



## I. Background

2. The Complaints pertain to the default offer cap, a provision of PJM's market power mitigation rules that the Commission accepted in the Capacity Performance order in 2015.<sup>2</sup> After the polar vortex in January 2014, during which the forced outage rate was 22% on a peak winter day, PJM proposed and the Commission accepted PJM's Capacity Performance construct.<sup>3</sup> Under the Capacity Performance construct, only those resources 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 quantifiable risk premium.<sup>4</sup> In the Capacity Performance Order, the Commission found that offers below the default offer cap could 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 the offer is based on legitimate costs and reasonable estimates of unit-specific performance and system parameters.<sup>5</sup>

3. The default offer cap is calculated as a product of the penalty rate<sup>6</sup> times a Balancing Ratio (B)<sup>7</sup> times the number of expected performance assessment intervals (PAI) in a given delivery year. For simplicity, in this order we refer to this expected PAI used in the numerator of the default offer cap equation as Expected PAI. The

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<sup>2</sup> *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208 (2015) (Capacity Performance Order).

<sup>3</sup> Capacity Performance Order, 151 FERC ¶ 61,208 at P 27.

<sup>4</sup> See PJM Tariff, Attach. DD, § 6.8.

<sup>5</sup> Capacity Performance Order, 151 FERC ¶ 61,208 at P 340.

<sup>6</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>7</sup> The Balancing Ratio is a measure of average fleet-wide performance during all performance assessment hours during the review period. 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.

penalty rate is set at net cost of new entry (Net CONE<sup>8</sup>) for a reference resource, divided by an estimate of the total number of PAI in a given delivery year.<sup>9</sup> For simplicity, in this order we refer to the PAI used in the penalty rate for the purposes of calculating the default offer cap as Penalty PAI. Currently, PJM estimates both Expected PAI and Penalty PAI to be the same value (360 intervals). Accordingly, the PJM Tariff abbreviates the formula for the default offer cap as Net CONE \* B.<sup>10</sup>

4. In the Capacity Performance proceeding, PJM argued that thirty performance assessment hours (PAH), which translates to 360 PAI,<sup>11</sup> represented a just and reasonable number of hours for which emergency actions would trigger an assessment in a given year.<sup>12</sup> Based on this structure, a resource that failed to provide capacity during every event in a delivery year with thirty PAH would be assessed a penalty equal to the theoretical capacity market offer of a new replacement resource times B. If PJM experiences more than thirty PAH (360 PAI) in a given year, the maximum penalty for non-performance could be greater than the cost of a new replacement resource times B. To limit risk to capacity resources, there is a stop-loss, or maximum yearly penalty total, of 1.5 times Net CONE times the MW of unforced capacity committed by the resource times the number of days in the delivery year.<sup>13</sup>

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<sup>8</sup> Specifically, the Net CONE applicable for the delivery year and Locational Deliverability Area for which the resource is offered. *See* PJM Tariff, Attach. DD, § 6.4.

<sup>9</sup> *See* PJM Tariff, Attach. DD, § 10A.

<sup>10</sup> *See* PJM Tariff, Attach. DD, § 6.4.

<sup>11</sup> PJM later converted from performance assessment hours (PAH) to performance assessment intervals (PAI). There are twelve five-minute intervals per hour, so PAH of thirty hours translates to 360 intervals. *See PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,150 (2018).

<sup>12</sup> PJM stated this value was reached by using the number of RTO-wide emergency hours PJM's system experienced during the 2013/2014 delivery year that included the polar vortex (twenty-three hours). PJM argued that the additional hedge from twenty-three to thirty was appropriate, given the possibility of supply shortages, and given the fact that increased hours in the divisor will moderate the hourly rate. *See* Capacity Performance Order, 151 FERC ¶ 61,208 at P 112 n.88.

<sup>13</sup> *See* PJM Tariff, Attach. DD, § 10A(f).

## II. Complaints

5. On February 21, 2019, the Market Monitor filed a complaint requesting that the Commission direct PJM to update the assumptions regarding Expected PAI in calculating the default offer cap. The Market Monitor argues that the default offer cap is overstated because PJM uses an unreasonable and unsupportable number of Expected PAI (i.e., 360 intervals).<sup>14</sup> Therefore, the Market Monitor contends that only a small number of very high offers in the capacity market are subject to unit-specific cost review for market power. The Market Monitor argues this prevents effective market power mitigation, which is unjust and unreasonable.<sup>15</sup>

6. On April 15, 2019, the JCA filed a complaint alleging that the default offer cap is unjust and unreasonable and urging the Commission to revise the methodology for calculating the default offer cap so the next auction is competitive. The JCA further requests the Commission grant their motion for consolidation with the Market Monitor Complaint.<sup>16</sup>

### A. Market Power Concerns

7. The Market Monitor explains that the default offer cap should represent the opportunity cost of taking on a capacity performance obligation adjusted for expected bonus and penalty payments.<sup>17</sup> However, the Market Monitor argues, because a reasonable Expected PAI is close to zero, the opportunity cost of taking on a capacity obligation is much lower than Net CONE \* B, and likely lower than the net avoidable

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<sup>14</sup> Market Monitor Complaint at 1, 4-5.

<sup>15</sup> *Id.* at 1-2.

<sup>16</sup> JCA Complaint at 1-2. The JCA states that consolidation is efficient and in the public interest because both complaints address the methodology for calculating the default offer cap and argue that the default offer cap is too high. *Id.* at 3.

<sup>17</sup> Market Monitor Complaint at 2-3. As explained above, the default offer cap equation is:

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

where H = expected total number of PAI in a delivery year (Expected PAI for the purposes of this order). Capacity Performance Order, 151 FERC ¶ 61,208 at P 338 n.283.

costs of most resources.<sup>18</sup> Therefore, the Market Monitor contends that a competitive offer for most Capacity Performance resources is their avoidable cost rate adjusted for any expected nonperformance charges or bonuses, and not the opportunity cost of taking on a capacity performance obligation.<sup>19</sup>

8. The JCA and Market Monitor state that, in accepting the default offer cap, the Commission expected that the marginal resource would typically be a resource with high avoidable costs. Such resources would offer above the default offer cap and be subject to unit-specific offer review.<sup>20</sup> However, the Market Monitor states, the Base Residual Auction (BRA) cleared below the default offer cap in all four of the past Capacity Performance auctions, meaning, the Market Monitor contends, that the additional protection the Commission expected from the Market Monitor reviewing the marginal offers was not provided.<sup>21</sup> The JCA and Market Monitor state that the overstated default offer cap prevents the Market Monitor from reviewing the marginal offers because the Tariff deems that offers at or below Net CONE \* B to are not an exercise of market power.<sup>22</sup>

9. The JCA and Market Monitor assert, therefore, that the current default offer cap permits the exercise of market power in the BRA.<sup>23</sup> Specifically, the JCA contends that an excessively high default offer cap creates two potential opportunities for the exercise of market power: (i) the opportunity to make unmitigated offers that clear the auction at a price above the competitive level; and (ii) the opportunity for existing generators to offer certain units at high prices that fail to clear the auction but raise the clearing price for other units within the same portfolio.<sup>24</sup>

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<sup>18</sup> Market Monitor Complaint at 5-6.

<sup>19</sup> *Id.*

<sup>20</sup> JCA Complaint at 5; Market Monitor Complaint at 9-10 (citing Capacity Performance Order, 151 FERC ¶ 61,208 at P 344).

<sup>21</sup> Market Monitor Complaint at 11.

<sup>22</sup> JCA Complaint at 6; Market Monitor Complaint at 13 (citing PJM Tariff, Attach. DD, § 6.4(a)).

<sup>23</sup> JCA Complaint at 2-3, 8-9; Market Monitor Complaint at 8.

<sup>24</sup> JCA Complaint at 6.

