, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. In January of each year, the Office of the Interconnection shall post on the PJM website and file with the Commission for informational purposes a list of the Immediate-need Reliability Projects for which an existing Transmission Owner was designated in the prior year as the Designated Entity in accordance with this Tariff, Schedule 19, section 1.5.8(m)(1). The list shall include the need-by date of Immediate-need Reliability Project and the date the Transmission Owner actually energized the Immediate-need Reliability Project.

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals, including an explanation of the time-sensitive need for an Immediate-need Reliability Project and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in the Tariff, Schedule 19, section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to the Tariff, Schedule 19, section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely

complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with the Tariff, Schedule 19, section 1.5.8(i), shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with the Tariff, Schedule 19, section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with the Tariff, Schedule 19, section 1.5.8(m)(1).

(n) **Reliability Violations on Transmission Facilities Below 200 kV.** Pursuant to the expansion planning process set forth in the Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify reliability violations on facilities below 200 kV. The Office of the Interconnection shall not post such a violation pursuant to the Tariff, Schedule 19, section 1.5.8(b) for inclusion in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c) unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations. If the reliability violation is identified on multiple facilities rated below 200 kV that are determined by the Office of the Interconnection to meet one of the two exceptions stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). If the Office of the Interconnection determines that the identified reliability violations do not satisfy either of the two exceptions stated above, the Office of the Interconnection shall develop a solution to address the reliability violation on below 200 kV Transmission Facilities that will not be included in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c). The Office of Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the below 200 kV reliability violations that will not be included in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the below 200 kV reliability violation(s) in Tariff, Schedule 19, section 1.5.8(c) proposal window, a description of the facility on which the violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such below 200 kV reliability violation will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. With the exception of Immediate-need Reliability Projects under

the Tariff, Schedule 19, section 1.5.8(m), PJM will not select an above 200 kV solution for inclusion in the recommended plan that would address a reliability violation on a below 200 kV transmission facility without posting the violation for inclusion in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

(o) **[Reserved]**

(p) **Thermal Reliability Violations on Transmission Substation Equipment.** Pursuant to the regional transmission expansion planning process set forth in the Tariff, Schedule 19, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify thermal reliability violations on existing transmission substation equipment. The Office of the Interconnection shall not post such thermal reliability violations pursuant to the Tariff, Schedule 19, section 1.5.8(b) for inclusion in a proposal window pursuant to the Tariff, Schedule 19, section 1.5.8(c) if the Office of the Interconnection determines that the reliability violations would be more efficiently addressed by an upgrade to replace in kind transmission substation equipment with higher rated equipment, excluding power transmission transformers, but including station service transformers and instrument transformers. If the Office of the Interconnection determines that the reliability violation does not meet the exemption stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Tariff, Schedule 19, section 1.5.8(c). If the Office of the Interconnection determines that the identified thermal reliability violations satisfy the above exemption to the proposal window process, the Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the transmission substation equipment thermal reliability violations that will not be included in a proposal window pursuant to Tariff, Schedule 19, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the transmission substation equipment thermal reliability violation(s) in Tariff, Schedule 19, section 1.5.8(c) proposal window, a description of the facility on which the thermal violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such transmission substation equipment thermal violations will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

### **1.5.9 State Agreement Approach.**

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. As determined by the authorized state governmental entities, such transmission enhancements or expansions may be included in the recommended plan, either as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily



agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in the Tariff, Schedule 19, section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with the Tariff, Schedule 19, section 1.5.9(a) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to the Tariff, Schedule 19, section 1.5.8(a).

#### **1.5.10 Multi-Driver Project.**

(a) When a proposal submitted by an existing Transmission Owner or Nonincumbent Developer pursuant to Tariff, Schedule 19, section 1.5.8(c) meets the definition of a Multi-Driver Project and is designated to be included in the Regional Transmission Expansion Plan for purposes of cost allocation, the Office of the Interconnection shall designate the Designated Entity for the project as follows: (i) if the Multi-Driver Project does not contain a state Public Policy Requirement component, the Office of the Interconnection shall designate the Designated Entity pursuant to the criteria in the Tariff, Schedule 19, section 1.5.8; or (ii) if the Multi-Driver Project contains a state Public Policy Requirement component, the Office of the Interconnection shall evaluate potential Designated Entity candidates based on the criteria in the Tariff, Schedule 19, section 1.5.8, and provide its evaluation to and elicit feedback from the sponsoring state governmental entities responsible for allocation of all costs of the proposed state Public Policy Requirement component (“state governmental entity(ies)”) regarding its evaluation. Based on its evaluation of the Tariff, Schedule 19, section 1.5.8 criteria and consideration of the feedback from the sponsoring state governmental entity(ies), the Office of the Interconnection shall designate the Designated Entity for the Multi-Driver Project and notify such entity consistent with the Tariff, Schedule 19, section 1.5.8(i). A Multi-Driver Project may be based on proposals that consist of (1) newly proposed transmission enhancements or expansions; (2) additions to, or modifications of, transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan; and/or (3) one or more transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan.

(b) A Multi-Driver Project may contain an enhancement or expansion that addresses a state Public Policy Requirement component only if it meets the requirements set forth in the Tariff, Schedule 19, section 1.5.9(a) and its cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(c) If a state governmental entity(ies) desires to include a Public Policy Requirement component after an enhancement or expansion has been included in the Regional Transmission Expansion Plan, the Office of the Interconnection may re-evaluate the relevant reliability-based enhancement or expansion, Economic-based Enhancement or Expansion, or Multi-Driver Project to determine whether adding the state-sponsored Public Policy Requirement component would create a more cost effective or efficient solution to system conditions. If the Office of the Interconnection determines that adding the state-sponsored Public Policy Requirement component to an enhancement or expansion already included in the Regional Transmission Expansion Plan would result in a more cost effective or efficient solution, the state-sponsored Public Policy Requirement component may be included in the relevant enhancement or expansion, provided all of the requirements of the Tariff, Schedule 19, section 1.5.10(b) are met, and cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(d) If, subsequent to the inclusion in the Regional Transmission Expansion Plan of a Multi-Driver Project that contains a state Public Policy Requirement component, a state governmental entity(ies) withdraws its support of the Public Policy Requirement component of a Multi-Driver Project, then: (i) the Office of the Interconnection shall re-evaluate the need for the remaining components of the Multi-Driver Project without the state Public Policy Requirement component, remove the Multi-Driver Project from the Regional Transmission Expansion Plan, or replace the Multi-Driver Project with an enhancement or expansion that addresses remaining reliability or economic system needs; (ii) if the Multi-Driver Project is retained in the Regional Transmission Expansion Plan without the state Public Policy Requirement component, the costs of the remaining components will be allocated in accordance with the Tariff, Schedule 12; (iii) if more than one state is responsible for the costs apportioned to the state Public Policy Requirement component of the Multi-Driver Project, the remaining state governmental entity(ies) shall have the option to continue supporting the state Public Policy component of the Multi-Driver Project and if the remaining state governmental entity(ies) choose this option, the apportionment of the state Public Policy Requirement component will remain in place and the remaining state governmental entity(ies) shall agree upon their respective apportionments; (iv) if a Multi-Driver Project must be retained in the Regional Transmission Expansion Plan and completed with the State Public Policy component, the state Public Policy Requirement apportionment will remain in place and the withdrawing state governmental entity(ies) shall continue to be responsible for its/their share of the FERC-accepted cost allocations as filed pursuant to the Tariff, Schedule 12, section (b)(xii)(B).

(e) The actual costs of a Multi-Driver Project shall be apportioned to the different components (reliability-based enhancement or expansion, Economic-based Enhancement or Expansion and/or Public Policy Requirement) based on the initial estimated costs of the Multi-Driver Project in accordance with the methodology set forth in the Tariff, Schedule 12.

(f) The benefit metric calculation used for evaluating the market efficiency component of a Multi-Driver Project will be based on the final voltage of the Multi-Driver Project using the Benefit/Cost Ratio calculation set forth in the Tariff, Schedule 19, section 1.5.7(d) where the Cost component of the calculation is the present value of the estimated cost of the enhancement apportioned to the market efficiency component of the Multi-Driver Project for each of the first 15 years of the life of the enhancement or expansion.

(g) Except as provided to the contrary in this Tariff, Schedule 19, section 1.5.10 and Tariff, Schedule 19, section 1.5.8 applies to Multi-Driver Projects.

(h) The Office of the Interconnection shall determine whether a proposal(s) meets the definition of a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).

(i) In determining whether a Multi-Driver Project may be designated to more than one entity, PJM shall consider whether: (i) the project consists of separable transmission elements, which are physically discrete transmission components, such as, but not limited to, a transformer, static var compensator or definable linear segment of a transmission line, that can be designated individually to a Designated Entity to construct and own and/or finance; and (ii) each entity satisfies the criteria set forth in the Tariff, Schedule 19, section 1.5.8(f). Separable transmission elements that qualify as Transmission Owner Upgrades shall be designated to the Transmission Owner in the Zone in which the facility will be located.

## **1.6 Approval of the Final Regional Transmission Expansion Plan.**

- (a) Based on the studies and analyses performed by the Office of the Interconnection under - Tariff, Schedule 19, the PJM Board shall approve the Regional Transmission Expansion Plan in accordance with the requirements of Tariff, Schedule 19. The PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with Tariff, Schedule 12. Supplemental Projects shall be integrated into the Regional Transmission Expansion Plan approved by the PJM Board but shall not be included for cost allocation purposes.
- (b) The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owner(s) or Designated Entity(ies) to construct such expansion or enhancement, the Office of the Interconnection shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Tariff, Schedule 19, section 1.5.6(1) to bear responsibility for the costs of the project.
- (c) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.
- (d) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be documented, posted publicly and provided to the Applicable Regional Entities.

## **1.7 Obligation to Build.**

- (a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners or Designated Entities designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. Except as provided in Tariff, Schedule 19, section 1.5.8(k), nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.
- (b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.
- (c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) or Designated Entity(ies) all charges established under Tariff, Schedule 12 in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners or Designated Entity(ies) to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) or Designated Entity(ies) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.
- (d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under sections 1.5.6(d) and 1.5.7 of this Tariff, Schedule 19 that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

## **1.8 Interregional Expansions**

- (a) PJM shall collect from Midwest Independent System Operator, Inc., for distribution to the applicable Transmission Owners, in accordance with Schedule 12 of the PJM Tariff, revenues collected by the Midwest Independent System Operator, Inc. under the Open Access Transmission Tariff of the Midwest Independent System Owner, Inc. with respect to transmission enhancements or expansions for which the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility for transmission enhancements or expansions in the PJM Region to market participants in the region of the Midwest Independent System Operator, Inc.
- (b) PJM shall disburse to the Midwest Independent System Operator, Inc., for distribution to applicable transmission owners of the Midwest Independent System Operator, Inc., revenues collected under Schedule 12 of the PJM Tariff which establishes a charge in connection with enhancements or expansions in the region of the Midwest Independent System Operator, Inc. the cost responsibility for which has been assigned to market participants in the PJM Region under the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.
- (c) Nothing in this Section 1.8 shall affect or limit any Transmission Owners filing rights under Section 205 of the Federal Power Act as set forth in the PJM Tariff and applicable agreements.

## **1.9 Relationship to Service Requests in the PJM Open Access Transmission Tariff.**

Nothing herein shall modify the rights and obligations of an Eligible Customer or a Transmission Customer with respect to required studies and completion of necessary enhancements or expansions associated with service requests submitted pursuant to Parts II, III, IV, VI, VII, and VIII of the Tariff. An Eligible Customer or Transmission Customer electing to follow the above-referenced procedures shall also be responsible for the related costs. The enhancement and expansion study process under this Protocol shall be funded as a part of the operating budget of the Office of the Interconnection.

**SCHEDULE 19-A**  
**Interregional Transmission Coordination Between the SERTP and PJM Regions**

The Office of the Interconnection, through its regional transmission planning process, coordinates with the public utility transmission providers of Southeastern Regional Transmission Planning (“SERTP,” and individually, “SERTP Transmission Provider,” and collectively, “SERTP Transmission Providers”), as the transmission providers and planners for the SERTP region to address transmission planning coordination issues related to interregional transmission projects. The interregional transmission coordination procedures include a detailed description of the process for coordination between the SERTP Transmission Providers and the Office of the Interconnection, to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than transmission projects included in the respective regional transmission plans. The interregional transmission coordination procedures are hereby provided in this Schedule 19-A with additional materials provided on the PJM Regional Planning website.

The Office of the Interconnection and each of the SERTP Transmission Providers shall:

- (1) Coordinate and share the results of the SERTP Transmission Providers’ and the Office of the Interconnection’s regional transmission plans to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than separate regional transmission projects;
- (2) Identify and jointly evaluate transmission projects that are proposed to be located in both transmission planning regions;
- (3) Exchange, at least annually, planning data and information; and
- (4) Maintain a website and e-mail list for the communication of information related to the coordinated planning process.

The SERTP Transmission Providers and the Office of the Interconnection developed a mutually agreeable method for allocating between the two transmission planning regions the costs of new interregional transmission projects that are located within both transmission planning regions. Such cost allocation method satisfies the six interregional cost allocation principles set forth in Order No. 1000 and are included in Tariff, Schedule 12-B.

For purposes of this Schedule 19-A, each of the SERTP Transmission Provider’s transmission planning process is the process described in each of the SERTP Transmission Providers’ open access transmission tariffs; the Office of the Interconnection’s regional transmission planning process is the process described in Tariff, Schedule 19. References to the respective transmission planning processes in each of the SERTP Transmission Providers’ open access transmission tariffs are intended to identify the activities described in those tariff provisions. References to the respective regional transmission plans in this Schedule 19-A are intended to identify, for the Office of the Interconnection, the PJM Regional Transmission Expansion Plan (“RTEP”), as defined in applicable PJM documents and, for the each SERTP



Transmission Providers, the SERTP regional transmission plan which includes the applicable ten (10) year transmission expansion plan. Unless noted otherwise, section references in this Schedule 19-A refer to sections within this Schedule 19-A.

Nothing in this Schedule 19-A is intended to affect the terms of any bilateral planning or operating agreements between transmission owners and/or transmission service providers that exist as of the effective date of this Schedule 19-A or that are executed at some future date.

## **INTERREGIONAL TRANSMISSION PLANNING PRINCIPLES**

Representatives of the SERTP and the Office of the Interconnection will meet no less than once per year to facilitate the interregional coordination procedures described below (as applicable). Representatives of the SERTP and the Office of the Interconnection may meet more frequently during the evaluation of project(s) proposed for purposes of interregional cost allocation between the SERTP and the Office of the Interconnection. For purposes of this Schedule 19-A, an “interregional transmission project” means a facility or set of facilities that would be physically located in both the SERTP and PJM regions and would interconnect to transmission facilities in both the SERTP and PJM regions. The facilities to which the project is proposed to interconnect may be either existing transmission facilities or transmission projects included in the regional transmission plan that are currently under development.

### **1. Coordination**

**1.1 Review of Respective Regional Transmission Plans:** Biennially, the Office of the Interconnection and the SERTP Transmission Providers shall review each other’s current regional transmission plan(s) and engage in the data exchange and joint evaluation described in sections 2 and 3 below.

1.1.1 The review of each region’s regional transmission plan(s), which plans include the transmission needs and planned upgrades of the transmission providers in each region, shall occur on a mutually agreeable timetable, taking into account each region’s transmission planning process timeline.

**1.2 Review of Proposed Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection will also coordinate with regard to the evaluation of interregional transmission projects identified by the SERTP Transmission Providers and the Office of the Interconnection as well as interregional transmission projects proposed for Interregional Cost Allocation Purposes (“Interregional CAP”), pursuant to section 3 below and Tariff, Schedule 12-B. Initial coordination activities regarding new interregional proposals will typically begin during the third calendar quarter. The SERTP Transmission Providers and the Office of the Interconnection will exchange status updates for new interregional transmission project proposals or proposals currently under consideration as needed. These status updates will generally include, if applicable: (i) an update of the region’s evaluation of the proposal; (ii) the latest calculation of Regional Benefits (as defined in Tariff, Schedule 12-B); (iii) the anticipated timeline for future assessments; and (iv) reevaluations related to the proposal.

**1.3 Coordination of Assumptions Used in Joint Evaluation:** The SERTP Transmission Providers and the Office of the Interconnection will coordinate assumptions used in joint evaluations, as necessary, which includes items such as:

- 1.3.1 Expected timelines/milestones associated with the joint evaluation
- 1.3.2 Study assumptions
- 1.3.3 Regional benefit calculations

**1.4 Posting of Materials on Regional Planning Websites:** The SERTP Transmission Providers and the Office of the Interconnection will coordinate with respect to the posting of materials related to the interregional coordination procedures described in this Schedule 19-A on each region's regional planning website.

## **2. Data Exchange**

2.1 At least annually, each of the SERTP Transmission Providers and the Office of the Interconnection shall exchange power-flow models and associated data used in the regional transmission planning processes to develop their respective then-current regional transmission plan(s). This exchange will occur when such data is available in each of the transmission planning processes, typically during the first calendar quarter. Additional transmission-based models and data may be exchanged between the SERTP Transmission Providers and the Office of the Interconnection as necessary and if requested. For purposes of the interregional coordination activities outlined in this Schedule 19-A, only data and models used in the development of the SERTP Transmission Provider's and the Office of the Interconnection's then-current regional transmission plans and used in their respective regional transmission planning processes will be exchanged. This data will be posted on the pertinent regional transmission planning process' websites, consistent with the posting requirements of the respective regional transmission planning processes, and is considered CEII. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting.

2.2 The RTEP will be posted on the Office of the Interconnection's Regional Planning website pursuant to the Office of the Interconnection's regional transmission planning process. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting so that the SERTP Transmission Providers may retrieve these transmission plans. Each of the SERTP Transmission Providers will exchange its then-current regional plan(s) in a similar manner according to its regional transmission planning process.

## **3. Joint Evaluation**

**3.1 Identification of Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection shall exchange planning models and data and current regional transmission plans as described in section 2 above. Each SERTP Transmission Provider and the Office of the Interconnection will review one another's then-current regional transmission plan(s) in accordance with the coordination procedures described in section 1 above and their respective regional transmission planning processes. If through this review, a SERTP Transmission Provider and the Office of the Interconnection identify a

potential interregional transmission project that could be more efficient or cost effective than projects included in the respective regional plans, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the potential project pursuant to section 3.3 below.

### **3.2 Identification of Interregional Transmission Projects by Stakeholders:**

Stakeholders may propose projects that may be more efficient or cost-effective than projects included in the SERTP Transmission Providers' and the Office of the Interconnection's regional transmission plans pursuant to the procedures in each region's regional transmission planning processes. The SERTP Transmission Providers and Office of the Interconnection will evaluate interregional transmission projects proposed by stakeholders pursuant to section 3.3 below.

**3.3 Evaluation of Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection shall act through their respective regional transmission planning processes to evaluate potential interregional transmission projects and to determine whether the inclusion of any potential interregional transmission projects in each region's regional transmission plan would be more efficient or cost-effective than projects included in the respective then-current regional transmission plans. Such analysis shall be consistent with accepted planning practices of the respective regions and the methods utilized to produce each region's respective regional transmission plan(s). The Office of the Interconnection will evaluate potential interregional transmission projects consistent with Tariff, Schedule 19 and the PJM Manuals 14A entitled New Services Request Process and 14B entitled PJM Region Transmission Planning Process on the PJM Website at <http://www.pjm.com/documents/manuals.aspx>. To the extent possible and as needed, assumptions and models will be coordinated between the SERTP Transmission Providers and the Office of the Interconnection, as described in section 1 above. Data shall be exchanged to facilitate this evaluation using the procedures described in section 2 above.

**3.4 Evaluation of Interregional Transmission Projects Proposed for Interregional Cost Allocation Purposes:** Interregional transmission projects proposed for Interregional CAP must be submitted in both the SERTP and PJM regional transmission planning processes. The project submittals must satisfy the applicable requirements for submittal of interregional transmission projects, including those in Tariff, Schedule 19 and Tariff, Schedule 12-B. The submittals in the respective regional transmission planning processes must identify the project proposal as interregional in scope and identify SERTP and PJM as the regions in which the project is proposed to interconnect. The Office of the Interconnection will determine whether the submittal for the proposed interregional transmission project satisfies all applicable requirements. Upon finding that the project submittal satisfies all such applicable requirements, the Office of the Interconnection will notify the SERTP Transmission Provider. Upon both regions so notifying one another that the project is eligible for consideration pursuant to their respective regional transmission planning processes, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the proposed interregional projects.

