



2750 Monroe Boulevard
Valley Forge Corporate Center
Audubon, PA 19403

James M. Burlew
Senior Counsel
T: (610) 666-4345 | F: (610) 666-8211
james.burlew@pjm.com

July 6, 2020

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E. Room 1A
Washington, D.C. 20426

*Re: PJM Interconnection, L.L.C., Docket No. ER20-_____-000
Compliance Filing to Revise Pseudo-Tie Provisions of the PJM Open Access Transmission
Tariff re: EL19-34-000*

Dear Secretary Bose:

Pursuant to the May 21, 2020 order of the Federal Energy Regulatory Commission (the “Commission” or “FERC”) in the above referenced proceeding, PJM Interconnection, L.L.C. (“PJM”) submits this compliance filing to revise the PJM Open Access Transmission Tariff (“Tariff”) as described herein.¹

I. SATISFACTION OF THE COMPLIANCE REQUIREMENTS

In the Brookfield Order, the Commission directed PJM to “...amend its tariff to require that: (1) PJM will provide a copy of the results of the Market-to-Market Flowgate Test to the pseudo-tie applicant as well as related work papers, if requested; (2) PJM post on its website the material assumptions that are used in its modeling software in the conduct of the Market-to-Market Flowgate Test and that are applicable to all tested generators, e.g., (A) the definitions of the sink and source used in the Market-to-Market Flowgate Test and (B) the definition of eligible coordinated flowgates as applicable to the Market-to-Market Flowgate Test; (3) Upon request,

¹ *Brookfield Energy Marketing LP*, 171 FERC ¶ 61,151 (2020) (“Brookfield Order”).

Kimberly D. Bose, Secretary
 July 6, 2020
 Page 2

PJM meet with each pseudo-tie applicant to discuss specific modeling assumptions and the results of the Market-to-Market Flowgate Test of the individual pseudo-tie applicant.”² Accordingly, PJM proposes the following revision to Tariff, Attachment DD, section 5.5A(b)(i)(B):

With regard to this requirement, the Office of the Interconnection shall:

- (1) post on its website the material assumptions, applicable to all tested generators, that have been implemented in the modeling software used to conduct the analysis to determine whether the requirement has been met (e.g., the definitions of the sink and source used in the market-to-market analysis and the definition of eligible coordinated flowgates as applicable to the requirement);
- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the market-to-market flowgate analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and
- (3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the market-to-market flowgate analysis conducted for the specific Pseudo-Tie requested by that applicant;

II. DOCUMENTS INCLUDED WITH THIS FILING

In accordance with the requirements of Order No. 714³ and the Commission’s eTariff regulations, PJM hereby submits an eTariff XML filing package consisting of the following materials:

1. this transmittal letter;
2. Attachment A – revisions to the Tariff in redline format; and
3. Attachment B – revisions to the Tariff in clean format.

² Brookfield Order at P 100.

³ *Electronic Tariff Filings*, 124 FERC ¶ 61,270 (2008).

Kimberly D. Bose, Secretary
July 6, 2020
Page 3

III. EFFECTIVE DATE

PJM respectfully requests an effective date of September 8, 2020, for the enclosed eTariff record.

IV. CORRESPONDENCE AND COMMUNICATIONS

Correspondence and communications regarding this filing should be sent to the following individuals:

Craig Glazer
Vice President–Federal Gov’t Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W.
Suite 600
Washington, D.C. 20005
(202) 423-4743
craig.glazer@pjm.com

James M. Burlew
Senior Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Valley Forge Corporate Center
Audubon, PA 19403
(610) 666-4345
james.burlew@pjm.com

V. 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,⁴ PJM will post a copy of this filing to the FERC filings section of its website, located at <http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx>, 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 region⁵ alerting them of the filing and its availability on PJM’s website. PJM also serves the parties listed on the Commission’s official service list for this docket. Notwithstanding the foregoing, if the document is not

⁴ See 18C.F.R §§ 35.2(e) and 385.2010(f)(3).

⁵ PJM already maintains updates and regularly uses e-mail lists for all PJM members and affected state commissions.

Kimberly D. Bose, Secretary
July 6, 2020
Page 4

immediately available by using the referenced link, it will be available within 24 hours of the filing. A copy of this filing will also be available on the Commission's eLibrary website located at <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

VI. CONCLUSION

Wherefore, for the foregoing reasons, PJM respectfully requests that the Commission accept the revisions to the PJM Tariff proposed in this filing.

Respectfully submitted,



Craig Glazer
Vice President—Federal Gov't Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W.
Suite 600
Washington, D.C. 20005
(202) 423-4743
craig.glazer@pjm.com

James M. Burlew
Senior Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Valley Forge Corporate Center
Audubon, PA 19403
(610) 666-4345
james.burlew@pjm.com

Marked Tariff

OATT, Attachment DD, section 5.5A

5.5A Capacity Resource Types

(a) Capacity Performance Resources

Capacity Performance Resources are Capacity Resources which, to the extent such resources cleared in a Reliability Pricing Model Auction or are otherwise committed as a Capacity Resource, are obligated to deliver energy during the relevant Delivery Year as scheduled and/or dispatched by the Office of Interconnection during the Performance Assessment Intervals. As further detailed in Section 10A of this Attachment, Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this Attachment. Subject to 5.5A(a)(i), the following types of Capacity Resources are eligible to submit a Sell Offer as a Capacity Performance Resource: internal or external Generation Capacity Resources; Annual Demand Resources; Capacity Storage Resources; Annual Energy Efficiency Resources; and Qualifying Transmission Upgrades. To the extent the underlying Capacity Resource is an external Generation Capacity Resource, such resource must meet, to the extent subsection (b) or (c) of this section is applicable to offers from such resource, meet the applicable requirements of such subsection, and if neither subsection (b) or (c) is applicable, then offers from such resource must meet the criteria for obtaining an exception to the Capacity Import Limit as contained in article 1 of the Reliability Assurance Agreement.