10. The Market Monitor highlights several facts from the 2021/2022 BRA that it claims are consistent with his conclusion that the default offer cap is too low, namely that: (i) less than 1% of resources made unit-specific offers; (ii) 99% of resources subject to an offer cap that did not offer zero were subject to the default offer cap; and (iii) capacity prices were set based on offers less than the resources' offer cap. Based on the Market Monitor's analysis of the 2021/2022 BRA, which used non-public data to estimate competitive offers, the Market Monitor concludes that market power was exercised as a result of the default offer cap exceeding the competitive offer level for most resources.<sup>25</sup> The Market Monitor contends that the overstated default offer cap allowed economic withholding by resources that offered below the default offer cap, but above their avoidable costs. The Market Monitor concludes, therefore, that the results of the 2021/2022 BRA were not competitive.<sup>26</sup> The JCA and Market Monitor argue that, had these noncompetitive offers been capped at net avoidable costs, total capacity market revenues would have decreased by over \$1.23 billion, or 13.2%, compared to actual results.<sup>27</sup>

11. In addition, the Market Monitor argues that PJM's default offer cap performs a function similar to that of the ISO New England Inc. (ISO-NE) dynamic de-list bid threshold, which the Commission accepted revisions to reduce.<sup>28</sup> The Market Monitor asserts that, in the ISO-NE order, the Commission recognized the importance of reviewing the marginal resource offer for market power.<sup>29</sup>

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<sup>25</sup> *Id.* at 2-4; Market Monitor Complaint at 8, 8 n.21, 11 (citing "Analysis of the 2021/2022 RPM Base Residual Auction - Revised," which can be accessed at: [http://www.monitoringanalytics.com/reports/Reports/2018/IMM\\_Analysis\\_of\\_the\\_20212022\\_RPM\\_BRA\\_Revised\\_20180824.pdf](http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf) (Aug. 24, 2018)).

<sup>26</sup> JCA Complaint at 2; Market Monitor Complaint at 11. The JCA states that economic withholding has resulted in billions of dollars of excess capacity costs. JCA Complaint at 3.

<sup>27</sup> Market Monitor Complaint at 11-12.

<sup>28</sup> Market Monitor Complaint at 8-9 (citing *ISO New England Inc.*, 162 FERC ¶ 61,206 (2018)).

<sup>29</sup> *Id.* at 10 (citing *ISO New England Inc.*, 162 FERC ¶ 61,206 at P 38 ("[T]he purpose of the Dynamic De-List Bid Threshold is not to signal the likely market clearing price, but instead to help ensure that the marginal bid is subject to [Market Monitor] review for the potential exercise of market power.")).

## B. Expected PAI

12. The JCA and Market Monitor contend that, based on experience with the Capacity Performance construct and recent reserve margins, 360 PAI is no longer a reasonable expectation and as a result, the default offer cap that relies on this expectation is overstated.<sup>30</sup> The Market Monitor asserts that during 2015, 2016, and 2017 there were zero emergency events that would have triggered a PAI in PJM. The Market Monitor states that in 2018, there were two PAI triggered in small, localized areas in PJM during two separate load shed events due to transmission contingencies, but no resources were subject to capacity performance assessment penalties.<sup>31</sup>

13. The Market Monitor states that PJM presented the results of a simulation study to estimate the number of PAI in a given delivery year under two scenarios: one where the reserve margin equals the target of 15.8%, and a second where the reserve margin equals the actual margin in the last BRA, 21.8%. Under the first scenario, the Market Monitor states that PJM concluded that the Expected PAI is 180, while under the second, the Expected PAI is twenty-four.<sup>32</sup> The JCA and Market Monitor assert that PJM's capacity market regularly clears above its reserve target, which further reduces the likelihood of emergency actions that could trigger PAI.<sup>33</sup> The Market Monitor proposes using sixty for the Expected PAI, arguing this value better reflects the twenty-four intervals predicted by PJM's second simulation, with three additional hours (thirty six intervals) added to

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<sup>30</sup> JCA Complaint at 2, 9; Market Monitor Complaint at 4-5. In addition, the JCA argues that Net CONE is overstated, which further exacerbates the difference between the default offer cap and competitive offers, resulting in the procurement of excess capacity and further devaluation of PAI. JCA Complaint at 2-3, 10-11.

<sup>31</sup> Market Monitor Complaint at 17-18. On October 2, 2019, PJM issued a two-hour lead time Pre-Emergency Load Management Reduction Action in the Dominion, PEPCO, Baltimore Gas & Electric, and AEP zones to address capacity concerns and to manage transmission constraints through the peak. This action triggered PAI in those zones. See PJM, *A Review of the October 2019 Performance Assessment Event* (Nov. 2019), <https://www.pjm.com/-/media/committees-groups/committees/oc/20191112/20191112-item-04-review-of-the-october-2019-performance-assessment-event-paper.ashx>.

<sup>32</sup> Market Monitor Complaint at 14.

<sup>33</sup> JCA Complaint at 9; Market Monitor Complaint at 14. The Market Monitor highlights that, for delivery years beginning June 2018 through June 2021, actual reserve margins exceeded target reserve margins by 6.2 to 12.3 percentage points. Market Monitor Complaint at 15.

account for the possibility of additional emergency events that might occur during the winter period.<sup>34</sup>

14. The Market Monitor states that the Commission recognized the importance of monitoring and updating the number of PAI, and conditioned acceptance of the capacity performance rules “on PJM making annual informational filings with the Commission to provide updates on the use of [thirty] hours.”<sup>35</sup> The JCA and Market Monitor state that PJM reassessed the number of PAI, and, in November 2018, submitted an informational filing concluding that, while alternatives were considered, none of them met the requisite stakeholder consensus, so PJM did “not have a basis for proposing any change to the current [thirty hour] value” at that time.<sup>36</sup> The Market Monitor contends that the failure of stakeholders with divergent financial interests to agree on a PAI value is not sufficient evidence to support the continued use of an excessive and unjustified PAI value of 30.<sup>37</sup>

### C. Penalty Rate

15. As noted above, the default offer cap equation is the penalty rate times Expected PAI times B, where the penalty rate is Net CONE divided by Penalty PAI. If Expected PAI and Penalty PAI are the same number, the terms cancel, and the default offer cap formula can be abbreviated as Net CONE \* B. The Market Monitor proposes to lower Expected PAI but keep Penalty PAI the same (360 intervals). The Market Monitor explains that the penalty rate is “within limits, reasonably a matter of judgment informed by empirical observation of market responses.”<sup>38</sup> The Market Monitor notes that, while the Commission could keep Expected and Penalty PAI the same, that would significantly increase the penalty rate (by a factor of six, under the Market Monitor’s proposal to use sixty Expected PAI). As a result, the Market Monitor contends that the penalty rate would equal the total capacity market revenue for a resource that failed to perform for just four to six hours, depending on its location. In contrast, the Market Monitor states that the current penalty rate equals the total capacity market revenue for a resource that fails to perform for twenty-two to thirty-five hours, depending on its location.<sup>39</sup> The

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<sup>34</sup> Market Monitor Complaint at 17-18.

<sup>35</sup> *Id.* at 13 (citing Capacity Performance Order, 151 FERC ¶ 61,208 at P 163).

<sup>36</sup> JCA Complaint at 9-10; Market Monitor Complaint at 13, 15 (citing Docket Nos. ER15-623-000 and EL15-29-000).

<sup>37</sup> Market Monitor Complaint at 16.

<sup>38</sup> *Id.* at 6.

<sup>39</sup> *Id.* at 6-7.