3.4.1 If an interregional transmission project is proposed in the SERTP and Office of Interconnection for Interregional CAP, the initial evaluation of the project will typically begin during the third calendar quarter, with analysis conducted in the same manner as

analysis of interregional projects identified pursuant to sections 3.1 and 3.2 above. Further evaluation shall also be performed pursuant to this section 3.4. Projects proposed for Interregional CAP shall also be subject to the requirements of Tariff, Schedule 12-B.

3.4.2. Each region, acting through its regional transmission planning process, will evaluate proposals to determine whether the interregional transmission project(s) proposed for Interregional CAP addresses transmission needs that are currently being addressed with projects in its regional transmission plan(s) and, if so, which projects in the regional transmission plan(s) could be displaced by the proposed project(s).

3.4.3. Based upon its evaluation, each region will quantify a Regional Benefit based upon the transmission costs that each region is projected to avoid due to its transmission projects being displaced by the proposed project. For purposes of this Schedule 19-A, “Regional Benefit” means: (i) for the SERTP Transmission Providers, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included and (ii) for the Office of the Interconnection, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included. The Regional Benefit is not necessarily the same as the benefits used for purposes of regional cost allocation.

**3.5 Inclusion of Interregional Projects Proposed for Interregional CAP in Regional Transmission Plans:** An interregional transmission project proposed for Interregional CAP in the SERTP and Office of the Interconnection will be included in the respective regional plans for purposes of cost allocation only after it has been selected by both the SERTP and Office of the Interconnection regional processes to be included in their respective regional plans for purposes of cost allocation.

3.5.1. To be selected in both the SERTP and Office of the Interconnection regional plans for purposes of cost allocation means that each region has performed all evaluations, as prescribed in its regional transmission planning processes, necessary for a project to be included in its regional transmission plans for purposes of cost allocation.

- For SERTP: All requisite approvals are obtained, as prescribed in the SERTP regional transmission planning process, necessary for a project to be included in the SERTP regional transmission plan for purposes of cost allocation. This includes any requisite regional benefit to cost (“BTC”) ratio calculations performed pursuant to the respective regional transmission planning processes. For purposes of the SERTP, the anticipated allocation of costs of the interregional transmission project for use in the regional BTC ratio calculation shall be based upon the ratio of the SERTP’s Regional Benefit to the sum of the Regional Benefits identified for both the SERTP and the Office of the Interconnection; and
- For the Office of Interconnection: All requisite approvals are obtained, as prescribed in the PJM regional transmission planning process, necessary for a project to be included in the RTEP for purposes of cost allocation.

**3.6 Removal from Regional Plans:** An interregional transmission project may be removed from the SERTP's or Office of the Interconnection's regional plan for purposes of cost allocation: (i) if the developer fails to meet developmental milestones; (ii) pursuant to the reevaluation procedures specified in the respective regional transmission planning processes; or (iii) if the project is removed from one of the region's regional transmission plan(s) pursuant to the requirements of its regional transmission planning process.

3.6.1 The Office of the Interconnection, shall notify the SERTP Transmission Provider if an interregional project or a portion thereof is likely to be removed from its regional transmission plan.

#### 4. Transparency

4.1 The Office of the Interconnection shall post procedures for coordination and joint evaluation on the Regional Planning website.

4.2 Access to the data utilized will be made available through the Regional Planning website subject to the appropriate clearance, as applicable (such as CEII and confidential non-CEII). Both planning regions will make available, on their respective regional websites, links to where stakeholders can register (if applicable/available) for the stakeholder committees or distribution lists of the other planning region.

4.3 PJM will provide status updates of SERTP interregional activities to the TEAC including:

- Facilities to be evaluated
- Analysis performed
- Determinations/results.

4.4 Stakeholders will have an opportunity to provide input and feedback within the respective regional planning processes of SERTP and the Office of the Interconnection related to interregional facilities identified, analysis performed, and any determination/results. Stakeholders may participate in either or both regions' regional planning processes to provide their input and feedback regarding the interregional coordination between the SERTP and the Office of the Interconnection.

4.5 The Office of the Interconnection will post a list on the Regional Planning Website of interregional transmission projects proposed for purposes of cost allocation in both the SERTP and PJM that are not eligible for consideration because they do not satisfy the regional project threshold criteria of one or both of the regions as well as post an explanation of the thresholds the proposed interregional project failed to satisfy.

**SCHEDULE 19-B**  
**Interregional Transmission Coordination Between**  
**PJM, New York Independent System Operator, Inc. and ISO New England Inc.**

PJM, its Transmission Owners, and any other interested parties shall coordinate system planning activities with neighboring planning regions, (*i.e.*, New York Independent System Operator, Inc. and ISO New England Inc.) (“ISO/RTO Regions”) pursuant to the Northeastern Planning Protocol (“Protocol”) identified in Tariff, Schedule 19, section 1.5.5(b).

The Interregional Planning Protocol includes a description of the committee structure, processes, and procedures through which system planning activities are openly and transparently coordinated by the ISO/RTO Regions. The objective of the interregional planning process is to contribute to the on-going reliability and the enhanced operational and economic performance of the ISO/RTO Regions through: (i) exchange of relevant data and information; (ii) coordination of procedures to evaluate certain interconnection and transmission service requests; (iii) periodic comprehensive interregional assessments; (iv) identification and evaluation of potential Interregional Transmission Projects that can address regional needs in a manner that may be more efficient or cost-effective than separate regional solutions, in accordance with the requirements of Order No. 1000.

Section 9 of the Protocol indicates that the cost allocation for identified interregional transmission projects between PJM and NYISO shall be conducted in accordance with the Joint Operating Agreement Among and Between New York Independent System Operator, Inc. and PJM Interconnection, L.L.C. referenced in Tariff, Schedule 19, section 1.5.5(b).

The planning activities of the ISO/RTO Regions shall be conducted consistent with the planning criteria of each ISO/RTO Region. The ISO/RTO Regions shall periodically produce a Northeastern Coordinated System Plan that integrates the system plans of all of the ISO/RTO Regions.

**ATTACHMENT  
M-3  
ADDITIONAL PROCEDURES FOR PLANNING  
SUPPLEMENTAL PROJECTS AND ASSET MANAGEMENT PROJECTS**

**(a) Applicability.** Each Transmission Owner shall be responsible for planning and constructing in accordance with Tariff, Schedule 19 as provided in this Attachment M-3, to the extent applicable, (i) Asset Management Projects, as defined herein, (ii) Supplemental Projects, as defined in the Tariff, and (iii) any other transmission expansion or enhancement of Transmission Facilities that is not planned by PJM to address one or more of the following planning criteria:

1. NERC Reliability Standards (which includes Applicable Regional Entity reliability standards);
2. Individual Transmission Owner planning criteria as filed in FERC Form No. 715 and posted on the PJM website, provided that the Additional Procedures for the Identification and Planning of EOL Needs, set forth in section (d), shall apply, as applicable;
3. Criteria to address economic constraints in accordance with section 1.5.7 of Tariff, Schedule 19 or an agreement listed in Schedule 12-Appendix B;
4. State Agreement Approach expansions or enhancements in accordance with section 1.5.9(a)(ii) of Tariff, Schedule 19; or
5. An expansion or enhancement to be addressed by the RTEP Planning Process pursuant to section (d)(2) of this Attachment M-3 in accordance with RTEP Planning Process procedures in Tariff, Schedule 19.

This Attachment M-3 shall not apply to CIP-014 mitigation projects that are subject to Attachment M-4.

**(b) Definitions.**

1. Asset Management Project. “Asset Management Project” shall mean any modification or replacement of a Transmission Owner’s Transmission Facilities that results in no more than an Incidental Increase in transmission capacity undertaken to perform maintenance, repair, and replacement work, to address an EOL Need, or to effect infrastructure security, system reliability, and automation projects the Transmission Owner undertakes to maintain its existing electric transmission system and meet regulatory compliance requirements.
2. Attachment M-3 Project. “Attachment M-3 Project” means (i) an Asset Management Project that affects the connectivity of Transmission Facilities that are included in the Transmission System, affects Transmission Facility ratings or significantly changes the impedance of Transmission Facilities; (ii) a Supplemental Project; or (iii) any other expansion or enhancement of

Transmission Facilities that is not excluded from this Attachment M-3 under any of clauses (1) through (5) of section (a). “Attachment M-3 Project” does not include a project to address Form No. 715 EOL Planning Criteria.

3. Incidental Increase. “Incidental Increase” shall mean an increase in transmission capacity achieved by advancements in technology and/or replacements consistent with current Transmission Owner design standards, industry standards, codes, laws or regulations, which is not reasonably severable from an Asset Management Project. A transmission project that results in more than an Incidental Increase in transmission capacity is an expansion or enhancement of Transmission Facilities.
4. Transmission Facilities. “Transmission Facilities” shall have the meaning set forth in the Consolidated Transmission Owners Agreement.
5. EOL Need. “EOL Need” shall mean a need to replace a transmission line between breakers operating at or above 100 kV or a transformer, the high side of which operates at or above 100 kV and the low side of which is not connected to distribution facilities, which the Transmission Owner has determined to be near the end of its useful life, the replacement of which would be an Attachment M-3 Project.
6. Candidate EOL Needs List. “Candidate EOL Needs List” shall have the meaning ascribed to it in section (d)(1)(iii).
7. Form No. 715 EOL Planning Criteria. “Form No. 715 EOL Planning Criteria” shall mean planning criteria filed by a Transmission Owner in FERC Form No. 715 to address EOL Needs. No Transmission Owner may be compelled to file a Form No. 715 EOL Planning Criteria not required to be filed pursuant to FERC regulations applicable to Form No. 715.
8. Attachment M-3 EOL Planning Criteria. “Attachment M-3 EOL Planning Criteria” shall mean planning criteria utilized by a Transmission Owner under Attachment M-3 to address EOL Needs.
9. PJM Planning Criteria Need. “PJM Planning Criteria Need” shall mean a need to plan a transmission expansion or enhancement of Transmission Facilities other than those reserved to each Transmission Owner in accordance with section (a).
10. RTEP Planning Process. “RTEP Planning Process” shall mean the process by which PJM develops the Regional Transmission Expansion Plan under Tariff, Schedule 19.

**(c) Procedures for Review of Attachment M-3 Projects.** The following procedures shall be applicable to the planning of Attachment M-3 Projects:

1. **Review of Attachment M-3 Projects.** As described in sections 1.3(c) and (d) of Tariff, Schedule 19, the Subregional RTEP Committees shall be responsible for the review of Attachment M-3 Projects. The Subregional RTEP Committees



shall have a meaningful opportunity to participate and provide feedback, including written comments, throughout the transmission planning process for Attachment M-3 Projects. Disputes shall be resolved in accordance with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable. For purposes of this section (c), reference to the Subregional RTEP Committees shall be deemed to include the Transmission Expansion Advisory Committee (TEAC) when the TEAC reviews Attachment M-3 Projects in accordance with these procedures.

2. **Review of Assumptions and Methodology.** In accordance with sections 1.3(d), 1.5.4(a), and 1.5.6(b) and 1.5.6(c) of Tariff, Schedule 19, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions, and models Transmission Owners propose to use to plan and identify Attachment M-3 Projects (Assumptions Meeting). Each Transmission Owner shall provide the criteria, assumptions, and models to PJM for posting at least 20 days in advance of the Assumptions Meeting to provide Subregional RTEP Committee Participants sufficient time to review this information. Stakeholders may provide comments on the criteria, assumptions, and models to the Transmission Owner for consideration either prior to or following the Assumptions Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the Assumptions Meeting and may respond or provide feedback as appropriate.
3. **Review of System Needs.** No fewer than 25 days after the Assumptions Meeting, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting per planning cycle to review the identified criteria violations and resulting system needs, if any, that may drive the need for an Attachment M-3 Project (Needs Meeting). Each Transmission Owner will review the identified system needs and the drivers of those needs, based on the application of its criteria, assumptions, and models that it uses to plan Attachment M-3 Projects. The Transmission Owners shall share and post their identified criteria violations and drivers no fewer than 10 days in advance of the Needs Meeting. Stakeholders may provide comments on the criteria violations and drivers to the Transmission Owner for consideration prior to, at, or following the Needs Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the Needs Meeting and may respond or provide feedback as appropriate.
4. **Review of Potential Solutions.** No fewer than 25 days after the Needs Meeting, each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting per planning cycle to review potential solutions for the identified criteria violations (Solutions Meeting). The Transmission Owners shall share and post their potential solutions, as well as any alternatives identified by the Transmission Owners or stakeholders, no fewer than 10 days in advance of the Solutions Meeting. Stakeholders may provide

comments on the potential solutions to the Transmission Owner for consideration either prior to or following the Solutions Meeting. The Transmission Owner shall review and consider comments that are received within 10 days of the meeting and may respond or provide feedback as appropriate.

5. **Submission of Attachment M-3 Projects.** Each Transmission Owner will finalize for submittal to the Transmission Provider Attachment M-3 Projects for inclusion in the Local Plan in accordance with section 1.3 of Tariff, Schedule 19 and the schedule established by the Transmission Provider. Stakeholders may provide comments on the Attachment M-3 Projects in accordance with section 1.3 of Tariff, Schedule 19 before the Local Plan is integrated into the Regional Transmission Expansion Plan. Stakeholders shall have at least 10 days to comment on the Local Plan after the solutions selected by the Transmission Owner for inclusion in the Local Plan are posted. Each Transmission Owner shall review and consider comments that are received at least 10 days before the Local Plan is submitted for integration into the Regional Transmission Expansion Plan.
6. **Information Relating to Attachment M-3 Projects.** Information relating to each Transmission Owner's Attachment M-3 Projects will be provided in accordance with, and subject to the limitations set forth in, section 1.5.4 of Tariff, Schedule 19. Local Plan Information will be provided to and posted by the Office of Interconnection as set forth in section 1.5.4(e) of Tariff, Schedule 19.
7. **No Limitation on Additional Meetings and Communications or Use of Attachment M-3 For Other Transmission Projects.**
  - i. Nothing in this Attachment M-3 precludes any Transmission Owner from agreeing with stakeholders to additional meetings or other communications regarding Attachment M-3 Projects, in addition to the Subregional RTEP Committee process.
  - ii. Nothing in this Attachment M-3 precludes a Transmission Owner from using the procedures set forth in section (c) to solicit stakeholder input in the planning of Transmission Facilities not subject to this section (c) or the RTEP Planning Process.

**(d) Additional Procedures for the Identification and Planning of EOL Needs.**

1. **EOL Need Planning Criteria Documentation and Identification**
  - i. Each PJM Transmission Owner shall develop documentation for its Attachment M-3 EOL Planning Criteria and/or its Form 715 EOL Planning Criteria through which each identifies EOL Needs.

- ii. Each Transmission Owner's Attachment M-3 EOL Planning Criteria and/or Form 715 EOL Planning Criteria shall be clearly and separately delineated and presented by the Transmission Owner at least once annually pursuant to section (c)(2) and/or in its FERC Form No. 715 at a meeting of the TEAC.
- iii. Annually, each Transmission Owner will provide to PJM a Candidate EOL Needs List comprising its non-public confidential, non-binding projection of up to 5 years of EOL Needs that it has identified under the Transmission Owner's processes for identification of EOL Needs documented under section (d)(1)(i). Each Transmission Owner may change its projection as it deems necessary and will update it annually. Any Candidate EOL Needs List provided to PJM shall remain confidential within PJM, except to the extent necessary for PJM to make the determination referenced in clause (a) of section (d)(2)(ii).

**2. Coordination of EOL Needs Planning With PJM Planning Criteria Needs.**

- i. If, as part of the RTEP Planning Process, PJM initially determines that a substantial electrical overlap exists such that a single Solution may address a validated PJM Planning Criteria Need(s) identified during the current PJM planning cycle under the RTEP Planning Process and address a projected EOL Need on the Candidate EOL Needs List, which the relevant Transmission Owner has confirmed remains a projected EOL Need, the relevant Transmission Owner shall consult with PJM regarding such potential overlap.
- ii. If, (a) PJM determines through the RTEP Planning Process that a proposed Required Transmission Enhancement would more efficiently or cost-effectively address the identified PJM Planning Criteria Need and may, as well, address the projected EOL Need confirmed under section (d)(2)(i), and (b) the proposed Required Transmission Enhancement is not a solution proposed by the Transmission Owner pursuant to section (c)(4), and (c) the Transmission Owner determines that the projected EOL Need is not met by the proposed Required Transmission Enhancement and determines that it will plan an Attachment M-3 Project to address the projected EOL Need or propose a project to address the Form No. 715 EOL Planning Criteria, the Transmission Owner will provide documentation to PJM and stakeholders on the rationale supporting its determination at the next appropriate meeting of the TEAC or Subregional RTEP Committee that considered the proposed Required Transmission Enhancement.

**(e) Modifications.** This Attachment M-3 may only be modified under section 205 of the Federal Power Act if the proposed modification has been authorized by the PJM Transmission Owners Agreement-Administrative Committee in accordance with section 8.5 of the Consolidated Transmission Owners Agreement.

## ATTACHMENT M-4

### SPECIAL PROCEDURES SOLELY APPLICABLE TO PLANNING OF CIP-014 MITIGATION SUPPLEMENTAL PROJECTS

- a) **Purpose, Limited Scope, Sunset, and Definitions.** Under NERC Reliability Standard CIP-014-2 (“CIP-014”), as it may be redesignated from time to time, Transmission Owners are required to develop and implement physical security plans to protect certain critical transmission stations and substations. This Attachment M-4 is to identify an efficient and cost-effective process for the elimination of such stations and substations as CIP-014 facilities through Supplemental Projects without the level of public disclosure of the existence, location, exact number, and vulnerabilities associated with the CIP-014 facilities that would otherwise be required pursuant to Attachment M-3. The Supplemental Projects that are to be planned for the elimination of CIP-014 stations and substations in accordance with this Attachment M-4, defined below as CIP-014 mitigation projects (“CMP”) in Step 1 of this Attachment M-4, are removed from the Attachment M-3 public planning process in order to ensure that security is maintained while also providing reasonable transparency into the planning process and justification for CMPs. This Attachment M-4 mechanism is a limited alternative to the Attachment M-3 process both in scope and duration, is narrowly tailored to meet security needs, and provides for vital roles by both PJM Interconnection, L.L.C. (“PJM”) and State Commissions in all CMP Process Steps, as set forth below. Notwithstanding the procedures provided for in Attachment M-3 or other planning requirements with respect to all other Supplemental Projects, including proposed project reviews by the Transmission Expansion Advisory Committee or Subregional RTEP Committees and inclusion in the Local Plan, this Attachment M-4 provides special targeted procedures that the Transmission Owners and the unaffiliated verifying entity as defined in NERC CIP-014 (currently, PJM), shall follow in connection with CMPs, which have the specific purpose of removing transmission stations or substations from the list of CIP-014 facilities, within the limited period for which this Attachment M-4 shall be in effect pursuant to the Sunset provision and Step 1 of this Attachment M-4. Other than to the extent that CMP information is included in models maintained by the Transmission Provider, this information shall be made available to the public during the planning and construction of the CMP only under the confidentiality provisions described in Steps 8 and 10 below. Provisions for confidential consultations with State Commissions during this process are also included herein.
- b) **CMP Process Steps.** The process under this Attachment M-4 consists of the following steps:
1. **Definition of CMPs.** For purposes of this Attachment M-4, a CMP shall mean a “Supplemental Project,” as defined in the Tariff, that is (a) designed specifically to remove a transmission station or substation from the list of CIP-014 facilities

identified as of September 30, 2018 as requiring a documented physical security plan (“CIP-014 List”); and (b) reviewed by PJM in accordance with Step 4 of this Attachment M-4. The intent is to complete CMPs no later than five (5) years after the date that the Commission issues an Order accepting this Attachment M-4.