(i) Process for Support and Review of Capacity Performance Resource Offers

A. The Capacity Market Seller shall provide to the Office of the Interconnection and the Market Monitoring Unit, upon their request, all supporting data and information requested by either the Office of the Interconnection or the Market Monitoring Unit to evaluate whether the underlying Capacity Resource can meet the operational and performance requirements of Capacity Performance Resources. The Capacity Market Seller shall have an ongoing obligation through the closing of the offer period for the RPM Auction to update the request to reflect any material changes.

B. The Office of the Interconnection and the Market Monitoring Unit shall review any requested supporting data and information, and the Office of the Interconnection, considering advice and recommendation from the Market Monitoring Unit, shall reject a request for a resource to offer as a Capacity Performance Resource if the Capacity Market Seller does not demonstrate that it can reasonably be expected to meet its Capacity Performance obligations consistent with the resource's offer by the relevant Delivery Year. The Office of Interconnection shall provide its determination to reject eligibility of the resource as a Capacity Performance Resource, and notify the Market Monitoring Unit, by no later than sixty-five (65) days prior to the date on which the offer period for the applicable RPM Auction commences. A Capacity Market Seller that is dissatisfied with any determination hereunder may seek any remedies available to it from FERC; provided, however, that the Office of the Interconnection will proceed with administration of the Tariff and market rules unless and until ordered to do otherwise by FERC.

(b) Offers from External Generation Capacity Resources for the 2020/2021 Delivery Year

and Subsequent Delivery Years—General Rule

For the 2020/2021 Delivery Year and any subsequent Delivery Year and for Capacity Performance Resource Sell Offers in any RPM Auction conducted for the 2018/2019 Delivery Year or 2019/2020 Delivery Year after May 9, 2017, unless excepted pursuant to subsection (c) below, a Capacity Market Seller may submit a Sell Offer for an external Generation Capacity Resource in an RPM Auction if the Capacity Market Seller demonstrates to PJM, by no later than five (5) business days prior to the commencement of the offer period for the relevant RPM Auction, that such resource meets all of the following requirements:

(i) The Capacity Market Seller has obtained a determination that the Pseudo-Tie required for its external Generation Capacity Resource is feasible, including (without limitation) that such Pseudo-Tie meets the following requirements:

(A) the external Generation Capacity Resource must have a minimum Electrical Distance impedance equal to or less than 0.065 p.u.; or is within one station of a transmission bus that has a minimum Electrical Distance impedance equal to or less than 0.065 p.u. *With regard to this Electrical Distance requirement, the Office of the Interconnection shall:*

- (1) post on its website the material assumptions, applicable to all tested generators, implemented in the modeling software used to conduct the Electrical Distance analysis (e.g., the general process used to define the facilities included in the Electrical Distance requirement and analysis for each Pseudo-Tie applicant);*
- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the Electrical Distance analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and*
- (3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the Electrical Distance analysis for the specific Pseudo-Tie requested by that applicant;*

(B) at least one generation resource that has a historic economic minimum offer lower than its historic economic maximum offer, located inside the metered boundaries of the PJM Region, has a minimum flow distribution impact of 1.5 percent on each eligible coordinated flowgate resulting from such Pseudo-Tie. With regard to this requirement, the Office of the Interconnection shall:

- (1) post on its website the material assumptions, applicable to all tested generators, that have been implemented in the modeling software used to conduct the analysis to determine whether the requirement has been met (e.g., the definitions of the sink and source used in the market-to-

market analysis and the definition of eligible coordinated flowgates as applicable to the requirement);

(2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the market-to-market flowgate analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and

(3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the market-to-market flowgate analysis conducted for the specific Pseudo-Tie requested by that applicant;

(C) each external entity with which PJM may be required to coordinate flowgates under an agreed congestion management process maintains a network model that produces results for such flowgates that are within two percent of the results produced by the PJM network model for such flowgates;

(D) the Capacity Market Seller has secured written acknowledgement from the external Balancing Authority Areas that such Pseudo-Tie does not require tagging and that firm allocations associated with any coordinated flowgates applicable to the external Generation Capacity Resource under any agreed congestion management process then in effect between PJM and such Balancing Authority Area will be allocated to PJM.

and the Capacity Market Seller has committed in writing that it will take all steps necessary to implement such Pseudo-Tie prior to the start of the relevant Delivery Year;

(ii) it has, for transmission outside PJM, obtained long-term firm point-to-point transmission service (evaluated for deliverability from the unit-specific physical location of the resource to PJM load pursuant to a study that is reviewed and approved by PJM in accordance with PJM deliverability criteria to ensure uniformity for internal and external resource deliverability requirements), with rollover rights for the term of the transmission service that is confirmed by the Balancing Authority for the Balancing Authority Area where such resource is geographically located; and, as to transmission within PJM, has obtained Network External Designated Transmission Service; and

(iii) it is, by written commitment of the Capacity Market Seller, subject to the same obligations imposed on Generation Capacity Resources located in the PJM Region by Tariff, Attachment DD, section 6.6 to offer their capacity into RPM Auctions.