Market Monitor argues that the current penalty rate ensures resources have sufficient incentive to perform during emergencies, even if the actual number of PAI were to exceed the Market Monitor's recommended sixty Expected PAI, and therefore does not recommend that Penalty PAI be changed in this proceeding.<sup>40</sup>

16. Ultimately, the Market Monitor contends that adjusting Expected PAI from 360 to sixty as described above, is just and reasonable because it incorporates a reasonable and supportable estimate for the expected number of PAI, given the supply and demand conditions in the capacity market.<sup>41</sup> Finally, the Market Monitor states that the proposed change would ensure that resource offers that set clearing prices in PJM BRAs are reviewed prior to the auction, as envisioned by the Commission in the Capacity Performance Order.<sup>42</sup>

### **III. Notice of Filings and Responsive Pleadings**

17. Notice of the Market Monitor Complaint was published in the Federal Register, 84 Fed. Reg. 7357 (2019), with interventions and protests due on or before April 15, 2019. Appendix A to this order lists the entities that filed notices of intervention and timely-filed motions to intervene to the Market Monitor Complaint. Late-filed motions to intervene were filed by Duke Energy Corporation, and the Dayton Power and Light Company.

18. Comments or protests were filed by the OCC, OPSI, Calpine, Joint Commissions, P3, AMP, PJM Utilities Coalition, Virginia Electric and Power Company, PPANJ, and APPA.

19. PJM filed an answer to the Market Monitor Complaint on April 9, 2019. The Market Monitor filed an answer to the comments and PJM's answer (Market Monitor First Answer). P3 filed an answer to the comments.

20. Notice of the JCA Complaint was published in the Federal Register, 84 Fed. Reg. 17,154 (2019), with interventions and protests due on or before May 6, 2019. Appendix B to this order lists the entities that filed notices of intervention and timely-filed motions to intervene to the JCA Complaint. Late-filed motions to intervene were filed by PSEG Companies and West Virginia Consumer Advocate.

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<sup>40</sup> *Id.* The Market Monitor states that it proposed the use of sixty for both the Expected PAI and Penalty PAI in a PJM stakeholder process, but that the proposal failed in August 2018 with 98% of votes opposing. *Id.* at 7 n.17.

<sup>41</sup> *Id.* at 18.

<sup>42</sup> *Id.* at 18-19.

21. Comments or protests were filed by Calpine, PJM Utilities Coalition, P3, and the New Jersey Board of Public Utilities.

22. PJM filed an answer to the JCA Complaint on May 3, 2019. The Market Monitor (Market Monitor Second Answer) and JCA filed answers to the comments and PJM's answers. On June 6, 2019, JCA filed a motion for leave to file supplemental comments and supplemental comments.

**A. Market Monitor's Standing to File a Complaint**

23. PJM and other commenters argue that the Market Monitor has exceeded its role in filing its Complaint.<sup>43</sup> PJM incorporates the reasons that support its position that it stated in its Motion to Dismiss in Docket No. EL19-27-000, along with the previous pleadings cited within.<sup>44</sup> These reasons include PJM's argument that the Market Monitor lacks authority under the PJM tariff to file a complaint under these circumstances, that the Market Monitor lacks standing to file its Complaint, and that the Market Monitor Complaint is outside the limited role the Commission established for market monitors in Order No. 719.<sup>45</sup> P3 argues that neither the Commission's rules nor the PJM Tariff explicitly grant the Market Monitor the authority to file its complaint, and therefore the Market Monitor has no such authority. P3 argues that the language in Order No. 719 supports this position, because it provides only for market monitors to make referrals with regard to market rule changes, rather than a complaint.<sup>46</sup> P3 contends that Order No. 719 should not be read to grant a market monitor the authority to file a complaint, but rather should be read to only apply to the specific circumstances when the market monitor is already authorized to file a complaint under the relevant RTO/ISO tariff.<sup>47</sup>

24. P3 states that the PJM Tariff also makes the same distinction by giving the authority to make market rule changes to PJM itself and limiting the Market Monitor to recommending changes to the Commission or the PJM Board. P3 argues that this

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<sup>43</sup> See, e.g., PJM Answer at 2.

<sup>44</sup> *Id.* at 2 n.6 (citing *Indep. Mkt. Monitor for PJM v. PJM Interconnection, L.L.C.*, Motion to Dismiss, and in the Alternative, Answer to the Market Monitor's Complaint, Docket No. EL19-27-000 (filed Jan. 25, 2019)).

<sup>45</sup> *Wholesale Competition in Regions with Organized Elec. Markets*, Order No. 719, 125 FERC ¶ 61,071 (2008).

<sup>46</sup> P3 Comments at 3-4 (citing 18 C.F.R. § 35.28(g)(3)(ii) (2019)); see also P3 Answer to Market Monitor Complaint at 8-10 (quoting 18 CFR § 35.28(g)(3)(v) (2019)).

<sup>47</sup> P3 Answer to Market Monitor Complaint at 10.

division of responsibility ensures an efficient use of resources and avoids confusion. P3 also argues that Attachment M of the PJM Tariff allows for complaints by the Market Monitor in certain limited, specific situations, but not a situation in which the Market Monitor does not agree with market rules.<sup>48</sup>

25. Both the OCC and the Joint Commissions urge the Commission to affirm the Market Monitor's right to file a complaint.<sup>49</sup> The OCC contends that FPA sections 206 and 306 authorize the filing of complaint by any "person" and that the FPA defines "person" to include any individual or corporation.<sup>50</sup> OCC states that the Market Monitor is a corporation and thus has the right to file a complaint.<sup>51</sup> Similarly, OCC avers that Rule 206 of FERC's Rules of Practice and Procedure, which states that "[a]ny person may file a complaint," authorizes the Market Monitor to file complaints.<sup>52</sup> Further, OCC states that Order No. 719 recognized this right by establishing that "adequate mechanisms are already in place for the [Market Monitoring Unit] to bring any concerns it may have to the Commission's attention, including the complaint process, referrals to the Commission's Office of Enforcement, and informal discussions with Commission staff."<sup>53</sup>

#### **B. Market Power Concerns**

26. OPSI, AMP, OCC, APPA, and PPANJ support the Complaints, arguing that the Market Monitor has proven that the existing design of the default offer cap is not just and reasonable.

27. Some intervenors state that the current default offer cap allows capacity resources to exercise market power to the detriment of consumers because the PAI value used to set the default offer cap is well above levels PJM has experienced.<sup>54</sup> OCC contends that, when approving the default offer cap, the Commission incorrectly assumed that Net

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<sup>48</sup> P3 Comments at 4-5; P3 Answer to Market Monitor Complaint at 10.

<sup>49</sup> OCC Comments at 1.

<sup>50</sup> *Id.* at 2-3 (citing 16 U.S.C. §§ 824e (a) and 825e).

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

<sup>52</sup> *Id.* at 3.

<sup>53</sup> *Id.* at 3-4 (quoting *Wholesale Competition in Regions with Organized Elec. Markets*, Notice of Proposed Rulemaking, 122 FERC ¶ 61,167, at P 182 (2008)).

<sup>54</sup> OCC Comments at 4-5; AMP Comments at 6-7; APPA at 3, 5-6.

