

176 FERC ¶ 61,137  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;  
James P. Danly, Allison Clements,  
and Mark C. Christie.

Independent Market Monitor for PJM Docket Nos. EL19-47-000

v.

PJM Interconnection, L.L.C.;

Office of the People's Counsel for District of Columbia EL19-63-000

Delaware Division of the Public Advocate

Citizens Utility Board

Indiana Office of Utility Consumer Counselor

Maryland Office of People's Counsel

Pennsylvania Office of Consumer Advocate

West Virginia Consumer Advocate Division

PJM Industrial Customer Coalition

v.

PJM Interconnection, L.L.C.;

PJM Interconnection, L.L.C. ER21-2444-000

ORDER ESTABLISHING JUST AND REASONABLE RATES

(Issued September 2, 2021)

1. On March 18, 2021, the Commission issued an order granting complaints from the Independent Market Monitor for PJM Interconnection, L.L.C. (Market Monitor) and the Joint Consumer Advocates (JCA<sup>1</sup>). The Commission found unjust and unreasonable certain provisions of the PJM Interconnection, L.L.C. (PJM) Open Access Transmission Tariff (Tariff) regarding the calculation of the default market seller offer cap (default

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<sup>1</sup> The Joint Consumer Advocates include: the Office of People's Counsel for the District of Columbia; Delaware Division of the Public Advocate; Citizens Utility Board; Indiana Office of Utility Consumer Counselor; Maryland Office of People's Counsel; Pennsylvania Office of Consumer Advocate; West Virginia Consumer Advocate Division; and PJM Industrial Customer Coalition.

offer cap) in the capacity market.<sup>2</sup> While determining that the existing Tariff is unjust and reasonable, the Commission found that additional record evidence was needed to set the appropriate replacement rate and ordered briefing. In this order, we adopt the Market Monitor's Unit-Specific Avoidable Cost Rate (ACR) proposal and require PJM to revise its Tariff accordingly.

2. On July 16, 2021, PJM submitted a request for waiver of certain pre-auction deadlines, in the event the Commission establishes a lower value for the replacement default offer cap, with new deadlines to be filed with the Commission within five business days of the issuance of a Commission order on the replacement default offer cap (Waiver Request). In this order, we grant PJM's Waiver Request.

### **I. Background**

3. The default offer cap is a provision of PJM's market power mitigation rules that the Commission accepted in the Capacity Performance Order in 2015.<sup>3</sup> Currently, only sellers seeking to offer above the default offer cap are required to submit data to support a higher unit-specific offer, which may include all avoidable cost rate components, including a Capacity Performance risk premium. In the Capacity Performance Order, the Commission found that offers below the default offer cap would be deemed competitive and offers above the default offer cap would be subject to a unit-specific review by the Market Monitor and PJM to ensure that such offers were based on legitimate costs and reasonable estimates of unit-specific performance and parameters.

4. The default offer cap is currently calculated as the penalty rate,<sup>4</sup> which is set at net cost of new entry (Net CONE)<sup>5</sup> for the reference resource, divided by an estimate of the total number of performance assessment intervals (PAI) in a given delivery year (Penalty

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<sup>2</sup> *Indep. Mkt. Monitor for PJM v. PJM Interconnection, L.L.C.*, 174 FERC ¶ 61,212 (2021) (Offer Cap Complaints Order).

<sup>3</sup> *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208 (2015) (Capacity Performance Order).

<sup>4</sup> The Tariff typically refers to this as the non-performance charge rate, but we have simplified this term to "penalty rate" for the purposes of this order.

<sup>5</sup> Specifically, the Net CONE applicable for the delivery year and Locational Deliverability Area for which the resource is offered. *See* PJM, Intra-PJM Tariffs, OATT attach. DD.6.4 (Market Seller Offer Caps) (0.0.0) (hereinafter, citations to Attachment DD will be abbreviated as PJM OATT Attach. DD).

PAI), times the Balancing Ratio (B)<sup>6</sup> times the total number of PAI in a given delivery year (Expected PAI).<sup>7</sup> Currently, PJM estimates both Expected PAI and Penalty PAI using the same value (360 intervals) in its calculation of the default offer cap. Accordingly, the Capacity Performance Order and the PJM Tariff both abbreviate the formula for the default offer cap as  $\text{Net CONE} * B$ .<sup>8</sup>

5. The complaints argued that the default offer cap was overstated because PJM used an unreasonable and unsupportable number of Expected PAI in calculating the default offer cap. The Commission granted the complaints, finding that 360 was no longer a just and reasonable estimate of Expected PAI and therefore that the default offer cap resulting from 360 Expected PAI was also unjust and unreasonable. The Commission found that the default offer cap described in the Tariff was incorrectly calibrated such that it may unjustly and unreasonably prevent the appropriate review of offers, thereby allowing potential exercises of market power, reducing the capacity market's overall competitiveness.<sup>9</sup>

6. While finding the existing default offer cap unjust and unreasonable under section 206, the Commission found that additional record evidence was needed to set the appropriate replacement rate. The Commission stated that, although revising the Expected PAI used to establish the default offer cap may ultimately represent the just and reasonable replacement rate, it was necessary to direct briefing that would enable the Commission to further consider the appropriate replacement rate, including alternative

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<sup>6</sup> For the purposes of the offer cap, the Balancing Ratio is a three-year historical average measure of average fleet-wide performance during all performance assessment intervals. In general, it is a percentage calculated by dividing the total mega-watts (MW) of energy provided during a performance assessment event by the available capacity. See Capacity Performance Order, 151 FERC ¶ 61,208 at P 119, n.95.

<sup>7</sup> For simplicity, in this order we refer to expected PAI currently used in the numerator of the default offer cap equation as "Expected PAI" and the PAI used in the penalty rate for the purposes of calculating the default offer cap as "Penalty PAI."

<sup>8</sup> See PJM OATT, Attach. DD 6.4 (Market Seller Offer Caps) (0.0.0), § 6.4(a).

The Market Monitor provides the full default offer cap equation:

$$\begin{aligned} \text{default offer cap} &= \text{Expected PAI} * \text{nonperformance charge rate} * B \\ &= \text{Expected PAI} * \frac{\text{Net CONE}}{\text{Penalty PAI}} * B = \text{Net CONE} * B \end{aligned}$$

Market Monitor Complaint at 17.

<sup>9</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 65.

approaches to market power mitigation in the capacity market.<sup>10</sup> The Commission also allowed the May 2021 auction to proceed under the default offer cap currently specified in the Tariff, in light of the imminent start of the delivery year and the two-year delay of the auction.<sup>11</sup>

## II. Briefs on Just and Reasonable Rate

7. The Commission received several different proposals in response to the order directing briefing on the appropriate remedy to the complaints, which we describe below. Additionally, the Commission received comments on whether any changes should be made to the existing unit-specific review process as a part of the Commission's remedy.

### A. Unit-Specific ACR Proposal

#### 1. Initial Briefs

8. The Market Monitor states that there is no reliable, market-based way to define Expected PAI and that the current default offer cap approach should therefore be replaced. The Market Monitor proposes that offers should be capped at the resource's unit-specific net ACR, meaning unit-specific gross ACR minus forward-looking net energy and ancillary service revenues,<sup>12</sup> with the option to use the technology-specific default gross ACRs minus unit-specific forward-looking net energy and ancillary service revenues (Unit-Specific ACR Proposal).<sup>13</sup> The Market Monitor states that the Commission recently accepted technology-specific default gross ACRs in the Minimum Offer Price Rule (MOPR) proceeding.<sup>14</sup>

9. The Market Monitor argues that the current default offer cap is based upon the opportunity for a capacity resource to earn bonus payments without taking on a capacity obligation. The Market Monitor argues that the current low number of PAI experienced in PJM to date means that the opportunity for such resources to earn bonuses is so low that the competitive offer is based on their net ACR. The Market Monitor also notes that

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<sup>10</sup> *Id.* P 71.

<sup>11</sup> *Id.* P 73.

<sup>12</sup> Monitoring Analytics, LLC Initial Br. at 3, 5 (Market Monitor) (citing PJM OATT, Attach. DD, §§ 6.8(a), 6.8(d-1)).

<sup>13</sup> *Id.* at 3-4.

<sup>14</sup> *Id.* at 5 (citing *Calpine Corp. v. PJM Interconnection, L.L.C.*, 173 FERC ¶ 61,061 (2020) (PJM MOPR Order)).

the unit-specific gross ACR calculation in the PJM Tariff allows sellers to include a Capacity Performance Quantifiable Risk (CPQR) component, which allows sellers to include the risk of having to pay a Capacity Performance penalty in the unit-specific gross ACR.<sup>15</sup>

10. The Market Monitor notes that its proposal would be a return to the requirements prior to the introduction of Capacity Performance, when offers were capped at unit-specific net ACR. The Market Monitor states that it has experience with calculating unit-specific and default net ACR offer caps in the capacity market, and the process is manageable from an administrative perspective. The Tariff also already includes a formula for unit-specific gross ACR review.<sup>16</sup>

11. The Organization of PJM States, Inc. (OPSI) similarly argues that unit-specific net ACR or a technology-specific default net ACR is the just and reasonable replacement rate for the default offer cap. OPSI argues that the use of default and unit-specific ACR calculations, together with unit-specific review, will ensure competitive outcomes in PJM's capacity market and reflect the marginal cost of capacity.<sup>17</sup> OPSI notes, however, that inclusion of CPQR must be limited to reasonably-supported risks, which can be verified only through unit-specific review.<sup>18</sup> OPSI argues that the Commission should not be swayed by arguments about administrative burden, given the high stakes involved. OPSI notes that capacity market sellers should be well-prepared to undergo cost review, as they are well-versed in the costs and risks of their resources.<sup>19</sup>

12. The Ohio Consumers' Council (OCC) states that a unit-specific net ACR will best protect Ohio consumers and other consumers in PJM. The OCC argues that any default offer cap risks a threshold that is too high, where the Market Monitor is unable to mitigate uncompetitive bids. The OCC argues that trying to set an appropriate number of PAI is impossible, due to variable factors such as weather, resource ability, and

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<sup>15</sup> *Id.* at 3-5.

<sup>16</sup> *Id.* at 5-6.

<sup>17</sup> Organization of PJM States, Inc. Initial Br. at 2 (OPSI) (quoting Answer of PJM Interconnection, L.L.C., Docket No. EL19-47-000, at 8 (April 9, 2019) (“Capacity Market Sellers in PJM are incented to offer at or near their avoidable costs (i.e., the marginal cost of capacity) . . .”).

<sup>18</sup> *Id.* at 3.