A Capacity Market Seller that satisfies the above requirements with respect to an external Generation Capacity Resource Sell Offer submitted in an RPM Auction for a Delivery Year shall be required to demonstrate satisfaction of such requirements for any Sell Offer with respect to such resource submitted in an RPM Auction for any subsequent Delivery Year, including, without limitation, demonstration that the required external transmission service continues to

satisfy PJM's deliverability standards.

(c) Offers from external Generation Capacity Resources for the 2020/2021 Delivery Year and Subsequent Delivery Years—Exception.

A Capacity Market Seller of a Prior CIL Exception External Resource may continue to submit Sell Offers for such resource for any RPM Auction for any Delivery Year up to and including the 2021/2022 Delivery Year (or, solely for any such resource that is (1) owned by a Load Serving Entity and used to self-supply (under arrangements initiated before June 1, 2016, with a duration of at least ten years) such entity's PJM Region load or (2) the subject of a contract for energy or capacity or equivalent written agreement entered into on or before June 1, 2016 for a term of ten years or longer with a purchaser that is an internal PJM load customer, for any Delivery Year during the life of such resource for subparagraph (1) or for the term of the agreement under subparagraph (2)) so long as it continues to comply with all conditions on the grant of its exception to the Capacity Import Limit, subject to the following additional conditions:

(i) for any Delivery Year, beginning with the 2017/2018 Delivery Year, for which such Prior CIL Exception External Resource has cleared an RPM Auction, PJM may in its sole judgment determine that the resource is not Operationally Deliverable for such Delivery Year because it does not satisfy the requirements of subsection (b). If PJM determines a Prior CIL Exception External Resource is not Operationally Deliverable for a Delivery Year, it must notify the Capacity Market Seller of its determination by no later than October 1 immediately preceding such Delivery Year. After receiving such notice, the Capacity Market Seller may elect to:

(A) take the necessary actions to make the Prior CIL Exception External Resource Operationally Deliverable, in PJM's sole judgment, prior to the beginning of such Delivery Year, provided that PJM will, if transmission upgrades are required to make such resource Operationally Deliverable, facilitate the performance of transmission studies and otherwise cooperate with the external Transmission Provider of the system on which such upgrades are required to identify the upgrades required to meet PJM's deliverability standards;

(B) be relieved of its capacity obligation for such Delivery Year by providing written notice of such election to the Office of the Interconnection no later than seven (7) days prior to the posting of planning parameters for the Third Incremental Auction for such Delivery Year as PJM will procure the replacement capacity in the Third Incremental Auction in accordance with Tariff, Attachment DD, sections 5.12(b)(ii) and 5.12(b)(iii), with no entitlement to any capacity revenues based on such resource, with no requirement to seek replacement for such capacity for such Delivery Year, with no penalty for non-performance or lack of commitment for such Delivery Year, and with no further must-offer obligation that would otherwise arise solely from clearing such capacity for such Delivery Year; or

(C) procure, by purchase or otherwise, replacement in a sufficient quantity to replace the capacity that would have been provided by the Prior CIL Exception External Resource but for PJM's determination that such resource is not Operationally Deliverable.

(ii) Such Capacity Market Seller's continued ability to offer such resource under this exception is conditioned on external Transmission Providers continuing to honor the firm status of the Capacity Market Seller's transmission service for all Delivery Years for which such seller offers such resource under the exceptions provided in this subsection (c).

(iii) A Capacity Market Seller offering and clearing a Prior CIL Exception External Resource pursuant to this subsection (c) shall be relieved of its must-offer obligation that would otherwise arise solely from clearing such capacity. Such relief of the must-offer obligation shall be for any Delivery Year after the last Delivery Year for which it is permitted to offer such resource under this subsection (c).

(iv) PJM will determine key triggers for when a Prior CIL Exception External Resource will not be Operationally Deliverable, including the need for: (1) a remedial action scheme or manual generation dump protocol to manage external transmission emergencies; (2) transmission facility switching arrangements that would have the effect of radializing load in order to manage external transmission emergencies; and (3) "out of market" external Balancing Authority or Transmission Operator directed dispatch instructions to manage excessive or unacceptable frequency of external regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability limit violations.

(d) Base Capacity Resources

For the 2018/2019 and 2019/2020 Delivery Years, following types of Capacity Resources eligible to submit a Sell Offer as a Base Capacity Resource: Generation Capacity Resources, Capacity Storage Resources, Annual Demand Resources, Base Capacity Demand Resources, and Base Capacity Energy Efficiency Resources. Each resource that clears a RPM Auction as a Base Capacity Resource must provide energy output to PJM if called during Performance Assessment Intervals occurring in the calendar months of June through September, including any necessary recall of such capacity and energy from service to areas outside the PJM Region. As further detailed in Section 10A of this Attachment, Base Capacity Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this section.