CONE times the Balancing Ratio would always be lower than the competitive offer estimate for high avoidable cost rate resources, but, in contrast, the unit-specific offer cap has trended well below the default offer cap, even for many high avoidable cost rate resources.<sup>55</sup> Therefore, OCC states, because offers below the default offer cap are not reviewed, it is imperative that the default offer cap be set in a manner that ensures customers are protected against the exercise of market power.<sup>56</sup>

28. Alternatively, PJM, P3, Dominion, and PJM Utilities Coalition oppose the Complaints. PJM argues that the Market Monitor has not shown any specific evidence of entities exercising market power in its complaint.<sup>57</sup> Nor, PJM argues, has the Market Monitor addressed the fact that the market has consistently settled below the default offer cap.<sup>58</sup> PJM contends that the existence of a single-clearing price design creates a powerful incentive for resources to offer at or near their avoidable costs in order to have the greatest chance of clearing the market and securing a capacity supply obligation.<sup>59</sup> PJM also argues that the Market Monitor Complaint is too conclusory and sweeping, and that the Market Monitor's role is to review offers for the exercise of market power and, if necessary, refer a seller to the Commission in advance of the auction.<sup>60</sup> PJM states that the Tariff already provides the Market Monitor ample time to review and ensure that sell offers are based on legitimate costs, unit-specific performance, and system parameters.<sup>61</sup> PJM responds to JCA's arguments that the Market Monitor is unable to review offers below the default offer cap by stating that the Market Monitor has clear authority to review all sell offers that it believes raise market power concerns.<sup>62</sup> In addition, PJM questions JCA's reliance on the Market Monitor's simulation results for proof of overpayment in the capacity market, arguing that the Market Monitor's modeling

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<sup>55</sup> OCC Comments at 5-6 (citing Capacity Performance Order, 151 FERC ¶ 61,208 at PP 340, 344; Market Monitor Complaint at 8).

<sup>56</sup> *Id.* at 6 (citing Market Monitor Complaint at 1).

<sup>57</sup> *Id.*; *see also* P3 Comments on Market Monitor Complaint at 14; PJM Utilities Coalition Comments on Market Monitor Complaint at 11.

<sup>58</sup> PJM Answer to Market Monitor Complaint at 6.

<sup>59</sup> *Id.* at 7.

<sup>60</sup> *Id.* at 8.

<sup>61</sup> *Id.* at 9 (citing PJM Tariff, Attach. DD, § 6.7(a)).

<sup>62</sup> PJM Answer to JCA Complaint at 3 (citing PJM Tariff, Attach. M, § IV.E-1).

included unverifiable assumptions regarding hypothetical offers and the appropriate avoidable cost rate for certain resources.<sup>63</sup>

29. Other protestors argue that the Complaints would result in the Market Monitor reviewing additional offers. Dominion argues that giving the Market Monitor more offers to review would be administratively burdensome, both for resources in preparing offers and for the Market Monitor in reviewing them, and could also influence retirement decisions of marginally profitable resources.<sup>64</sup> The PJM Utilities Coalition argues that granting the Complaints would lead to over-mitigation of the capacity market, which could have negative implications for investment and retirement decisions.<sup>65</sup>

30. P3 argues that the default offer cap was intended to allow resources the flexibility to reflect in their offers the particular expectations around the costs and risks arising from performance assessment.<sup>66</sup> P3 notes that the D.C. Circuit rejected arguments that the offer cap can only reflect actual costs and affirmed the Commission's determination in the Capacity Performance order.<sup>67</sup> P3 argues that the Market Monitor seeks to drive the opportunity cost element of the offer cap effectively to zero, in conflict with the Commission's prior determination.<sup>68</sup> P3 also contends that the fact that the majority of sellers select the default offer cap does not necessarily mean market power has been exercised, but rather that sellers are simply using the offer flexibility which the Tariff affords them. P3 argues that, if market power were being exercised, the market would clear closer to or above the default offer cap.<sup>69</sup>

31. Dominion argues that the PAI estimate used in the default offer cap formula should be set by PJM based on experience, not by the Market Monitor, to ensure a certain amount of review.<sup>70</sup> PJM Utilities Coalition argues that fewer than expected PAI does

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<sup>63</sup> *Id.* at 6.

<sup>64</sup> Dominion Comments at 3-4.

<sup>65</sup> PJM Utilities Coalition Comments on Market Monitor Complaint at 12-14.

<sup>66</sup> P3 Comments on Market Monitor Complaint at 12.

<sup>67</sup> *Id.* at 12 (citing *Advanced Energy Mgmt. All. v. FERC*, 860 F.3d 656, 667 (D.C. Cir. 2017)).

<sup>68</sup> *Id.* at 13.

<sup>69</sup> *Id.* at 15.

<sup>70</sup> Dominion Comments at 3.

not suggest that market power was exercised, but rather that performance improved, as intended by the Capacity Performance design.<sup>71</sup>

32. The Market Monitor argues in its Answer that PJM fails to address several of the Market Monitor's arguments including: (1) there were zero PAI in 2015, 2016, and 2017, and two hours (twenty four PAI) in 2018; (2) reserve margins in PJM in 2015-2018 were well in excess of targets; and (3) PJM's simulation showed two hours (twenty-four PAI) using actual observed reserve margins.<sup>72</sup>

33. In response to PJM's assertion that the Market Monitor's Complaint does not provide evidence of specific entities exercising market power, the Market Monitor emphasizes that the goal of its Complaint is to permit effective market power mitigation and not to prove a particular exercise of market power.<sup>73</sup> The Market Monitor acknowledges that more offers would be subject to review under its proposal, but contends that some protestors overstate the burden of an avoidable cost rate review.<sup>74</sup>

34. JCA contends that the Market Monitor has demonstrated that it cannot effectively review offers below the default offer cap, and, in contrast, notes that PJM provides no evidence to support its claim that over-mitigation presents a real threat to its market.<sup>75</sup> The Market Monitor further argues that it cannot adequately review offers because the Tariff does not require submission of avoidable cost rate data on offers below the default offer cap, noting the Tariff specifically designates these offers competitive.<sup>76</sup>

35. APPA argues that widespread use of the default offer cap is consistent with the exercise of market power. APPA disagrees with PJM's assessment in this proceeding that the fact that capacity clearing prices have been lower than the default offer cap supports the conclusion that the default offer cap is not "leading to the exercise of market power."<sup>77</sup> APPA contends that, because the capacity auction determines a clearing price at the intersection of the supply curve and the Variable Resource Requirement curve, and because the supply curve is smoothed without vertical steps, the intersection of the

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<sup>71</sup> PJM Utilities Coalition Comments on the Market Monitor Complaint at 6.

<sup>72</sup> Market Monitor First Answer at 3-4.

<sup>73</sup> *Id.* at 7-10 (citing PJM Answer at 6-8, 14-15).

<sup>74</sup> *Id.* at 13-17.

<sup>75</sup> JCA Answer to JCA Complaint at 5-7.

<sup>76</sup> Market Monitor First Answer at 9.

<sup>77</sup> APPA Comments at 4 (quoting PJM Answer at 6).

two curves will likely be below the default offer cap even if market power has been exercised.<sup>78</sup>

### C. Expected PAI

36. Some commenters support the Market Monitor's proposal to use sixty Expected PAI to calculate the default offer cap.<sup>79</sup> Some intervenors argue that PJM's own analysis suggests that Expected PAI should be closer to two or zero.<sup>80</sup> OCC further argues that 360 PAI was based on extreme circumstances unlikely to recur now that Capacity Performance has been implemented.<sup>81</sup>

37. Calpine does not take a position on whether the Market Monitor has demonstrated that the current number of PAI is unjust and unreasonable, but argues that the Market Monitor has failed to demonstrate that its proposed replacement rate is just and reasonable. Calpine provided an affidavit from Dr. Roy J. Shanker arguing that the appropriate number of PAI, to be used in both the penalty rate and the numerator of the default offer cap equation, should be in a range from 138 to 204 PAI, but recommends selecting a final number based on receipt of additional information from PJM.<sup>82</sup>

38. In contrast, other intervenors argue that 360 PAI continues to be appropriate for both Expected PAI and Penalty PAI in calculating the default offer cap. The PJM Utilities Coalition argues that 360 remains a reasonable estimate of an upper bound of PAI that generators can expect to occur during a delivery year. They argue that it would be poor practice to focus on a small sample size of specific delivery years where fewer PAI occurred, rather than establishing a metric based upon a reasonable worst-case scenario. The PJM Utilities Coalition also argues that the recent low number of PAI represents the Capacity Performance concept working as intended by incentivizing market participants to invest in their resources to ensure performance and availability when called upon.<sup>83</sup>

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<sup>78</sup> *Id.*

<sup>79</sup> Joint Commissions Comments at 5-6; APPA Comments at 7.

