

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.	)	
	)	Docket No. ER24-98-000
	)	

**COMMENTS ON RESPONSE TO DEFICIENCY NOTICE,  
ANSWER AND MOTION FOR LEAVE TO ANSWER,  
OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 211, 212 and 213 of the Commission’s Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor (“Market Monitor”) for PJM Interconnection, L.L.C. (“PJM”),<sup>2</sup> submits this pleading. The Market Monitor comments on PJM’s response, filed December 8, 2023 (“Deficiency Response”), to the notice of deficiency issued in this proceeding, November 17, 2023 (“Deficiency Notice”), related to PJM’s filing submitted October 13, 2023 (“PJM Filing”).

**I. SUMMARY**

PJM’s filing in this docket is an attempt to eliminate market power mitigation and replace it with the unlimited ability to exercise market power. Market power is and will remain endemic to the structure of the PJM Capacity Market. Nonetheless a competitive outcome can be assured by appropriate market power mitigation rules. Market power mitigation is necessary to ensure just and reasonable prices. PJM’s proposal, if accepted,

---

<sup>1</sup> 18 CFR §§ 385.211, 385.212 & 385.213 (2023).

<sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

would replace prices based on competition and economic fundamentals with arbitrary prices incorporating the exercise of market power.

PJM fails to admit that it proposes to eliminate meaningful market power mitigation and correspondingly fails to support its extreme position. PJM fails to assess the impacts of its market power mitigation proposals on capacity market prices. Those impacts on market seller offer caps (“MSOCs”) are expected to be large, potentially more than \$100 per MW-day.

In effectively eliminating market power mitigation, PJM also proposes to undo the core concept of the capacity market. The capacity market was designed to provide generators with the opportunity to cover their avoidable costs, or going forward costs, after accounting for net revenues from the energy and ancillary services markets. PJM’s proposal eliminates the net revenue offset entirely for capacity resources that will continue operating. PJM’s proposal eliminates the key link between the energy and capacity markets.

The PJM Filing would result in extremely large increases in capacity market prices. PJM has failed to explain the resultant price increases, apparently failed to even analyze the price increases, and failed to explain why such price increases are consistent with the operation of competitive markets. PJM’s market seller offer caps would exceed those calculated using the Net CONE times B approach that the Commission rejected and otherwise completely contradicts the Commission’s order on market seller offer caps.<sup>3</sup> Under the Net CONE times B approach, market power resulted in an increase of \$1,231 million in

---

<sup>3</sup> See *Independent Market Monitor for PJM v. PJM Interconnection, L.L.C.*, 176 FERC ¶ 61,137 at P 66 (2021) (“...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. This demonstrates that the default offer cap is inappropriate.”); *order on reh’g*, 177 FERC ¶ 62,066 (2021); *order on reh’g*, 178 FERC ¶ 61,121 (2022); *appeal denied*, *Vistra Corp., et al. v. FERC*, Case No. 21-1214, et al. (D.C. Cir. August 15, 2023); *appeal denied en banc*, *Vistra Corp., et al. v. FERC*, Case No. 21-1214, et al. (D.C. Cir. October 10, 2023).

capacity market revenues in the BRA for the 2021/2022 Delivery Year and an increase of \$223 million in capacity market revenues for the 2022/2023 Delivery Year.<sup>4</sup>

The Commission relies on competition and competitive outcomes as a substitute for cost of service regulation.<sup>5</sup> PJM's proposal will not result in competitive outcomes and is therefore not consistent with the Commission's basic purpose in regulating PJM and wholesale power markets. For all these reasons, PJM has not shown, or even attempted to show, that its proposal is just and reasonable.

---

<sup>4</sup> See "Analysis of the 2021/2022 RPM Base Residual Auction - Revised," <[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)> (August 24, 2018) and "Analysis of the 2022/2023 RPM Base Residual Auction," <[http://www.monitoringanalytics.com/reports/Reports/2022/IMM\\_Analysis\\_of\\_the\\_20222023\\_RPM\\_BRA\\_20220222.pdf](http://www.monitoringanalytics.com/reports/Reports/2022/IMM_Analysis_of_the_20222023_RPM_BRA_20220222.pdf)>.