<sup>19</sup> *Id.* at 4-5.

transmission constraints.<sup>20</sup> The OCC states that PJM has had excess capacity since the introduction of Capacity Performance, which explains the lack of PAI. The OCC also argues that using a unit-specific net ACR offer cap would eliminate the need to revise the penalty rate, as the threshold for mitigation would no longer be linked to the assumptions used in its calculation.<sup>21</sup>

## 2. Reply Briefs

13. PJM, along with Exelon and the Indicated Suppliers, argue that the Market Monitor's Unit-Specific ACR Proposal would result in over-mitigation. The Indicated Suppliers argue that this would cause a significant administrative burden, both for the Market Monitor and for market participants. This burden, the Indicated Suppliers note, could involve litigation at the Commission if capacity sellers are unable to reach agreement with the Market Monitor. The Indicated Suppliers argue that the Market Monitor may have severely underestimated the work that would be needed under its proposal, as there will likely be many more requests for ACR determinations than in the past.<sup>22</sup> The Indicated Suppliers point to comments in the MOPR proceeding that the review has proven to be costly, labor-intensive, inconsistent, and non-transparent.<sup>23</sup> PJM avers that the administrative burden may be greater on the Market Monitor now than in the past, as there are other components of unit-specific review such as avoidable fuel availability expenses and CPQR that were not present prior to Capacity Performance. PJM argues that sellers may not be able to come to a timely agreement prior to the relevant auction with the Market Monitor on appropriate unit-specific offer caps given the volume of reviews, which could require sellers to be forced to use a lower default offer cap despite the fact that their actual costs may be greater.<sup>24</sup>

14. JCA states that the Market Monitor's proposal, while conceptually sound, is incomplete because the Market Monitor does not provide the values for the individual

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<sup>20</sup> Ohio Consumers' Counsel Initial Br. at 8 (OCC).

<sup>21</sup> *Id.* at 12.

<sup>22</sup> Calpine Corporation; Vistra Energy Corp. and Dynegy Marketing and Trade, LLC; LS Power Associates, L.P.; and Talen Energy Marketing, LLC Reply Br. at 11 (collectively, Indicated Suppliers).

<sup>23</sup> *Id.* at 12 (citing Comments of Advanced Energy Economy at 16, Docket No. AD21-10-000 (filed Apr. 26, 2021)).

<sup>24</sup> PJM Reply Br. at 6.

offer caps or examples indicating how high or low such offer caps are likely to be, and thus there is insufficient information available to assess the approach.<sup>25</sup>

15. Vistra notes that the Unit-Specific ACR Proposal continues to expressly rely on Expected PAI, even though the Market Monitor stated that there was no reliable, market-based way to calculate Expected PAI. This, they argue, is because the gross ACR formula in the Tariff allows for a CPQR, which relies on a seller's estimate of Expected PAI. Vistra also argues that the Unit-Specific ACR Proposal would actually complicate the process of determining the appropriate PAI by requiring each generator to negotiate it with the Market Monitor and PJM on a unit-specific basis.<sup>26</sup> Vistra also asserts that the Unit-Specific ACR Proposal is inferior as a means of monitoring market power, as it would transform capacity market participation into an annual cost-of-service ratemaking exercise. Vistra argues that requiring sellers to bear market risk they are not permitted to reflect in their offers is confiscatory.<sup>27</sup> Vistra also argues that, should the Commission accept the Unit-Specific ACR Proposal, the Commission should direct PJM to modify its Tariff to incorporate a process by which a seller can notify PJM that it disagrees with PJM's unit-specific offer cap determination and to provide that PJM will submit a filing no later than 90 days prior to the capacity auction to the Commission explaining its offer cap determination for the relevant resource and identifying the points of contention.<sup>28</sup>

16. Exelon argues the Commission should reject the Market Monitor's attempt to apply the MOPR default gross ACR values to the capacity market offer cap context, and affirm that a just and reasonable offer floor will differ from a just and reasonable unit-specific offer cap. Exelon contends that the offer floor should reflect the minimum amount a market participant might reasonably need to justify continued operation, while

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<sup>25</sup> Office of the People's Counsel for the District of Columbia, Delaware Division of the Public Advocate, Indiana Office of Utility Consumer Counselor, Maryland Office of People's Counsel, Pennsylvania Office of Consumer Advocate and the PJM Industrial Customer Coalition Reply Br. at 19 (collectively, Joint Consumer Advocates (JCA)) (citing *Wilson Aff.* at P 66).

<sup>26</sup> *Vistra Corp. and Dynegy Marketing and Trade, LLC Reply Br.* at 5 (Vistra).

<sup>27</sup> *Id.* at 7 (citing *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 690 (1923) ("Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable, and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment.")).

<sup>28</sup> *Id.* at 15.

an offer cap reflects the maximum amount.<sup>29</sup> Exelon also states that the default gross ACRs in the Tariff do not account for CPQR, the 10% risk adder to operating costs, or Avoidable Project Investment Recovery Rate.<sup>30</sup> Exelon states that, while it may be reasonable to leave those values out of an offer floor calculation, the offer cap should allow for the maximum level of risk that the seller's reasonable business judgement supports.<sup>31</sup>

17. Exelon also argues the Unit-Specific ACR Proposal expands the Market Monitor's role beyond mitigation, infringing on sellers' rights to propose rates and the Commission's duty to decide what is just and reasonable.<sup>32</sup> Exelon also argues that this proposal would subject offers below the clearing price to review, when those offers cannot, according to Exelon, exert market power.<sup>33</sup>

## **B. PJM Proposal**

### **1. Initial Briefs**

18. PJM states that, while the underlying theory behind the existing default offer cap is sound, it is difficult, in practice, to accurately estimate the expected number of PAIs (i.e., Expected PAI) three years in advance. Accordingly, PJM proposes to adopt an alternative default capacity market offer cap that does not require estimating a default number of annual Expected PAIs (PJM Proposal).<sup>34</sup>

19. PJM states that its proposal is based on the approach that ISO-NE developed, and that the Commission recently accepted, for calculating the Dynamic De-List Bid

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<sup>29</sup> Exelon Corporation, Exelon Generation Company, L.L.C., and affiliates and the PSEG Companies Reply Br. at 4 (Exelon).

<sup>30</sup> *Id.* at 25.

<sup>31</sup> *Id.* at 25-26.

<sup>32</sup> *Id.* at 23 (citing *e.g.*, *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002) (“Section 205 of the Federal Power Act gives a utility the right to file rates and terms for services rendered with its assets.”) and *Emera Me. v. FERC*, 854 F.3d 9, 21 (D.C. Cir. 2017) (“Section 205 ... ‘confers upon FERC the duty to ensure that wholesale energy rates and services are just and reasonable’ by requiring ‘regulated utilities to file with the Commission tariffs outlining their rates for FERC’s approval.’”)).

<sup>33</sup> *Id.*

<sup>34</sup> PJM Initial Br. at 4.



Threshold (DDBT).<sup>35</sup> Under this approach, an initial estimated competitive clearing price for the next auction is calculated based on three publicly available inputs: (1) the total quantity of capacity that cleared in the last auction; (2) the capacity clearing price in the last auction; and (3) the projected change in demand for the next auction. After determining the price at which the total quantity of capacity that cleared in the last auction would clear in the next auction, based on the updated Base Residual Auction (BRA) demand curve, PJM would determine a preliminary default offer cap by taking the average of: (1) the most recent auction clearing price; and (2) the price at which the last auction's total cleared supply quantity intersects with the estimated BRA demand curve for the next auction. PJM would calculate default offer caps for the RTO-wide region, as well as the three global Locational Deliverability Areas that incorporate several zonal Locational Deliverability Areas (MAAC, EMAAC, and SWMAAC). Finally, PJM also proposes to apply the same maximum ceiling and minimum floor for the default offer cap that was recently adopted in ISO-NE. Specifically, the ceiling for PJM's proposed default offer cap would be equal to 75% of Net CONE while the default offer cap floor would be equal to 75% of the last auction clearing price. PJM states the ceiling and floor will help address the concern that the simple averaging approach may overstate the change in the clearing price when there is a significant change in the auction demand.<sup>36</sup>

20. PJM argues that its proposal would avoid the risk of over-mitigation, which it states is beneficial because over-mitigation would result in both administrative burden and suppressed market clearing prices. PJM also argues that a unit-specific review process as proposed by the Market Monitor could be inaccurate because every seller has different risk tolerances and factors in such risks differently, and the financial inputs may become stale by the time of the actual auction. PJM also notes that the process of developing and analyzing unit-specific cost information is time-consuming and costly for both capacity sellers and PJM. PJM argues that its proposal would produce a default offer cap that would be much closer to the actual auction clearing price than the prior default offer cap and would minimize administrative interference in comparison to the Unit-Specific ACR Proposal.<sup>37</sup>

21. PJM argues that its proposal can be effectuated without any change to the existing unit-specific review process. However, PJM argues that the CPQR factor should be

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<sup>35</sup> *ISO New England, Inc.*, 174 FERC ¶ 61,162 (2021).

<sup>36</sup> PJM Initial Br. at 8.

<sup>37</sup> *Id.* at 13.

revised to allow sellers to include all relevant risk costs in the calculation beyond the non-performance charges for committed capacity resources.<sup>38</sup>

22. In its initial brief, FirstEnergy does not support a particular proposal, but states that PJM's proposal deserves further exploration. FirstEnergy argues that the Commission must balance competing interests in preventing the exercise of market power while also avoiding unnecessary interference with market dynamics.<sup>39</sup>

## 2. Reply Briefs

23. The Market Monitor argues that PJM's proposal to rely on the supply curve from the prior auction is arbitrary and illogical because there is no reason to believe that actual market conditions will be the same from one auction to another and because the supply curve and auction results from previous auctions incorporate the flaws in the default offer cap that the Commission addressed in the Offer Cap Complaints Order.<sup>40</sup> The Market Monitor states that the PJM Proposal would do nothing to guarantee that offers that could potentially set or affect the clearing price are reviewed for market power, pointing to the results of the 2022/23 Base Residual Auction. The Market Monitor notes that PJM's estimates of the clearing price of the prior auction using its proposal would be significantly overstated, from 210% of the actual clearing price for the rest of the RTO region to between 184% to 199% of the actual clearing price for other Locational Deliverability Areas.<sup>41</sup>

24. JCA argues that the PJM Proposal has three distinct flaws. First, they state, there is no support for the argument that the next auction price can be predicted by changes in demand. JCA provides evidence that a review of prior auctions shows increases in demand more often coincide with declines, not increases, in price.<sup>42</sup> Second, JCA states that the immediate prior auction price is a poor predictor of the next auction price, as the changes in prices from auction to auction largely reflect the market reaction to the most recent price. JCA notes that the four instances where the prior auction price exceeded

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<sup>38</sup> *Id.* at 15.

<sup>39</sup> FirstEnergy Utility Companies and East Kentucky Power Cooperative, Inc Initial Br. at 2 (FirstEnergy).

<sup>40</sup> Market Monitor Reply Br. at 8-9 (citing Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 68).

<sup>41</sup> *Id.* at 13.

<sup>42</sup> JCA Reply Br. at 9 (citing Wilson aff. at P 26).