<sup>80</sup> *See* Joint Commissions Comments at 6-7; OCC Comments at 10; OPSI Comments at 3.

<sup>81</sup> OCC Comments at 11.

<sup>82</sup> Calpine Comments on Market Monitor Complaint at 20.

<sup>83</sup> PJM Utilities Coalition Comments on Market Monitor Complaint at 6.

39. PJM explains that the simulation study that the Market Monitor relies upon does not model critical operating requirements and transmission constraints that can trigger PAI. In addition, PJM notes that the study assumes all generator outages are random, but that is not the case during extreme cold snaps.<sup>84</sup> Finally, PJM states that the simulation, which is based on GE MARS, does not account for operational risks such as under-commitments due to load forecast error, gas pipeline disruptions, or loss of critical transmission facilities.<sup>85</sup> PJM also notes that the impending retirement of 11,000 MW of coal, nuclear, and other resources that are unlikely to be immediately replaced will reduce reserve margins and potentially increase future PAI.<sup>86</sup>

40. PJM also argues that using sixty PAI would result in a significant number of seller offers that are well below the relevant clearing price, as calculated by the Market Monitor—and therefore cannot impact that clearing price—requiring unit-specific review. PJM argues that this would be inefficient and result in unnecessary litigation. However, the Market Monitor alleges PJM misunderstands the Market Monitor’s sensitivity analysis of the 2020/2021 BRA, which does not calculate a clearing price.<sup>87</sup> PJM also argues that the use of sixty PAI is arbitrary and unsupported.<sup>88</sup> PJM notes that revising the use of 360 intervals has been thoroughly debated in the PJM stakeholder process and no proposals to revise the intervals were endorsed by stakeholders.<sup>89</sup>

41. Alternatively, OCC states that the Commission should not give deference to PJM’s decision to not update the PAI value in its 2017 and 2018 informational reports due to

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<sup>84</sup> PJM Answer to Market Monitor Complaint at 10-11.

<sup>85</sup> *Id.* at 11-12. PJM states that the General Electric Multi-Area Reliability Simulation Program (GE MARS) is a planning software tool capable of calculating standard reliability indices for a given power system and calculating the expected number of days per year that emergency operating procedures may be utilized at different reserve margins. *Id.*

<sup>86</sup> *Id.* at 12.

<sup>87</sup> Market Monitor Answer to Answers to Market Monitor Complaint at 12-13.

<sup>88</sup> PJM Answer to Market Monitor Complaint at 17-18.

<sup>89</sup> *Id.* at 13.



lack of stakeholder consensus.<sup>90</sup> In addition, the Market Monitor re-asserts that the inability of stakeholders with divergent financial interests to agree does not justify inaction.<sup>91</sup>

42. The Market Monitor argues that the PJM Utilities Coalition argument, that it is poor practice to rely on a small sample size of delivery years to develop key market metrics, is illogical given that PJM Utilities Coalition itself relies on only one year, 2014, to support a PAI of 360.<sup>92</sup>

43. Lastly, the Market Monitor reiterates that its proposed Expected PAI of sixty is just and reasonable despite PJM's objections because it is based on the same planning software tool used to set the target installed reserve margin in PJM.<sup>93</sup> The Market Monitor also disagrees with PJM that impending retirements will likely equate to more PAI because, the Market Monitor states, PJM consistently over forecasts peak loads and clears excess reserve margins.<sup>94</sup>

44. OPSI states that if the Commission cannot determine an appropriate number of PAI to use in calculating the default offer cap, the Commission should require PJM to return to the previous offer cap, which was set by avoided cost.<sup>95</sup>

#### **D. Penalty Rate**

45. Commenters also differ on whether the Commission should use different values for Expected PAI and Penalty PAI in the default offer cap equation. Commenters in support of using different values argue that actual PAI have been far below the number

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<sup>90</sup> OCC Comments at 8-11 (citing PJM Informational Filings on the use of thirty hours as the number of Performance Assessment Hours, Docket Nos. ER15-623-000 *et al.*, dated November 27, 2017 and November 20, 2018; Market Monitor Complaint at 14-15, attach. B, Slide 12).

<sup>91</sup> Market Monitor First Answer at 7.

<sup>92</sup> *Id.* at 5-6.

<sup>93</sup> *Id.* at 11-12.

<sup>94</sup> *Id.*

<sup>95</sup> OPSI Comments at 3.

used to derive Net CONE times B, and that, therefore, the original rationale for using Net CONE times B no longer holds.<sup>96</sup>

46. APPA argues that the performance of resources since the implementation of Capacity Performance shows that a more stringent penalty rate is not needed to incentivize capacity market sellers to make the necessary investments to ensure their resources are able to provide energy when they are needed for reliability.<sup>97</sup> Similarly, the Market Monitor argues there are no additional benefits to increasing the penalty rate above the current value and that a higher penalty rate is likely to be unjust and unreasonable because the implied value of lost load would be higher than any reasonable estimate.<sup>98</sup> Further, APPA and AMP state that setting the penalty rate too high would result in resources reaching the annual stop loss limit sooner, at which time such resources may no longer have an incentive to perform during any additional PAI that delivery year.<sup>99</sup>

47. In its answer, JCA argues that there are good legal and policy reasons to separate the default offer cap and the penalty rate, because those values serve two different purposes.<sup>100</sup> JCA notes that in the Capacity Performance Order, the Commission made no explicit finding to link those values.<sup>101</sup> JCA adds that PJM stated that the default offer cap can be calculated in a way that is not “consistent with (or even related to)” the penalty rate.<sup>102</sup>

48. On the other hand, PJM, P3, Calpine, and PJM Utilities Coalition oppose using different values for Expected PAI and Penalty PAI in the default offer cap equation. PJM argues that using different values for Expected PAI and Penalty PAI would be inconsistent with the underlying logic of the equation, as it would divorce the relationship

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<sup>96</sup> APPA Comments at 6-7 (citing Market Monitor Complaint at 18).

<sup>97</sup> *Id.* at 8-9 (citing Capacity Performance Order, 151 FERC ¶ 61,208 at P 151; PJM Inside Lines, *How PJM Remained Reliable During Record Cold* (Feb. 14, 2019), <http://insidelines.pjm.com/how-pjm-remained-reliable-during-record-cold/>).

<sup>98</sup> Market Monitor First Answer at 15.

<sup>99</sup> APPA Comments at 9; AMP Comments at 8.

<sup>100</sup> JCA Answer to Answers to JCA Complaint at 3.

<sup>101</sup> *Id.* at 3-4.

<sup>102</sup> *Id.* at 5 (quoting PJM Answer to JCA Complaint at 6).

between the penalty rate and the default offer cap.<sup>103</sup> PJM argues that the Commission recognized the link between the penalty rate and the default offer cap in approving the current design.<sup>104</sup> PJM argues that changing the penalty rate rather than the offer cap by using sixty for both the Expected PAI and Penalty PAI would address the Market Monitor's concerns with the existing offer cap, as a higher penalty rate would represent a higher risk for sellers offering into the auction.<sup>105</sup>

49. Calpine opposes using different values for Expected and Penalty PAI arguing that a higher penalty would be beneficial in sending less reliable units a clearer signal to exit the market and rewarding high performing units.<sup>106</sup> Calpine states that Dr. Shanker has confirmed with the Market Monitor that if the sole concern is market power mitigation, there are two plausible approaches to calculate the "right" offer cap: either to modify only the Expected PAI or to modify both the Expected and Penalty PAI.<sup>107</sup> Calpine argues that changing only the Expected PAI would undercut the fundamental intent of the Capacity Performance construct: to create performance incentives through stringent penalties for non-performance.<sup>108</sup> Calpine notes that concerns over the stop loss limit for high penalties are overstated, because if Market Monitor truly believes that PAI will be low there cannot also be a concern about cumulative PAI in excess of 150% of the forecasted level. Calpine notes that Dr. Shanker proposes allowing a supplier who hits the stop loss limit to earn bonus credits by performing above the Balancing Ratio during a subsequent PAI, thus providing an incentive for continued performance.<sup>109</sup>

50. P3 argues that a core principle of Capacity Performance was that performance penalties for a non-performing resource should be set equal to the cost of replacement capacity. P3 states that when the penalty rate reflects the expected number of PAI, resources will only accept a capacity supply obligation when they expect to be able to perform. P3 states that when the default offer cap reflects the expected number of PAI, a resource will only accept a capacity supply obligation when it is at least indifferent to doing so, relative to being an energy-only resource and earning bonus payments.