<sup>5</sup> See *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. P31,089, mimeo at 144-145324 (1999) ("The Commission has a responsibility under FPA sections 205 and 206 to ensure that rates for wholesale power sales are just and reasonable, and has found that market-based rates can be just and reasonable where the seller has no market power. The Commission has determined that to show a lack of market power, the seller and its affiliates must not have, or must have adequately mitigated, market power in the generation and transmission of electric energy, and cannot erect other barriers to entry by potential competitors" (citing *Heartland Energy Services, Inc.*, 68 FERC P61,223 at 62,060 (1994); *Louisville Gas & Electric Company*, 62 FERC P61,016 at 61,143-44 (1993); *Louisiana Energy and Power Authority v. FERC*, 141 F.3d 364 (D.C. Cir. 1998) (court upholds Commission's use of market-based rate authority)), *order on reh'g*, Order No. 2000-A, FERC Stats. & Regs. P31,092 (2000), *aff'd sub nom.* Pub. Util. Dist. No. 1 of Snohomish County, Washington v. FERC, 272 F.3d 607 (D.C. Cir. 2001); *Public Citizen, Inc. v. FERC*, 7 F.4th 1177, 1193 (2021) ("Market-based rate regulation is based on the premise that, '[i]n a competitive market, where neither buyer nor seller has significant market power, ... the terms of their voluntary exchange are reasonable, and ... [the] price' they negotiate will be 'close to marginal cost, such that the seller makes only a normal return on its investment.' ... On that understanding, we have held that the Commission can rationally allow markets to set 'just and reasonable' prices as long as the Commission takes the necessary steps to ensure that market participants cannot wield anticompetitive market power."))).

## II. COMMENTS

### A. [I.] Offer Caps

1. PJM proposes to allow sellers to include in their unit-specific offer caps a Capacity Performance Quantifiable Risk (CPQR) value based on models reviewed by independent third-party entities. In its transmittal, PJM states that “all CPQR values, including under this alternative approach, must continue to be reviewed by both the Market Monitor and PJM and accepted by PJM as is currently the case.” The proposed Tariff, Attachment DD section 6.8, however, states that, so long as a seller provides documentation certifying that the CPQR value has undergone independent third party review, such a CPQR value “shall...be considered reasonably supported.” PJM proposes that such reasonable support “shall be sufficient to establish the CQPR.” Similarly, PJM proposes to include an option for a seller to calculate a CPQR value based on a new standard methodology. The proposed tariff states that CPQR “shall be considered reasonably supported” when based on that formula. However, in its transmittal PJM states that, under that option, sell offers from capacity market sellers that are deemed to have market power would “still be reviewed by the Market Monitor and approved by PJM.”
  - a. *Please clarify whether, per the proposed Tariff language, PJM and/or the Market Monitor will review a CPQR value that has undergone independent third-party review. If so, provide additional details as to what type of review and how submissions will be evaluated.*
  - b. *Please clarify whether PJM would be able to reject a CPQR value reviewed by an independent third-party entity, should PJM find it is not reasonably supported or consistent with the Tariff.*
  - c. *Please clarify whether the proposed Tariff language provides an opportunity for PJM or the Market Monitor to review a CPQR value calculated under the standard CPQR formula. If so, provide additional details as to what type of review and how submissions will be evaluated.*

- d. PJM's proposed Tariff states that, for the standard CPQR formula, a seller "may substitute their own estimate of Risk Cost with supporting documentation." Please provide additional details as to how PJM would evaluate such an estimate.*
- e. The proposed Tariff modifies the definition of CPQR from costs of "mitigating the risks" of Non-Performance Charges to "mitigating, retaining, or otherwise managing the risks" of Non-Performance Charges. PJM does not discuss this proposed revision in its transmittal letter. Please provide support for this revision.*
- f. PJM states that "[w]hile CPQR is the most direct example of a cost that can be avoided by not taking on a capacity commitment, there are others that could also apply." Please clarify how PJM will determine whether a cost is undertaken specifically for a capacity commitment. Please provide examples of other costs that can be avoided by not taking on a capacity commitment.*

Market Monitor's Response to Questions to I.1.a, I.1.b, I.1.c, I.1.d, I.1.e, I.1.f.