\$126/MW-day, the price declined by \$64/MW-day or more.<sup>43</sup> Finally, JCA argues that PJM errs in setting the offer cap at the estimated auction price, rather than below it, which only gives at best roughly a 50-50 chance that the price-setting bid will have been reviewed. JCA states that PJM's proposed floor and ceiling are flawed and would not protect against unreasonably high or low default offer cap values.<sup>44</sup>

25. JCA also indicates that there are significant differences between ISO-NE and PJM that make it difficult to import ISO-NE's mitigation plan. JCA notes that the ISO-NE proposal was a product of stakeholder compromise, and the concerns that drove the compromise are different than the concerns that prompted the complaints here. Additionally, JCA notes several process differences between the ISO-NE and PJM capacity markets. JCA states that ISO-NE employs a descending clock auction that differs from PJM's sealed-bid capacity auction and results in more sellers' offers being reviewed and approved before the auction. JCA also notes that ISO-NE's capacity demand curve is curved and much steeper at higher prices than PJM's demand curve, which means that ISO-NE has relatively greater concern about market power at higher prices and less so at lower prices. JCA also states that ISO-NE has greater concerns regarding fuel security surrounding natural gas imports than PJM. Finally, JCA states that Net CONE errors have not been as extreme in ISO-NE as in PJM, for various reasons.<sup>45</sup>

26. The Indicated Suppliers state that they believe that the PJM Proposal is a second-best alternative to their own proposal. The Indicated Suppliers support PJM's proposal to calculate different offer caps for the RTO and three Locational Deliverability Areas, reflecting the varied footprint of PJM. The Indicated Suppliers argue that PJM inappropriately omitted a variable "margin" that ISO-NE adds to its DDBT value, which is highest when the DDBT is low and phases out as the DDBT increases. The Indicated Suppliers argue that this margin helps correct for any mis-estimations of the clearing price on the flat portion of the supply curve.<sup>46</sup> Exelon agrees that the PJM Proposal is superior to the Unit-Specific ACR Proposal, but that it should be revised to include the variable margin. Exelon argues that the margin is important to prevent over-mitigation when market prices are low, because it allows resources whose costs are slightly above the expected clearing price some flexibility in setting their offer prices, without the risk

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<sup>43</sup> *Id.* at 10 (citing Wilson aff., Fig. 3).

<sup>44</sup> *Id.* at 12-13.

<sup>45</sup> JCA Reply Br. at 15-16.

<sup>46</sup> Indicated Suppliers Reply Br. at 16-17.

of cost disallowances from the Market Monitor.<sup>47</sup> PJM Power Providers Group and the Electric Power Supply Association also agree that the PJM Proposal is a second-best alternative that is superior to the Unit-Specific ACR Proposal. They argue that the Unit-Specific ACR Proposal would likely produce a less accurate measure of a resource's true costs to supply capacity, result in over-mitigation, and suppress market clearing prices.<sup>48</sup>

### C. JCA Proposal

#### 1. Initial Briefs

27. In its initial brief, JCA did not submit a proposal for a replacement default offer cap, but instead provided a set of principles for the Commission to consider. First, JCA argues that the offer cap should no longer be based upon opportunity cost principles that include fixed parameters such as Expected PAI that may vary wildly in practice. Second, JCA states that the default offer cap should be below the anticipated clearing price, thus allowing review of the marginal offer. JCA argues that setting an offer cap too high has extensive costs, but having the cap too low does not have the same level of burden.<sup>49</sup> Third, JCA argues that offers from large resources should always be subject to unit-specific review, because their size affords them a unique ability to exercise supplier-side market power. Fourth, JCA states that inputs for the default offer cap should be readily available and tied to regular market activity. Fifth, the formula for the default offer cap should be clear and unambiguous, without substantial amounts of discretion.<sup>50</sup>

28. JCA also argues that the penalty rate should not be adjusted, because it could have a large and complex impact on the market and market participants, and there is no administrative reason to change it. Finally, JCA states that the Commission should approve a plan ahead of the December 2021 auction.<sup>51</sup>

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<sup>47</sup> Exelon Reply Br. at 8.

<sup>48</sup> PJM Power Providers Group and EPSA Reply Br. at 10.

<sup>49</sup> JCA Initial Br. at 6.

<sup>50</sup> *Id.* at 8.

<sup>51</sup> JCA Initial Br. at 9.

## 2. Reply Briefs

29. In their reply comments, JCA states that, while PJM's approach of grounding the default offer cap on historical auction prices is sound, relying only on the prior auction and an estimate of the future auction price is flawed.<sup>52</sup> JCA notes that it is also relevant that concern about market power is greater when the auction may clear at higher price levels, due to the shape of the supply curve and demand curve.<sup>53</sup>

30. As such, JCA presents an alternate proposal explained in an affidavit by James F. Wilson, which would set the default offer cap at 90% of "Empirical Net CONE" – the three-year historical average of auction prices for the RTO region as a whole (JCA Proposal). JCA argues that the use of a three-year average provides a better estimate for future prices than PJM's proposal, that is also more stable over time. JCA argues that its approach would obviate the need for ceiling or floor values.<sup>54</sup> JCA notes that Empirical Net CONE has been stable over time:

While over the most recent eight RPM delivery years RPM prices have varied from \$50.00/MW-day to \$164.77/MW-day, Empirical Net CONE has remained in a rather narrow, \$40/MW-day range, from a low of \$88.84/MW-day to a high of \$128.26/MW-day (and six of the last eight results fall in a \$20/MW-day range).<sup>55</sup>

31. In its answer to the reply comments, PJM states that it believes that the JCA Proposal would be a second-best interim option, while PJM determines how best to address its capacity market in the long term. PJM states that it believes that its proposal is superior to the JCA Proposal in that it meets several criteria for setting a default offer cap: (1) it is below the current offer cap and works to guard against the exercise of market power; (2) it reduces administrative burden in comparison to having all offers reviewed; (3) it uses a transparent methodology; and (4) it alleviates volatility concerns by using a floor and ceiling.<sup>56</sup>

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<sup>52</sup> JCA Reply Br. at 5.

<sup>53</sup> *Id.* at 6.

<sup>54</sup> *Id.* at 21.

<sup>55</sup> *Id.* (quoting Wilson Aff. at P 51).

<sup>56</sup> PJM Answer to Reply Br. at 4.

32. Exelon states that it does not have an opinion on whether the JCA Proposal is superior to PJM's method of projecting the clearing price. However, Exelon argues that if the Commission adopts the JCA Proposal, three important modifications would be necessary. First, Exelon argues the JCA Proposal must be modified to account for locational differences in auction clearing prices, similar to the PJM Proposal. Second, Exelon contends the Commission should reject the suggestion to set the default offer cap at 90% of the weighted average, rather than at the full value of the projected market price. Finally, Exelon avers the JCA Proposal should be modified to include the margin adder approved for use in ISO-NE.<sup>57</sup>

33. The Market Monitor argues that the objective of predicting the outcome of the next auction is misguided, as predictions are routinely wrong and by large amounts. The Market Monitor argues that the assumption that the three previous auctions were competitive is misguided, and JCA's assumption that there have been no fundamental changes in supply and demand since the prior auctions is also incorrect. The Market Monitor states that JCA fails to show why its proposal is administratively feasible where the Market Monitor's is not. The Market Monitor also argues that Exelon's proposed adjustments to the JCA Proposal make it worse and should be rejected.<sup>58</sup>

#### **D. Suppliers Proposals**

##### **1. Initial Briefs**

34. Exelon supports lowering both Expected PAI and Penalty PAI, which would maintain the existing default offer cap but raise the non-performance charge rate. Exelon argues that the Commission should lower the PAI from 360 to 240, which would imply 20 Performance Assessment Hours (PAH) and result in a 50% increase in the penalty rate.<sup>59</sup> The Indicated Suppliers also support maintaining the existing default offer cap, while also raising the penalty rate. They support lowering the PAI from 360 to between 138 and 180, based upon an affidavit from Dr. Shanker.<sup>60</sup>

35. Exelon states that it would not be just and reasonable for the Commission to employ two different values for the same discrete observation (Expected PAI). Exelon argues that a higher penalty rate would correctly calibrate the default offer cap to reflect resources' opportunity cost while keeping with the offer cap structure approved by the

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<sup>57</sup> Exelon Answer to Reply Br. at 4-6.

<sup>58</sup> Market Monitor Answer to Reply Br. at 11.

<sup>59</sup> Exelon Initial Br. at 14.

<sup>60</sup> Indicated Suppliers Initial Br. at 12-13.

Commission when adopting Capacity Performance. Exelon argues that only lowering the Expected PAI while keeping the Penalty PAI the same would be illogical and would convert the capacity market into one with administrative pricing.<sup>61</sup>

36. Exelon states that the framework set by the Commission in the Capacity Performance Order remains just and reasonable and is designed to incentivize resource performance. But, Exelon argues, the framework only works if properly calibrated with the correct penalty rate. Exelon states that its proposal corrects the flaws in the PAI figure without disturbing the balanced structure approved by the Commission in Capacity Performance. Exelon argues that its proposal of 20 PAH (i.e., 240 PAI) is based on when the system is at its long-run target equilibrium, which is superior because it provides the appropriate signals for new entry, avoids making annual predictions on PAI, and strikes a balance between under- and over-mitigation.<sup>62</sup> Exelon bases its figure of 240 PAI on a PJM study, which showed 15 PAH, plus the addition of 5 PAH to correct for problems in the model. Exelon argues that its proposal would address the concerns raised by the Commission in the Offer Cap Complaints Order by correctly calibrating the penalty rate.<sup>63</sup>

37. The Indicated Suppliers state that the limited historical look-back done by complainants with respect to PAI underestimates the risk of potential supply-side disruptions and fails to properly reflect the reasonable expectations of sellers.<sup>64</sup> The Indicated Suppliers argue that the same PAI should be used in the offer cap and the penalty rate. They note that the Capacity Performance construct is premised on the understanding that “capacity must carry with it meaningful performance obligations, and corresponding incentives and penalties, to ensure that those resources actually deliver when needed.”<sup>65</sup> Splitting the PAI figures, they argue, would effectively negate the intent of the offer cap to represent the opportunity cost associated with assuming a capacity supply obligation.<sup>66</sup>

38. The Indicated Suppliers state that the Commission should recognize the substantial risks associated with assuming a capacity supply obligation in PJM when setting a default

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<sup>61</sup> Exelon Initial Br. at 3.

<sup>62</sup> *Id.* at 18.

<sup>63</sup> *Id.* at 24-25.

<sup>64</sup> Indicated Suppliers Initial Br. at 8.

<sup>65</sup> *Id.* at 14 (quoting Capacity Performance Order, 151 FERC ¶ 61,208 at P 9).