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<sup>103</sup> PJM Answer to Market Monitor Complaint at 15-16.

<sup>104</sup> PJM Answer to JCA Complaint at 3.

<sup>105</sup> PJM Answer to Market Monitor Complaint at 20.

<sup>106</sup> Calpine Comments on JCA Complaint at 15-18.

<sup>107</sup> *Id.* at 12-13.

<sup>108</sup> *Id.* at 14.

<sup>109</sup> *Id.* at 17.

Accordingly, P3 argues that using a different number of PAI to develop the penalty rate and the default offer cap will distort this efficient decision making in one direction or the other—inducing too many non-performing resources or too few performing resources to accept a capacity supply obligation.<sup>110</sup>

51. In addition, P3 asserts that breaking the link between the default offer cap and the penalty rate will not incentivize performance, as argued by AMP and APPA.<sup>111</sup> Rather, P3 argues that it is more important to have a higher penalty rate, since it disincentivizes non-performing resources from assuming capacity supply obligations, than a lower one, which would ensure that a particular non-performing resource never loses its incentive to perform by reaching its annual stop loss limit.<sup>112</sup> P3 alleges that retaining the existing penalty rate would encourage resources to take on capacity supply obligations without making investments to mitigate the risk of non-performance.<sup>113</sup> Further, P3 reiterates Calpine's alternate proposal, which would allow a supplier that has reached its stop loss limit to earn bonus credits, as one way to address concerns raised by AMP and APPA.<sup>114</sup>

52. The Market Monitor contends that protestors are incorrect to allege that using a different value for Expected PAI and Penalty PAI is unjust and unreasonable, and that protestors provide no evidence to suggest that the current non-performance penalty rate is unjust and unreasonable.<sup>115</sup> The Market Monitor clarified that Dr. Shanker misinterpreted his conversation with the Market Monitor, and the Market Monitor asserts that reducing Penalty PAI would not address the Market Monitor's market power concerns.<sup>116</sup>

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<sup>110</sup> P3 Comments on Market Monitor Complaint at 9.

<sup>111</sup> P3 Answer to Comments in Market Monitor Complaint at 5-7 (citing AMP Comments at 8-9; APPA Comments at 9).

<sup>112</sup> *Id.* at 6.

<sup>113</sup> *Id.*

<sup>114</sup> P3 Answer to Comments in Market Monitor Complaint at 7 (citing Calpine Comments on Market Monitor Complaint at 17 and attached Affidavit of Roy J. Shanker, Ph.D., at P 57 to P 59).

<sup>115</sup> Market Monitor First Answer at 1-17.

<sup>116</sup> *Id.* at 16 (citing Dr. Shanker Aff. at 16, 28).

### E. Other

53. PJM argues that the Market Monitor has failed to show changed circumstances to justify moving away from 360 PAI.<sup>117</sup> The PJM Utilities Coalition similarly states that the Market Monitor has failed to meet its burden under section 206 to show that the existing Tariff is unjust and unreasonable, or that its proposed alternative is just and reasonable.<sup>118</sup>

54. Alternatively, the Market Monitor and the Joint Commissions argue that circumstances have materially changed since the Capacity Performance Order.<sup>119</sup> The Joint Commissions state that two changed circumstances exist that warrant a reevaluation of the default offer cap: 1) PJM's acknowledgement that the anticipated number of PAI is half of the Commission-accepted value, even with a target reserve margin of 15.8%; and 2) the Market Monitor's demonstration of harm to ratepayers from the inflated default offer cap.<sup>120</sup>

55. The Market Monitor urges the Commission to address the market power issues before the next BRA.<sup>121</sup> PJM argues that if the Commission takes any action on the Market Monitor Complaint, it should ensure that sellers have sufficient time to submit data prior to the next auction.<sup>122</sup>

56. AMP argues that the Commission should review the Market Monitor's complaint in conjunction with other ongoing proceedings involving the PJM capacity market.<sup>123</sup> P3 argues that the Commission should consider the implications that the proposal would

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<sup>117</sup> PJM Answer to Market Monitor Complaint at 7.

<sup>118</sup> PJM Utilities Coalition Comments on Market Monitor Complaint at 12-14.

<sup>119</sup> Market Monitor First Answer at 3-4; Joint Commissions Comments at 9-10.

<sup>120</sup> Joint Commissions Comments at 9-10.

<sup>121</sup> Market Monitor First Answer at 17.

<sup>122</sup> PJM Answer to Market Monitor Complaint at 21; *see also* P3 Comments on JCA Complaint at 6.

<sup>123</sup> AMP Comments at 4-6.

have on other proceedings, including the Minimum Offer Price Rule proceeding in Docket Nos. ER18-1314 and EL18-178.<sup>124</sup>

57. PJM further notes that it is re-engaging with stakeholders to consider an alternative default offer cap, and argues that this issue would be better resolved through that process rather than the Commission reversing prior rulings in this docket.<sup>125</sup> However, while JCA states that it welcomes limited stakeholder reengagement of this issue, JCA contends that Commission action is still required.<sup>126</sup> Similarly, in the Market Monitor's Second Answer, the Market Monitor asserts that PJM's argument regarding finding a solution through a renewed stakeholder process has no merit, since PJM had ample time to work through that process and since a section 206 filing, rather than a section 205 filing, is preferable to address market power mitigation rules. Therefore, the Market Monitor urges the Commission to take immediate action.<sup>127</sup>

58. PJM responds to JCA's contention that the Net CONE value used in the default offer cap equation is too high, noting that the Commission has approved the Net CONE value as part of PJM's quadrennial review.<sup>128</sup> P3 argues that JCA has failed to account for the reduced default offer cap as a result of the revised Net CONE value accepted by the Commission as part of PJM's quadrennial review.<sup>129</sup> Calpine argues that JCA's argument that Net CONE is too high is beyond the scope of this proceeding.<sup>130</sup>

59. In response to comments in support of the Market Monitor Complaint, P3 argues that the Commission should not direct PJM to adopt a default offer cap based on avoided costs, as proposed by OPSI.<sup>131</sup> P3 contends that the Commission already found that

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<sup>124</sup> P3 Comments on JCA Complaint at 6 (citing Capacity Performance Order, 151 FERC ¶ 61,208).

<sup>125</sup> PJM Answer to JCA Complaint at 6-7.

<sup>126</sup> JCA Answer to Answers to JCA Complaint at 8-9.

<sup>127</sup> Market Monitor Second Answer at 2-4.

<sup>128</sup> PJM Answer to JCA Complaint at 6.

<sup>129</sup> P3 Comments on JCA Complaint at 13-14 (citing *PJM Interconnection, L.L.C.*, 167 FERC ¶ 61,029 (2019)).

<sup>130</sup> Calpine Answer to JCA Complaint at 3.