2. **Limitation on the Number of CMPs.** The number of stations and substations throughout the PJM region eligible for CMPs will not exceed 20, the maximum allowable under the finite list referred to in Step 1 of this Attachment M-4. The process set forth in this Attachment M-4 shall be in effect and available only as to CMPs designed specifically to remove a transmission station or substation from the list of CIP-014 facilities as it exists on September 30, 2018 and will cease to apply to any transmission station or substation if it is removed or eliminated from that list immediately upon such removal or elimination.
3. **Transmission Owner Deliberative Process.** A Transmission Owner will submit to PJM:
  - A. **Potential Solutions.** The potential alternative means of eliminating a transmission station or substation from the CIP-014 List; and
  - B. **Preferred Solution.** Identification from among the Potential Solutions the solution that in the view of the Transmission Owner constitutes the more efficient or cost-effective solution to enable the transmission station or substation to be removed from the list of CIP-014 facilities along with an explanation of its Preferred Solution that addresses the following:
    - i. The customer impact that would result from the loss of the transmission station or substation on the CIP-014 List, taking into account any plans for recovering from the loss of the transmission station or substation that could help to restore all or some of the load that was lost, the amount of time that it would take for such load to be restored and the nature of the load to be recovered or not able to be recovered;
    - ii. Whether there are distribution system-level solutions to eliminate the transmission station or substation from the CIP-014 List; and
    - iii. Whether the Preferred Solution requires new or expanded right-of-way.
4. **PJM Review and Assessment.**
  - A. **PJM Review.** Upon receiving the Preferred Solution and Potential Solutions from a Transmission Owner pursuant to Step 3 above, PJM (or consultants selected by PJM) shall evaluate those solutions. PJM shall report its findings to the Transmission Owner in writing and either: (i) advise that the Preferred Solution is

the more efficient or cost effective solution from among the Preferred Solutions and Potential Solutions; (ii) suggest modifications to any of the Preferred Solution or Potential Solutions that will permit PJM to advise that one of them is the more efficient or cost effective solution; or (iii) advise that a CMP solution not be pursued. PJM's report of its findings shall include an explanation of the basis for its advice.

- B. PJM Assessment and Verification. For any CMP project ultimately selected for construction by the Transmission Owner ("Proposed CMP"), PJM shall assess and verify (or explain its inability to verify) that the project:
- i. Will result in removal of one or more transmission stations or substations from the CIP-014 List;
  - ii. Does not remove transmission station(s) or substation(s) from the CIP-014 List that would otherwise be removed from the list through the current Regional Transmission Expansion Planning Process under the Tariff, Schedule 19 ("RTEP Process");
  - iii. Does not provide a solution to address a reliability, operational performance, market efficiency or public policy need that would otherwise be addressed through the current RTEP Process;
  - iv. Will not result in another transmission station or substation being added to the CIP-014 List; and
  - v. Does not result in reliability or operational performance criteria violations under the RTEP Process.

PJM shall report its assessment of these factors to the Transmission Owner in writing. No CMP solution shall proceed to another step in the Attachment M-4 process until this Step 4 has been completed. Once PJM and the Transmission Owner have agreed that the report is final, PJM's report will be provided to the affected State Commission, at that agency's option.

5. Consultation with State Commissions. The Transmission Owner shall ensure that all consultations with a State Commission as set forth in this Step 5, are subject to appropriate confidential safeguards. The Transmission Owner shall only be required to engage in consultations with a State Commission with respect to the planning and construction of a CMP under Step 5 and the Transmission Owner and PJM shall only consult with or provide information to a State Commission under Steps 5 or 6, if and to the extent that the Transmission Owner can ensure that such consultations and information will be subject to such appropriate confidential safeguards.

- A. Any Transmission Owner having submitted to PJM a Preferred Solution and Potential Solutions to eliminate a transmission station or substation from the CIP-014 List pursuant to Step 3 above shall seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which a CMP is proposed to be located. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to the considerations specified in CIP-014, including the need for a CMP, the Potential Solutions submitted to PJM, and the Transmission Owner's Preferred Solution.
- B. Upon PJM's completion of the review specified in Step 4 above, the Transmission Owner shall again seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which a CMP is proposed to be located. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to PJM's review and findings, including the efficiency and cost-effectiveness of any and all of PJM's recommendations.
- C. After identifying and selecting its Proposed CMP pursuant to completion of Step 4(B) above, but before construction is initiated, the Transmission Owner shall further seek to meet with any State Commission(s) with jurisdiction in the Transmission Zones in which the Proposed CMP is to be constructed. PJM shall be invited to participate in any such meeting. Topics for discussion shall include, but not be limited to PJM's assessment of the factors in Step 4(B)(i) through (v) above, the rationale for, location of, and specifications of the Proposed CMP and potential siting issues, particularly those that could affect the estimated project cost. To facilitate the discussion and enable an understanding of the benefits of costs assessed, the Transmission Owner shall be prepared to present an explanation of the reasons and rationale for its intention to proceed to construct its Proposed CMP and the reasonableness of that proposal. The Transmission Owner shall be prepared to address the following:
  - i. The customer impact that would result from the loss of the transmission station or substation on the CIP-014 List, taking into account any plans for recovering from the loss of the transmission station or substation that could help to restore all or some of the load that was lost, the amount of time that it would take for such load to be restored and the nature of the load to be recovered or not able to be recovered, as compared to these same factors as they relate to that station or substation assuming that the Proposed CMP is constructed;
  - ii. Whether there exist distribution system-level solutions, or changes in operating procedures, or some combination, to eliminate the transmission station or substation from the CIP-014 List;
  - iii. Whether the Proposed CMP requires new or expanded right-of-way;

- iv. Whether the Proposed CMP will displace costs associated with maintaining physical security for stations/substations on the CIP-014 List; and
  - v. The estimated cost of the Proposed CMP.
- 6. PJM Interim/Periodic Review and Interim Consultation with State Commissions. Nothing in this Attachment M-4 precludes PJM, at its sole discretion, from conducting additional periodic examinations to verify the continuing validity of its findings and assessment under Step 4, above. Similarly, nothing in this Attachment M-4 precludes PJM from consulting with State Commissions in addition to those consultations specified in Step 5 above, with or without the participation of the relevant Transmission Owner.
- 7. Project Notification and Compliance.
  - A. Transmission Owner Notification to PJM. Upon satisfaction of all parts of Step 5, the Transmission Owner shall notify PJM in writing that the Proposed CMP will be constructed and identify the location and specifications of the Proposed CMP selected. The Transmission Owner shall make a reasonable effort to seek alternative funding to offset project costs, including but not limited to U.S. Department of Energy grants associated with addressing national security, critical infrastructure or resilience.
  - B. Compliance. The Transmission Owner will comply with all applicable licensing, permitting, siting, or certification requirements as well as all applicable proceedings for eminent domain authority.
- 8. CMP Construction. During construction of a CMP, the Transmission Owner carrying out such construction shall continue to take safeguards to ensure necessary confidentiality until the CMP is placed in service.
- 9. CMP In-Service Placement. A Transmission Owner shall have complied with all of its obligations set forth in the CMP Process Steps above before the CMP may be placed in-service.
- 10. Confidentiality. If at any step in the Attachment M-4 process, the level of needed confidentiality is eliminated with respect to elements of CMP information, such confidentiality shall be reduced or lifted. As a precondition to any Transmission Owner being eligible for recovery of the costs of the CMP, the Transmission Owner shall provide public notice of the existence of the CMP.
- 11. Public Review of CMP. At no time prior to the existence of the CMP being made known to the public by adherence to Step 10 of this Attachment M-4 shall the costs of any CMP be eligible for inclusion in rates filed by any Transmission Owner. After



notice of the existence of a CMP has been provided by adherence to Step 10 of this Attachment M-4, the Transmission Owner may propose to recover its investment in the CMP and the associated costs from Responsible Customers in its Zone through a rate, including a formula rate, in effect under the applicable Tariff, Attachment H similar to the cost recovery process it follows for other Supplemental Projects. Any such proposal shall be subject to discovery on all matters pursuant to the procedures applicable under the applicable Attachment H, the Federal Power Act, and the Commission's regulations, including any applicable procedures for the protection against disclosure of commercially sensitive information and Critical Energy Infrastructure Information.

- c) **Modifications.** This Attachment M-4 may be modified under Section 205 of the Federal Power Act only if the proposed modification has been authorized by the PJM Transmission Owners Agreement-Administrative Committee in accordance with Section 8.5 of the Consolidated Transmission Owners Agreement ("CTOA").
- d) **Sunset.** This Attachment M-4 terminates five years after the issuance date of an Order from the Federal Energy Regulatory Commission approving this Attachment M-4 for inclusion in the PJM Tariff; however, CMPs already under construction as of that date of termination may proceed and the conditions in Steps 8, 9, 10, and 11 shall remain in force. For any CMP construction occurring after the sunset date, quarterly status briefings shall be provided to any State Commission previously consulted under Step 5 until the CMP is placed in service pursuant to Step 9.

## **21.1 Regulatory Filing:**

In the event that this Interconnection Construction Service Agreement contains any terms that deviate materially from the form included in Attachment P or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed Interconnection Construction Service Agreement on behalf of itself and the Interconnected Transmission Owner with FERC as a service schedule under the Tariff. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Section 17 of this Appendix 2. An Interconnection Customer shall have the right, with respect to any Interconnection Construction Service Agreement tendered to it, to request (a) dispute resolution under Section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable, or (b) that Transmission Provider file the agreement unexecuted with the Commission. With the filing of any unexecuted Interconnection Construction Service Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any Construction Parties.

**ATTACHMENT U**

**INDEPENDENT TRANSMISSION COMPANIES**

References to section numbers in this Attachment U refer to sections of this Attachment U, unless otherwise specified.

This Attachment U sets forth a general framework for the development and operation of independent transmission companies (“ITCs”) as to certain of the transmission facilities for which the Transmission Provider, PJM Interconnection, L.L.C. (“PJM”), is otherwise responsible. The provisions of this Attachment U shall govern in the event of any conflict between this Attachment and the other provisions of the Tariff, except as to Tariff, Attachment M. If there is a conflict between the provisions of this Attachment U and Tariff, Attachment M, the provisions of Tariff, Attachment M shall govern. Under this Attachment U, certain responsibilities may be assigned to an ITC, if the ITC enters into an ITC Agreement in the form set forth in this Tariff and if FERC acceptance of the independence of the ITC and FERC approval or acceptance of the assignment is obtained as provided herein.

This Attachment U sets forth the standard terms and conditions, and the standard division of rights, responsibilities, and functions, in conformance with FERC policy and precedent, for any ITC that operates under PJM. Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall enter into an ITC Agreement in the form set forth in Tariff, Attachment V, which is subject to and incorporates the standard terms and conditions of this Attachment U and identifies the ITC Transmission Facilities (as defined herein).

It is recognized that PJM shall be responsible for administering any wholesale energy market (and providing all functions integral to such market administration) within the PJM region.

**1. FERC APPROVAL**

1.1 FERC Acceptance As A Prerequisite. Before receiving the rights and responsibilities provided for under this Attachment U, the ITC Sponsor shall apply for and receive a FERC order accepting the ITC proposal to be implemented and finding that the proposed ITC satisfies FERC’s independence criteria and that such entity may be treated as an ITC under this Attachment U.

1.2 Effect of FERC Acceptance. Once FERC issues an order accepting the filing and providing the finding required under section 1.1 above, then the ITC, subject to satisfaction of the other requirements of this section 1, may operate under PJM consistent with the rights, responsibilities, and functions that have been accepted or approved by FERC.

1.3 Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall submit a filing with FERC detailing each of the rights, responsibilities, and functions the ITC proposes to assume, which may consist of some or all of the rights, responsibilities, and functions set forth in this Attachment U, together with specifics on implementing any of these assigned rights, responsibilities, and functions. An ITC Sponsor must have, or demonstrate to

FERC that it shall have prior to implementation, ownership of, or the authority to direct the operation of, transmission facilities that are within the PJM region, or that are to be added to the PJM region as a result of the establishment of the ITC (such facilities referred to herein as the “ITC Transmission Facilities”).

1.4 Following the FERC approvals specified in section 1.1 above, the ITC shall assume the rights and responsibilities described herein on the first day of the calendar month (“ITC Commencement Date”) following the date on which the ITC provides written notice to Transmission Provider that the ITC is prepared to assume its responsibilities hereunder in accordance with section 15 below. PJM shall coordinate with the ITC prior to the ITC Commencement Date to ensure that PJM is capable as of the ITC Commencement Date of providing the responsibilities reserved to PJM hereunder as to the ITC Transmission Facilities and related bulk power facilities.

1.5 Prior to the ITC Commencement Date, the ITC and each owner of transmission facilities participating in such ITC shall execute, with respect to the transmission facilities over which it has the authority to direct the operation: (a) the Consolidated Transmission Owners Agreement; and (b) the Operating Agreement. In the event of any conflict between the ITC Agreement and the Operating Agreement that affects the PJM Region other than the ITC Transmission Facilities, the provisions of the Operating Agreement shall control pending dispute resolution, with final approval of the dispute’s resolution by FERC. In the event of any other express conflict between the ITC Agreement and the Operating Agreement or the transmission owners agreement executed by ITC, neither the transmission owners agreement nor the Operating Agreement shall be interpreted to limit the rights and responsibilities assigned to ITC in its role as an ITC pursuant to the ITC Agreement.

## **2. SECURITY COORDINATION**

2.1 Regional Reliability Authority. PJM shall be the regional Reliability Authority under NERC standards for all PJM transmission facilities, including any ITC Transmission Facilities. As the Reliability Authority, PJM is responsible for monitoring and directing corrective action for reliability for all areas in the PJM region.

2.2 ITC Actions to Preserve System Security. An ITC may monitor and analyze the security of the ITC Transmission Facilities and may take actions to protect the ITC Transmission Facilities from physical damage or prevent injury or damage to persons or property in accordance with good utility practice and the PJM Operating Manuals, as they may be modified pursuant to section 16 of this Attachment U, before requesting assistance from PJM. At the earliest possible time, the ITC shall inform PJM of any such actions taken and coordinate further actions with PJM.

2.3 Ultimate Authority. Notwithstanding any other provision in this Attachment U, PJM may intercede and direct appropriate actions in its role as the regional Reliability Authority. The ITC shall be responsible for implementing such corrective actions directed by PJM. If such PJM action or direction is disputed, PJM’s position shall control pending resolution of the dispute.

### **3. BASE TRANSMISSION RATES**

3.1 Right to File Rate Changes. The ITC shall possess the unilateral right, subject to consultation with PJM, to file at FERC and to place into effect pursuant to FPA section 205 the rates for transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities (including incentive rate structures, but excluding ancillary services, except as permitted by section 17 below, and excluding the congestion pricing methodology for the PJM region), and for additional services, if any, solely involving the ITC Transmission Facilities, and the revenue requirement for such zones for use in developing rates for other transmission services provided by PJM. Such rate or rate structure changes shall be included in discrete schedules or portions of the Tariff (hereafter, such the "ITC Rate Schedule"). The ITC shall consult with PJM prior to making a section 205 rate filing to ensure that PJM has adequate opportunity to determine whether the proposal results in adverse impacts outside the zone or zones comprising the ITC Transmission Facilities.

3.2 Limitations. The ITC may not implement transmission rates in accordance with section 3.1 above that violate the terms of the Consolidated Transmission Owners Agreement.

3.3 No Rate Pancaking. Notwithstanding its rights under section 3.1 above, the ITC shall not implement rates or a rate structure that results in a Transmission Customer paying more than one base transmission charge for use of the Transmission System for any one transaction.

### **4. REVENUE DISTRIBUTION**

4.1 ITC Receipt of Transmission Revenues. The ITC shall receive and/or retain revenues resulting from the provision of transmission service under the Tariff in accordance with the applicable revenue distribution procedures of the Consolidated Transmission Owners Agreement. The ITC may take no unilateral action that interferes with or affects the revenue distribution provided for in such agreements or that interferes with the collection by PJM of the revenues due it for services it provides or arranges.

4.2 Redistribution of Revenues. The ITC may distribute the revenues due it in accordance with section 4.1 above in any manner it wishes subject to receiving any necessary regulatory approvals, without involvement of PJM.

### **5. MANAGEMENT OF CONGESTION PRICING METHODOLOGY**

5.1 Subject to FERC approval, PJM shall determine the congestion pricing methodology for the PJM region, administer the dispatch of the generation and transmission facilities in the PJM region in accordance with the approved methodology, calculate the resulting congestion prices, and conduct all related billing and settlement.

### **6. ACTIONS TO ENHANCE TRANSMISSION PERFORMANCE**

6.1 The ITC may take actions with respect to the system comprised of the ITC Transmission Facilities that can be accommodated within the framework of the approved congestion pricing

methodology referenced in section 5.1 above. It may do this through targeted transmission system investment, outage management, the determination of transmission device settings, establishing contractual arrangements (e.g., with generators and LSE's), changes in technology, and other operating actions affecting the ITC Transmission Facilities. Before it first implements such actions, the ITC shall consult with PJM to develop procedures for inclusion in the PJM Operating Manuals for each class of such action that the ITC may thereafter implement. In such consultation, PJM shall consider whether the type of action can be accommodated within the framework of the approved congestion pricing methodology and whether the type of action would result in violations of regional reliability criteria applied in the PJM region. Following inclusion of procedures for each such type of action in the Manuals, the ITC may implement such actions in coordination with PJM in the manner set forth in the manuals. In addition, the ITC and PJM shall cooperate with one another in solving operational issues outside the ITC region that affect the ITC Transmission Facilities, or inside the ITC region that affect facilities outside such region.

6.2 Incentive Mechanisms. The ITC shall possess the unilateral right to file with FERC incentive mechanisms relating to the system comprised of the ITC Transmission Facilities in a manner that can be accommodated within the framework of the approved methodology referenced in section 5.1 above. The ITC shall consult with PJM prior to filing any such mechanism to allow PJM to consider whether any such proposed mechanism can be so accommodated and whether it would result in violations of regional reliability criteria applied in the PJM region. In addition, prior to the implementation of any such incentive mechanism, the ITC and PJM shall coordinate the operation of any such mechanism. PJM shall modify the PJM Operating Manuals as necessary to allow for the implementation of any FERC-approved incentive mechanism.

## **7. TARIFF ADMINISTRATION**

7.1 Service under the Tariff. PJM is the Transmission Provider and remains responsible for administering the Tariff, which shall be amended to include the ITC Transmission Facilities and any provisions specific to the ITC Transmission Facilities that the ITC may propose pursuant to this Attachment U. Transmission Customers on the ITC Transmission Facilities will receive transmission service under the Tariff. PJM shall execute the agreements with customers for service under the Tariff, except that the ITC and PJM shall both execute agreements with customers for interconnection services. For transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities, to the extent rate discounting is authorized as to such transmission services, the ITC shall make all decisions on rate discounts.

7.2 OASIS. PJM shall maintain the OASIS specified in Tariff, section 4. Customers shall apply for service on the PJM OASIS. PJM shall have responsibility for granting or denying all transmission service requests, but shall coordinate as necessary with ITC in developing its response to transmission service requests, including any necessary studies. The ITC shall be entitled to have and maintain a site page within the PJM OASIS for any additional services provided by such ITC.

7.3 Studies. PJM shall administer the contracts with the customers and shall provide the notices and make filings under this Tariff. If a system impact, facilities, or other study is required to address a connection to, or a constraint or other impact on, the ITC Transmission Facilities, then the ITC shall assume responsibility for the study subject to oversight by, and coordination with, PJM, and satisfaction of PJM criteria for such studies as set forth in the joint planning protocol developed pursuant to section 10.3 below. The study agreement shall be executed by PJM; provided however, that nothing herein shall preclude the ITC from entering into additional agreements with customers regarding studies.

7.4 ATC. PJM shall calculate Available Transfer Capability (“ATC”), in accordance with Tariff, Attachment C, for all facilities, including the ITC Transmission Facilities, provided that the ITC shall possess the unilateral right to provide, pursuant to section 9.1 of this Attachment U, the ratings, transfer limits, inputs, assumptions, and corresponding operating guides with respect to the ITC Transmission Facilities to be used in calculating ATC. If PJM disagrees with these ratings, transfer limits, calculations, inputs, assumptions, or corresponding operating guides, the ITC’s position shall prevail pending dispute resolution, unless PJM determines that ITC’s position would violate system reliability criteria, in which case PJM’s position shall prevail pending dispute resolution.

7.5 Scheduling. Customers will schedule through the processes established by PJM.

## **8. CURTAILMENTS**

8.1 PJM shall be responsible for directing all curtailments consistent with the Tariff and the Operating Agreement. The ITC and PJM shall develop protocols to implement any curtailments ordered by PJM with respect to the ITC Transmission Facilities.

8.2 The ITC may propose to PJM operating methods to avoid and/or limit the need for curtailments, and may implement such measures involving operation of the ITC Transmission Facilities, in coordination with PJM; provided, however, that if PJM determines that a measure proposed by the ITC would exacerbate an existing violation of a system reliability criterion, or cause a violation of such criterion elsewhere on the system, or of another system reliability criterion, then that measure shall not be implemented, pending dispute resolution.