<sup>66</sup> *Id.* at 14-15.

offer cap, above and beyond the risk of incurring a non-performance penalty. These risks, they argue, include the requirement to offer in the day-ahead market (which carries the risk of having to purchase replacement energy if unable to perform in real time) as well as the increasing participation of intermittent resources, which can result in increased uncertainty and volatility.<sup>67</sup>

## 2. Reply Briefs

39. ODEC argues that the use of the same PAI for the default offer cap and the penalty rate is unreasonable and unsupported given the actual PAI data. ODEC argues that increasing the penalty rate through a lower PAI is unduly punitive and does not incent better performance. Moreover, ODEC argues that such punitive increased nonperformance penalties will likely have negative unintended consequences of discouraging participation by small or medium-sized market participants who do not have diverse portfolios that can be used to manage or avoid nonperformance penalties. Accordingly, ODEC does not support the remedies proposed by Exelon and the Indicated Suppliers.<sup>68</sup>

40. The PJM Power Providers Group and the Electric Power Supply Association filed a reply comment supporting the proposals from Exelon and the Indicated Suppliers and arguing that the Commission should focus on reforms to the default offer cap rather than a complete redesign of PJM's capacity market mitigation measures.<sup>69</sup> Vistra also indicates in its reply brief that it prefers to retain the existing offer cap framework, which it argues is administratively efficient and consistent with wholesale market design principles.<sup>70</sup>

41. The Market Monitor argues that the proposals by Indicated Suppliers and Exelon are designed to retain the current default offer cap and would perpetuate incorrect and noncompetitive price signals. The Market Monitor argues that the proposal would do nothing to ensure that the default offer cap effectively mitigates market power in the capacity market. The Market Monitor also states that the approach of simply assuming that the existing supply is less than the actual supply when setting Expected PAI would

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<sup>67</sup> *Id.* at 16-17.

<sup>68</sup> Old Dominion Electric Cooperative Reply Br. at 5 (ODEC).

<sup>69</sup> PJM Power Providers Group and EPSA Reply Br. at 3.

<sup>70</sup> Vistra Reply Br. at 3.



perpetuate incorrect and noncompetitive price signals, which would prevent long-term equilibrium.<sup>71</sup>

42. The Indicated Suppliers argue that its proposal is superior to both PJM's and the Market Monitor's proposals. They note that both PJM and the Market Monitor would require the use of Expected PAI as part of the unit-specific review determination of gross ACR. The Indicated Suppliers argue that it would be preferable to address the proper Expected PAI in a transparent manner as suggested by Dr. Shanker in his affidavit.<sup>72</sup>

**E. Need for Changes to the Unit-Specific Review Process**

43. In the Offer Cap Complaints Order, the Commission sought comment on the unit-specific offer cap review process in the tariff, stating:

Parties also should address whether revisions to the default offer cap can be made without revision to the unit-specific offer cap review process outlined in section 6 of Attachment DD of the Tariff, including whether and how that process should account for the risk of Capacity Performance penalties.<sup>73</sup>

**1. Initial Briefs**

44. Exelon argues that the Commission must make changes to the existing ACR methodology in order to make the Market Monitor's approach just and reasonable because it ignores risks that market participants incur by remaining in operation. Exelon argues these risks are particularly significant for high fixed cost, large baseload resources like nuclear resources that earn the majority of their revenue from the energy market.<sup>74</sup> Exelon argues that if this is not remedied, resources not subject to the capacity market must-offer requirement will have an incentive to forgo the capacity market and be energy-only resources, which will exacerbate the existing over-supply problem in PJM's

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<sup>71</sup> Market Monitor Reply Br. at 14.

<sup>72</sup> Indicated Suppliers Reply Br. at 5-6.

<sup>73</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 72 (citing PJM OATT, Attach. DD, § 6).

<sup>74</sup> Exelon Initial Br. at 3.

capacity market, raise costs to consumers, and provide continued capacity payments to inefficient existing fossil fuel resources not actually needed for resource adequacy.<sup>75</sup>

45. Exelon argues that sellers face additional risks that are not captured in the ACR formula, including the risk that actual revenue will vary from projections. Exelon argues this risk should be recovered in the capacity market and should therefore be priced in ACR. Exelon further explains that some sellers mitigate this risk through forward energy contracts, which then creates a risk of paying liquidated damages in the event of an unanticipated outage, which is another risk not addressed in the ACR formula.<sup>76</sup> Indicated Suppliers similarly argue that capacity sellers face the risk of having to replace any day-ahead energy obligation if a resource is unable to perform in real time and should be able to price this risk into ACR in addition to the risk of the non-performance charge.<sup>77</sup> Indicated Suppliers contend that increased participation by intermittent resources increases the risk for forecast errors and the volatility with respect to the dispatch of traditional resources, increasing these risks.<sup>78</sup> Indicated Suppliers further argue that this risk is worse for traditional resources than for intermittent resources, because intermittent resources are subject to a different energy market must-offer requirement, which allows them to hedge energy-related risks through conservative scheduling.<sup>79</sup> Indicated Suppliers contend that, because these risks are not included in the unit-specific offer cap, setting the offer cap too low is confiscatory ratemaking.<sup>80</sup>

46. PJM also argues that the unit-specific process should allow sellers to include risks beyond non-performance charges, including, but not limited to, high fuel cost hours associated with being required to participate in the energy market, and unforeseen and significant changes in the underlying costs between the capacity auction and delivery year.<sup>81</sup>

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<sup>75</sup> *Id.* at 5.

<sup>76</sup> *Id.* at 22.

<sup>77</sup> Indicated Suppliers Initial Br. at 16; Indicated Suppliers Reply Br. at 8-9.

<sup>78</sup> Indicated Suppliers Initial Br. at 17.

<sup>79</sup> *Id.* at 17-18.

<sup>80</sup> *Id.* at 18-19.

<sup>81</sup> PJM Initial Br. at 15; PJM Reply Br. at 7.

47. Exelon also argues that the unit-specific review process should consider private risk evaluation and the risk tolerance of the seller, including a range of risk distribution outcomes.<sup>82</sup>

48. OPSI, in contrast, argues that the Commission has found the ACR formula appropriately includes “expected risk associated with the submission of a capacity offer in the revised [CP] capacity market construct.”<sup>83</sup> OPSI states the Commission further responded to arguments that the CPQR term was insufficient to recover all risks, saying that CPQR “was not intended to permit market sellers to include all market risks a capacity resource faces from participating in PJM’s markets...”<sup>84</sup> and that “other risks, such as those associated with volatile energy prices, these risks should not be an element of a cost-justified offer under PJM’s revised Capacity Performance market rules.”<sup>85</sup> Further, OPSI notes, the ACR formula also includes a 10% adjustment factor as a margin of error against understated costs, meaning ACR may already be overstated.<sup>86</sup>

## 2. Reply Briefs and Answers

49. Exelon requests the Commission clarify that nuclear resources are not required to follow the Brattle Group’s approach to determine the variable costs component of the net energy and ancillary services revenue estimate (EAS Offset) in calculating a unit-specific offer cap. Exelon states that PJM and the Market Monitor required nuclear resources to use this methodology for the default MOPR floors in the most recent auction, but that the Tariff does not require this particular methodology for either the floor or the offer cap. Exelon therefore requests the Commission to clarify that nuclear resources may calculate their Net EAS Offset using their own accounting or fuel cost policies.<sup>87</sup> Exelon states that the Brattle Group study was designed to develop and support the default gross ACRs for the MOPR<sup>88</sup> and that PJM did not indicate at the time that it would be the method by

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<sup>82</sup> Exelon Initial Br. at 32

<sup>83</sup> OPSI Initial Br. at 3 (citing *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157, at P 203 (2016)).

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* at 4.

<sup>87</sup> Exelon Reply Br. at 3, 18-19.

<sup>88</sup> *Id.* at 16.

which nuclear variable costs would be determined.<sup>89</sup> Exelon explains that the Brattle Group study uses data based on non-standardized accounting data, which means the same costs could be reported under different categories by different resource owners. Exelon contends the Brattle Group study classified cost categories as either variable or fixed based on their own interpretation and that it may misrepresent costs to require sellers to adhere to the Brattle Group study's accounting methodology.<sup>90</sup>

50. The Market Monitor reiterates its assertion that the risk associated with submitting a Capacity Performance offer is already included in the ACR calculation and that the Commission has previously rejected arguments for including energy market risks in CPQR. With respect to PJM's argument that high fuel cost hours should be included in the ACR, the Market Monitor notes that the Tariff already explicitly allows avoidable costs of procuring firm fuel supply to be included in ACR.<sup>91</sup> The Market Monitor argues that PJM and Exelon misunderstand the definition of risk, and that Exelon argues that customers should hold sellers harmless from the negative tail of the distribution of all their projected market outcomes, but ignore the positive tail. The Market Monitor contends this would shift risk which is appropriately borne by investors, who have control over their risk exposure, to customers.<sup>92</sup> The Market Monitor objects to arguments that cost-based pricing is administrative, arguing that cost-based offers are the appropriate way to ensure competitive outcomes in the presence of structural market power.<sup>93</sup>

51. Exelon supports PJM's proposal to include risks beyond non-performance charges in the CPQR component of ACR and reiterates the importance of being able to include the risk of liquidated damages or lower than expected energy and ancillary services revenues in a capacity market offer.<sup>94</sup> Vistra also argues that the Tariff should be modified to allow sellers to include, among other things, the risk of having to purchase replacement energy during emergency conditions, of higher than expected fuel costs to satisfy energy market must-offer and performance obligations, and of other unforeseen

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<sup>89</sup> *Id.* at 18.

<sup>90</sup> *Id.* at 17-18.

<sup>91</sup> Market Monitor Reply Br. at 15 (citing PJM OATT Attach. DD Avoidable Cost Definition 6.8 (0.0.0) (Avoidable Fuel Availability Expenses (AFAE))).

<sup>92</sup> *Id.* at 16; Market Monitor Answer at 4-5.

<sup>93</sup> Market Monitor Reply Br. at 16-17.

<sup>94</sup> Exelon Reply Br. at 12-14.

changes in underlying costs between the capacity auction and delivery year.<sup>95</sup> Exelon disagrees with parties arguing the Commission has previously excluded these costs from ACR, stating that the Commission has never found that risks associated with volatile energy prices should be categorically disallowed from a seller's capacity offer. Exelon argues that doing so would risk over-mitigation and inefficient retirement decisions.<sup>96</sup>

52. Exelon also argues that sellers should be able to state and justify their own private view of their opportunity costs based on what they could earn as an energy-only resource. Exelon explains that sellers are already allowed to offer above the default offer cap by submitting the opportunity cost of providing generation outside of PJM.<sup>97</sup> In addition, Exelon contends that sellers should be able to incorporate centralized costs that would be avoidable through retirement into their unit-specific offer. Exelon explains that nuclear resources are often managed as part of a fleet with many functions centralized to achieve economies of scale and reduce the fleet's total costs, which means some allocated costs may be avoidable if a resource retires.<sup>98</sup>

53. Indicated Suppliers argue that the Market Monitor may be unwilling to consider seller expectations of higher Expected PAI, given the Market Monitor's position that Expected PAI is impossible to calculate but likely low.<sup>99</sup> Indicated Suppliers state this is especially concerning because expectations regarding low probability/high impact events are likely to be difficult to quantify and support.<sup>100</sup> Indicated Suppliers also argue that individualized review raises concerns regarding potentially discriminatory or inconsistent determinations.<sup>101</sup> The Market Monitor argues that it recognizes that different market sellers have different expectations and disputes arguments that it will not entertain different estimates of Expected PAI. The Market Monitor also notes that sellers may

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<sup>95</sup> *Vistra Reply Br.* at 12.