<sup>131</sup> P3 Answer to Market Monitor Complaint at 2-5 (citing OPSI Comments at 3).

considering opportunity costs when setting the default offer cap is just and reasonable,<sup>132</sup> and OPSI has neither demonstrated otherwise nor demonstrated that its proposed remedy would be just and reasonable.<sup>133</sup> Moreover, P3 states that OPSI's proposal is administratively burdensome for market sellers and may lead to prolonged discussions with the Market Monitor.<sup>134</sup>

#### **IV. Discussion**

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

60. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2020), the Commission grants 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.

61. 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**

62. As discussed below, we grant the Complaints. As a threshold matter, we find that the Market Monitor is not barred from filing a complaint in this proceeding. We further find that it is no longer just and reasonable for PJM to use 360 for Expected PAI in the default offer cap formula and order further briefing on the appropriate replacement rate.

#### **1. Market Monitor's Standing to File a Complaint**

63. We address first PJM's argument that the Market Monitor is not allowed to file its Complaint under FPA section 206. PJM argues that both PJM's Tariff and the Commission's Order No. 719 provide certain specific outlets for Market Monitors to report issues that do not include complaints to the Commission under section 206.<sup>135</sup>

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<sup>132</sup> *Id.* at 3-4 (citing *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157, at P 185 (2016)).

<sup>133</sup> P3 Answer to Market Monitor Complaint at 4.

<sup>134</sup> *Id.* at 5.

<sup>135</sup> *See supra* note 44.

PJM argues that allowing the Market Monitor to file complaints against PJM using PJM resources would create conflicts of interest for PJM and its members.

64. The Commission has ruled that the Market Monitor is allowed to file a complaint against PJM related to its Fuel Cost Policy.<sup>136</sup> In that proceeding, the Commission declined to reach the issue of the Market Monitor's general right to file complaints, finding that the specific complaint was allowed under the terms of Attachment M of the PJM Tariff.<sup>137</sup> The Commission later addressed the argument that market monitors are barred from filing complaints in its ruling on the Potomac Economics Ltd.'s complaint regarding PJM's requirement that external resources obtain a pseudo-tie to participate in PJM's capacity market.<sup>138</sup> The Commission, in rejecting PJM's motion to dismiss the complaint, found that a market monitor has the ability to file a complaint with the Commission under FPA section 206 provided that the market monitor meets the corresponding requirements of the Commission's regulations, including Commission rule 206(b), and that no legal or contractual provisions prevent the market monitor from filing its complaint.<sup>139</sup> The Market Monitor's interests satisfy the requirements of rule 206(b) and PJM has not identified legal or contractual provisions that would prevent the Market Monitor from filing its Complaint in this proceeding. Based on our prior rulings, we find that the Market Monitor Complaint is not barred in this proceeding.

## 2. Market Power Concerns

65. We now turn to the merits of the Complaints. We grant the Complaints and find that 360 is no longer a reasonable estimate of Expected PAI and therefore that the default offer cap resulting from 360 Expected PAI is also unjust and unreasonable. Based on the record demonstrating consistently low PAI each year, we find that 360 PAI exceeds market participants' reasonable, actual expectations of the number of PAI the system will experience in a given year.<sup>140</sup> Therefore, we find that the default offer cap described in the Tariff is incorrectly calibrated such that it may unjustly and unreasonably prevent the appropriate review of offers, thereby allowing potential exercises of market power, and reducing the capacity market's overall competitiveness.

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<sup>136</sup> *PJM Interconnection, L.L.C.*, 167 FERC ¶ 61,084, at P 70 (2019).

<sup>137</sup> *Id.*

<sup>138</sup> *Potomac Econ., Ltd. v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,039 (2020).

<sup>139</sup> *Id.* P 35.

<sup>140</sup> See JCA Complaint at 2, 9; Market Monitor Complaint at 4-5.



66. We note that the Capacity Performance Order found that “it is reasonable to set a default Capacity Performance Resource offer cap equal to the competitive offer estimate for a Low [Avoidable Cost Rate (ACR)] Resource, i.e., Net CONE times the Balancing Ratio, because that estimate will always be lower than the competitive offer estimate for a High ACR Resource.”<sup>141</sup> Fundamentally, the Complaints demonstrate that this is no longer true – Net CONE times B has not been lower than the competitive offer estimate for a resource with a high avoidable cost rate. In fact, according to the Market Monitor, Net CONE times B has been higher than or equal to 99% of offers subject to an offer cap in the BRA that did not offer zero.<sup>142</sup> This demonstrates that the default offer cap is inappropriate.

67. We reject as immaterial PJM’s argument that the Market Monitor has not demonstrated that market power has been exercised, in part because the market has cleared below the default offer cap. The question addressed in this order is not whether market power has already been exercised, but rather whether the default offer cap enables the appropriate review of offers and imposition of mitigation in order to ensure competitive market outcomes. In order to do so, the default offer cap should be set at a level that permits the Market Monitor and PJM to review offers that may constitute an attempt to exercise market power and mitigate offers where appropriate. We find that the current default offer cap is not achieving this objective because, as discussed above, it is incorrectly calibrated. The Complainants need not show that market power has been exercised in order to demonstrate that the default offer cap is set incorrectly based on inaccurate inputs.

68. We also reject as immaterial PJM’s arguments that the Market Monitor has the authority and ability to review any capacity supply offers it believes may be an exercise of market power regardless of whether the default offer cap is correctly set. While the Market Monitor can obtain information to review offers, the Market Monitor, under PJM’s Tariff, cannot mitigate a resource’s capacity supply offer if that price is below the default offer cap. Rather, for offers below the default offer cap, the Tariff only allows the Market Monitor to “file a petition or initiate other regulatory proceedings addressing the issue . . . [or] file a complaint with the Commission addressing the issue.”<sup>143</sup> This limitation reinforces the importance of an appropriate default offer cap, which is intended to limit the need for more detailed review to those offers that pose the greatest risk of not being competitive.<sup>144</sup> If the default offer cap is no longer set at an appropriate level, as

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<sup>141</sup> Capacity Performance Order, 151 FERC ¶ 61,208 at P 340.

<sup>142</sup> Market Monitor Complaint at 8.

<sup>143</sup> PJM Tariff, Attach. M, § IV.E-1.

<sup>144</sup> Capacity Performance Order, 151 FERC ¶ 61,208 at P 344.

we find here to be the case, then it may prevent the Market Monitor from reviewing and addressing offers that may be uncompetitive. While PJM argues that the single-clearing price design provides an incentive for resources to submit offers that accurately reflect their risks,<sup>145</sup> that incentive is not a sufficient basis to eliminate the need for effective mitigation.<sup>146</sup>

69. We are not persuaded by Dominion's and other parties' concerns that a revised default offer cap would be unduly burdensome on generators or the Market Monitor. 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 those assumptions and data must have been discussed and decided on prior to submitting the offer into the market. Further, the Market Monitor notes in its Answer that would be capable of handling any additional review resulting from a lower default offer cap.<sup>147</sup> Therefore, we find these concerns that a lower offer cap will be unduly burdensome to be overstated and insufficient to undermine our finding that the current default offer cap is unjust and unreasonable. In addition, below we direct briefing on the appropriate replacement rate; thus concerns regarding specific potential replacement rates can be further addressed in briefing.

70. We disagree with P3 that revisions to the Expected PAI will not provide resources with the flexibility to reflect their expectations of the costs and risks arising from performance assessment or other relevant opportunity costs in their offers. The default offer cap provides capacity resources in the BRA with latitude in their offers, up to a reasonable estimate of expected costs, risk, and conditions (including the number of PAI). Resources that can demonstrate expected costs or risk greater than those accommodated by the default offer cap parameters may submit those values for unit-specific review. Allowing resources unreasonably large latitude to include excessive risk or opportunity costs in their offers may unjustly create an opportunity for the exercise of market power. These flexibility-related concerns do not persuade us to alter our finding that the current default offer cap is unjust and unreasonable. Moreover, any such concerns associated with specific potential replacement rates can be addressed in the briefing we direct below.