## **9. OPERATIONS**

9.1 Ratings and Rating Procedures. The ITC is responsible for the establishment of ratings, transfer limits, and rating procedures for the ITC Transmission Facilities. The ITC shall provide notice to PJM of all changes in ratings, transfer limits, and rating procedures, along with the related information called for by Operating Agreement, Schedule 1, section 1.9.8, in accordance with the deadlines set forth in such section 1.9.8 and in accordance with the PJM Manuals, as they may be modified pursuant to section 16 below; provided that nothing in section 1.9.8 shall preclude the ITC from instituting ratings changes (including, but not limited to, dynamic ratings changes) in accordance with applicable PJM Operating Manuals, as they may be revised pursuant to section 16 of this Attachment U. Notwithstanding Operating Agreement, Schedule 1,

section 1.9.8 or Operating Agreement, Schedule 1, section 1.9.9(e), should PJM dispute the application of a rating, then the ITC's position shall prevail pending dispute resolution.

9.2 Transmission Maintenance. The ITC shall be responsible for developing its own coordinated transmission maintenance and outage schedules for the ITC Transmission Facilities and shall advise PJM of all such maintenance and outage schedules, for all ITC Transmission Facilities, in accordance with Operating Agreement, Schedule 1, section 1.9.2. PJM shall have the authority to disapprove transmission maintenance outages on the ITC Transmission Facilities if ITC fails to comply with the notice requirements of Operating Agreement, Schedule 1, section 1.9.2 to the Operating Agreement, or if PJM determines that such outages would create a violation of system reliability criteria. PJM shall have the authority to revoke its previously granted approval of transmission maintenance outages on the ITC Transmission System if forced transmission outages or emergency circumstances occur such that proceeding with the approved outage would create a violation of system reliability criteria; provided that, where time permits, PJM will consult with the ITC to determine whether steps can be taken that would enable the maintenance outage to go forward as scheduled. PJM shall notify the ITC of the decision to reschedule or revoke approval of the transmission maintenance outage as soon as possible after the circumstances arise that create the need for the rescheduling or revocation. Within a reasonable time after it requires a transmission maintenance outage to be rescheduled or revokes its approval of such an outage, PJM shall consult with the ITC to explain the reasons for its decisions and to consider measures that the parties may adopt to avoid the need for further rescheduling or revocation of outages.

9.3 Generation Maintenance. In accordance with the Operating Agreement and with procedures in the PJM Manuals, as they may be modified pursuant to section 16 below, the ITC shall promptly provide PJM with any advance notice of scheduled outages it receives from generators, and PJM shall promptly provide the ITC with any advance notice it receives of scheduled generator outages that affect the ITC Transmission Facilities, to permit the ITC to schedule transmission outages on the ITC Transmission Facilities and perform its other functions hereunder, and to permit PJM to exercise its responsibilities under the PJM Operating Agreement with respect to generator outages. The ITC may agree to coordinate with generators to modify its planned transmission outage schedules in coordination with generator outage schedules.

9.4 Scheduling and Dispatch. PJM shall be responsible for administering day-ahead and real-time wholesale energy markets, including transmission security monitoring and constrained economic dispatch, for all facilities, including the ITC Transmission Facilities. The ITC shall manage the configuration and topology of the ITC Transmission Facilities, including acting as the primary interface for all switching, maintenance, ratings, transfer limits, and monitoring, subject to the direction of PJM as the regional Reliability Authority, and in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U.

9.5 Operations. The ITC shall have the authority and responsibility, in accordance with its agreements with the owners of the ITC Transmission Facilities, the terms of the Consolidated Transmission Owners Agreement, NERC and Applicable Regional Entity standards and guidelines, and the PJM Operating Manuals, as such manuals may be revised pursuant to section 16 of this Attachment U, to operate those facilities in a safe, economical, and reliable manner.



PJM shall have the authority and responsibility to issue operating instructions to the ITC as they relate to the ITC Transmission Facilities in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U, provided that nothing herein shall be construed to require a change in the physical control of the ITC Transmission Facilities using the ITC's control center facilities and equipment. The ITC and PJM shall seek agreement (where time limitations allow) on real-time operational decisions affecting the ITC Transmission Facilities not otherwise specified in the PJM Manuals. In the absence of such agreement, or if time limitations do not permit reaching agreement, PJM shall exercise its authority to direct operations, subject to any actions the ITC may take in accordance with section 2.2 of this Attachment U.

## **10. PLANNING**

10.1 PJM has the ultimate authority for developing a Regional Transmission Expansion Plan for its entire region, including the ITC Transmission Facilities, and may direct expansions as required in accordance with Tariff, Schedule 19, or successor provisions, as they may be amended. In the event of disputes between PJM and ITC concerning the contents of such Regional Transmission Expansion Plan, the position of PJM, as the ultimate authority for planning in the region, shall prevail. Pursuant to the joint planning protocol developed under section 10.3 below, PJM shall be responsible for setting appropriate planning criteria and the ITC shall be responsible for studying the need for modifications, enhancements, or additions to the ITC Transmission Facilities and for proposing a plan of modifications, enhancements, or additions to the ITC Transmission Facilities. Each component of a timely plan proposed by the ITC shall be incorporated without PJM approval in the Regional Transmission Expansion Plan if PJM determines that such component does not materially adversely affect the Transmission System other than the ITC Transmission Facilities. The ITC also may suggest, in accordance with any established stakeholder procedures under Tariff, Schedule 19, potential modifications, enhancements, or additions to transmission facilities in the PJM region other than the ITC Transmission Facilities. Subject to any necessary FERC approval, the ITC may adopt any procedures it deems necessary with respect to the ITC's development of a plan of enhancements or expansions, so long as such procedures do not adversely affect PJM's ability to prepare the Regional Transmission Expansion Plan in a timely and efficient manner. Nothing in this Attachment U impairs the rights of affected parties to participate in the PJM planning process in accordance with Commission-approved procedures. During the planning process the ITC shall adhere to all Applicable Regional Entity, NERC and PJM Planning criteria. The ITC shall participate with PJM in the development of the system needs analysis, any system impact studies and the transmission expansion plans as necessary to promote fully coordinated and efficient solutions.

10.2 Interconnection Requests. Customer requests for interconnection, including requests for interconnection with the ITC Transmission Facilities, will be coordinated by PJM in accordance with the Tariff and the PJM Manuals, as they may be modified pursuant to section 16 of this Attachment U. The ITC shall assume primary responsibility for interconnection projects on the ITC Transmission Facilities. PJM shall be responsible for setting interconnection standards, receiving interconnection requests, administering the queue, coordinating the analysis of requests for interconnection with ITC Transmission Facilities with requests for interconnection with non-

ITC Transmission Facilities, and ensuring that proposed interconnections to the ITC Transmission Facilities will not materially adversely affect the Transmission System other than the ITC Transmission Facilities. PJM as the Transmission Provider under this Tariff also shall retain primary responsibility for all service-related matters under the Tariff, including issuance and administration of interconnection rights. ITC shall regularly and frequently update PJM on the status and results of all interconnect studies performed by or for the ITC, in accordance with the joint planning protocol developed pursuant to section 10.3 below. The results of any ITC studies prepared in response to interconnection requests shall be reflected in the Regional Transmission Expansion Plan.

10.3 Joint Planning Protocol. PJM and ITC shall develop a joint planning protocol to facilitate the seamless and efficient integration of all ITC transmission planning, study and analysis efforts, and all ITC proposals for transmission enhancements, modifications, and additions into the Regional Transmission Expansion Plan under Tariff, Schedule 19 and the regional generation interconnection queuing, study, and cost allocation process under Tariff, Part IV. Such protocols shall be designed to facilitate the preparation of the Regional Transmission Expansion Plan, and shall reflect and accommodate the procedures, timelines, and study cycles employed for the regional transmission planning and generation interconnection process. PJM and ITC shall each implement the provisions of the joint planning protocol. PJM and ITC shall consult regularly concerning the extent to which changes to the joint planning protocol may be required to achieve the foregoing purposes in light of experience and, as applicable, the coordination of planning activities among PJM and all ITCs in the PJM region.

10.4 Material Adverse Effect. As used in this Attachment, a material adverse effect on the Transmission System other than the ITC Transmission Facilities shall not be present only if all of the following statements are true:

1. The proposed facility or requested service does not result in any non-ITC facilities in the PJM Region exceeding thermal, voltage, or stability limits, consistent with all applicable reliability criteria; and
2. The proposed facility or requested service does not result in any circuit breaker on non-ITC facilities in the PJM Region exceeding its interrupting capability.

## **11. BILLING AND REMITTANCE**

11.1 PJM Responsibilities. PJM shall be responsible for all billing, settlement, and revenue distribution, except as provided in section 11.2 below.

11.2 ITC Responsibilities. The ITC may elect to perform billing, settlement, and revenue distribution for the additional services, if any, provided by the ITC as referenced in section 3.1 of this Attachment U. The ITC may elect to contract for the provision of those functions by PJM or another third party.

## **12. MONITORING**

12.1 The Market Monitoring Unit established under Tariff, Attachment M shall monitor the services provided by the ITC, and the ITC-PJM relationship, to detect any problems that may inhibit a robust and competitive market. Transactions utilizing the ITC Transmission Facilities shall be subject to the authority of the Market Monitoring Unit on the same basis as transactions involving any other Market Participant using other portions of the Transmission System. This provision is also found in Tariff, Attachment M, Article IV, section C-1.

### **13. LIABILITY AND INDEMNITY**

13.1 The ITC shall execute the Operating Agreement as a Member of PJM and the liability and indemnity provisions as set forth in Operating Agreement, section 16 shall apply to acts or omissions resulting from, arising out of, or in any way connected with this Attachment or the ITC Agreement.

### **14. DISPUTE RESOLUTION**

14.1 Dispute resolution as used herein refers to the dispute resolution procedures in Tariff, section 12, as it may be amended.

### **15. NOTIFICATION OF ASSUMPTION OF RESPONSIBILITIES**

15.1 The ITC shall provide adequate notice to PJM of its intent to assume the responsibilities described in this Attachment U.

### **16. OPERATING PROCEDURES AND PROTOCOLS**

16.1 Operating Guides, Manuals and Procedures. As provided in section 9.5 of this Attachment U, the ITC shall operate the ITC Transmission Facilities in accordance with the PJM Operating Manuals. Prior to start-up, and from time to time after the ITC commences operations, the ITC shall review such manuals and shall timely notify PJM of any changes or additions desired by the ITC to address specific conditions or operating procedures on the ITC Transmission Facilities. Subject to PJM's agreement, the PJM Manuals shall be revised or supplemented accordingly. PJM shall apprise ITC of subsequent changes to the PJM manuals through its established procedures for stakeholder notification of such changes. Any dispute between the ITC and PJM concerning changes to the PJM Manuals shall be resolved in accordance with section 14.1 above. Nothing herein precludes the ITC from maintaining more detailed operating guides, manuals, and procedures specific to the ITC Transmission Facilities that are consistent with and subject to the operating guides and procedures in the PJM Manuals.

16.2 ITC Start-Up Procedures and Protocols. The ITC and PJM shall cooperate and use their best efforts to develop the necessary procedures and protocols to allow timely start-up of the ITC pursuant to this Attachment U.

### **17. ANCILLARY SERVICES**

17.1 ITC System Control and Administrative Services. ITC shall recover its costs of providing system control and other administrative services through an appropriate schedule to the Tariff, as filed and made effective by ITC, subject to FERC acceptance.

17.2 System Restoration and Black Start Generation. PJM and the ITC shall coordinate in the preparation of a workable system restoration plan for the ITC Transmission Facilities in accordance with approved PJM Tariff requirements. PJM and the ITC shall be responsible for implementing their respective assigned duties under such system restoration plan.

17.3 Reactive Support. PJM shall be responsible for purchases of reactive support from generators under the PJM Tariff. If desired by ITC and approved by FERC, PJM shall designate ITC as a supplier of reactive support in accordance with an ITC Rate Schedule to be included in the PJM Tariff.

## **18. INFORMATION SHARING**

18.1 Subject to FERC approval of any necessary changes to the PJM Operating Agreement, PJM shall share with the ITC information within the possession of PJM that is necessary for the ITC to perform those rights, responsibilities and functions that FERC authorizes the ITC to perform and the ITC shall share with PJM information within the possession of the ITC that is necessary for PJM to perform those rights, responsibilities and functions that FERC authorizes PJM to perform. If such data are immediately available, it is expected that the parties will establish communication links for data transfer as appropriate and necessary. Data requiring manipulation shall be made available within a reasonable time. In all cases, all data designated as confidential shall be handled as provided in section 18.2 of this Attachment U.

18.2 Confidentiality. To the extent ITC obtains from PJM or any Member of PJM any documents, data, or other information that has been designated by PJM or a Member as confidential, ITC shall treat such information in the same manner and subject to the same procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17. To the extent PJM obtains from ITC any documents, data, or other information that has been designated by ITC as confidential, PJM shall treat such information in accordance with the procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17.

## **19. INTERREGIONAL COORDINATION**

19.1 PJM is responsible for coordination with all neighboring regions, including those adjacent to the ITC (or operated by the ITC in adjacent regions).

19.2 To the extent that an ITC (or its affiliates) is operating in PJM and a neighboring region, the ITC may, in coordination with PJM, undertake efforts to facilitate interregional coordination between PJM and the neighboring region. The ITC shall consult with PJM prior to implementing any such efforts to allow PJM to consider whether the actions could be accommodated within the framework of PJM's approved congestion pricing methodology and other rules and whether the actions would result in violations of regional reliability criteria applied in the PJM region.

## **20. REVISION OF ITC FUNCTIONS**

20.1 The division of functions and responsibilities between PJM and ITC shall be as set forth in this Attachment U and the ITC Agreement and may be modified from time to time to reflect the functionality permitted for independent transmission companies in accordance with FERC policy as pronounced in proceedings concerning Standard Market Design or otherwise, and to reflect the experience of the parties in the actual performance of their functions hereunder. PJM and ITC from time to time will review the allocation of functions and responsibilities and address appropriate changes, if any, to the division of functions between ITC and PJM consistent with such FERC policy, and any such changes shall be subject to any required regulatory approvals.

**APPENDIX II**  
**DEFINITIONS**

**1. Definitions.**

The following definitions shall apply to this Agreement.

**1.1 “Affiliate”**

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**1.2 “Applicable Laws and Regulations”**

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**1.3 “Applicable Regional Entity”**

Applicable Regional Entity shall mean the Regional Entity for the region in which the Transmission Owner or New Service Customer operates.

**1.4 “Applicable Standards”**

Applicable Standards shall mean the requirements and guidelines of NERC, the Applicable Regional Entity and the Control Area in which the Direct Assignment Facilities or Customer-Funded Upgrades are electrically located, the PJM Manuals and applicable technical requirements and standards.

**1.5 “Breach”**

Breach shall mean the failure of a Party to perform or observe any material term or condition of the applicable Part of the PJM Tariff or this Upgrade CSA.

**1.6 “Breaching Party”**

Breaching Party shall mean a Party that is in Breach of the applicable Part of the PJM Tariff and/or this Upgrade CSA.

**1.7 “Cancellation Costs”**

Cancellation Costs shall mean the Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, engineer, construct and install the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA; and/or (b) completion of some or all of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, or specific unfinished portions and/or removal of any or all of such Direct Assignment Facilities or Customer-Funded Upgrades which have been installed, to the extent required for the Transmission Owner and Transmission Provider to perform their respective obligations under this Upgrade CSA.

### **1.8 “Commission”**

Commission shall mean the Federal Energy Regulatory Commission.

### **1.9 “Confidential Information”**

Confidential Information shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, engineering, device, list, concept, policy, or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing Party’s technology, research and development, business affairs and pricing, and any information supplied by any Party to another such Party prior to the execution of a Transmission Service Agreement or this Upgrade CSA.

### **1.10 “Constructing Entity”**

Constructing Entity shall mean either the Transmission Owner or the New Service Customer, depending on which entity has the construction responsibility pursuant to Part VI and this Upgrade CSA.

### **1.11 “Control Area”**

Control Area shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to: (1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

### **1.12 “Costs”**

Costs shall mean all of the actual costs and expenses incurred by the Transmission Owner to complete its obligations under Section 2.5 of this Upgrade CSA, including, but not limited to, capital expenditures, overhead, return, and the costs of financing, equipment, labor, services, taxes, income tax gross-ups and any Incidental Expenses.

### **1.13 “Default”**

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of this Upgrade CSA and the PJM Tariff.

### **1.14 “Delivering Party”**

Delivering Party shall mean the entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

### **1.15 “Emergency Condition”**

Emergency Condition shall mean a condition or situation: (i) that in the judgment of any Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or the Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, a Transmission Owner’s transmission system or distribution system to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of the New Service Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the facility.

### **1.16 “Environmental Laws”**

Environmental Laws shall mean Applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

### **1.17 “Facilities Study”**

Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Direct Assignment Facilities or Customer-Funded Upgrades necessary to accommodate the New Service Request, as applicable.

### **1.18 “Federal Power Act”**

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

### **1.19 “FERC”**

FERC shall mean the Federal Energy Regulatory Commission or its successor.



## **1.20 “Firm Point-To-Point Transmission Service”**

Firm Point-To-Point Transmission Service shall mean Transmission Service under the PJM Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Part II of the PJM Tariff.

## **1.21 “Force Majeure”**

Force Majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of due diligence such Party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force Majeure does not include: (i) a failure of performance that is due to an affected Party’s own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

## **1.22 “Good Utility Practice”**

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

## **1.23 “Governmental Authority”**

Governmental Authority means any federal, State, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over any Party regarding any matter relating to this Upgrade CSA, as applicable.

## **1.24 “Hazardous Substances”**

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any

other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

### **1.25 “Incidental Expenses”**

Incidental Expenses shall mean those expenses incidental to the performance of design, engineering, procurement and construction of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, including, but not limited to, the expense of temporary construction power, telecommunications charges, Transmission Owner expenses associated with, but not limited to, document preparation, design review, engineering, installation, monitoring, and construction-related operations and maintenance for the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

### **1.26 “Local Upgrades”**

Local Upgrades shall mean modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include: (i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and (ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

### **1.27 “Long-Term Firm Point-To-Point Transmission Service”**

Long-Term Firm Point-To-Point Transmission Service shall mean Firm Point-To-Point Transmission Service under Part II of the PJM Tariff with a term of one year or more.

### **1.28 “NERC”**

NERC shall mean the North American Electric Reliability Council or any successor thereto.

### **1.29 “Network Upgrades”**

Network Upgrades shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider’s overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

### **1.30 “Office of the Interconnection”**

Office of the Interconnection shall mean the Office of the Interconnection, as supervised by the Board of Managers of the PJM Interconnection, L.L.C., acting pursuant to the Operating Agreement.

### **1.31 “Operating Agreement of the PJM Interconnection, L.L.C.” or “Operating Agreement”**

Operating Agreement of the PJM Interconnection, L.L.C.” or “Operating Agreement shall mean that agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

### **1.32 “Part I”**

Part I shall mean the PJM Tariff Definitions and Common Service Provisions contained in Sections 2 through 12 of the PJM Tariff.

### **1.33 “Part II”**

Part II shall mean PJM Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments of the PJM Tariff.

### **1.34 “Part III”**

Part III shall mean PJM Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments of the PJM Tariff.

### **1.35 “Part IV”**

Part IV shall mean PJM Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with applicable Common Service Provision of Part I and appropriate Schedules and Attachments.

### **1.36 “Part VI”**

Part VI shall mean PJM Tariff Sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provision of Part I and appropriate Schedules and Attachments.

### **1.37 “PJM Interchange Energy Market”**

PJM Interchange Energy Market shall mean the regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the PJM Tariff and Schedule 1 to the Operating Agreement.

### **1.38 “PJM Manuals”**

PJM Manuals shall mean the instructions, rules, procedures and guidelines established by the Transmission Provider for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

### **1.39 “PJM Region”**

PJM Region shall have the meaning specified in the Operating Agreement.