<sup>96</sup> *Exelon Reply Br.* at 14; *Exelon Answer* at 5.

<sup>97</sup> *Exelon Reply Br.* at 14-15 (citing PJM OATT Attach. DD 6.4 Market Seller Offer Caps (0.0.0), § 6.4(a) and PJM OATT Attach. DD 6.7 Data Submission (0.0.0), § 6.7 (d)(ii)).

<sup>98</sup> *Id.* at 15.

<sup>99</sup> *Indicated Suppliers Reply Br.* at 10.

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

request review by the Commission if the Market Monitor and the seller cannot reach an agreement on the unit-specific offer cap.<sup>102</sup>

54. Indicated Suppliers also argue that intermittent and capacity storage resources have more options to manage their risks than traditional resources, because traditional resources are subject to more stringent capacity and energy must-offer rules.<sup>103</sup> Indicated Suppliers therefore argue that, should the Commission accept the Unit-Specific ACR Proposal, the Commission should eliminate the energy and capacity market must-offer requirements and allow traditional resources the same flexibility as intermittent resources to avoid discriminatory outcomes.<sup>104</sup> The Market Monitor objects to arguments that the must-offer requirements should be modified, arguing this would allow physical withholding.<sup>105</sup>

55. Vistra argues the Commission should clarify that offers submitted for unit-specific review can be formulated using probabilistic risk modeling. Vistra explains the Tariff appears to allow this under CPQR but that clarification from the Commission would increase administrative efficiency of unit-specific reviews.<sup>106</sup> Vistra also requests the Commission clarify that offers submitted for unit-specific review can include net expected non-performance penalties in CPQR. Vistra explains that, while Vistra believes this is the only reasonable interpretation of the Tariff, the Tariff does not explicitly state that net expected non-performance penalties can be included in CPQR.<sup>107</sup>

#### **F. Motion for Expedited Relief**

56. On July 22, 2021, PJM Power Providers Group filed a motion for expedited relief arguing that if the Commission does not order a replacement rate for the default offer cap by July 27, 2021, it should allow PJM's upcoming December 2021 BRA to go forward under the same default offer cap provisions in place for the May 2021 auction. PJM Power Providers Group argues that capacity market sellers will need time following the issuance of a Commission order to review the order and to make a determination on whether seeking must offer exceptions or unit-specific reviews are necessary or

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<sup>102</sup> Market Monitor Answer at 4.

<sup>103</sup> Indicated Suppliers Reply Br. at 19.

<sup>104</sup> *Id.* at 20-21.

<sup>105</sup> Market Monitor Answer at 6.

<sup>106</sup> Vistra Reply Br. at 9.

<sup>107</sup> *Id.* at 11.

appropriate. PJM Power Providers Group agrees with PJM that delaying the December 2021 auction would undermine the importance of sending price signals sufficiently in advance of the delivery year. PJM Power Providers Group argue that it would be an appropriate exercise of the Commission's discretion not to further delay the upcoming auction while the Commission determines a just and reasonable replacement rate.<sup>108</sup>

57. The Market Monitor filed an answer to the motion on July 27, 2021. The Market Monitor argues that there is no urgency for the December 2021 auction similar to that of the May 2021 auction. The Market Monitor further argues that a delay to the December auction is preferable to a capacity market that permits market power through an inappropriate market seller offer cap. The Market Monitor states that if the Commission determines that there is insufficient time to implement a new offer cap prior to the next auction, PJM should be directed to postpone the auction to provide whatever additional time is necessary.<sup>109</sup>

### **III. Discussion**

#### **A. Procedural Matters**

58. Late-filed motions to intervene were filed by J-POWER USA Development Co., Ltd., and Advanced Energy Management Alliance. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2020), we grant the late-filed motions to intervene, given the parties' interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

59. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 358.213(a)(2) (2020), prohibits an answer to an answer unless otherwise ordered by the decisional authority. We accept the answers because they have provided information that assisted us in our decision-making process.

#### **B. Substantive Matters**

60. In the Offer Cap Complaints Order, the Commission found that the existing default offer cap in PJM's capacity market was unjust and unreasonable but that additional record evidence was required to set the replacement rate.<sup>110</sup> The Commission directed parties to brief the appropriate replacement rate and indicated that parties

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<sup>108</sup> PJM Power Providers Group Motion for Expedited Relief at 6-7.

<sup>109</sup> Market Monitor Answer to Motion for Expedited Relief at 2.

<sup>110</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 71.

“should address whether an alternative method for market power mitigation in the PJM capacity market would better address the concern that the current methodology precludes the Market Monitor from reviewing offers that raise market power concerns and mitigating offers where appropriate.”<sup>111</sup>

61. After reviewing the evidence presented in the Complaints and the proposals submitted in response to the Offer Cap Complaints Order, we find that the Unit-Specific ACR Proposal is just and reasonable. We further find that the Unit-Specific ACR Proposal is preferable to the other options presented in the paper hearing because it would best ensure the capacity market’s overall competitiveness and enable the Market Monitor and PJM to sufficiently review and mitigate offers to prevent the exercise of market power.<sup>112</sup>

62. The Commission has found that one way to measure the effectiveness of seller-side market power mitigation is whether the marginal offer is reviewed. For example, in the Capacity Performance Order, the Commission found that the current default offer cap was appropriate because Net CONE times B would “always be lower than the competitive offer estimate for a High ACR Resource”<sup>113</sup> and such resources “are those most likely to set the clearing price....”<sup>114</sup> As the Market Monitor argues, eliminating the default offer cap in favor of the Unit-Specific ACR Proposal should ensure that the marginal offer is reviewed. Therefore, the Unit-Specific ACR Proposal addresses the concern raised by the Commission in the Offer Cap Complaints Order regarding the Market Monitor’s ability to review offers that raise market power concerns and mitigate offers where appropriate.<sup>115</sup>

63. We also find just and reasonable that the Unit-Specific ACR Proposal provides sellers with the ability to rely on the default gross ACR values as an alternative to unit-specific review. The Commission has already found the default gross ACR values to be just and reasonable estimates as part of a competitive offer.<sup>116</sup> Therefore, a unit-specific offer cap based on a given resource’s applicable default gross ACR value

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<sup>111</sup> *Id.* P 72.

<sup>112</sup> *See id.* P 65.

<sup>113</sup> Capacity Performance Order, 151 FERC ¶ 61,208 at P 339.

<sup>114</sup> *Id.* P 343.

<sup>115</sup> *See* Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 72.

<sup>116</sup> PJM MOPR Order, 173 FERC ¶ 61,061 at P 201.



less the resource's unit-specific EAS Offset calculated by the Market Monitor<sup>117</sup> is a reasonable estimate of a competitive capacity offer for that resource and thus a reasonable unit-specific default offer cap. Any seller wishing to offer above that unit-specific cap must undergo a unit-specific review. Under the Unit-Specific ACR Proposal, non-zero offers from technology types that do not have a default gross ACR defined in the Tariff will automatically be subject to unit-specific review.

64. We find that the unit-specific review approach included in the Unit-Specific ACR Proposal addresses supplier market power by reviewing the marginal offer while the proposals made by PJM and other parties may not. As discussed further below, the resource offer (or offers in the case of locational price differences) that sets the market clearing price (or prices) - the "marginal offer" - is most likely to be reviewed and deemed competitive under this proposal. With respect to the proposals from Exelon and Indicated Suppliers to retain the existing default offer cap and increase the penalty rate, the Commission found in the Offer Cap Complaints Order that the default offer cap in PJM was too high and that "Net CONE times B has not been lower than the competitive offer estimate for a resource with a high avoidable cost rate" and was therefore "inappropriate."<sup>118</sup> Thus, retaining the default offer cap does not address the findings in the Offer Cap Complaints Order.

65. The Commission need not adopt the best or perfect rate, as long as the Commission has explained its choice and chosen a just and reasonable rate.<sup>119</sup> However, we find that the Unit-Specific ACR Proposal is reasonable as compared to the proposals from PJM and JCA to set the default offer cap at an estimate of the future capacity market clearing price. The PJM and the JCA Proposal would both result in fewer offers

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<sup>117</sup> The Market Monitor currently calculates the net energy and ancillary services revenues (i.e., EAS Offset) for each resource and posts the data through the Member Information Reporting Application. Market Monitor Initial Br. at 5.

<sup>118</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at PP 65-66.

<sup>119</sup> See *PJM Interconnection, L.L.C.*, 173 FERC ¶ 61,123, at P 81 (2020) ("Under FPA section 206, whether initiated by a complaint or sua sponte, the Commission has the burden to establish a just and reasonable rate to replace the rate it has found unjust and unreasonable. The Commission need not adopt the best or perfect rate, as long as the Commission has explained its choice and chosen a just and reasonable rate."); *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 955 (D.C. Cir. 2007) ("We need not decide whether the Commission has adopted the best possible policy as long as the agency has acted within the scope of its discretion and reasonably explained its actions."); *Cities of Batavia v. FERC*, 672 F.2d 64, 84 (D.C. Cir.1982) ("[T]he billing design need only be reasonable, not theoretically perfect.").

being reviewed than the Unit-Specific ACR Proposal and do not provide the same level of certainty as the Unit-Specific ACR Proposal that the marginal offer will be reviewed. Because PJM and JCA's proposals are based on historical auction results, there is also a risk that any successful exertion of market power in an auction would weaken mitigation in the subsequent auction. In other words, if an exercise of market power occurs, the effects of that exercise of market power would be carried forward to future auctions in the form of a higher default offer cap. The Unit-Specific ACR Proposal does not have this drawback.

66. We recognize that eliminating the default offer cap will likely create more work for the Market Monitor and sellers by requiring the individual review of a higher number of capacity offers. But we find that such review is reasonable and needed to address potential market power abuse in PJM. The other proposals would result in the review of fewer offers, and potentially not the marginal offer(s), and therefore be less effective at identifying and mitigating the exercise of market power in PJM. We therefore do not find that this option will result in an excessive burden. As a threshold matter, the Commission already rejected similar arguments in the Offer Cap Complaints Order.<sup>120</sup> Market sellers participating in the capacity market should be able to support the assumptions and data underlying their offers without significant additional effort, given that resources already have detailed knowledge of their own costs.<sup>121</sup> Further, the Market Monitor has stated that its staff would be capable of any additional review resulting from its own offer cap proposal.<sup>122</sup> We reiterate that PJM and the Market Monitor are responsible for ensuring the markets function as intended and produce competitive outcomes. Arguments that the Market Monitor and PJM will not be able to review all the offers in the time allotted are speculative and contradicted by the Market Monitor. We also disagree with PJM's arguments that sellers will be forced to offer below their costs, because the unit-specific review process is designed to allow sellers to include any justifiable costs in their offers. Should sellers dispute the ultimate determination by PJM, sellers may seek Commission action.<sup>123</sup>

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<sup>120</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 69.