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<sup>145</sup> PJM Answer to Market Monitor Complaint at 7.

<sup>146</sup> See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318, at P 195 (2007) (accepting a single-clearing price auction with adequate market power mitigation provisions included).

<sup>147</sup> Market Monitor First Answer at 13.

### 3. Remedy

71. Although we are granting the Complaints and finding that the existing rate is unjust and unreasonable, we conclude that additional record evidence is needed to set the appropriate replacement rate. The record assembled to date largely addresses whether the replacement rate should focus on a reduction in the number of Expected PAI used to calculate the default offer cap.<sup>148</sup> Although revising the Expected PAI used to establish the default offer cap may ultimately represent the just and reasonable replacement rate, we find it is necessary to direct briefing that would enable the Commission to further consider the appropriate replacement rate, including alternative approaches to market power mitigation in the capacity market.

72. To that end, we direct the parties to brief the appropriate replacement rate in this proceeding. Parties should address the appropriateness of using different values for Penalty PAI and Expected PAI in the default Capacity Performance market seller offer cap calculation and the appropriate method for setting each value, including for updating one or both over time. 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,<sup>149</sup> including whether and how that process should account for the risk of Capacity Performance penalties. In this regard, parties 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. Although parties may address any alternative methodology for market power mitigation in the capacity market that they deem appropriate, in particular we request briefing on whether it would be just and reasonable to remove the market-wide default market seller offer cap and instead employ unit-specific offer caps for all resources that fail the Market Structure Test,<sup>150</sup> and, if so, whether other tariff revisions would be appropriate to implement this approach. Also, PJM should provide an update on any PAI that have occurred since the Complaints were

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<sup>148</sup> See, e.g., Market Monitor Complaint at 18 (arguing for a PAI of sixty); Calpine Comments on Market Monitor Complaint at 20 (arguing for a PAI range of 138 to 204 PAI).

<sup>149</sup> PJM Tariff, Attach. DD, § 6.

<sup>150</sup> The Market Structure Test is the three pivotal supplier test, which measures the degree to which the supply from three suppliers (the two largest suppliers and a given third) is required in order to meet the demand in the relevant market. If the market participant is required (*i.e.*, there is a failure of the three pivotal supplier test), that market participant is potentially subject to mitigation. PJM Tariff, Attach. DD, § 6.3(b).

filed. Initial briefs shall be due forty-five days from the date of this order. Reply briefs shall be due thirty days thereafter.

73. We recognize that PJM's capacity auction for the 2022-2023 delivery year is scheduled for May 2021. In light of the imminent start of the delivery year and the two-year delay that the auction already has encountered, we conclude that the auction should go forward as scheduled under the current rules. As the courts have repeatedly explained, the Commission's discretion is at its zenith when fashioning remedies, and we find it to be an appropriate and equitable exercise of that discretion not to further delay the upcoming auction while the Commission determines the just and reasonable replacement rate.<sup>151</sup> The Commission will, of course, continue to exercise its oversight of the upcoming auction. Any anticompetitive conduct observed during the May 2021 auction may be referred to the Commission's Office of Enforcement and the Commission may take all measures necessary and appropriate to address anticompetitive conduct in the May 2021 auction.

74. Section 206(b) of the FPA provides that upon the filing of a complaint, the Commission must establish a refund effective date that is no earlier than the date of the complaint and no later than five months subsequent to the date of the complaint. In such cases, in order to give maximum protection to customers, and consistent with our precedent, we have historically tended to establish the section 206 refund effective date at the earliest date allowed by section 206, and we do so here as well.<sup>152</sup> That date is the date of the complaint. However, we do not anticipate ordering refunds in this proceeding as the 15-month refund period elapsed before PJM ran a base residual auction, and we expect to exercise our discretion not to order PJM to rerun intermediate incremental auctions.<sup>153</sup>

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<sup>151</sup> *Pub. Utils. Comm'n of Cal. v. FERC*, 988 F.2d 154, 163 (D.C. Cir. 1993) (quoting *Towns of Concord, Norwood, & Wellesley v. FERC*, 955 F.2d 67, 76 (D.C. Cir. 1992)). See also *Aera Energy LLC v. FERC*, 789 F.3d 184 (D.C. Cir. 2015) (the Commission must fix a just and reasonable replacement rate before a proceeding under section 5 of the NGA or section 206 of the FPA takes effect).

<sup>152</sup> See, e.g., *Idaho Power Co.*, 145 FERC ¶ 61,122 (2013); *Canal Electric Co.*, 46 FERC ¶ 61,153, *order on reh'g*, 47 FERC ¶ 61,275 (1989).

<sup>153</sup> In exercising its broad discretion in fashioning remedies, the Commission has generally disfavored rerunning markets, explaining that doing so is an extraordinary measure that would create market uncertainty for market participants and require resolving complex questions. *Dominion Energy Mktg., Inc. v. ISO New England, Inc.*, 155 FERC ¶ 61,121, at P 23 (2016).

The Commission orders:

(A) The Complaints are hereby granted, as discussed in the body of this order.

(B) Parties shall submit briefs on the appropriate remedy for the Complaints within forty-five (45) days of the date of this order, as discussed in the body of this order. Reply briefs may be submitted within thirty (30) days thereafter.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

**Appendix A: Names of Intervenors to Market Monitor Complaint**

American Electric Power Service Corp.  
American Municipal Power, Inc. (AMP)  
American Public Power Association (APPA)  
Boston Energy Trading and Marketing LLC  
Brookfield Energy Marketing LP  
Buckeye Power, Inc.  
Calpine Corporation et al., (Calpine)  
Citizens Utility Board of Illinois  
Cogentrix Energy Power Management, LLC  
Delaware Division of the Public Advocate  
Delaware Public Service Commission  
Direct Energy Business Marketing, Inc.  
Dominion Energy Services, Inc.  
East Kentucky Power Cooperative, Inc.  
Edison Electric Institute  
Electric Power Supply Associations  
Exelon Corporation  
FirstEnergy Utility Companies  
Kentucky Attorney General  
LS Power Associates, L.P.  
Maryland Office of People's Counsel  
National Rural Electric Cooperative Association  
New Jersey Board of Public Utilities et al. (Joint Commissions)  
New Jersey Division of Rate Counsel  
North Carolina Electric Membership Corp.  
NRG Power Marketing LLC  
Office of Ohio Consumers' Counsel (OCC)  
Office of the People's Counsel for the District of Columbia  
Ohio Consumers' Counsel  
Old Dominion Elec. Coop.  
Organization of PJM States, Inc. (OPSI)  
Pennsylvania Office of Consumer Advocate  
Pennsylvania Public Utility Commission  
PJM Power Providers Group (P3)  
PJM Utilities Coalition  
PSEG Energy Resources & Trade LLC  
Public Citizen, Inc.  
Public Power Association of New Jersey (PPANJ)  
Southern Maryland Electric Coop., Inc.  
Talen Energy Marketing, LLC  
Virginia Electric and Power Company

Vistra Energy and Dynegy Marketing  
West Virginia Consumer Advocate

**Appendix B: Names of Intervenors to JCA Complaint**

AEP Service Corp.  
American Municipal Power, Inc.  
APPA  
Brookfield Energy Marketing LP  
Buckeye Power, Inc.  
Calpine  
Dominion Energy Services Co., Inc.  
East Kentucky Power Cooperative, Inc.  
EPSA  
Exelon Corporation  
The FirstEnergy Utility Companies  
LS Power Associates, L.P.  
Market Monitor  
New Jersey Board of Public Utilities  
North Carolina Electric Membership Corp.  
Northern Virginia Elec. Coop.  
NRG Power Marketing LLC  
P3  
Pennsylvania PUC  
PJM Utilities Coalition  
Public Citizen, Inc.  
Talen Energy Marketing  
Vistra Energy and Dynegy Marketing