(e) Seasonal Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, a Seasonal Capacity Performance Resource shall mean a Summer-Period Capacity Performance Resource or Winter-Period Capacity Performance Resource, as defined below.

i) Summer-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Summer-Period Capacity Performance Resource: Summer Period Demand Resource, Summer-Period Energy Efficiency Resource, and Capacity Storage Resource, Intermittent Resource, or Environmentally-Limited Resource that has an average expected energy output during summer peak-hour periods consistently and measurably greater than its average expected energy output during winter peakhour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Summer-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of June through October and the following May of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Summer-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

ii) Winter-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Winter-Period Capacity Performance Resource: Capacity Storage Resource, Intermittent Resource, and Environmentally-Limited Resource that has an average expected energy output during winter peak-hour periods consistently and measurably greater than its average expected energy output during summer peak-hour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Winter-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of November through April of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Winter-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

Clean Tariff

OATT, Attachment DD, section 5.5A

5.5A Capacity Resource Types

(a) Capacity Performance Resources

Capacity Performance Resources are Capacity Resources which, to the extent such resources cleared in a Reliability Pricing Model Auction or are otherwise committed as a Capacity Resource, are obligated to deliver energy during the relevant Delivery Year as scheduled and/or dispatched by the Office of Interconnection during the Performance Assessment Intervals. As further detailed in Section 10A of this Attachment, Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this Attachment. Subject to 5.5A(a)(i), the following types of Capacity Resources are eligible to submit a Sell Offer as a Capacity Performance Resource: internal or external Generation Capacity Resources; Annual Demand Resources; Capacity Storage Resources; Annual Energy Efficiency Resources; and Qualifying Transmission Upgrades. To the extent the underlying Capacity Resource is an external Generation Capacity Resource, such resource must meet, to the extent subsection (b) or (c) of this section is applicable to offers from such resource, meet the applicable requirements of such subsection, and if neither subsection (b) or (c) is applicable, then offers from such resource must the criteria for obtaining an exception to the Capacity Import Limit as contained in article 1 of the Reliability Assurance Agreement.

(i) Process for Support and Review of Capacity Performance Resource Offers

A. The Capacity Market Seller shall provide to the Office of the Interconnection and the Market Monitoring Unit, upon their request, all supporting data and information requested by either the Office of the Interconnection or the Market Monitoring Unit to evaluate whether the underlying Capacity Resource can meet the operational and performance requirements of Capacity Performance Resources. The Capacity Market Seller shall have an ongoing obligation through the closing of the offer period for the RPM Auction to update the request to reflect any material changes.

B. The Office of the Interconnection and the Market Monitoring Unit shall review any requested supporting data and information, and the Office of the Interconnection, considering advice and recommendation from the Market Monitoring Unit, shall reject a request for a resource to offer as a Capacity Performance Resource if the Capacity Market Seller does not demonstrate that it can reasonably be expected to meet its Capacity Performance obligations consistent with the resource's offer by the relevant Delivery Year. The Office of Interconnection shall provide its determination to reject eligibility of the resource as a Capacity Performance Resource, and notify the Market Monitoring Unit, by no later than sixty-five (65) days prior to the date on which the offer period for the applicable RPM Auction commences. A Capacity Market Seller that is dissatisfied with any determination hereunder may seek any remedies available to it from FERC; provided, however, that the Office of the Interconnection will proceed with administration of the Tariff and market rules unless and until ordered to do otherwise by FERC.

(b) Offers from External Generation Capacity Resources for the 2020/2021 Delivery Year

and Subsequent Delivery Years—General Rule

For the 2020/2021 Delivery Year and any subsequent Delivery Year and for Capacity Performance Resource Sell Offers in any RPM Auction conducted for the 2018/2019 Delivery Year or 2019/2020 Delivery Year after May 9, 2017, unless excepted pursuant to subsection (c) below, a Capacity Market Seller may submit a Sell Offer for an external Generation Capacity Resource in an RPM Auction if the Capacity Market Seller demonstrates to PJM, by no later than five (5) business days prior to the commencement of the offer period for the relevant RPM Auction, that such resource meets all of the following requirements:

(i) The Capacity Market Seller has obtained a determination that the Pseudo-Tie required for its external Generation Capacity Resource is feasible, including (without limitation) that such Pseudo-Tie meets the following requirements:

(A) the external Generation Capacity Resource must have a minimum Electrical Distance impedance equal to or less than 0.065 p.u.; or is within one station of a transmission bus that has a minimum Electrical Distance impedance equal to or less than 0.065 p.u. *With regard to this Electrical Distance requirement, the Office of the Interconnection shall:*

- (1) post on its website the material assumptions, applicable to all tested generators, implemented in the modeling software used to conduct the Electrical Distance analysis (e.g., the general process used to define the facilities included in the Electrical Distance requirement and analysis for each Pseudo-Tie applicant);*
- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the Electrical Distance analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and*
- (3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the Electrical Distance analysis for the specific Pseudo-Tie requested by that applicant;*

(B) at least one generation resource that has a historic economic minimum offer lower than its historic economic maximum offer, located inside the metered boundaries of the PJM Region, has a minimum flow distribution impact of 1.5 percent on each eligible coordinated flowgate resulting from such Pseudo-Tie. *With regard to this requirement, the Office of the Interconnection shall:*

- (1) post on its website the material assumptions, applicable to all tested generators, that have been implemented in the modeling software used to conduct the analysis to determine whether the requirement has been met (e.g., the definitions of the sink and source used in the market-to-*

market analysis and the definition of eligible coordinated flowgates as applicable to the requirement);

- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the market-to-market flowgate analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and
- (3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the market-to-market flowgate analysis conducted for the specific Pseudo-Tie requested by that applicant;

(C) each external entity with which PJM may be required to coordinate flowgates under an agreed congestion management process maintains a network model that produces results for such flowgates that are within two percent of the results produced by the PJM network model for such flowgates;

(D) the Capacity Market Seller has secured written acknowledgement from the external Balancing Authority Areas that such Pseudo-Tie does not require tagging and that firm allocations associated with any coordinated flowgates applicable to the external Generation Capacity Resource under any agreed congestion management process then in effect between PJM and such Balancing Authority Area will be allocated to PJM.

and the Capacity Market Seller has committed in writing that it will take all steps necessary to implement such Pseudo-Tie prior to the start of the relevant Delivery Year;

(ii) it has, for transmission outside PJM, obtained long-term firm point-to-point transmission service (evaluated for deliverability from the unit-specific physical location of the resource to PJM load pursuant to a study that is reviewed and approved by PJM in accordance with PJM deliverability criteria to ensure uniformity for internal and external resource deliverability requirements), with rollover rights for the term of the transmission service that is confirmed by the Balancing Authority for the Balancing Authority Area where such resource is geographically located; and, as to transmission within PJM, has obtained Network External Designated Transmission Service; and

(iii) it is, by written commitment of the Capacity Market Seller, subject to the same obligations imposed on Generation Capacity Resources located in the PJM Region by Tariff, Attachment DD, section 6.6 to offer their capacity into RPM Auctions.

A Capacity Market Seller that satisfies the above requirements with respect to an external Generation Capacity Resource Sell Offer submitted in an RPM Auction for a Delivery Year shall be required to demonstrate satisfaction of such requirements for any Sell Offer with respect to such resource submitted in an RPM Auction for any subsequent Delivery Year, including, without limitation, demonstration that the required external transmission service continues to

satisfy PJM's deliverability standards.

(c) Offers from external Generation Capacity Resources for the 2020/2021 Delivery Year and Subsequent Delivery Years—Exception.

A Capacity Market Seller of a Prior CIL Exception External Resource may continue to submit Sell Offers for such resource for any RPM Auction for any Delivery Year up to and including the 2021/2022 Delivery Year (or, solely for any such resource that is (1) owned by a Load Serving Entity and used to self-supply (under arrangements initiated before June 1, 2016, with a duration of at least ten years) such entity's PJM Region load or (2) the subject of a contract for energy or capacity or equivalent written agreement entered into on or before June 1, 2016 for a term of ten years or longer with a purchaser that is an internal PJM load customer, for any Delivery Year during the life of such resource for subparagraph (1) or for the term of the agreement under subparagraph (2)) so long as it continues to comply with all conditions on the grant of its exception to the Capacity Import Limit, subject to the following additional conditions:

(i) for any Delivery Year, beginning with the 2017/2018 Delivery Year, for which such Prior CIL Exception External Resource has cleared an RPM Auction, PJM may in its sole judgment determine that the resource is not Operationally Deliverable for such Delivery Year because it does not satisfy the requirements of subsection (b). If PJM determines a Prior CIL Exception External Resource is not Operationally Deliverable for a Delivery Year, it must notify the Capacity Market Seller of its determination by no later than October 1 immediately preceding such Delivery Year. After receiving such notice, the Capacity Market Seller may elect to:

(A) take the necessary actions to make the Prior CIL Exception External Resource Operationally Deliverable, in PJM's sole judgment, prior to the beginning of such Delivery Year, provided that PJM will, if transmission upgrades are required to make such resource Operationally Deliverable, facilitate the performance of transmission studies and otherwise cooperate with the external Transmission Provider of the system on which such upgrades are required to identify the upgrades required to meet PJM's deliverability standards;

(B) be relieved of its capacity obligation for such Delivery Year by providing written notice of such election to the Office of the Interconnection no later than seven (7) days prior to the posting of planning parameters for the Third Incremental Auction for such Delivery Year as PJM will procure the replacement capacity in the Third Incremental Auction in accordance with Tariff, Attachment DD, sections 5.12(b)(ii) and 5.12(b)(iii), with no entitlement to any capacity revenues based on such resource, with no requirement to seek replacement for such capacity for such Delivery Year, with no penalty for non-performance or lack of commitment for such Delivery Year, and with no further must-offer obligation that would otherwise arise solely from clearing such capacity for such Delivery Year; or

(C) procure, by purchase or otherwise, replacement in a sufficient quantity to replace the capacity that would have been provided by the Prior CIL Exception External Resource but for PJM's determination that such resource is not Operationally Deliverable.

(ii) Such Capacity Market Seller's continued ability to offer such resource under this exception is conditioned on external Transmission Providers continuing to honor the firm status of the Capacity Market Seller's transmission service for all Delivery Years for which such seller offers such resource under the exceptions provided in this subsection (c).

(iii) A Capacity Market Seller offering and clearing a Prior CIL Exception External Resource pursuant to this subsection (c) shall be relieved of its must-offer obligation that would otherwise arise solely from clearing such capacity. Such relief of the must-offer obligation shall be for any Delivery Year after the last Delivery Year for which it is permitted to offer such resource under this subsection (c).