<sup>121</sup> Market Monitor Reply Br. at 19.

<sup>122</sup> See, e.g. Market Monitor Reply Br. at 19; Market Monitor Answer at 6; EL19-47-000, Market Monitor First Answer at 13.

<sup>123</sup> PJM OATT, Attach. DD 6.4 (Market Seller Offer Caps) (0.0.0), § 6.4(a; c). The seller would have to show that its offer is just and reasonable. See *ISO New England Inc.*, 166 FERC ¶ 61,060, at P 8 (2019) ("the Commission will consider the entirety of this record and accept the capacity supplier's bid so long as the capacity supplier persuades the Commission that its bid is just and reasonable, despite contrary assertions

67. The Commission has found Net ACR as a just and reasonable estimate of a competitive capacity supply offer.<sup>124</sup> We reject certain parties' arguments that the Net ACR process will result in cost-of-service ratemaking. The unit-specific review process specifically allows for flexibility in Net ACR inputs. Sellers are allowed to justify costs and/or EAS Offsets that differ from the Market Monitor's estimates. The concern that the Market Monitor and PJM will reject all alternative estimates is speculative, unsupported, and contrary to the purpose of the unit-specific review. Moreover, as provided in the Tariff, should a dispute arise between a seller and the Market Monitor, a seller may seek Commission action.<sup>125</sup>

68. We similarly reject Exelon's argument that the Unit-Specific ACR Proposal will result in over-mitigation because it will subject offers below the clearing price to review. It is impossible to know which offers will be below the clearing price until the auction is run, and therefore, it is also impossible to know in advance which offers will be marginal. Indeed, on an ex ante basis, all offers that form the capacity market supply curve can impact the market clearing price. Therefore, based on the record in this proceeding and the proposals before us, we find it just and reasonable to subject all non-zero offers from existing resources that are above the unit-specific Net ACR, as determined by the default gross ACR and unit-specific revenues, to review for seller-side market power, as described herein, to ensure such offers are competitive.

69. We similarly reject as unsupported PJM's argument that unit-specific review is unworkable because of the complexity of calculating and quantifying risk under the Capacity Performance construct. PJM's currently effective Tariff already requires PJM and the Market Monitor to make determinations regarding CPQR<sup>126</sup> and, as discussed below, we continue to find those provisions of the existing Tariff just and reasonable. Independent evaluation by PJM and the Market Monitor of the risk components of

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by the Internal Market Monitor.”) (on remand from *Exelon Corp. v. FERC*, 911 F.3d 1236, 1242 (D.C. Cir. 2018) (“Counsel for FERC explicitly argued that the challenged orders . . . - should be read as consistent with Exelon's claim of entitlement to have its bids reviewed under § 205's just and reasonable standard and to operate in the auction if they pass)); *Jackson Generation, LLC v. PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,116, at P 49 n.98 (2021) (“a capacity supplier's bid is acceptable so long as the capacity supplier persuades the Commission that its bid is just and reasonable.”).

<sup>124</sup> See, e.g., *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239, at PP 148, 151-152 (2019).

<sup>125</sup> PJM OATT, Attach. DD 6.4 Market Seller Offer Caps (0.0.0), § 6.4(a; c). The seller would have to show that its offer is just and reasonable. See *supra* note 123.

<sup>126</sup> See PJM OATT, Attach. DD 6.8 (Avoidable Cost Definition) (0.0.0), § 6.8.

capacity offers is a fundamental and critical component of market power mitigation and therefore must continue. We find concerns that the Market Monitor will not entertain alternative expectations of risk to be speculative. The Market Monitor states that it recognizes that different market sellers have different expectations. If sellers are not able to reach an agreement with PJM and the Market Monitor regarding the appropriate level of risk or types of costs to include in Net ACR, sellers may seek Commission action.<sup>127</sup>

70. We also reject JCA's argument that the Unit-Specific ACR Proposal cannot be implemented because the Market Monitor does not provide the value of the individual resource offer caps or examples indicating how high or low such offer caps will likely be. With regard to the first point, a seller's offer is considered confidential and commercially sensitive information and should not be publicly provided. Second, we do not find it necessary to provide illustrative examples of offer caps because the default ACRs are contained in the Tariff and the Market Monitor currently provides EAS Offsets on an annual basis. Therefore, we find that individual sellers can reasonably estimate their likely unit-specific offer caps for particular resources. We also disagree with JCA that the reasonableness of the ACR approach should be judged solely by the level of the resulting offers. Rather, the approach adopted in this order focuses on ensuring the competitiveness of the offers, which will better ensure a competitive outcome, regardless of the final value of the offer cap.

71. We also reject arguments that the Market Monitor's approach is unworkable because it continues to rely on an estimate of Expected PAI, which the Market Monitor states cannot be estimated reliably. We acknowledge that it is difficult to accurately calculate a default Expected PAI in advance of the delivery year, as it is an estimate based on expectations rather than an empirical value. Further, sellers may have varying expectations, and there may be more than one just and reasonable Expected PAI value. However, we disagree with parties suggesting that sellers are not capable of estimating and justifying Expected PAI based on their own expectations. While it is difficult to estimate a default Expected PAI that will apply broadly to all sellers, we find that it is just and reasonable to allow any seller that is able to justify an Expected PAI to incorporate that expectation in its offer through the CPQR component of ACR.

72. After reviewing the comments about the unit-specific review process, we are not convinced that any changes need to be made to the process to implement the Unit-Specific ACR Proposal. With respect to arguments that the ACR formula should include risk of volatile energy market revenues, liquidated damages, and unanticipated outages, the Commission already rejected such requests in the Capacity Performance

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<sup>127</sup> PJM OATT, Attach. DD 6.4 (Market Seller Offer Caps) (0.0.0), § 6.4(a; c). The seller would have to show that its offer is just and reasonable. *See supra* note 123.

proceeding.<sup>128</sup> Specifically, the Commission found that “capacity suppliers face other risks, such as those associated with volatile energy prices, [but] these risks should not be an element of a cost-justified offer under PJM’s revised Capacity Performance market rules.”<sup>129</sup> The Commission explained that CPQR “was not intended to permit market sellers to include all market risks a capacity resource faces from participating in PJM’s markets, for example energy market-related risks that are not new to the Capacity Performance construct.”<sup>130</sup> No party has demonstrated that this determination is no longer just and reasonable under the Unit-Specific ACR Proposal. It is not appropriate for a cost-based offer to allow sellers to price every possible adverse outcome, because, as the Market Monitor states, such an approach would unreasonably shift all risk from the investors to consumers, effectively holding sellers harmless at the expense of ratepayers.

73. With respect to PJM’s request regarding high fuel costs, PJM has not clearly articulated that changes to the existing Tariff are necessary or appropriate.<sup>131</sup> To the extent PJM is proposing that sellers be able to recover in Net ACR variable fuel costs directly attributable to the production of energy, we disagree, as that would allow sellers to recover the same costs twice, once in the energy market and again in the capacity market. Similarly, if PJM is proposing that sellers should be able to recover the risk associated with higher than anticipated fuel costs, we disagree because the Commission has already found that it is not appropriate to include such costs in Net ACR, as discussed above.<sup>132</sup>

74. We reject arguments that the must-offer requirements for either the capacity or energy markets should be modified. Those provisions are not at issue in this proceeding and no party has demonstrated that the elimination of the default offer cap renders them unjust and unreasonable. Certain parties argue that, unless sellers are held harmless from certain risks, they should not be subject to a must-offer requirement in the energy and/or capacity markets. We disagree; exempting resources from the energy market must-offer requirement would significantly impair reliability and provide an opportunity to physically withhold capacity from energy markets, which could result in energy market prices above competitive levels. Similarly, eliminating the must-offer requirement in the

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<sup>128</sup> *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157 at P 203.

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> PJM can submit a filing under section 205 if it believes the existing Net ACR process requires revision.

<sup>132</sup> *See supra* P 73.

capacity market could also enable physical withholding and raise the capacity market clearing price above the competitive level.

75. However, we agree with Exelon that the existing Tariff does not require nuclear resources to follow a specific approach to determine the variable costs component of the net EAS Offset in calculating a unit-specific offer cap.<sup>133</sup> Exelon may choose to submit a unit-specific offer with its own accounting or fuel cost policies, provided those policies are consistent with the Tariff and can be adequately justified and supported during review, as determined by the Market Monitor and PJM. We also clarify as Vistra requests that sellers can use probabilistic risk modeling to support their unit-specific offers and include expected non-performance penalties in CPQR. With respect to Exelon's request to allow centralized costs in Net ACR, we decline to make a finding in this order regarding whether such costs can be included in a unit-specific offer cap.

76. Therefore, for the aforementioned reasons we direct PJM to implement Tariff revisions, as described in Appendix A, to eliminate the default offer cap such that all non-zero capacity offers from existing resources will be subject to unit-specific review, except that offers would be deemed competitive and therefore not reviewed if a resource uses the default technology-specific gross ACR values recently accepted by the Commission<sup>134</sup> net of the unit-specific EAS Offset calculated by the Market Monitor.<sup>135</sup> Seller offers above this level must undergo a unit-specific Net ACR review in accordance with the existing unit-specific offer cap process.<sup>136</sup> The required Tariff revisions are effective as of the date of this order, as the changes required to the PJM Tariff are limited in nature and do not permit discretion on the part of PJM to implement.<sup>137</sup>

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<sup>133</sup> PJM OATT, Attach. DD 5.14 (Clearing Prices and Charges) (31.0.0), § 5.14 (h-1)(2)(A)(i).

<sup>134</sup> See PJM MOPR Order, 173 FERC ¶ 61,061; PJM OATT, Attach. DD 5.14 (Clearing Prices and Charges) (31.0.0), § 5.14 (h-1)(2)(B)(i).

<sup>135</sup> PJM should also review the rest of PJM OATT, Attach. DD 6.7 (Data Submission) (0.0.0) which appears to contain outdated provisions.

<sup>136</sup> See PJM OATT, Attach. DD 6.4 (Market Seller Offer Caps) (0.0.0). Net ACR refers to the Avoidable Cost Rate, as defined in PJM OATT Attach. DD 6.8 (Avoidable Cost Definition) (0.0.0), § 6.8 (a), net of projected PJM market revenues.

<sup>137</sup> See *Kern River Gas Trans. Co.*, 133 FERC ¶ 61,162, at P 25 (2010) (setting effective date at the date of the Commission order where revisions ordered were limited in nature and did not require discretion), *aff'd sub nom. Aera Energy LLC v. FERC*, 789 F.3d 184 (D.C. Cir. 2015). To the extent PJM believes that any additional Tariff

77. In the Offer Cap Complaints Order, the Commission stated that “we do not anticipate ordering refunds in this proceeding as the 15-month refund period elapsed before PJM ran a BRA, and we expect to exercise our discretion not to order PJM to rerun intermediate incremental auctions.”<sup>138</sup> We affirm that decision here and exercise our discretion not to order refunds in this proceeding for the incremental capacity auctions. The Commission generally does not order a remedy that requires rerunning a market because market participants participate in the market with the expectation that the rules in place and the market outcomes will not change after the results are set.<sup>139</sup> We do not see a reason to vary from that precedent here and thus decline to order refunds.