### **1.40 “Point(s) of Delivery”**

Point(s) of Delivery shall mean the point(s) on the Transmission Provider’s Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Part II of the PJM Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.41 “Point(s) of Receipt”**

Point(s) of Receipt shall mean the point(s) of interconnection on the Transmission Provider’s Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Part II of the PJM Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.42 “Project Financing” means:**

Project Financing shall mean

- (a) One or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, any alteration, expansion or improvement to such Direct Assignment Facilities or Customer-Funded Upgrades, the purchase

and sale of such Direct Assignment Facilities or Customer-Funded Upgrades or the operation of such Direct Assignment Facilities or Customer-Funded Upgrades;

(b) Loans and/or debt issues secured by the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

#### **1.43 “Project Finance Entity”**

Project Finance Entity means: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the facility to which New Service Customer has granted a mortgage or other lien as security for some or all of New Service Customer’s obligations under the corresponding power purchase agreement.

#### **1.44 “Reasonable Efforts”**

Reasonable Efforts shall mean, with respect to any action required to be made, attempted, or taken by Transmission Provider or Transmission Owner, such efforts as are timely and consistent with Good Utility Practice and with efforts that such Party would undertake for the protection of its own interests.

#### **1.45 “Receiving Party”**

Receiving Party shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

#### **1.46 “Regional Transmission Expansion Plan” or “RTEP”**

Regional Transmission Expansion Plan or “RTEP” shall mean the plan prepared by the Office of the Interconnection pursuant to Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

#### **1.47 “Schedule and Scope of Work”**

Schedule and Scope of Work shall mean that schedule and scope of work attached to the Upgrade CSA setting forth the scope and timing of work to be performed by the Transmission Owner, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for projects set forth in the PJM Manuals.

#### **1.48 “Security”**

Security shall mean the letter of credit or other reasonable form of security provided by the New Service Customer to the Transmission Provider pursuant to Section 213.4 of the PJM Tariff to secure the New Service Customer’s responsibility for Costs incurred pursuant to this Upgrade CSA.

**1.49 “Service Agreement”**

Service Agreement shall mean the initial agreement and any amendments or supplements thereto entered into by the New Service Customer and the Transmission Provider for service under the PJM Tariff.

**1.50 “State”**

State shall mean a state of the United States or the District of Columbia.

**1.51 “Transmission System”**

Transmission System shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the PJM Tariff.

**DESIGNATED ENTITY AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

**And**

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**DESIGNATED ENTITY AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

**And**

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This Designated Entity Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date between PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), and \_\_\_\_\_ (“Designated Entity” [OPTIONAL: or “[short name]”), referred to herein individually as “Party” and collectively as “the Parties.”

**WITNESSETH**

WHEREAS, in accordance with FERC Order No. 1000 and Schedule 19 of the Open Access Transmission Tariff of PJM Interconnection, L.L.C. (“Tariff”), Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of Tariff Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to construct the Project; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

**Article 1 – Definitions**

**1.0 Defined Terms.**

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement.



### **1.1 Confidential Information.**

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to, information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Designated Entity Letter of Credit.**

Designated Entity Letter of Credit shall mean the letter of credit provided by the Designated Entity pursuant to Section 1.5.8(j) of Tariff, Schedule 19 and Section 3.0 of this Agreement as security associated with the Project.

### **1.3 Development Schedule.**

Development Schedule shall mean the schedule of milestones set forth in Schedule C of this Agreement.

### **1.4 Effective Date.**

Effective Date shall mean the date this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.5 Initial Operation.**

Initial Operation shall mean the date the Project is (i) energized and (ii) under Transmission Provider operational dispatch.

### **1.6 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan described in Schedule A of this Agreement.

### **1.7 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.8 Project Financing.**

Project Financing shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof,

the proceeds of which are used to finance or refinance the costs of the Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

### **1.9 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with ensuring the timely and effective design and construction of the Project in a manner, which ensures that the Project, once placed in service, meets the requirements of the Project as described in Schedule B and are consistent with Good Utility Practice.

### **1.10 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B this Agreement, (ii) meet the criteria outlined in Schedule D of this Agreement and (iii) be under Transmission Provider operational dispatch.

## **Article 2 – Effective Date and Term**

### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is filed with FERC for acceptance, rather than reported only in PJM's Electric Quarterly Report, upon the date specified by FERC.

### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity executes the Consolidated Transmission Owners Agreement; and (ii) the Project (a) has been completed in accordance with the terms and conditions of this Agreement, (b) meets all relevant required planning criteria, and (c) is under Transmission Provider's operational dispatch; or (iii) the Agreement is terminated pursuant to Article 8 of this Agreement.

## **Article 3 – Security**

### **3.0 Obligation to Provide Security.**

In accordance with Section 1.5.8(j) of Tariff, Schedule 19, Designated Entity shall provide Transmission Provider a letter of credit as acceptable to Transmission Provider (Designated Entity Letter of Credit) or cash security in the amount of \$\_\_\_\_, which is three percent of the estimated cost of the Project. Designated Entity is required provide and maintain the Designated

Entity Letter of Credit, as required by Section 1.5.8(j) of Tariff, Schedule 19 and Section 3.0 of this Agreement. The Designated Entity Letter of Credit shall remain in full force and effect for the term of this Agreement and for the duration of the obligations arising therefrom in accordance with Article 17.0.

### **3.1 Distribution of Designated Entity Letter of Credit or Cash Security.**

In the event that Transmission Provider draws upon the Designated Entity Letter of Credit or retains the cash security in accordance with Sections 7.5, 8.0, or 8.1, Transmission Provider shall distribute such funds as determined by FERC.

## **Article 4 – Project Construction**

### **4.0 Construction of Project by Designated Entity.**

Designated Entity shall design, engineer, procure, install and construct the Project, including any modifications thereto, in accordance with: (i) the terms of this Agreement, including but not limited to the Scope of Work in Schedule B and the Development Schedule in Schedule C; (ii) applicable reliability principles, guidelines, and standards of the Applicable Regional Reliability Council and NERC; (iii) the Tariff; (iv) the PJM Manuals; and (v) Good Utility Practice.

#### **4.1 Milestones.**

##### **4.1.0 Milestone Dates.**

Designated Entity shall meet the milestone dates set forth in the Development Schedule in Schedule C of this Agreement. Milestone dates set forth in Schedule C only may be extended by Transmission Provider in writing. Failure to meet any of the milestone dates specified in Schedule C, or as extended as described in this Section 4.1.0 or Section 4.3.0 of this Agreement, shall constitute a Breach of this Agreement. Transmission Provider reasonably may extend any such milestone date, in the event of delays not caused by the Designated Entity that could not be remedied by the Designated Entity through the exercise of due diligence, or if an extension will not delay the Required Project In-Service Date specified in Schedule C of this Agreement; provided that a corporate officer of the Designated Entity submits a revised Development Schedule containing revised milestones and showing the Project in full operation no later than the Required Project In-Service Date specified in Schedule C of this Agreement.

##### **4.1.1 Right to Inspect.**

Upon reasonable notice, Transmission Provider shall have the right to inspect the Project for the purposes of assessing the progress of the Project and satisfaction of milestones. Such inspection shall not be deemed as review or approval by Transmission Provider of any design or construction practices or standards used by the Designated Entity.

## **4.2 Applicable Technical Requirements and Standards.**

For the purposes of this Agreement, applicable technical requirements and standards of the Transmission Owner(s) to whose facilities the Project will interconnect shall apply to the design, engineering, procurement, construction and installation of the Project to the extent that the provisions thereof relate to the interconnection of the Project to the Transmission Owner(s) facilities.

## **4.3 Project Modification.**

### **4.3.0 Project Modification Process.**

The Scope of Work and Development Schedule, including the milestones therein, may be revised, as required, in accordance with Transmission Provider's project modification process set forth in the PJM Manuals, or otherwise by Transmission Provider in writing. Such modifications may include alterations as necessary and directed by Transmission Provider to meet the system condition for which the Project was included in the Regional Transmission Expansion Plan.

#### **4.3.1 Consent of Transmission Provider to Project Modifications.**

Designated Entity may not modify the Project without prior written consent of Transmission Provider, including but not limited to, modifications necessary to obtain siting approval or necessary permits, which consent shall not be unreasonably withheld, conditioned, or delayed.

#### **4.3.2 Customer Facility Interconnections And Transmission Service Requests.**

Designated Entity shall perform or permit the engineering and construction necessary to accommodate the interconnection of Customer Facilities to the Project and transmission service requests that are determined necessary for such interconnections and transmission service requests in accordance with Parts IV and VI, and Parts II and III, respectively, of the Tariff.

## **4.4 Project Tracking.**

The Designated Entity shall provide regular, quarterly construction status reports in writing to Transmission Provider. The reports shall contain, but not be limited to, updates and information specified in the PJM Manuals regarding: (i) current engineering and construction status of the Project; (ii) Project completion percentage, including milestone completion; (iii) current target Project or phase completion date(s); (iv) applicable outage information; and (v) cost expenditures to date and revised projected cost estimates for completion of the Project. Transmission Provider shall use such status reports to post updates regarding the progress of the Project.

## **4.5 Exclusive Responsibility of Designated Entity.**

Designated Entity shall be solely responsible for all planning, design, engineering, procurement, construction, installation, management, operations, safety, and compliance with applicable laws and regulations associated with the Project, including but not limited to obtaining all necessary

permits, siting, and other regulatory approvals. Transmission Provider shall have no responsibility to manage, supervise, or ensure compliance or adequacy of same.

## **Article 5 – Coordination with Third-Parties**

### **5.0 Interconnection Coordination Agreement with Transmission Owner(s).**

By the dates specified in the Development Schedule in Schedule C of this Agreement, Designated Entity shall execute or request to file unexecuted with the Commission: (a) an Interconnection Coordination Agreement; and (b) an interconnection agreement among and between Designated Entity, Transmission Provider, and the Transmission Owner(s) to whose facilities the Project will interconnect.

### **5.1 Connection with Entities Not a Party to the Consolidated Transmission Owners Agreement.**

Designated Entity shall not permit any part of the Project facilities to be connected with the facilities of any entity which is not: (i) a party to Consolidated Transmission Owners Agreement without an interconnection agreement that contains provisions for the safe and reliable interconnection and operation of such interconnection in accordance with Good Utility Practice, and principles, guidelines and standards of the Applicable Regional Reliability Council and NERC or comparable requirements of an applicable retail tariff or agreement approved by appropriate regulatory authority; or (ii) a party to a separate Designated Entity Agreement.

## **Article 6 – Insurance**

### **6.0 Designated Entity Insurance Requirements.**

Designated Entity shall obtain and maintain in full force and effect such insurance as is consistent with Good Utility Practice. The Transmission Provider shall be included as an Additional Insured in the Designated Entity's applicable liability insurance policies. The Designated Entity shall provide evidence of compliance with this requirement upon request by the Transmission Provider.

### **6.1 Subcontractor Insurance.**

In accord with Good Utility Practice, Designated Entity shall require each of its subcontractors to maintain and, upon request, provide Designated Entity evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the subcontractor. Bonding and hiring of contractors or subcontractors shall be the Designated Entity's discretion, but regardless of bonding or the existence or non-existence of insurance, the Designated Entity shall be responsible for the performance or non-performance of any contractor or subcontractor it hires.

## **Article 7 – Breach and Default**

### **7.0 Breach.**

Except as otherwise provided in Article 10, a Breach of this Agreement shall include:

(a) The failure to comply with any term or condition of this Agreement, including but not limited to, any Breach of a representation, warranty, or covenant made in this Agreement, and failure to provide and maintain security in accordance with Section 3.0 of this Agreement;

(b) The failure to meet a milestone or milestone date set forth in the Development Schedule in Schedule C of this Agreement, or as extended in writing as described in Sections 4.1.0 and 4.3.0 of this Agreement;

(c) Assignment of this Agreement in a manner inconsistent with the terms of this Agreement; or

(d) Failure of any Party to provide information or data required to be provided to another Party under this Agreement for such other Party to satisfy its obligations under this Agreement.

### **7.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, and to any other persons, including a Project Finance Entity, if applicable, that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **7.2 Cure and Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 7.3 shall be in Default of this Agreement.

### **7.3 Cure of Breach.**

The breaching Party may: (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to ensure that the Project meets its Required Project In-Service Date set forth in Schedule C; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that ensures that the Project meets the Required Project In-Service Date for the Project, within such thirty day time period, commences in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

#### **7.4 Re-evaluation if Breach Not Cured.**

In the event that a breaching Party does not cure a Breach in accordance with Section 7.3 of this Agreement, Transmission Provider shall conduct a re-evaluation pursuant to Section 1.5.8(k) of Tariff, Schedule 19. If based on such re-evaluation, the Project is retained in the Regional Transmission Expansion Plan and the Designated Entity's designation for the Project also is retained, the Parties shall modify this Agreement, including Schedules, as necessary. In all other events, Designated Entity shall be considered in Default of this Agreement, and this Agreement shall terminate in accordance with Section 8.1 of this Agreement.

#### **7.5 Remedies.**

Upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit. Nothing in this Section 7.5 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity resulting from Designated Entity's Default of this Agreement.

#### **7.6 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

#### **7.7 Waiver.**

Any waiver at any time by any Party of its rights with respect to a Breach or Default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any other Breach or Default or other matter.

### **Article 8 – Early Termination**

#### **8.0 Termination by Transmission Provider.**

In the event that: (i) pursuant to Section 1.5.8(k) of Tariff, Schedule 19, Transmission Provider determines to remove the Project from the Regional Transmission Expansion Plan and/or not to retain Designated Entity's status for the Project; (ii) Transmission Provider otherwise determines pursuant to Regional Transmission Expansion Planning Protocol in Tariff, Schedule 19 that the Project is no longer required to address the specific need for which the Project was included in

the Regional Transmission Expansion Plan; or (iii) an event of force majeure, as defined in section 10.0 of this Attachment KK, or other event outside of the Designated Entity's control that, with the exercise of Reasonable Efforts, Designated Entity cannot alleviate and which prevents the Designated Entity from satisfying its obligations under this Agreement, Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity, which shall become effective the later of sixty calendar days after the Designated Entity receives such notice or other such date the FERC establishes for the termination. In the event termination pursuant to this Section 8.0 is based on (ii) or (iii) above, Transmission Provider shall not have the right to draw upon the Designated Entity Letter of Credit or retain the cash security and shall cancel the Designated Entity Letter of Credit or return the cash security within thirty days of the termination of this Agreement.

### **8.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in Default of this Agreement in accordance with Sections 7.2 or 7.4 of this Agreement. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit or retain the cash security.

### **8.2 Filing at FERC.**

Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 8.

## **Article 9 – Liability and Indemnity**

### **9.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

### **9.1 Indemnity.**

For the purposes of this Agreement, Designated Entity shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner



that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

## **Article 10 – Force Majeure**

### **10.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightening, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which in any foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

### **10.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

### **10.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party. In the event that Designated Entity is unable to perform any of its obligations under this Agreement because of an occurrence of Force Majeure, Transmission Provider may terminate this Agreement in accordance with Section 8.0 of this Agreement.

### **10.3 Breach or Default of or Force Majeure under Interconnection Coordination Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 10 shall apply: (i) a breach or default of the Interconnection Coordination Agreement associated with the Project by a party to the

Interconnection Coordination Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Interconnection Coordination Agreement associated with the Project.

## **Article 11 – Assignment**

### **11.0 Assignment.**

A Party may assign all of its rights, duties, and obligations under this Agreement in accordance with this Section 11.0. Except for assignments described in Section 11.1 of this Agreement that may not result in the assignment of all rights, duties, and obligations under this Agreement to a Project Finance Entity, no partial assignments will be permitted. No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. Assignment by the Designated Entity shall be contingent upon, prior to the effective date of the assignment: (i) the Designated Entity or assignee demonstrating to the satisfaction of Transmission Provider that the assignee has the technical competence and financial ability to comply with the requirements of this Agreement and to construct the Project consistent with the assignor's cost estimates for the Project; and (ii) the assignee is eligible to be a Designated Entity for the Project pursuant to Sections 1.5.8(a) and (f) of Tariff, Schedule 19. Except as provided in an assignment to a Finance Project Entity to the contrary, for all assignments by any Party, the assignee must assume in a writing, to be provided to the other Party, all rights, duties, and obligations of the assignor arising under this Agreement. Any assignment described herein shall not relieve or discharge the assignor from any of its obligations hereunder absent the written consent of the other Party. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the terms of this Agreement, the Tariff and the Operating Agreement.

### **11.1 Project Finance Entity Assignments**

#### **11.1.1 Assignment to Project Finance Entity**

If an arrangement between the Designated Entity and a Project Finance Entity provides that the Project Finance Entity may assume any of the rights, duties and obligations of the Designated Entity under this Agreement or otherwise provides that the Project Finance Entity may cure a Breach of this Agreement by the Designated Entity, the Project Finance Entity may be assigned this Agreement or any of the rights, duties, or obligations hereunder only upon written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement.

#### **11.1.2 Assignment By Project Finance Entity**

A Project Finance Entity that has been assigned this Agreement or any of the rights, duties or obligations under this Agreement or otherwise is permitted to cure a Breach of this Agreement, as described pursuant to Section 11.1.1 above, may assign this Agreement or any of the rights, duties or obligations under this Agreement to another entity not a Party to this Agreement only: (i) upon the Breach of this Agreement by the Designated Entity; and (ii) with the written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement alter or diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the Tariff and Operating Agreement.

## **Article 12 – Information Exchange**

### **12.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Party information necessary to carry out each Party's obligations and responsibilities under this Agreement, the Operating Agreement, and the Tariff. Such information shall include but not be limited to, information reasonably requested by Transmission Provider to prepare the Regional Transmission Expansion Plan. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement, the Operating Agreement, and the Tariff.

### **12.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Party when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 12.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

## **Article 13 – Confidentiality**

### **13.0 Confidentiality.**

For the purposes of this Agreement, information will be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as "confidential" on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is

“confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 14 – Regulatory Requirements**

### **14.0 Regulatory Approvals.**

Designated Entity shall seek and obtain all required government authority authorizations or approvals as soon as reasonably practicable, and by the milestone dates set forth in the Development Schedule of Schedule C of this Agreement, as applicable.

## **Article 15 – Representations and Warranties**

### **15.0 General.**

Designated Entity hereby represents, warrants and covenants as follows, with these representations, warranties, and covenants effective as to the Designated Entity during the full time this Agreement is effective:

#### **15.0.1 Good Standing**

Designated Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated.

#### **15.0.2 Authority**

Designated Entity has the right, power and authority to enter into this Agreement, to become a Party thereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of Designated Entity, enforceable against Designated Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors’ rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

#### **15.0.3 No Conflict.**

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of Designated Entity, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon Designated Entity or any of its assets.

## **Article 16 – Operation of Project**

## **16.0 Initial Operation.**

The following requirements shall be satisfied prior to Initial Operation of the Project:

### **16.0.1 Execution of the Consolidated Transmission Owners Agreement**

Designated Entity has executed the Consolidated Transmission Owners Agreement and is able to meet all requirements therein.

### **16.0.2 Execution of an Interconnection Agreement**

Designated Entity has executed an Interconnection Agreement with the Transmission Owner(s) to whose facilities the Project will interconnect, or such agreement has been filed unexecuted with the Commission.

### **16.0.3 Operational Requirements**

The Project must meet all applicable operational requirements described in the PJM Manuals.

### **16.0.4 Parallel Operation**

Designated Entity shall have all necessary systems and personnel in place to allow for parallel operation of its facilities with the facilities of the Transmission Owner(s) to which the Project is interconnected consistent with the Interconnection Coordination Agreement associated with the Project.

### **16.0.5 Synchronization**

Designated Entity shall have received any necessary authorization from Transmission Provider and the Transmission Owner(s) to whose facilities the Project will interconnect to synchronize with the Transmission System or to energize, as applicable, per the determination of Transmission Provider, the Project.

## **16.1 Partial Operation.**

If the Project is to be completed in phases, the completed part of the Project may operate prior to completion and Required Project In-Service Date set forth in Schedule C of this Agreement, provided that: (i) Designated Entity has notified Transmission Provider of the successful completion of the Project phase; (ii) Transmission Provider has determined that partial operation of the Project will not negatively impact the reliability of the Transmission System; (iii) Designated Entity has demonstrated that the requirements for Initial Operation set forth in Section 16.0 of this Agreement have been met for the Project phase; and (iv) partial operation of the Project is consistent with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.

**Article 17 – Survival**

**17.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The Liability and Indemnity provisions in Article 9 also shall survive termination, expiration, or cancellation of this Agreement.

**Article 18 – Non-Standard Terms and Conditions**

**18.0 Schedule E – Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule E are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule E that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule E shall control.