(iv) PJM will determine key triggers for when a Prior CIL Exception External Resource will not be Operationally Deliverable, including the need for: (1) a remedial action scheme or manual generation dump protocol to manage external transmission emergencies; (2) transmission facility switching arrangements that would have the effect of radializing load in order to manage external transmission emergencies; and (3) "out of market" external Balancing Authority or Transmission Operator directed dispatch instructions to manage excessive or unacceptable frequency of external regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability limit violations.

(d) Base Capacity Resources

For the 2018/2019 and 2019/2020 Delivery Years, following types of Capacity Resources eligible to submit a Sell Offer as a Base Capacity Resource: Generation Capacity Resources, Capacity Storage Resources, Annual Demand Resources, Base Capacity Demand Resources, and Base Capacity Energy Efficiency Resources. Each resource that clears a RPM Auction as a Base Capacity Resource must provide energy output to PJM if called during Performance Assessment Intervals occurring in the calendar months of June through September, including any necessary recall of such capacity and energy from service to areas outside the PJM Region. As further detailed in Section 10A of this Attachment, Base Capacity Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this section.

(e) Seasonal Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, a Seasonal Capacity Performance Resource shall mean a Summer-Period Capacity Performance Resource or Winter-Period Capacity Performance Resource, as defined below.

i) Summer-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Summer-Period Capacity Performance Resource: Summer Period Demand Resource, Summer-Period Energy Efficiency Resource, and Capacity Storage Resource, Intermittent Resource, or Environmentally-Limited Resource that has an average expected energy output during summer peak-hour periods consistently and measurably greater than its average expected energy output during winter peakhour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Summer-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of June through October and the following May of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Summer-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

ii) Winter-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Winter-Period Capacity Performance Resource: Capacity Storage Resource, Intermittent Resource, and Environmentally-Limited Resource that has an average expected energy output during winter peak-hour periods consistently and measurably greater than its average expected energy output during summer peak-hour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Winter-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of November through April of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Winter-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

FERC rendition of the electronically filed tariff records in Docket No. ER20-02326-000

Filing Data:

CID: C000030

Filing Title: Compliance Filing to Revise PJM Tariff Pseudo-Tie Provisions re: EL19-34

Company Filing Identifier: 5057

Type of Filing Code: 80

Associated Filing Identifier:

Tariff Title: Intra-PJM Tariffs

Tariff ID: 23

Payment Confirmation:

Suspension Motion:

Tariff Record Data:

Record Content Description, Tariff Record Title, Record Version Number, Option Code:

ATTACHMENT DD.5.5A, OATT ATTACHMENT DD.5.5A Capacity Resource Types, 7.0.0, A

Record Narrative Name: 5.5A Capacity Resource Types

Tariff Record ID: 1632

Tariff Record Collation Value: 661896070 Tariff Record Parent Identifier: 1142

Proposed Date: 2020-09-08

Priority Order: 600

Record Change Type: CHANGE

Record Content Type: 1

Associated Filing Identifier:

5.5A Capacity Resource Types

(a) Capacity Performance Resources

Capacity Performance Resources are Capacity Resources which, to the extent such resources cleared in a Reliability Pricing Model Auction or are otherwise committed as a Capacity Resource, are obligated to deliver energy during the relevant Delivery Year as scheduled and/or dispatched by the Office of Interconnection during the Performance Assessment Intervals. As further detailed in Section 10A of this Attachment, Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this Attachment. Subject to 5.5A(a)(i), the following types of Capacity Resources are eligible to submit a Sell Offer as a Capacity Performance Resource: internal or external Generation Capacity Resources; Annual Demand Resources; Capacity Storage Resources; Annual Energy Efficiency Resources; and Qualifying Transmission Upgrades. To the extent the underlying Capacity Resource is an external Generation Capacity Resource, such resource must meet, to the extent subsection (b) or (c) of this section is applicable to offers from such resource, meet the applicable requirements of such subsection, and if neither subsection (b) or (c) is applicable, then offers from such resource must the criteria for obtaining an exception to the Capacity Import Limit as contained in article 1 of the Reliability Assurance Agreement.

(i) Process for Support and Review of Capacity Performance Resource Offers

A. The Capacity Market Seller shall provide to the Office of the Interconnection and the Market Monitoring Unit, upon their request, all supporting data and information requested by either the Office of the Interconnection or the Market Monitoring Unit to evaluate whether the underlying Capacity Resource can meet the operational and performance requirements of Capacity Performance Resources. The Capacity Market Seller shall have an ongoing obligation through the closing of the offer period for the RPM Auction to update the request to reflect any material changes.

B. The Office of the Interconnection and the Market Monitoring Unit shall review any requested supporting data and information, and the Office of the Interconnection, considering advice and recommendation from the Market Monitoring Unit, shall reject a request for a resource to offer as a Capacity Performance Resource if the Capacity Market Seller does not demonstrate that it can reasonably be expected to meet its Capacity Performance obligations consistent with the resource's offer by the relevant Delivery Year. The Office of Interconnection shall provide its determination to reject eligibility of the resource as a Capacity Performance Resource, and notify the Market Monitoring Unit, by no later than sixty-five (65) days prior to the date on which the offer period for the applicable RPM Auction commences. A Capacity Market Seller that is dissatisfied with any determination hereunder may seek any remedies available to it from FERC; provided, however, that the Office of the Interconnection will proceed with administration of the Tariff and market rules unless and until ordered to do otherwise by FERC.