78. We deny the motion from PJM Power Providers Group to allow the December 2021 auction to proceed under the current default offer cap. As we discuss below, we are granting PJM’s motion to waive pre-auction deadlines and requiring PJM to propose a revised auction schedule based on this order. Any determination as to the rules governing subsequent auctions therefore is premature.

#### IV. Request for Waiver

##### A. Background

79. Given the upcoming auction deadlines associated with the 2023-2024 delivery year, on July 16, 2021, PJM requested waiver of the relevant pre-auction deadlines to ensure that sellers will be able to seek a must offer exception or a unit-specific offer cap, or to engage in any other pre-auction activities that may be impacted by a revised default offer cap, in the event the Commission establishes a replacement default offer cap that results in a value lower than the existing default offer cap.<sup>140</sup> PJM requests Commission approval of the Waiver Request to establish new relevant pre-auction deadlines to be

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revisions are required to effectuate the Unit-Specific ACR Proposal, it should include those proposed revisions in its compliance filing.

<sup>138</sup> Offer Cap Complaints Order, 174 FERC ¶ 61,212 at P 74.

<sup>139</sup> *PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,237, at P 10 (2019).

<sup>140</sup> Waiver Request at 3. PJM notes that the first deadline for the pre-auction activities impacted by a replacement default offer cap is the July 19, 2021 deadline to submit a must offer exception request associated with resource deactivations. PJM also identifies the August 3, 2021 deadline to request a unit-specific offer cap and related deadlines for PJM and the Market Monitor to timely review such requests. *Id.* at 1-3 (citing PJM Auction Schedule for the 23/24 BRA, <https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/rpm-auction-schedule.ashx>).

filed with the Commission within five business days of the issuance of an order on the replacement default offer cap.<sup>141</sup>

80. PJM argues that the Waiver Request satisfies the Commission's criteria.<sup>142</sup> PJM contends that the Waiver Request is submitted in good faith because PJM is only seeking this waiver prospectively in the event of a Commission order resulting in a lower value for the default offer cap. PJM argues that the Waiver Request is limited in scope because it only pertains to pre-auction deadlines that are impacted by a change to the default offer cap. PJM asserts that the Waiver Request addresses a concrete problem in that Capacity Market Sellers should know what the default offer cap level is before determining whether it is appropriate to submit a must offer exception request or a unit-specific offer cap request. Finally, PJM states that granting the Waiver Request would not have undesirable consequences as it merely ensures that capacity market sellers have an opportunity to request a must offer exception and request a unit-specific offer cap in the event the default offer cap is lowered and that PJM and the Market Monitor have time to adequately review such requests in advance of the upcoming auction.

**B. Notice of Filing and Responsive Pleadings**

81. Notice of PJM's Waiver Request was published in the *Federal Register*, 86 Fed. Reg. 38,710 (July 22, 2021), with interventions and protests due on or before August 6, 2021. Timely motions to intervene were filed by American Electric Power Service Corporation;<sup>143</sup> Dominion Energy Services, Inc.;<sup>144</sup> PJM Power Providers Group; Exelon Corporation, Exelon Generation Company, LLC and its Affiliates; Calpine Corporation, Electric Power Supply Association; LS Power Development, LLC; Old Dominion Electric Cooperative; and NRG Power Marketing LLC and Midwest Generation, LLC.

82. On July 30, 2021, the PJM Power Providers Group and the Electric Power Supply Association submitted comments in support of the Waiver Request. PJM Power Providers Group and Electric Power Supply Association also request that the Commission allow capacity market sellers the ability to modify or withdraw default offer

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<sup>141</sup> *Id.* at 3-4.

<sup>142</sup> *Id.* at 4.

<sup>143</sup> On behalf of its affiliates Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Wheeling Power Company, and AEP Energy Partners, Inc.

<sup>144</sup> On behalf of Virginia Electric and Power Company d/b/a Dominion Energy Virginia.



cap submissions in a timely manner, similar to analogous allowances recently made by the Commission.<sup>145</sup>

### C. Discussion

#### 1. Procedural Matters

83. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2020), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

#### 2. Substantive Matters

84. As discussed below, we grant PJM's Waiver Request. The Commission has granted waiver of tariff provisions where: (1) the applicant acted in good faith; (2) the waiver is of limited scope; (3) the waiver addresses a concrete problem; and (4) the waiver does not have undesirable consequences, such as harming third parties.<sup>146</sup> We find that the circumstances of PJM's Waiver Request satisfy these criteria, and we therefore grant PJM's request for a limited one-time waiver of the July 19, 2021 deadline to submit a must offer exception request associated with resource deactivations; the August 3, 2021 deadline to request a unit-specific offer cap; and any other relevant pre-auction deadlines impacted by the revised default offer cap, including deadlines for PJM and the Market Monitor to timely review such requests, as applicable to the BRA for the 2023-2024 delivery year. While we grant the Waiver Request, PJM did not propose a revised timeline for this auction. Since we are determining the effective date for the just and reasonable tariff provisions in this order, PJM must file within five business days of the issuance of this order, its proposed revised deadlines.

85. First, we find that PJM acted in good faith in requesting waiver to ensure that market participants are provided with certainty of the rules governing the 2023-2024 BRA prior to the auction. Second, we find that the Waiver Request is of limited scope, as

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<sup>145</sup> PJM Power Providers Group and EPSA Comments at 4 (citing *ISO New England Inc.*, 175 FERC ¶ 61,172, P 63 ("In addition, as ISO-NE requests in its Deficiency Response, we direct ISO-NE to facilitate market participants' use of the final FCA 16 values, once approved by the Commission, in FCA 16 qualification and retirement submissions. This includes ISO-NE's ensuring that market participants have the ability to modify or withdraw any submissions made based on rejected FCA 16 values, and submitting with the compliance filing any necessary Tariff revisions to revise the FCA 16 qualification process timeline.")).

<sup>146</sup> See, e.g., *Citizens Sunrise Transmission LLC*, 171 FERC ¶ 61,106, at P 10 (2020); *Midcontinent Indep. Sys. Operator, Inc.*, 154 FERC ¶ 61,059, at P 13 (2016).

it only applies to a single BRA and related deadlines that are impacted by a change to the default offer cap level. Third, we find that the Waiver Request remedies a concrete problem such that capacity market sellers know the default offer cap before determining whether it is appropriate to submit a must offer exception request or a unit-specific exception request. Finally, we find based upon the record here that the requested waiver does not have undesirable consequences. No party opposes the Waiver Request, and we agree with PJM that granting the requested waiver ensures that capacity market sellers have an opportunity to request a must offer exception and request a unit-specific offer cap and that PJM and the Market Monitor have time to adequately review such requests.

86. For the foregoing reasons, we grant PJM's Waiver Request. In response to PJM Power Providers Group and Electric Power Supply Association, we find that, to the extent that capacity market sellers previously submitted a must offer exception request, a unit-specific exception request, or other relevant pre-auction submission prior to PJM proposing revised deadlines, such capacity market sellers will have an opportunity to provide updated submissions to PJM pursuant to the revised deadlines.

Docket No. EL19-47-000, et al.

- 35 -

The Commission orders:

(A) The Unit-Specific ACR Proposal for a replacement rate for the default offer cap is hereby adopted, effective as of the date of this order, as discussed in the body of this order.

(B) PJM's Waiver Request is hereby granted, as discussed in the body of this order.

(C) PJM is hereby directed to submit a compliance filing within five business days of the date of this order establishing new auction deadlines for the 2023-2024 BRA, as discussed in the body of this order. PJM is also hereby directed to submit a compliance filing within 30 calendar days of the date of this order revising its Tariff, as discussed in the body of this order.

By the Commission. Commissioner Danly is dissenting with a separate statement attached.

( S E A L )

Kimberly D. Bose,  
Secretary.

## Appendix A: Required Tariff Revisions

### Attach DD, 6.4 Market Seller Offer Caps Redline<sup>147</sup>

(a) The Market Seller Offer Cap, stated in dollars per MW/day of unforced capacity, applicable to price-quantity offers within the Base Offer Segment for an Existing Generation Capacity Resource shall be the Avoidable Cost Rate for such resource, less the Projected PJM Market Revenues for such resource, stated in dollars per MW/day of unforced capacity, ~~provided, however, that the default Market Seller Offer Cap for any Capacity Performance Resource shall be the product of (the Net Cost of New Entry applicable for the Delivery Year and Locational Deliverability Area for which such Capacity Performance Resource is offered times the average of the Balancing Ratios in the three consecutive calendar years (during the Performance Assessment Intervals in such calendar years) that precede the Base Residual Auction for such Delivery Year); however, for the Base Residual Auction for the 2021/2022 Delivery Year, the Balancing Ratio used in the determination of the default Market Seller Offer Cap shall be 78.5 percent, and provided further that the submission of a Sell Offer with an Offer Price at or below the revised Market Seller Offer Cap permitted under this proviso shall not, in and of itself, be deemed an exercise of market power in the RPM market. Notwithstanding the previous sentence, a~~ A Capacity Market Seller offering above \$0/MW-day must ~~may~~ seek and obtain a Market Seller Offer Cap for a Capacity Performance Resource that exceeds the revised Market Seller Offer Cap permitted under the prior sentence, if it supports and obtains approval of such alternative offer cap a unit-specific Market Seller Offer Cap pursuant to the procedures and standards of subsection (b) of this section 6.4 or may, at its election, if available, utilize a Market Seller Offer Cap determined using the applicable default gross Avoidable Cost Rate for the applicable resource type shown in the table below, as adjusted for Delivery Years subsequent to the 2022/2023 Delivery Year to reflect changes in avoidable costs, net of projected PJM market revenues equal to the resource's net energy and ancillary service revenues for the resource type, as determined in accordance with Tariff, Attachment DD, section 6.8(d-1).

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<sup>147</sup> PJM OATT, Attach. DD 6.4 (Market Seller Offer Caps) (0.0.0), § 6.4(a-d).

Existing Resource Type	Default Gross ACR (2022/2023) (\$/MW-day) (Nameplate)
Nuclear - single	\$697
Nuclear - dual	\$445
Coal	\$80
Combined Cycle	\$56
Combustion Turbine	\$50
Solar PV (fixed and tracking)	\$40
Wind Onshore	\$83
Diesel-backed Demand Response	\$3
Load-backed Demand Response	\$0
Energy Efficiency	\$0

~~A Capacity Market Seller may not use the Capacity Performance default Market Seller Offer Cap, and also seek to include any one or more categories of the Avoidable Cost Rate defined in Tariff, Attachment DD, section 6.8 below.~~ The Market Seller Offer Cap for an Existing Generation Capacity Resource shall be the Opportunity Cost for such resource, if applicable, as determined in accordance with Tariff, Attachment DD, section 6.7. Nothing herein shall preclude any Capacity Market Seller and the Market Monitoring Unit from agreeing to, nor require either such entity to agree to, an alternative market seller offer cap determined on a mutually agreeable basis. Any such alternative offer cap shall be filed with the Commission for its approval. This provision is duplicated in Tariff, Attachment M-Appendix, section II.E.3.