**Article 19 – Miscellaneous**

**19.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

Transmission Provider:  
PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
Attention:

Designated Entity:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attention:

**19.1 No Transmission Service.**

This Agreement does not entitle the Designated Entity to take Transmission Service under the Tariff.

### **19.2 No Rights.**

Neither this Agreement nor the construction or the financing of the Project entitles Designated Entity to any rights related to Customer-Funded Upgrades set forth in Subpart C of Part VI of the Tariff.

### **19.3 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

### **19.4 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

### **19.5 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

### **19.6 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

### **19.7 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

### **19.8 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

**19.9 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

**19.10 Governing Law**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

**19.11 Incorporation of Other Documents.**

The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]



IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Designated Entity: [Name of Designated Entity]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**Description of Project**

**SCHEDULE B**

**Scope of Work**

## SCHEDULE C

### Development Schedule

Designated Entity shall ensure and demonstrate to the Transmission Provider that it timely has met the following milestones and milestone dates and that the milestones remain in good standing:

[As appropriate include the following standard Milestones, with any revisions, and additional milestones necessary for the Project]:

<b>Milestones and Milestone Dates</b>
<b>Execute Interconnection Coordination Agreement.</b> On or before _____, Designated Entity must execute the Interconnection Coordination Agreement or request the agreement be filed unexecuted.
<b>Demonstrate adequate Project financing.</b> On or before _____, Designated Entity must demonstrate that adequate project financing has been secured. Project financing must be maintained for the term of this Agreement [add detail if necessary].
<b>Acquisition of all necessary federal, state, county, and local site permits.</b> On or before _____, Designated Entity must demonstrate that all required federal, state, county and local site permits have been acquired. [add detail if necessary. May provide separate dates for each permit]
<b>Substantial Site Work Completed:</b> On or before _____, Designated Entity must demonstrate that at least 20% of Project site construction is completed. Additionally the Designated Entity must submit updated ratings and the final project drawings to the Transmission Provider.
<b>Delivery of major electrical equipment.</b> On or before _____, Designated Entity must demonstrate that all major electrical equipment has been delivered to the project site. [add detail if necessary].
<b>Demonstrate required ratings.</b> On or before _____, Designated Entity must demonstrate that the project meets all required electrical ratings. [add detail if necessary].
<b>Required Project In-Service Date.</b> On or before _____, Designated Entity must: (i) demonstrate that the Project is completed in accordance with the Scope of Work in Schedules B of this Agreement; (ii) meets the criteria outlined in Schedule D of this Agreement; and (iii) is under Transmission Provider operational dispatch.
<b>[Add additional Milestones]</b>

**SCHEDULE D**

**PJM Planning Requirements and Criteria and Required Ratings**

**SCHEDULE E**

**Non-Standard Terms and Conditions**

**INTERCONNECTION COORDINATION AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

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**And**

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# INTERCONNECTION COORDINATION AGREEMENT

Between

**PJM Interconnection, L.L.C.**

**[Name of Designated Entity]**

And

**[Name of Transmission Owners]**

This Interconnection Coordination Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date (as specified in Section 2.0) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Designated Entity”) [OPTIONAL: or “[short name]”]), and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL “[short name]”]) Transmission Provider, Designated Entity and Transmission Owner may be referred to herein individually as “Party” and collectively as “the Parties.”

## WITNESSETH

WHEREAS, in accordance with FERC Order No. 1000 and Tariff, Schedule 19, Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of Tariff, Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to build the Project;

WHEREAS, pursuant to Schedule 19 of the Tariff, Transmission Owner has received and accepted the designation from Transmission Provider to construct enhancements or expansions to its transmission facilities in order to effectuate interconnection with the Project, to which Transmission Provider has assigned a PJM upgrade ID identifier, which is unique to such construction modifications;

WHEREAS, the Project will interconnect to the Transmission Owner’s transmission facilities, and therefore Designated Entity and Transmission Owner shall coordinate with each other to facilitate the interconnection of the Project to the Transmission Owner’s transmission facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project



In-Service Date; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions**

### **1.0 Defined Terms.**

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement and attached Schedules.

### **1.1 Confidential Information.**

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Effective Date.**

Effective Date shall mean the date that this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.3 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan to be constructed by the Designated Entity described in Schedule A of this Agreement.

### **1.4 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.5 Project Financing.**

Project Financing shall mean: (a) one or more loans, leases, equity and/or debt financings,

together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

### **1.6 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with enabling the timely and effective design, construction, and interconnection to the Transmission System of the Project in a manner, which enables the Project to achieve its Required In-Service Date consistent with Good Utility Practice.

### **1.7 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date that the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B of the Designated Entity Agreement associated with the Project; (ii) meet the criteria outlined in Schedule D of the Designated Entity Agreement associated with the Project; and (iii) be under Transmission Provider operational dispatch.

## **Article 2 – Effective Date and Term**

### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is individually filed with FERC for acceptance, upon the date specified by FERC.

### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity Agreement associated with the Project expires or terminates; or (ii) the Agreement is terminated pursuant to Article 3 of this Agreement.

## **Article 3 – Early Termination**

### **3.0 Termination by Transmission Provider.**

In the event that: (i) the Designated Entity Agreement associated with the Project is terminated pursuant to Article 8.0 of that agreement; or (ii) the Project is modified such that it will not interconnect to Transmission Owner's transmission facilities; Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity and Transmission Owner, which shall become effective the later of sixty calendar days after the Designated Entity receives such notice or other such date the FERC establishes for the

termination.

### **3.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in default of this Agreement in accordance with Section 5.2 of this Agreement and such termination is approved by Transmission Provider in writing.

### **3.2 Filing at FERC.**

To the extent required by law or regulation, Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 3.

## **Article 4 – Coordination**

### **4.0 Designated Entity and Transmission Owner Responsibilities.**

The Designated Entity and Transmission Owner shall coordinate with each other as set forth in this Article 4 to facilitate the interconnection of the Project to the Transmission Owner's transmission facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project In-Service Date.

#### **4.0.1 Scope of Transmission Owner Responsibilities.**

Transmission Owner shall coordinate with Designated Entity the interconnection of the Project to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_\_ and designated by PJM to the Transmission Owner to make Transmission Owner's transmission facilities ready to receive the interconnection of the Project. Nothing in this Agreement shall be construed as obligating Transmission Owner to assure that Designated Entity satisfies Designated Entity's obligations under this Agreement, under the Designated Entity Agreement described in Schedule A of this Agreement, nor under any other agreement.

#### **4.0.2 Scope of Designated Entity Responsibilities.**

Designated Entity shall coordinate with Transmission Owner, the interconnection of the Project, identified as PJM Upgrade ID \_\_\_\_\_ to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_\_ and described in Section 4.0.1 of this Agreement. Nothing in this Agreement shall be construed as obligating Designated Entity to assure that Transmission Owner satisfies Transmission Owner's obligations under this Agreement, under the Consolidated Transmission Owner's Agreement described in Schedule A of this Agreement, nor under any other agreement.

#### **4.1 Transmission Provider Responsibilities.**

Transmission Provider may facilitate the coordination between Designated Entity and Transmission Owner required by this Agreement, including convening meetings with the Designated Entity and the Transmission Owner to further facilitate coordination among the Parties, and to evaluate available options or alternatives to avoid delays, and coordinating outages as described in Section 4.2 of this Agreement.

#### **4.2 Outage Coordination.**

Designated Entity and Transmission Owner acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner may be necessary to complete the process of constructing and interconnecting the Project. Designated Entity and Transmission Owner further acknowledge and agree that any such outages shall be coordinated by and through Transmission Provider. Any delays due to emergency, load or maintenance which affect the timing of outages as required or approved by the Transmission Provider may not be considered a Breach under Article 5.

#### **4.3 Construction and Interconnection.**

##### **4.3.1 No Conferral of Rights.**

This Agreement shall confer no rights upon either the Designated Entity or the Transmission Owner to enter the right-of-way or property of the other Party, or interconnect its facilities, either physically or electrically, to the facilities of the other Party.

##### **4.3.2 Interconnection Agreement.**

Prior to interconnection, the Parties shall enter into an interconnection agreement setting forth the terms and conditions for: (i) the interconnection of the Transmission Owner's and Designated Entity's facilities; and (ii) the ongoing relationship of the Transmission Owner and the Designated Entity with regard to the interconnection. In the event the Parties are unable to agree, a Party may request: (i) dispute resolution consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable; or, (ii) the interconnection agreement be filed unexecuted with the Commission.

##### **4.3.3 Other Agreements.**

The Parties recognize that, where appropriate, the Parties may enter into other agreements (beyond the interconnection agreement referred to in Section 4.3.2 above) such as construction agreements. Such other agreements shall be filed with FERC, if required. The terms and conditions of such other agreements are not addressed in this Agreement.

## **Article 5 – Breach and Default**

### **5.0 Breach.**

Except as otherwise provided in Article 7 of this Agreement, a breach of this Agreement shall include the failure of any Party to comply with any term or condition of this Agreement, including the Schedules attached hereto.

### **5.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, the other non-breaching Party and to any other persons, including Project Finance Entities that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **5.2 Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 5.3 shall be in default of this Agreement.

### **5.3 Cure of Breach.**

A breaching Party may (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to enable the Project meets its Required Project In-Service Date; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that enables the Project to meet its Required Project In- Service Date, the breaching Party, within such thirty day time period, commences in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

### **5.4 Remedies.**

Upon the occurrence of an event of Default, the non-defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Nothing in this Section 5.4 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity or the Transmission Owner resulting from Designated Entity's default of this Agreement.

### **5.5 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or

otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

#### **5.6 Waiver.**

Any waiver at any time by any Party of its rights with respect to a Breach or default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any other Breach or default or other matter.

### **Article 6 – Liability and Indemnity**

#### **6.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, Transmission Owner, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

#### **6.1 Indemnity.**

For the purposes of this Agreement, Designated Entity and Transmission Owner shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

### **Article 7 – Force Majeure**

#### **7.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian

authorities, which in any foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute), which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

### **7.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

### **7.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party.

### **7.3 Breach or Default of or Force Majeure under Designated Entity Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 7 shall apply: (i) a breach or default of the Designated Entity Agreement associated with the Project by a party to the Designated Entity Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Designated Entity Agreement associated with the Project.

## **Article 8 – Assignment**

### **8.0 Assignment.**

No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed.

### **8.1 Assignment of Designated Entity Agreement.**

In the event that the Designated Entity Agreement associated with the Project is assigned pursuant to Article 11 of the Designated Entity Agreement, this Agreement also shall be assigned contemporaneously with that assignment, without the need for any consent under Section 8.0

above.

## **Article 9 – Information Exchange**

### **9.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Parties information necessary to carry out obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement.

### **9.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Parties when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties shall cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 9.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

## **Article 10 – Confidentiality**

### **10.0 Confidentiality.**

For the purposes of this Agreement, information shall be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as “confidential” on the face of the document, or, in the case of information conveyed orally, by inspection or by electronic media incapable of being marked as “confidential”, if the Party providing the information orally informs the Party receiving the information that the information is “confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 11 – Representations and Warranties**

### **11.0 General.**

The Parties hereby represent, warrant and covenant as follows, with these representations, warranties, and covenants effective during the full time this Agreement is effective:



### **11.0.1 Good Standing.**

The Party is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of incorporation, organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated, organized or formed.

### **11.0.2 Authority.**

The Party has the right, power and authority to enter into this Agreement, to become a Party thereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of the Party, enforceable against the Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

### **11.0.3 No Conflict.**

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon Designated Entity or any of its assets.

## **Article 12 – Survival**

### **12.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The provisions of Article 6 also shall survive termination, expiration, or cancellation of this Agreement

## **Article 13 – Non-Standard Terms and Conditions**

### **13.0 Schedule C -- Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule C are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule C that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule C shall control.

**Article 14 – Schedules**

**14.0 Schedule A: Description of the Project.**

Schedule A provides a description of the Project to be constructed by the Designated Entity.

**14.1 Schedule B: Single Line Diagram.**

Schedule B contains a single line diagram that depicts the Project and the Transmission Owner transmission facilities to which the Project will interconnect.

**Article 15 – Miscellaneous**

**15.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

Transmission Provider:  
PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403

Attention:

Designated Entity:

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Transmission Owner:

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**15.1 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just

and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

### **15.2 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association, taxable as a corporation, or other entity for the conduct of any business for profit.

### **15.3 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

### **15.4 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

### **15.5 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

### **15.6 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

### **15.7 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

### **15.8 Governing Law.**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

**15.9 Incorporation of Other Documents.**

The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]



**SCHEDULE A**

**Description of Project**

## **SCHEDULE B**

### **Single-Line Diagram**

The single line diagram below provides a high level concept of the project. Details of the interconnection point will be fully set forth in an interconnection agreement.

**SCHEDULE C**

**Non-Standard Terms and Conditions**



## **Attachment D**

### **PJM Proposed Edits to Tariff, Schedule 19**

**[Showing Only Effectuating Changes to New Schedule 19]**

**(Marked / Redlined Format)**

**SCHEDULE 6-19 -  
REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

References to section numbers in this Schedule 6-19 refer to sections of this Schedule 619, unless otherwise specified.

**1. REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL**

## **1.1 Purpose and Objectives.**

This Regional Transmission Expansion Planning Protocol (“Protocol”) shall govern the process by which the Members shall rely upon the Office of the Interconnection to prepare a plan for the enhancement and expansion of the Transmission Facilities in order to meet the demands for firm transmission service, and to support competition, in the PJM Region. The Regional Transmission Expansion Plan (also referred to as “RTEP”) to be developed shall enable the transmission needs in the PJM Region to be met on a reliable, economic and environmentally acceptable basis.

## **1.2 Conformity with NERC *Reliability Standards* and Other Applicable Reliability Criteria.**

- (a) NERC establishes Reliability Standards to promote the reliability, adequacy and security of the North American bulk power supply as related to the operation and planning of electric systems.
- (b) ReliabilityFirst Corporation is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the geographic region described in the applicable agreements between NERC and ReliabilityFirst Corporation, as approved by the FERC, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the ReliabilityFirst Corporation.
- (c) [Reserved]
- (c.01) [Reserved]
- (c.02) SERC is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the VACAR subregion of SERC. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.
- (d) The Regional Transmission Expansion Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals.
- (e) The Regional Transmission Expansion Plan planning criteria shall include, Office of the Interconnection planning procedures, NERC Reliability Standards, Regional Entity reliability principles and standards, and the individual Transmission Owner FERC filed planning criteria as filed in FERC Form No. 715, and posted on the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Critical Energy Infrastructure Information (CEII) requirements.
- (f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

### **1.3 Establishment of Committees.**

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee participants shall be given an opportunity to provide advice and recommendations for consideration by the Office of the Interconnection regarding sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives in the studies and analyses to be conducted by the Office of the Interconnection. The Transmission Expansion Advisory Committee participants shall be given the opportunity to review and provide advice and recommendations on the projects to be included in the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional planning issues, as required. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates; and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series) and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committees established by the Office of the Interconnection shall facilitate the development and review of the Local Plans. The Subregional RTEP Committees will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. A Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the Transmission Expansion Advisory Committee for further review, advice and recommendations.

(d) The Subregional RTEP Committees shall be responsible for the timely review of the criteria, assumptions and models used to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements, proposed solutions and written comments prior to finalizing the Local Plan, the coordination and integration of the Local Plans into the RTEP, and addressing any stakeholder issues unresolved in the Local Plan process. The Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the criteria, assumptions, and models used in local planning activities prior to finalizing the Local Plan. The Subregional RTEP Committees shall also be responsible for the timely review of the Transmission Owners' criteria, assumptions, and models used to identify Supplemental Projects that will be considered for inclusion in the Local Plan for each Subregional RTEP Committee. The Subregional RTEP Committees meetings shall include discussions addressing interregional planning issues, as required. Once finalized, the Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments on the Local Plans as integrated into the RTEP, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval. In addition, the Subregional RTEP Committees will provide sufficient opportunity to review and provide written comments to the Transmission Owners on any Supplemental Projects included in the Local Plan, in accordance with Additional Procedures for Planning of Supplemental Projects set forth in Tariff, Attachment M-3.

(e) The Subregional RTEP Committees shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates and (v) any other interested entities or persons.

(f) Each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions and models to identify reliability criteria violations, economic constraints, or to consider Public Policy Requirements. Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting, per planning cycle, and as required to review the identified criteria violations and potential solutions. The Subregional RTEP Committees may facilitate additional meetings to incorporate more localized areas in the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas.

(g) The Subregional RTEP Committees shall schedule and facilitate meetings regarding Supplemental Projects, as described in the Tariff, Attachment M-3.

(h) The Subregional RTEP Committees shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional

Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.



#### 1.4 Contents of the Regional Transmission Expansion Plan.

(a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of (i) maintaining the reliability of the PJM Region in an economic and environmentally acceptable manner, (ii) supporting competition in the PJM Region, (iii) striving to maintain and enhance the market efficiency and operational performance of wholesale electric service markets and (iv) considering federal and state Public Policy Requirements.

(b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule ~~6~~19, transmission enhancements and expansions; load forecasts; and capacity forecasts, including expected generation additions and retirements, demand response, and reductions in demand from energy efficiency and price responsive demand for at least the ensuing ten years.

(c) The Regional Transmission Expansion Plan shall, at a minimum, include a designation of the Transmission Owner(s) or other entity(ies) that will construct, own, maintain, operate, and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.

(d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vi) strive for consistency in planning data and assumptions that may relieve -transmission congestion across multiple regions.

## **1.5 Procedure for Development of the Regional Transmission Expansion Plan.**

### **1.5.1 Commencement of the Process.**

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b), constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to the Operating Agreement, Schedule 1, section 7.8. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

### **1.5.2 Development of Scope, Assumptions and Procedures.**

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

### **1.5.3 Scope of Studies.**

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs. The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to the Operating Agreement, Schedule 1, section 7.8.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b). Enhancements and expansions related to stage 1A

Auction Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.6(m) and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

#### **1.5.4 Supply of Data.**

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current local planning information, including all criteria, assumptions and models used by the Transmission Owners, such as those used to develop Supplemental Projects. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's local planning information, including all criteria, assumptions and models

used by the Transmission Owners in their internal planning processes, including the development of Supplemental Projects (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in the Operating Agreement, section 18.17; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in the Operating Agreement, section 18.17 and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

### **1.5.5 Coordination of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements:

- Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at [Tariff](#), Schedule [619-B](#) and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at ~~Operating Agreement~~[Tariff](#), Schedule [619-A](#) ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at [Tariff](#), Schedule 12-B;
- Joint Reliability Coordination Agreement Between the Midwest Independent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas.

(i) Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(ii) An entity, including existing Transmission Owners and Nonincumbent Developers, may submit potential Interregional Transmission Projects pursuant to ~~the Operating Agreement~~ Tariff, Schedule ~~619~~, section 1.5.8.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

#### **1.5.6 Development of the Recommended Regional Transmission Expansion Plan.**

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Requirements identified by the states for consideration in the Office of the Interconnection's transmission planning analyses; (iii) Public Policy Objectives identified by stakeholders for consideration in the Office of the Interconnection's transmission planning analyses; (iv) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (v) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (v) of this subsection. Following the assumptions meeting and prior to performing the evaluation and analyses of transmission needs, the Office of the Interconnection shall determine the range of assumptions to be used in the studies and

scenario analyses, based on the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees and, through the Independent State Agencies Committee, the statement of Public Policy Requirements provided individually by the states and any state member's assessment or prioritization of Public Policy Objectives proposed by other stakeholders. The Office of the Interconnection shall document and publicly post its determination for review. Such posting shall include an explanation of those Public Policy Requirements and Public Policy Objectives adopted at the assumptions stage to be used in performing the evaluation and analysis of transmission needs. Following identification of transmission needs and prior to evaluating potential enhancements and expansions to the Transmission System the Office of the Interconnection shall publicly post all transmission need information identified as described further in the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(b) herein to support the role of the Subregional RTEP Committees in the development of the Local Plan and support the role of Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection shall also post an explanation of why other Public Policy Requirements and Public Policy Objectives introduced by stakeholders at the assumptions stage were not adopted.

(c) The Subregional RTEP Committees shall also schedule and facilitate meetings related to Supplemental Projects, as described in the Tariff, Attachment M-3.

(d) After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in the ~~Operating Agreement~~Tariff, Schedule 619, sections 1.3(b) and 1.3(c)) to review, evaluate and offer comments and alternatives to the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

(e) In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the

current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in section (b), above.