(b) Offers from External Generation Capacity Resources for the 2020/2021 Delivery Year and Subsequent Delivery Years—General Rule

For the 2020/2021 Delivery Year and any subsequent Delivery Year and for Capacity Performance Resource Sell Offers in any RPM Auction conducted for the 2018/2019 Delivery Year or 2019/2020 Delivery Year after May 9, 2017, unless excepted pursuant to subsection (c) below, a Capacity Market Seller may submit a Sell Offer for an external Generation Capacity Resource in an RPM Auction if the Capacity Market Seller demonstrates to PJM, by no later than five (5) business days prior to the commencement of the offer period for the relevant RPM Auction, that such resource meets all of the following requirements:

(i) The Capacity Market Seller has obtained a determination that the Pseudo-Tie required for its external Generation Capacity Resource is feasible, including (without limitation) that such Pseudo-Tie meets the following requirements:

(A) the external Generation Capacity Resource must have a minimum Electrical Distance impedance equal to or less than 0.065 p.u.; or is within one station of a transmission bus that has a minimum Electrical Distance impedance equal to or less than 0.065 p.u. *With regard to this Electrical Distance requirement, the Office of the Interconnection shall:*

- (1) post on its website the material assumptions, applicable to all tested generators, implemented in the modeling software used to conduct the Electrical Distance analysis (e.g., the general process used to define the facilities included in the Electrical Distance requirement and analysis for each Pseudo-Tie applicant);*
- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the Electrical Distance analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers;*

and

- (3) *upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the Electrical Distance analysis for the specific Pseudo-Tie requested by that applicant;*

(B) at least one generation resource that has a historic economic minimum offer lower than its historic economic maximum offer, located inside the metered boundaries of the PJM Region, has a minimum flow distribution impact of 1.5 percent on each eligible coordinated flowgate resulting from such Pseudo-Tie. With regard to this requirement, the Office of the Interconnection shall:

- (1) post on its website the material assumptions, applicable to all tested generators, that have been implemented in the modeling software used to conduct the analysis to determine whether the requirement has been met (e.g., the definitions of the sink and source used in the market-to-market analysis and the definition of eligible coordinated flowgates as applicable to the requirement);
- (2) upon request by an applicant for a Pseudo-Tie, provide that applicant a copy of the results of the market-to-market flowgate analysis conducted by the Office of the Interconnection for the specific Pseudo-Tie requested by the applicant, as well as related work papers; and
- (3) upon request by an applicant for a Pseudo-Tie, meet with that applicant to discuss specific modeling assumptions and the results of the market-to-market flowgate analysis conducted for the specific Pseudo-Tie requested by that applicant;

(C) each external entity with which PJM may be required to coordinate flowgates under an agreed congestion management process maintains a network model that produces results for such flowgates that are within two percent of the results produced by the PJM network model for such flowgates;

(D) the Capacity Market Seller has secured written acknowledgement from the external Balancing Authority Areas that such Pseudo-Tie does not require tagging and that firm allocations associated with any coordinated flowgates applicable to the external Generation Capacity Resource under any agreed congestion management process then in effect between PJM and such Balancing Authority Area will be allocated to PJM.

and the Capacity Market Seller has committed in writing that it will take all steps necessary to implement such Pseudo-Tie prior to the start of the relevant Delivery Year;

(ii) it has, for transmission outside PJM, obtained long-term firm point-to-point transmission service (evaluated for deliverability from the unit-specific physical location of the resource to PJM load pursuant to a study that is reviewed and approved by PJM in accordance with PJM deliverability criteria to ensure uniformity for internal and external resource deliverability requirements), with rollover rights for the term of the transmission service that is confirmed by the Balancing Authority for the Balancing Authority Area where such resource is geographically located; and, as to transmission within PJM, has obtained Network External Designated Transmission Service; and

(iii) it is, by written commitment of the Capacity Market Seller, subject to the same obligations imposed on Generation Capacity Resources located in the PJM Region by Tariff, Attachment DD, section 6.6 to offer their capacity into RPM Auctions.

A Capacity Market Seller that satisfies the above requirements with respect to an external Generation Capacity Resource Sell Offer submitted in an RPM Auction for a Delivery Year shall be required to demonstrate satisfaction of such requirements for any Sell Offer with respect to such resource submitted in an RPM Auction for any subsequent Delivery Year, including, without limitation, demonstration that the required external transmission service continues to satisfy PJM's deliverability standards.

(c) Offers from external Generation Capacity Resources for the 2020/2021 Delivery Year and Subsequent Delivery Years—Exception.

A Capacity Market Seller of a Prior CIL Exception External Resource may continue to submit Sell Offers for such resource for any RPM Auction for any Delivery Year up to and including the 2021/2022 Delivery Year (or, solely for any such resource that is (1) owned by a Load Serving Entity and used to self-supply (under arrangements initiated before June 1, 2016, with a duration of at least ten years) such entity's PJM Region load or (2) the subject of a contract for energy or capacity or equivalent written agreement entered into on or before June 1, 2016 for a term of ten years or longer with a purchaser that is an internal PJM load customer, for any Delivery Year during the life of such resource for subparagraph (1) or for the term of the agreement under subparagraph (2)) so long as it continues to comply with all conditions on the grant of its exception to the Capacity Import Limit, subject to the following additional conditions:

(i) for any Delivery Year, beginning with the 2017/2018 Delivery Year, for which such Prior CIL Exception External Resource has cleared an RPM Auction, PJM may in its sole judgment determine that the resource is not Operationally Deliverable for such Delivery Year because it does not satisfy the requirements of subsection (b). If PJM determines a Prior CIL Exception External Resource is not Operationally Deliverable for a Delivery Year, it must notify the Capacity Market Seller of its determination by no later than October 1 immediately preceding such Delivery Year. After receiving such notice, the Capacity Market Seller may elect to:

(A) take the necessary actions to make the Prior CIL Exception External Resource Operationally Deliverable, in PJM's sole judgment, prior to the beginning of such Delivery Year, provided that PJM will, if transmission upgrades are required to make such resource Operationally Deliverable, facilitate the performance of transmission studies and otherwise cooperate with the external Transmission Provider of the system on which such upgrades are required to identify the upgrades required to meet PJM's deliverability standards;

(B) be relieved of its capacity obligation for such Delivery Year by providing written notice of such election to the Office of the Interconnection no later than seven (7) days prior to the posting of planning parameters for the Third Incremental Auction for such Delivery Year as PJM will procure the replacement capacity in the Third Incremental Auction in accordance with Tariff, Attachment DD, sections 5.12(b)(ii) and 5.12(b)(iii), with no entitlement to any capacity revenues based on such resource, with no requirement to seek replacement for such capacity for such Delivery Year, with no penalty for non-performance or lack of commitment for such Delivery Year, and with no further must-offer obligation that would otherwise arise solely from clearing such capacity for such Delivery Year; or

(C) procure, by purchase or otherwise, replacement in a sufficient quantity to replace the capacity that would have been provided by the Prior CIL Exception External Resource but for PJM's determination that such resource is not Operationally Deliverable.

(ii) Such Capacity Market Seller's continued ability to offer such resource under this exception is conditioned on external Transmission Providers continuing to honor the firm status of the Capacity Market Seller's transmission service for all Delivery Years for which such seller offers such resource under the exceptions provided in this subsection (c).

(iii) A Capacity Market Seller offering and clearing a Prior CIL Exception External Resource pursuant to this subsection (c) shall be relieved of its must-offer obligation that would otherwise arise solely from clearing such capacity. Such relief of the must-offer obligation shall be for any Delivery Year after the last Delivery Year for which it is permitted to offer such resource under this subsection (c).

(iv) PJM will determine key triggers for when a Prior CIL Exception External Resource will not be Operationally Deliverable, including the need for: (1) a remedial action scheme or manual generation dump protocol to manage external transmission emergencies; (2) transmission facility switching arrangements that would have the effect of radializing load in order to manage external transmission emergencies; and (3) "out of market" external Balancing Authority or Transmission Operator directed dispatch instructions to manage excessive or unacceptable frequency of external regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability limit violations.

(d) Base Capacity Resources

For the 2018/2019 and 2019/2020 Delivery Years, following types of Capacity Resources eligible to submit a Sell Offer as a Base Capacity Resource: Generation Capacity Resources, Capacity Storage Resources, Annual Demand Resources, Base Capacity Demand Resources, and Base Capacity Energy Efficiency Resources. Each resource that clears a RPM Auction as a Base Capacity Resource must provide energy output to PJM if called during Performance Assessment Intervals occurring in the calendar months of June through September, including any necessary recall of such capacity and energy from service to areas outside the PJM Region. As further detailed in Section 10A of this Attachment, Base Capacity Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to Section 10A(d) of this section.

(e) Seasonal Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, a Seasonal Capacity Performance Resource shall mean a Summer-Period Capacity Performance Resource or Winter-Period Capacity Performance Resource, as defined below.

i) Summer-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Summer-Period Capacity Performance Resource: Summer Period Demand Resource, Summer-Period Energy Efficiency Resource, and Capacity Storage Resource, Intermittent Resource, or Environmentally-Limited Resource that has an average expected energy output during summer peak-hour periods consistently and measurably greater than its average expected energy output during winter peakhour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Summer-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of June through October and the following May of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Summer-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

ii) Winter-Period Capacity Performance Resource

For the 2020/2021 Delivery Year and subsequent Delivery Years, the following types of Capacity Resources are eligible to submit a Sell Offer as a Winter-Period Capacity Performance Resource: Capacity Storage Resource, Intermittent Resource, and Environmentally-Limited Resource that has an average expected energy output during

winter peak-hour periods consistently and measurably greater than its average expected energy output during summer peak-hour periods. To the extent such resource clears an RPM Auction or is otherwise committed as a Winter-Period Capacity Performance Resource, it is obligated to deliver energy as scheduled and/or dispatched by the Office of Interconnection during Performance Assessment Intervals occurring in the calendar months of November through April of the Delivery Year, and must satisfy the requirements of a Capacity Performance Resource for such period of time. As further detailed in section 10A of this Attachment, Winter-Period Capacity Performance Resources that fail to meet this obligation will be subject to a Non-Performance Charge, unless excused pursuant to section 10A(d) of this Attachment.

Document Content(s)

5057-7cbfb42a-8cd2-493b-82f4-7413e0391bc9.PDF.....1-4

5057-c05f93d8-ab5f-43a6-9c96-96bf9debcc3f.PDF.....5-11

5057-adf05902-0f8c-4c77-8536-540ebf6e6c1e.PDF.....12-18

FERC GENERATED TARIFF FILING.RTF.....19-25