(b) For each Existing Generation Capacity Resource, a potential Capacity Market Seller must provide to the Market Monitoring Unit and the Office of the Interconnection data and documentation required under section 6.7 below to establish the level of the Market Seller Offer Cap applicable to each resource by no later than one hundred twenty (120) days prior to the commencement of the offer period for the applicable RPM Auction. The Capacity Market Seller must promptly address any concerns identified by the Market Monitoring Unit regarding the data and documentation provided, review the Market Seller Offer Cap proposed by the Market Monitoring Unit, and attempt to reach agreement with the Market Monitoring Unit on the level of the Market Seller Offer Cap by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. The Capacity Market Seller shall notify the Market Monitoring Unit in writing, with a copy to the Office of the Interconnection, whether an agreement with the Market Monitoring Unit has been reached or, if no agreement has been reached,

specifying the level of Market Seller Offer Cap to which it commits by no later than eighty (80) days prior to the commencement of the offer period for the applicable RPM Auction. The Office of the Interconnection shall review the data submitted by the Capacity Market Seller, make a determination whether to accept or reject the requested unit-specific Market Seller Offer Cap, and notify the Capacity Market Seller and the Market Monitoring Unit of its determination in writing, by no later than sixty-five (65) days prior to the commencement of the offer period for the applicable RPM Auction. If the Market Monitoring Unit does not provide its determination to the Capacity Market Seller and the Office of the Interconnection by the specified deadline, by no later than sixty-five (65) days prior to the commencement of the offer period for the applicable RPM Auction the Office of the Interconnection will make the determination of the level of the Market Seller Offer Cap, which shall be deemed to be final. If the Capacity Market Seller does not notify the Market Monitoring Unit and the Office of the Interconnection of the Market Seller Offer Cap it desires to utilize by no later than eighty (80) days prior to the commencement of the offer period for the applicable RPM Auction, it shall be required to utilize a Market Seller Offer Cap determined using the applicable default Avoidable Cost Rate specified in section 6.4(a) above~~6.7(e) below~~.

(c) Nothing in this section precludes the Capacity Market Seller from filing a petition with FERC seeking a determination of whether the Sell Offer complies with the requirements of the Tariff.

~~(d) For any Third Incremental Auction for Delivery Years through the 2017/2018 Delivery Year, the Market Seller Offer Cap for an Existing Generation Capacity Resource shall be determined pursuant to subsection (a) of this Section 6.4, or if elected by the Capacity Market Seller, shall be equal to 1.1 times the Capacity Resource Clearing Price in the Base Residual Auction for the relevant LDA and Delivery Year. For any Third Incremental Auction for the 2018/2019 or 2019/2020 Delivery Years, the Market Seller Offer Cap for an Existing Generation Capacity Resource offering as a Base Capacity resource shall be determined pursuant to subsection (a) of this Section 6.4, or if elected by the Capacity Market Seller, shall be equal to 1.1 times the Capacity Resource Clearing Price in the Base Residual Auction for the relevant LDA and Delivery Year.~~

For any Third Incremental Auction for the 2018/2019 Delivery Year or any subsequent Delivery Year, the Market Seller Offer Cap for an Existing Generation Capacity Resource offering as a Capacity Performance Resource shall be determined pursuant to subsection (a) of this Section 6.4, or if elected by the Capacity Market Seller, shall be equal to ~~the greater of the Net Cost of New Entry times the Balancing Ratio for the relevant LDA and Delivery Year~~ or 1.1 times the Capacity Resource Clearing Price in the Base Residual Auction for the relevant LDA and Delivery Year.

**Attach. DD, 6.5 Mitigation**<sup>148</sup>

The Office of the Interconnection shall apply market power mitigation measures in any Base Residual Auction or Incremental Auction for any LDA, Unconstrained LDA Group, or the PJM Region that fails the Market Structure Test.

- (a) Mitigation for Generation Capacity Resources.
  - i) Existing Generation Capacity Resource

Mitigation will be applied on a unit-specific basis and only if the Sell Offer of Unforced Capacity from an Existing Generation Capacity Resource: (1) is greater than \$0/MW-day, except as described in Tariff, Attachment DD, section 6.4(a)~~the Market Seller Offer Cap applicable to such resource~~; and (2) would, absent mitigation, increase the Capacity Resource Clearing Price in the relevant auction. If such conditions are met, such Sell Offer shall be set equal to the Market Seller Offer Cap.

**Attach. DD, 6.7 Data Submission**<sup>149</sup>

(a) Potential participants in any PJM Reliability Pricing Model Auction shall submit, together with supporting documentation for each item, to the Market Monitoring Unit and the Office of the Interconnection no later than one hundred twenty (120) days prior to the posted date for the conduct of such auction, a list of owned or controlled generation resources by PJM transmission zone for the specified Delivery Year, including the amount of gross capacity, the EFORd and the net (unforced) capacity. A potential participant intending to offer any Capacity Performance Resource ~~at or below the default Market Seller Offer Cap~~ above \$0/MW-day, except as described in Tariff, Attachment DD, section 6.4(a), must provide the associated offer cap and the MW to which the offer cap applies.

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<sup>148</sup> PJM OATT, Attach. DD 6.5 (Mitigation) (0.0.0), § 6.5(a)(i).

<sup>149</sup> PJM OATT, Attach. DD 6.7 (Data Submission) (0.0.0), § 6.7(a).

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Independent Market Monitor for PJM Docket Nos. EL19-47-000

v.

PJM Interconnection, L.L.C.;

Office of the People's Counsel for District of Columbia EL19-63-000

Delaware Division of the Public Advocate

Citizens Utility Board

Indiana Office of Utility Consumer Counselor

Maryland Office of People's Counsel

Pennsylvania Office of Consumer Advocate

West Virginia Consumer Advocate Division

PJM Industrial Customer Coalition

v.

PJM Interconnection, L.L.C.;

PJM Interconnection, L.L.C. ER21-2444-000

(September 2, 2021)

DANLY, Commissioner, *dissenting*:

1. I respectfully dissent from today's order because it risks over-mitigation in the capacity markets.<sup>1</sup>
2. Currently, only sellers above the default offer cap must submit to unit-specific review. The current default offer cap does not trigger much review because of the way in which it is set: it assumes a higher number of triggering performance intervals than ever occurs in real life. I would adjust how the offer cap is set by changing the assumption regarding the number of performance intervals, perhaps along the lines *originally* proposed in this proceeding by the Independent Market Monitor. This is not a perfect solution. But perfection is not the standard required by the Federal Power Act.

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<sup>1</sup> See *Indep. Mkt. Monitor for PJM v. PJM Interconnection, L.L.C.*, 176 FERC ¶ 61,137 (2021).



3. What is perfectly clear, however, is that fixing the default offer cap would be a far better solution than the alternative supported by the majority. The majority jettisons the default offer cap and replaces it with a full unit-specific review of all offers above zero by the Independent Market Monitor. There are problems with the current default offer cap, but unit-specific review of all resources is far too invasive a “remedy.”

4. Some argue that there is no harm in universal or even widespread unit-specific review. I disagree. The harm is over-mitigation. Sellers in the PJM capacity market base their offers on detailed cost estimates and assumptions about what is likely to happen more than three years in the future. The crucial issue is risk, particularly the risk that actual costs and revenues will vary from projections. Under the majority’s remedy, the Independent Market Monitor is empowered to substitute its judgement of future costs—i.e., the risks—for each supplier’s offer and then reduce offers as the Independent Market Monitor deems fit. PJM ultimately decides whether to accept the Independent Market Monitor’s offer, or the offer submitted by the offeror.

5. The majority downplays as “speculative, unsupported, and contrary to the purpose of the unit-specific review” the likelihood that PJM or the Independent Market Monitor will substitute its judgement for that of sellers.<sup>2</sup> And while it is true that any substitutions would occur in the future and have not yet been witnessed, it cannot be considered “speculative” because the entire point of unit-specific review is for the Independent Market Monitor to second guess the sellers’ judgement. Also, we should ask those sellers who have been subjected to unit-specific review how frequently the market monitor substituted its own judgement for that of the seller. We should further heed PJM’s own warning, summarized by the majority, that “unit-specific review is unworkable because of the complexity of calculating and quantifying risk under the Capacity Performance construct.”<sup>3</sup>

6. The only check on these extraordinarily broad new powers will be the Commission. I do not know how common mitigation and subsequent challenges before the Commission will become under this new regime, but the Commission should not be in the business of determining seller offers in advance of auctions.

7. The Federal Power Act prohibits market manipulation and imposes stiff penalties for violations. There has been no indication that this statutory authority has failed as a deterrent to the unlawful exercise of market power, at least not by existing generators. In the absence of evidence, I thus disagree that there is any need to let the Independent Market Monitor review and second guess all seller offers in advance. I do not want to see a construct that fixes the locus of market decisions in the hands of anyone other than the

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<sup>2</sup> *Id.* P 67.

<sup>3</sup> *Id.* P 69.

parties who know their own risks and their own finances. In short, I want our markets to remain markets.

8. The majority is troubled that the two other proposals on the table, which would adjust the default offer cap so that it was triggered more often than at present, “would both result in fewer offers being reviewed” than universal unit-specific review.<sup>4</sup> Clearly anything short of universal review would result in fewer offers being reviewed. But I see no need for (and substantial harm from) reviewing all offers. It is much more reasonable to improve the default offer cap by adjusting the assumed number of performance intervals.

9. It is even more problematic that the majority adopts this overly aggressive remedy at the same time we are considering—and at least some of my colleagues have publicly advocated—proposals to eliminate or hollow-out the Minimum Offer Price Rule which protects the market from the unmitigated exercise of market power by state-sponsored or subsidized resources.<sup>5</sup> Should the Commission adopt such a proposal, the states will be able to subsidize favored resources. These resources can then be offered at artificially low prices with total impunity. This will crater capacity market prices. Meanwhile, all existing generators will have their offers scrutinized by the Independent Market Monitor to be reduced as it deems appropriate.

10. It should be clear to anyone paying attention that PJM’s market design is becoming increasingly discriminatory against existing generators. It is swift becoming unduly so. And the more we redesign our markets into elaborate cost-justification exercises, the fewer of the benefits promised by markets can be realized.

For these reasons, I respectfully dissent.

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James P. Danly  
Commissioner

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<sup>4</sup> *Id.* P 65.

<sup>5</sup> PJM Interconnection, L.L.C., Filing, Docket No. ER21-2582-000 (filed July 30, 2021).

Document Content(s)

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