(f) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in the ~~Operating Agreement~~ ~~Tariff~~, Schedule ~~619~~, section 1.5.8(b) to afford entities an opportunity to submit proposed enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in the ~~Operating Agreement~~ ~~Tariff~~, Schedule ~~619~~, section 1.5.8(c). Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to the ~~Operating Agreement~~ ~~Tariff~~, Schedule ~~619~~, section 1.5.8(c); (ii) consider proposals submitted during the proposal windows consistent with the ~~Tariff~~ ~~Operating Agreement~~, Schedule ~~619~~, section 1.5.8(d) and develop a recommended plan. Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to the ~~Tariff~~ ~~Operating Agreement~~, Schedule ~~619~~, section 1.5.3, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(h) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(i) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in



accordance with the procedures, criteria and analyses described in the ~~Operating Agreement~~Tariff, Schedule ~~619~~, sections 1.5.7 and 1.5.8.

(j) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to the ~~Tariff~~Operating Agreement, Schedule ~~619~~, section 1.5.9.

(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the ~~Tariff~~Operating Agreement, Schedule ~~619~~, section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(m) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to ~~this Agreement or~~ the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff ~~or this Agreement~~, (2) in the event and to the extent that no provision of the PJM Tariff ~~or this Agreement~~ assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to the Tariff, Schedule 12, and (3) in the event and to the extent that

the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to the Tariff, Schedule 12 that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under the ~~Operating Agreement Tariff~~, Schedule 619, sections 1.5.6(i) and 1.5.7, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7 shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under the Tariff, Schedule 12, section (b) for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in the Tariff, Attachment DD, section 15 shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(n) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

### 1.5.7 Development of Economic-based Enhancements or Expansions.

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in the Operating Agreement, Schedule 1, section 7.4.2(c); or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items in the ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-

based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional Economic-based Enhancements or Expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to the ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.8(c), any market participant may submit to the Office of the Interconnection a proposal to construct an additional Economic-based Enhancement or Expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed Economic-based Enhancements or Expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new Economic-based Enhancements or Expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new Economic-based Enhancements or Expansions for inclusion in the Regional Transmission Expansion Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional Economic-based Enhancements or Expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional Economic-based Enhancements or Expansions pursuant to the ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.6(m). In the event the entity or entities designated as responsible for construction, owning or financing a designated new Economic-based Enhancement or Expansion declines to construct, own or finance the new Economic-based Enhancement or Expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with the ~~Operating Agreement~~Tariff, Schedule ~~619~~, sections 1.6 and 1.7. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional Economic-based Enhancements or Expansions and whether such Economic-based Enhancements or Expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional Economic-based Enhancements or Expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.7(d). An Economic-based Enhancement or Expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the Economic-based Enhancement or Expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for the 15 year period starting with the RTEP Year (defined as current year plus five) minus benefits for years when the project is not yet in-service] ÷ [Present value of the Total Enhancement Cost for the same 15 year period]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Energy Market Benefit is as follows:

Energy Market Benefit = [.50] \* [Change in Total Energy Production Cost] + [.50] \* [Change in Load Energy Payment]

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Energy Market Benefit is as follows:

Energy Market Benefit = [1] \* [Change in Load Energy Payment]  
and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the Economic-based Enhancement or Expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the Economic-based Enhancement or Expansion]. The change in costs for purchases from outside of the PJM Region and sales to outside the PJM Region will be captured, if appropriate. Purchases will be valued at the Load Weighted LMP and sales will be valued at the Generation Weighted LMP.

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each Zone without

the Economic-based Enhancement or Expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each Zone with the Economic-based Enhancement or Expansion)] – [the change in value of transmission rights for each Zone with the Economic-based Enhancement or Expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion)]. The Change in the Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in the Load Energy Payment.

And

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [.50] * [\text{Change in Total System Capacity Cost}] + [.50] * [\text{Change in Load Capacity Payment}]$$

and

For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [1] * [\text{Change in Load Capacity Payment}]$$

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion. The Change in the Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in the Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the Economic-based Enhancement or Expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new Economic-based Enhancement or Expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new Economic-based Enhancements or Expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the Economic-based Enhancement or Expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of the ~~Operating Agreement~~ Tariff, Schedule 619, section 1.5.7(i). The Office of the Interconnection will not be required to review annually the costs and benefits of constructing Economic-based Enhancements or Expansions with capital costs less than \$20 million if, based on updated cost estimates and the original benefits, the Benefit/Cost Ratio remains at or above 1.25. The Office of the Interconnection shall no longer be required to review costs and benefits of constructing Economic-based Enhancements and Expansions once: (i) a certificate of public convenience and necessity or its equivalent is granted by the state or relevant regulatory authority in which such enhancements or expansions will be located; or (ii) if a certificate of public convenience and necessity or its equivalent is not required by the state or relevant regulatory authority in which an economic-based enhancement or expansion will be located, once construction activities commence at the project site.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new Economic-based Enhancements or Expansions is consistent with the new Economic-based Enhancements or Expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to the Tariff, Parts IV and VI that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, the Tariff, Part VI, Subpart B, section 216, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, that are committed to the PJM Region as a result of any Reliability Pricing



Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

- (ii) Availability of Generation Capacity Resources, as defined by the RAA, section 1.33, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iii) Availability of Demand Resources that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iv) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues to determine the likelihood of a Customer Facility, pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement,

reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues and, if necessary, add transmission enhancements to address congestion that arises from such modeling.

- (viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an Economic-based Enhancement or Expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the Economic-based Enhancement or Expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to Economic-based Enhancements or Expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.3 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

### **1.5.8 Development of Long-lead Projects, Short-term Projects, Immediate-need Reliability Projects, and Economic-based Enhancements or Expansions.**

#### **(a) Pre-Qualification Process.**

(a)(1) On September 1 of each year, the Office of the Interconnection shall open a thirty-day pre-qualification window for entities, including existing Transmission Owners and Nonincumbent Developers, to submit to the Office of the Interconnection: (i) applications to pre-qualify as eligible to be a Designated Entity; or (ii) updated information as described in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(a)(3). Pre-qualification applications shall contain the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop,

construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's, or parent company's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities; (ix) a description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this ~~Operating Agreement~~Tariff, Schedule ~~619~~, section 1.5.8(a).

(a)(2) No later than October 31, the Office of the Interconnection shall notify the entities that submitted pre-qualification applications or updated information during the annual thirty-day pre-qualification window, whether they are, or will continue to be, pre-qualified as eligible to be a Designated Entity. In the event the Office of the Interconnection determines that an entity (i) is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, or (ii) provided insufficient information to determine pre-qualification, the Office of the Interconnection shall inform that the entity it is not pre-qualified and include in the notification the basis for its determination. The entity then may submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is, or will continue to be, pre-qualified as eligible to be a Designated Entity. If the entity submits additional information by November 30, the Office of the Interconnection shall notify the entity of the results of its re-evaluation no later than December 15. If the entity submits additional information after November 30, the Office of the Interconnection shall use reasonable efforts to re-evaluate the application, with the additional information, and notify the entity of its determination as soon as practicable. No later than December 31, the Office of the Interconnection shall post on the PJM website the list of entities that are pre-qualified as eligible to be Designated Entities. If an entity is notified by the Office of the Interconnection that it does not pre-qualify or will not continue to be pre-qualified as eligible to be a Designated Entity, such entity may request dispute resolution pursuant to the dispute resolution procedures in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~.

(a)(3) In order to continue to pre-qualify as eligible to be a Designated Entity, such entity must confirm its information with the Office of the Interconnection no later than three years following its last submission or sooner if necessary as required below. In the event the information on which the entity's pre-qualification is based changes with respect to the upcoming year, such entity must submit to the Office of the Interconnection all updated information during the annual thirty-day pre-qualification window and the timeframes for

notification in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(a)(2) shall apply. In the event the information on which the entity's pre-qualification is based changes with respect to the current year, such entity must submit to the Office of the Interconnection all updated information at the time the information changes and the Office of the Interconnection shall use reasonable efforts to evaluate the updated information and notify the entity of its determination as soon as practicable.

(a)(4) As determined by the Office of the Interconnection, an entity may submit a pre-qualification application outside the annual thirty-day pre-qualification window for good cause shown. For a pre-qualification application received outside of the annual thirty-day pre-qualification window, the Office of the Interconnection shall use reasonable efforts to process the application and notify the entity as to whether it pre-qualifies as eligible to be a Designated Entity as soon as practicable.

(a)(5) To be designated as a Designated Entity for any project proposed pursuant to the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8, existing Transmission Owners and Nonincumbent Developers must be pre-qualified as eligible to be a Designated Entity pursuant to this ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(a). This ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(a) shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Following identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this ~~Operating Agreement Tariff~~, Schedule ~~6-19~~ and the PJM Manuals, and after consideration of non-transmission solutions, and prior to evaluating potential enhancements and expansions to the Transmission System, the Office of the Interconnection shall publicly post on the PJM website all transmission need information, including violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.9, as applicable. Such posting shall support the role of the Subregional RTEP Committees in the development of the Local Plans and support the role of the Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 60-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects and Economic-based Enhancements or Expansions. The specifics regarding whether or not the following types of violations or projects are subject to a proposal window are detailed in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(m) for Immediate-need Reliability Projects; ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(n) for reliability violations on transmission facilities below 200 kV; and ~~Operating~~

Agreement Tariff, Schedule 619, section 1.5.8(p) for violations on transmission substation equipment. The Office of Interconnection may shorten a proposal window should an identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions, or extend a proposal window as needed to accommodate updated information regarding system conditions. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on one or more of the following criteria: (1) complexity of the violation or system condition; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. The Office of the Interconnection may lengthen a proposal window that already is opened based on one or more of the following criteria: (i) changes in assumptions or conditions relating to the underlying need for the project, such as load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change in the proposal window period. During these windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) All proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(1)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Transmission Provider to evaluate the submitted project proposal. To the extent the Transmission Provider incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Transmission Provider shall invoice equal shares of the non-severable costs among the project proposals that cause such non-severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(1)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Transmission Provider as a result of the evaluation of a submitted project proposal.

(c)(1)(iii) Following the close of a proposal window but before the Transmission Provider incurs any third-party consultant work costs to evaluate a submitted project proposal, the Transmission Provider will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Transmission Provider may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the Transmission Provider receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(1)(iv) At the completion of the evaluation activities associated with a project proposal, the Transmission Provider will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(1)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Transmission Provider sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Transmission Provider. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Transmission Provider in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Transmission Provider as a result of the evaluation of the proposing entity's project proposal(s).

(c)(2) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to the ~~Operating Agreement~~ Tariff, Schedule 619, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any

other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost containment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. PJM may not alter the requirements for proposal submission to require the submission of a binding cost containment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.

(c)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in the ~~Operating Agreement~~Tariff, Schedule 619, sections 1.5.8(e) and 1.5.8(f). If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(c)(3) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(c)(5) Within 30 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(c). All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.9. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further

consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the [Operating Agreement Tariff](#), Schedule [619](#), sections 1.5.8(e) and 1.5.8(f). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this [Operating Agreement Tariff](#), Schedule [619](#).

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to the [Operating Agreement Tariff](#), Schedule [619](#), section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to the [Operating Agreement Tariff](#), Schedule [619](#), section 1.5.3, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to the [Operating Agreement Tariff](#), Schedule [619](#), section 1.5.7(d); (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) the ability to timely complete the project, and project development feasibility; and (v) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each project finalist's proposal, including any Transmission Owner Upgrades, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the [TEAC Transmission Expansion Advisory Committee](#) for review and comment. In evaluating any cost, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates



from the Commission. PJM may modify the technical specifications of a proposal, as outlined in the PJM Manuals, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board. Neither PJM, the Designated Entity nor any stakeholders are waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

(f) **Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project, Long-lead Project or Economic-based Enhancement or Expansion recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

(g) **Procedures if No Long-lead Project or Economic-based Enhancement or Expansion Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, or system condition, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, or system conditions pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office of the Interconnection shall propose a project to solve the posted violation, or system condition for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall develop and post on the PJM website a transmission

solution construction timeline for input and review by the Transmission Expansion Advisory Committee that will include factors such as, but not limited to: (i) deadlines for obtaining regulatory approvals, (ii) dates by which long lead equipment should be acquired, (iii) the time necessary to complete a proposed solution to meet the required in-service date, and (iv) other time-based factors impacting the feasibility of achieving the required in-service date. Based on input from the Transmission Expansion Advisory Committee and the time frames set forth in the construction timeline, the Office of the Interconnection shall determine whether there is sufficient time to conduct a re-evaluation and re-post and timely address the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion. To the extent that an economic constraint remains unaddressed, the economic constraint will be re-evaluated and re-posted.

(h) **Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) **Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

(j) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause shown, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving

an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. In the alternative, the Designated Entity may request dispute resolution pursuant to the dispute resolution procedures in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or request that the Designated Entity Agreement be filed unexecuted with the Commission.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to comply with one or more of the requirements of the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(j); or fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a project proposed pursuant to the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(c) is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

(m) **Immediate-need Reliability Projects:**

(m)(1) Pursuant to the expansion planning process set forth in ~~Operating Agreement Tariff~~, Schedule 619, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify immediate reliability needs that must be addressed within three years or less. For those immediate reliability needs for which PJM determines a proposal window may not be feasible, PJM shall identify and post such immediate need reliability criteria violations and system conditions for review and comment by the Transmission Expansion Advisory Committee and other stakeholders. Following review and comment, the Office of the Interconnection shall develop Immediate-need Reliability Projects for which a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m)(2) is infeasible. The Office of the Interconnection shall consider the following factors in determining the infeasibility of such a proposal window: (i) nature of the reliability criteria violation; (ii) nature and type of potential solution required; and (iii) projected construction time for a potential solution to the type of reliability criteria violation to be addressed. The Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the Immediate-need Reliability Projects for which a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m)(2) is infeasible. Stakeholders shall be afforded no less than ten days to review Immediate-need Reliability Project materials prior to providing comments at stakeholder meetings. However, PJM may review Immediate-need Reliability Project materials with stakeholders without the requisite ten-day notice so long as: (i) stakeholders do not object to reviewing the materials or (ii) PJM identifies in its posting to the meeting materials extenuating circumstances identified by PJM that require review of the materials at the stakeholder meeting. The descriptions shall include an explanation of the decision to designate the Transmission Owner as the Designated Entity for the Immediate-need Reliability Project rather than conducting a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m)(2), including an explanation of the time-sensitive need for the Immediate-need Reliability Project, other transmission and non-transmission options that were considered but concluded would not sufficiently address the immediate reliability need, the circumstances that generated the immediate reliability need, and why the immediate reliability need was not identified earlier. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments to the Office of the Interconnection. All comments received by the Office of the Interconnection shall be publicly available on the PJM website. Based on the comments received from stakeholders and the review by Transmission Expansion Advisory Committee, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. In January of each year, the Office of the Interconnection shall post on the PJM website and file with the Commission for informational purposes a list of the Immediate-need Reliability Projects for which an existing Transmission Owner was designated in the prior year as the Designated Entity in accordance with this ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m)(1). The list shall include the need-by date of Immediate-need Reliability Project and the date the Transmission Owner actually energized the Immediate-need Reliability Project.

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for

Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals, including an explanation of the time-sensitive need for an Immediate-need Reliability Project and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(i), shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m)(1).

(n) **Reliability Violations on Transmission Facilities Below 200 kV.** Pursuant to the expansion planning process set forth in the ~~Operating Agreement Tariff~~, Schedule 619, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify reliability violations on facilities below 200 kV. The Office of the Interconnection shall not post such a violation pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(b) for inclusion in a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c) unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations. If the reliability violation is identified on multiple facilities rated below 200 kV that are determined by the Office of the Interconnection to meet one of the two exceptions stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c).

If the Office of the Interconnection determines that the identified reliability violations do not satisfy either of the two exceptions stated above, the Office of the Interconnection shall develop a solution to address the reliability violation on below 200 kV Transmission Facilities that will not be included in a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c). The Office of Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the below 200 kV reliability violations that will not be included in a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the below 200 kV reliability violation(s) in ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c) proposal window, a description of the facility on which the violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such below 200 kV reliability violation will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. With the exception of Immediate-need Reliability Projects under the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(m), PJM will not select an above 200 kV solution for inclusion in the recommended plan that would address a reliability violation on a below 200 kV transmission facility without posting the violation for inclusion in a proposal window consistent with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c). All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

(o) **[Reserved]**

(p) **Thermal Reliability Violations on Transmission Substation Equipment.** Pursuant to the regional transmission expansion planning process set forth in the ~~Operating Agreement Tariff~~, Schedule 619, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify thermal reliability violations on existing transmission substation equipment. The Office of the Interconnection shall not post such thermal reliability violations pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(b) for inclusion in a proposal window pursuant to the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c) if the Office of the Interconnection determines that the reliability violations would be more efficiently addressed by an upgrade to replace in kind transmission substation equipment with higher rated equipment, excluding power transmission transformers, but including station service transformers and instrument transformers. If the Office of the Interconnection determines that the reliability violation does not meet the exemption stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c). If the Office of the Interconnection determines that the identified thermal reliability violations satisfy the above exemption to the proposal window process, the Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the transmission substation equipment thermal reliability violations that will not be included in a proposal window pursuant to ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the transmission substation equipment thermal reliability

violation(s) in ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(c) proposal window, a description of the facility on which the thermal violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such transmission substation equipment thermal violations will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

### **1.5.9 State Agreement Approach.**

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. As determined by the authorized state governmental entities, such transmission enhancements or expansions may be included in the recommended plan, either as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.9(a) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(a).

### **1.5.10 Multi-Driver Project.**

(a) When a proposal submitted by an existing Transmission Owner or Nonincumbent Developer pursuant to ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8(c) meets the definition of a Multi-Driver Project and is designated to be included in the Regional Transmission Expansion Plan for purposes of cost allocation, the Office of the Interconnection shall designate the Designated Entity for the project as follows: (i) if the Multi-Driver Project does not contain a state Public Policy Requirement component, the Office of the Interconnection shall designate the Designated Entity pursuant to the criteria in the ~~Operating Agreement~~Tariff, Schedule 619, section 1.5.8; or (ii) if the Multi-Driver Project contains a state Public Policy

Requirement component, the Office of the Interconnection shall evaluate potential Designated Entity candidates based on the criteria in the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8, and provide its evaluation to and elicit feedback from the sponsoring state governmental entities responsible for allocation of all costs of the proposed state Public Policy Requirement component (“state governmental entity(ies)”) regarding its evaluation. Based on its evaluation of the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8 criteria and consideration of the feedback from the sponsoring state governmental entity(ies), the Office of the Interconnection shall designate the Designated Entity for the Multi-Driver Project and notify such entity consistent with the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.8(i). A Multi-Driver Project may be based on proposals that consist of (1) newly proposed transmission enhancements or expansions; (2) additions to, or modifications of, transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan; and/or (3) one or more transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan.

(b) A Multi-Driver Project may contain an enhancement or expansion that addresses a state Public Policy Requirement component only if it meets the requirements set forth in the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.9(a) and its cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(c) If a state governmental entity(ies) desires to include a Public Policy Requirement component after an enhancement or expansion has been included in the Regional Transmission Expansion Plan, the Office of the Interconnection may re-evaluate the relevant reliability-based enhancement or expansion, Economic-based Enhancement or Expansion, or Multi-Driver Project to determine whether adding the state-sponsored Public Policy Requirement component would create a more cost effective or efficient solution to system conditions. If the Office of the Interconnection determines that adding the state-sponsored Public Policy Requirement component to an enhancement or expansion already included in the Regional Transmission Expansion Plan would result in a more cost effective or efficient solution, the state-sponsored Public Policy Requirement component may be included in the relevant enhancement or expansion, provided all of the requirements of the ~~Operating Agreement Tariff~~, Schedule 619, section 1.5.10(b) are met, and cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(d) If, subsequent to the inclusion in the Regional Transmission Expansion Plan of a Multi-Driver Project that contains a state Public Policy Requirement component, a state governmental entity(ies) withdraws its support of the Public Policy Requirement component of a Multi-Driver Project, then: (i) the Office of the Interconnection shall re-evaluate the need for the remaining components of the Multi-Driver Project without the state Public Policy Requirement component, remove the Multi-Driver Project from the Regional Transmission Expansion Plan, or replace the Multi-Driver Project with an enhancement or expansion that addresses remaining reliability or economic system needs; (ii) if the Multi-Driver Project is retained in the Regional Transmission Expansion Plan without the state Public Policy Requirement component, the costs of the remaining components will be allocated in accordance with the Tariff, Schedule 12; (iii) if more than one state is responsible for the costs apportioned to the state Public Policy Requirement component of the Multi-Driver Project, the remaining state governmental



entity(ies) shall have the option to continue supporting the state Public Policy component of the Multi-Driver Project and if the remaining state governmental entity(ies) choose this option, the apportionment of the state Public Policy Requirement component will remain in place and the remaining state governmental entity(ies) shall agree upon their respective apportionments; (iv) if a Multi-Driver Project must be retained in the Regional Transmission Expansion Plan and completed with the State Public Policy component, the state Public Policy Requirement apportionment will remain in place and the withdrawing state governmental entity(ies) shall continue to be responsible for its/their share of the FERC-accepted cost allocations as filed pursuant to the Tariff, Schedule 12, section (b)(xii)(B).

(e) The actual costs of a Multi-Driver Project shall be apportioned to the different components (reliability-based enhancement or expansion, Economic-based Enhancement or Expansion and/or Public Policy Requirement) based on the initial estimated costs of the Multi-Driver Project in accordance with the methodology set forth in the Tariff, Schedule 12.

(f) The benefit metric calculation used for evaluating the market efficiency component of a Multi-Driver Project will be based on the final voltage of the Multi-Driver Project using the Benefit/Cost Ratio calculation set forth in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.7(d) where the Cost component of the calculation is the present value of the estimated cost of the enhancement apportioned to the market efficiency component of the Multi-Driver Project for each of the first 15 years of the life of the enhancement or expansion.

(g) Except as provided to the contrary in this ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.10 and ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8 applies to Multi-Driver Projects.

(h) The Office of the Interconnection shall determine whether a proposal(s) meets the definition of a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).

(i) In determining whether a Multi-Driver Project may be designated to more than one entity, PJM shall consider whether: (i) the project consists of separable transmission elements, which are physically discrete transmission components, such as, but not limited to, a transformer, static var compensator or definable linear segment of a transmission line, that can be designated individually to a Designated Entity to construct and own and/or finance; and (ii) each entity satisfies the criteria set forth in the ~~Operating Agreement Tariff~~, Schedule ~~619~~, section 1.5.8(f). Separable transmission elements that qualify as Transmission Owner Upgrades shall be designated to the Transmission Owner in the Zone in which the facility will be located.

## 1.6 Approval of the Final Regional Transmission Expansion Plan.

- (a) Based on the studies and analyses performed by the Office of the Interconnection under ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~, the PJM Board shall approve the Regional Transmission Expansion Plan in accordance with the requirements of ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~. The PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with Tariff, Schedule 12. Supplemental Projects shall be integrated into the Regional Transmission Expansion Plan approved by the PJM Board but shall not be included for cost allocation purposes.
- (b) The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owner(s) or Designated Entity(ies) to construct such expansion or enhancement, the Office of the Interconnection shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~, section 1.5.6(l) to bear responsibility for the costs of the project.
- (c) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.
- (d) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be documented, posted publicly and provided to the Applicable Regional Entities.

## 1.7 Obligation to Build.

(a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners or Designated Entities designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. Except as provided in ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.5.8(k), nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.

(b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.

(c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) or Designated Entity(ies) all charges established under Tariff, Schedule 12 in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners or Designated Entity(ies) to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) or Designated Entity(ies) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.

(d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under sections 1.5.6(d) and 1.5.7 of this ~~Schedule 6 Tariff, Schedule 19~~ that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

## **1.8 Interregional Expansions**

- (a) PJM shall collect from Midwest Independent System Operator, Inc., for distribution to the applicable Transmission Owners, in accordance with Schedule 12 of the PJM Tariff, revenues collected by the Midwest Independent System Operator, Inc. under the Open Access Transmission Tariff of the Midwest Independent System Owner, Inc. with respect to transmission enhancements or expansions for which the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility for transmission enhancements or expansions in the PJM Region to market participants in the region of the Midwest Independent System Operator, Inc.
- (b) PJM shall disburse to the Midwest Independent System Operator, Inc., for distribution to applicable transmission owners of the Midwest Independent System Operator, Inc., revenues collected under Schedule 12 of the PJM Tariff which establishes a charge in connection with enhancements or expansions in the region of the Midwest Independent System Operator, Inc. the cost responsibility for which has been assigned to market participants in the PJM Region under the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.
- (c) Nothing in this Section 1.8 shall affect or limit any Transmission Owners filing rights under Section 205 of the Federal Power Act as set forth in the PJM Tariff and applicable agreements.

**1.9 Relationship to Service Requests in the PJM Open Access Transmission Tariff.**

Nothing herein shall modify the rights and obligations of an Eligible Customer or a Transmission Customer with respect to required studies and completion of necessary enhancements or expansions associated with service requests submitted pursuant to Parts II, III, IV, VI, VII, and VIII of the Tariff. An Eligible Customer or Transmission Customer electing to follow the above-referenced procedures ~~in the PJM Tariff instead of the procedures provided herein,~~ shall also be responsible for the related costs. The enhancement and expansion study process under this Protocol shall be funded as a part of the operating budget of the Office of the Interconnection.

**SCHEDULE 619-A**  
**Interregional Transmission Coordination Between the SERTP and PJM Regions**

The Office of the Interconnection, through its regional transmission planning process, coordinates with the public utility transmission providers of Southeastern Regional Transmission Planning (“SERTP,” and individually, “SERTP Transmission Provider,” and collectively, “SERTP Transmission Providers”), as the transmission providers and planners for the SERTP region to address transmission planning coordination issues related to interregional transmission projects. The interregional transmission coordination procedures include a detailed description of the process for coordination between the SERTP Transmission Providers and the Office of the Interconnection, to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than transmission projects included in the respective regional transmission plans. The interregional transmission coordination procedures are hereby provided in this Schedule 619-A with additional materials provided on the PJM Regional Planning website.

The Office of the Interconnection and each of the SERTP Transmission Providers shall:

- (1) Coordinate and share the results of the SERTP Transmission Providers’ and the Office of the Interconnection’s regional transmission plans to identify possible interregional transmission projects that could address transmission needs more efficiently or cost-effectively than separate regional transmission projects;
- (2) Identify and jointly evaluate transmission projects that are proposed to be located in both transmission planning regions;
- (3) Exchange, at least annually, planning data and information; and
- (4) Maintain a website and e-mail list for the communication of information related to the coordinated planning process.

The SERTP Transmission Providers and the Office of the Interconnection developed a mutually agreeable method for allocating between the two transmission planning regions the costs of new interregional transmission projects that are located within both transmission planning regions. Such cost allocation method satisfies the six interregional cost allocation principles set forth in Order No. 1000 and are included in Tariff, Schedule 12-B.

For purposes of this Schedule 619-A, each of the SERTP Transmission Provider’s transmission planning process is the process described in each of the SERTP Transmission Providers’ open access transmission tariffs; the Office of the Interconnection’s regional transmission planning process is the process described in Operating Agreement Tariff, Schedule 619. References to the respective transmission planning processes in each of the SERTP Transmission Providers’ open access transmission tariffs are intended to identify the activities described in those tariff provisions. References to the respective regional transmission plans in this Schedule 619-A are intended to identify, for the Office of the Interconnection, the PJM Regional Transmission Expansion Plan (“RTEP”), as defined in applicable PJM documents and,

for the each SERTP Transmission Providers, the SERTP regional transmission plan which includes the applicable ten (10) year transmission expansion plan. Unless noted otherwise, section references in this Schedule 619-A refer to sections within this Schedule 619-A.

Nothing in this Schedule 619-A is intended to affect the terms of any bilateral planning or operating agreements between transmission owners and/or transmission service providers that exist as of the effective date of this Schedule 619-A or that are executed at some future date.

## **INTERREGIONAL TRANSMISSION PLANNING PRINCIPLES**

Representatives of the SERTP and the Office of the Interconnection will meet no less than once per year to facilitate the interregional coordination procedures described below (as applicable). Representatives of the SERTP and the Office of the Interconnection may meet more frequently during the evaluation of project(s) proposed for purposes of interregional cost allocation between the SERTP and the Office of the Interconnection. For purposes of this Schedule 619-A, an “interregional transmission project” means a facility or set of facilities that would be physically located in both the SERTP and PJM regions and would interconnect to transmission facilities in both the SERTP and PJM regions. The facilities to which the project is proposed to interconnect may be either existing transmission facilities or transmission projects included in the regional transmission plan that are currently under development.

### **1. Coordination**

**1.1 Review of Respective Regional Transmission Plans:** Biennially, the Office of the Interconnection and the SERTP Transmission Providers shall review each other’s current regional transmission plan(s) and engage in the data exchange and joint evaluation described in sections 2 and 3 below.

1.1.1 The review of each region’s regional transmission plan(s), which plans include the transmission needs and planned upgrades of the transmission providers in each region, shall occur on a mutually agreeable timetable, taking into account each region’s transmission planning process timeline.

**1.2 Review of Proposed Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection will also coordinate with regard to the evaluation of interregional transmission projects identified by the SERTP Transmission Providers and the Office of the Interconnection as well as interregional transmission projects proposed for Interregional Cost Allocation Purposes (“Interregional CAP”), pursuant to section 3 below and Tariff, Schedule 12-B. Initial coordination activities regarding new interregional proposals will typically begin during the third calendar quarter. The SERTP Transmission Providers and the Office of the Interconnection will exchange status updates for new interregional transmission project proposals or proposals currently under consideration as needed. These status updates will generally include, if applicable: (i) an update of the region’s evaluation of the proposal; (ii) the latest calculation of Regional Benefits (as defined in Tariff, Schedule 12-B); (iii) the anticipated timeline for future assessments; and (iv) reevaluations related to the proposal.

**1.3 Coordination of Assumptions Used in Joint Evaluation:** The SERTP Transmission Providers and the Office of the Interconnection will coordinate assumptions used in joint evaluations, as necessary, which includes items such as:

- 1.3.1 Expected timelines/milestones associated with the joint evaluation
- 1.3.2 Study assumptions
- 1.3.3 Regional benefit calculations

**1.4 Posting of Materials on Regional Planning Websites:** The SERTP Transmission Providers and the Office of the Interconnection will coordinate with respect to the posting of materials related to the interregional coordination procedures described in this Schedule 196-A on each region's regional planning website.

## **2. Data Exchange**

2.1 At least annually, each of the SERTP Transmission Providers and the Office of the Interconnection shall exchange power-flow models and associated data used in the regional transmission planning processes to develop their respective then-current regional transmission plan(s). This exchange will occur when such data is available in each of the transmission planning processes, typically during the first calendar quarter. Additional transmission-based models and data may be exchanged between the SERTP Transmission Providers and the Office of the Interconnection as necessary and if requested. For purposes of the interregional coordination activities outlined in this Schedule 619-A, only data and models used in the development of the SERTP Transmission Provider's and the Office of the Interconnection's then-current regional transmission plans and used in their respective regional transmission planning processes will be exchanged. This data will be posted on the pertinent regional transmission planning process' websites, consistent with the posting requirements of the respective regional transmission planning processes, and is considered CEII. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting.

2.2 The RTEP will be posted on the Office of the Interconnection's Regional Planning website pursuant to the Office of the Interconnection's regional transmission planning process. The Office of the Interconnection shall notify the SERTP Transmission Providers of such posting so that the SERTP Transmission Providers may retrieve these transmission plans. Each of the SERTP Transmission Providers will exchange its then-current regional plan(s) in a similar manner according to its regional transmission planning process.

## **3. Joint Evaluation**

**3.1 Identification of Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection shall exchange planning models and data and current regional transmission plans as described in section 2 above. Each SERTP Transmission Provider and the Office of the Interconnection will review one another's then-current regional transmission plan(s) in accordance with the coordination procedures described in section 1 above and their respective regional transmission planning processes. If through this review, a SERTP Transmission Provider and the Office of the Interconnection identify a



potential interregional transmission project that could be more efficient or cost effective than projects included in the respective regional plans, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the potential project pursuant to section 3.3 below.

### **3.2 Identification of Interregional Transmission Projects by Stakeholders:**

Stakeholders may propose projects that may be more efficient or cost-effective than projects included in the SERTP Transmission Providers' and the Office of the Interconnection's regional transmission plans pursuant to the procedures in each region's regional transmission planning processes. The SERTP Transmission Providers and Office of the Interconnection will evaluate interregional transmission projects proposed by stakeholders pursuant to section 3.3 below.

**3.3 Evaluation of Interregional Transmission Projects:** The SERTP Transmission Providers and the Office of the Interconnection shall act through their respective regional transmission planning processes to evaluate potential interregional transmission projects and to determine whether the inclusion of any potential interregional transmission projects in each region's regional transmission plan would be more efficient or cost-effective than projects included in the respective then-current regional transmission plans. Such analysis shall be consistent with accepted planning practices of the respective regions and the methods utilized to produce each region's respective regional transmission plan(s). The Office of the Interconnection will evaluate potential interregional transmission projects consistent with ~~Operating Agreement~~ ~~Tariff~~, Schedule ~~6-19~~ and the PJM Manuals 14A entitled New Services Request Process and 14B entitled PJM Region Transmission Planning Process on the PJM Website at <http://www.pjm.com/documents/manuals.aspx>. To the extent possible and as needed, assumptions and models will be coordinated between the SERTP Transmission Providers and the Office of the Interconnection, as described in section 1 above. Data shall be exchanged to facilitate this evaluation using the procedures described in section 2 above.

**3.4 Evaluation of Interregional Transmission Projects Proposed for Interregional Cost Allocation Purposes:** Interregional transmission projects proposed for Interregional CAP must be submitted in both the SERTP and PJM regional transmission planning processes. The project submittals must satisfy the applicable requirements for submittal of interregional transmission projects, including those in ~~Operating Agreement~~ ~~Tariff~~, Schedule ~~6-19~~ and ~~Tariff~~, Schedule 12-B. The submittals in the respective regional transmission planning processes must identify the project proposal as interregional in scope and identify SERTP and PJM as the regions in which the project is proposed to interconnect. The Office of the Interconnection will determine whether the submittal for the proposed interregional transmission project satisfies all applicable requirements. Upon finding that the project submittal satisfies all such applicable requirements, the Office of the Interconnection will notify the SERTP Transmission Provider. Upon both regions so notifying one another that the project is eligible for consideration pursuant to their respective regional transmission planning processes, the SERTP Transmission Provider and the Office of the Interconnection will jointly evaluate the proposed interregional projects.

3.4.1 If an interregional transmission project is proposed in the SERTP and Office of Interconnection for Interregional CAP, the initial evaluation of the project will

typically begin during the third calendar quarter, with analysis conducted in the same manner as analysis of interregional projects identified pursuant to sections 3.1 and 3.2 above. Further evaluation shall also be performed pursuant to this section 3.4. Projects proposed for Interregional CAP shall also be subject to the requirements of Tariff, Schedule 12-B.

3.4.2. Each region, acting through its regional transmission planning process, will evaluate proposals to determine whether the interregional transmission project(s) proposed for Interregional CAP addresses transmission needs that are currently being addressed with projects in its regional transmission plan(s) and, if so, which projects in the regional transmission plan(s) could be displaced by the proposed project(s).

3.4.3. Based upon its evaluation, each region will quantify a Regional Benefit based upon the transmission costs that each region is projected to avoid due to its transmission projects being displaced by the proposed project. For purposes of this Schedule 619-A, “Regional Benefit” means: (i) for the SERTP Transmission Providers, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included and (ii) for the Office of the Interconnection, the total avoided costs of projects included in the then-current regional transmission plan that would be displaced if the proposed interregional transmission project was included. The Regional Benefit is not necessarily the same as the benefits used for purposes of regional cost allocation.

**3.5 Inclusion of Interregional Projects Proposed for Interregional CAP in Regional Transmission Plans:** An interregional transmission project proposed for Interregional CAP in the SERTP and Office of the Interconnection will be included in the respective regional plans for purposes of cost allocation only after it has been selected by both the SERTP and Office of the Interconnection regional processes to be included in their respective regional plans for purposes of cost allocation.

3.5.1. To be selected in both the SERTP and Office of the Interconnection regional plans for purposes of cost allocation means that each region has performed all evaluations, as prescribed in its regional transmission planning processes, necessary for a project to be included in its regional transmission plans for purposes of cost allocation.

- For SERTP: All requisite approvals are obtained, as prescribed in the SERTP regional transmission planning process, necessary for a project to be included in the SERTP regional transmission plan for purposes of cost allocation. This includes any requisite regional benefit to cost (“BTC”) ratio calculations performed pursuant to the respective regional transmission planning processes. For purposes of the SERTP, the anticipated allocation of costs of the interregional transmission project for use in the regional BTC ratio calculation shall be based upon the ratio of the SERTP’s Regional Benefit to the sum of the Regional Benefits identified for both the SERTP and the Office of the Interconnection; and

- For the Office of Interconnection: All requisite approvals are obtained, as prescribed in the PJM regional transmission planning process, necessary for a project to be included in the RTEP for purposes of cost allocation.

**3.6 Removal from Regional Plans:** An interregional transmission project may be removed from the SERTP's or Office of the Interconnection's regional plan for purposes of cost allocation: (i) if the developer fails to meet developmental milestones; (ii) pursuant to the reevaluation procedures specified in the respective regional transmission planning processes; or (iii) if the project is removed from one of the region's regional transmission plan(s) pursuant to the requirements of its regional transmission planning process.

3.6.1 The Office of the Interconnection, shall notify the SERTP Transmission Provider if an interregional project or a portion thereof is likely to be removed from its regional transmission plan.

#### 4. Transparency

4.1 The Office of the Interconnection shall post procedures for coordination and joint evaluation on the Regional Planning website.

4.2 Access to the data utilized will be made available through the Regional Planning website subject to the appropriate clearance, as applicable (such as CEII and confidential non-CEII). Both planning regions will make available, on their respective regional websites, links to where stakeholders can register (if applicable/available) for the stakeholder committees or distribution lists of the other planning region.

4.3 PJM will provide status updates of SERTP interregional activities to the TEAC including:

- Facilities to be evaluated
- Analysis performed
- Determinations/results.

4.4 Stakeholders will have an opportunity to provide input and feedback within the respective regional planning processes of SERTP and the Office of the Interconnection related to interregional facilities identified, analysis performed, and any determination/results. Stakeholders may participate in either or both regions' regional planning processes to provide their input and feedback regarding the interregional coordination between the SERTP and the Office of the Interconnection.

4.5 The Office of the Interconnection will post a list on the Regional Planning Website of interregional transmission projects proposed for purposes of cost allocation in both the SERTP and PJM that are not eligible for consideration because they do not satisfy the regional project threshold criteria of one or both of the regions as well as post an explanation of the thresholds the proposed interregional project failed to satisfy.

**SCHEDULE ~~619~~-B**  
**Interregional Transmission Coordination Between**  
**PJM, New York Independent System Operator, Inc. and ISO New England Inc.**

PJM, its Transmission Owners, and any other interested parties shall coordinate system planning activities with neighboring planning regions, (*i.e.*, New York Independent System Operator, Inc. and ISO New England Inc.) (“ISO/RTO Regions”) pursuant to the Northeastern Planning Protocol (“Protocol”) identified in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19, section 1.5.5(b).

The Interregional Planning Protocol includes a description of the committee structure, processes, and procedures through which system planning activities are openly and transparently coordinated by the ISO/RTO Regions. The objective of the interregional planning process is to contribute to the on-going reliability and the enhanced operational and economic performance of the ISO/RTO Regions through: (i) exchange of relevant data and information; (ii) coordination of procedures to evaluate certain interconnection and transmission service requests; (iii) periodic comprehensive interregional assessments; (iv) identification and evaluation of potential Interregional Transmission Projects that can address regional needs in a manner that may be more efficient or cost-effective than separate regional solutions, in accordance with the requirements of Order No. 1000.

Section 9 of the Protocol indicates that the cost allocation for identified interregional transmission projects between PJM and NYISO shall be conducted in accordance with the Joint Operating Agreement Among and Between New York Independent System Operator, Inc. and PJM Interconnection, L.L.C. referenced in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19, section 1.5.5(b).

The planning activities of the ISO/RTO Regions shall be conducted consistent with the planning criteria of each ISO/RTO Region. The ISO/RTO Regions shall periodically produce a Northeastern Coordinated System Plan that integrates the system plans of all of the ISO/RTO Regions.