PJM proposes to replace a clear definition of a competitive offer with an undefined and unreviewable assessment of "mitigating, retaining or otherwise managing risk" done by consultants hired by the generation owners.

PJM's response to parts a, b and c of this deficiency question does not address the Commission's questions. "Undergone independent third party review ..." is not defined, is excessively broad and is not enforceable. PJM's proposal would eliminate any effects of Market Monitor review and would eliminate meaningful market power mitigation. If a third party opinion means that a CPQR is reasonably supported then the Market Monitor's review will be ignored and has no potential impact. PJM's approach would replace the Market Monitor's review with review by consultants hired by generators. This is one part of PJM's approach to reducing or eliminating the role of the Market Monitor in the review of capacity market offers. When combined with PJM's separate proposal to expand PJM's own role in the market power review process and diminish the Market Monitor's role, there is no

meaningful Market Monitor role in the review of capacity market offers remaining.<sup>6</sup> In PJM's words (at 6), after all the PJM analysis, "PJM would consider any input provided by the Market Monitor." Again, based on a plain reading as well as the Market Monitor's experience, the requirement to "consider any input" is meaningless and a significant change to the Market Monitor role in reviewing capacity market offers for market power. PJM has not supported its assertions about the nature of its proposal or provided any reasons for the proposal. Contrary to PJM's answer, PJM and the Market Monitor will not retain their existing roles in reviewing and accepting or rejecting a requested CPQR value. PJM fails to admit the meaning of its own proposed tariff language which is that the third party consultant's opinion is all that is needed for PJM to accept a CPQR value. PJM would not have the authority to reject such consultant's calculations if those calculations followed the undefined tariff requirements to be independent and thorough.

Contrary to PJM's answer, the Market Monitor would not have the opportunity for a meaningful review of a CPQR calculated per PJM's "standard" CPQR approach. That standard approach is described only in general terms that do not qualify as a definition that could be implemented. PJM stated during the CIFP process that PJM would develop a model but that model has not been developed and nothing in the proposed tariff language would permit the reader to know exactly what would be in that model. That standard approach is not supported and is not consistent with an insurance approach for determining a premium.<sup>7</sup>

In response to part d. of the question, PJM's response on the value of Risk Cost indicates that PJM intends to include non capacity market related risks in Risk Cost, if given

---

<sup>6</sup> See Protest of the Independent Market Monitor for PJM, Docket No. ER24-98-000 (November 9, 2023) at 26-29; PJM Filing, Attachment B, proposed revised OATT Attachment DD § 6.4(b), Attachment M-Appendix § II.I.

<sup>7</sup> Protest of the Independent Market Monitor for PJM Docket No. ER24-98-000 (November 9, 2023) at 14.

the opportunity. This is directly counter to the Commission’s most recent statements on this question.<sup>8</sup>

PJM’s response further illustrates that PJM’s approach is unacceptably vague, which PJM defends by stating that it would be “unduly prescriptive” to actually define the term or the nature of the required supporting documentation. Tariffs are prescriptive by their nature. That is the exact point of a tariff. Risk is not a vague, anomalous concept that is not consistent with clear rules. PJM proposes to eliminate the current clear rules and replace them with an undefined and therefore unenforceable approach.

In an ideal, highly competitive market, it would make sense to let competitors add their own cost to mitigate risk to their offers because competition would discipline those costs. If they wanted to sell capacity they would figure out a way to minimize or eliminate those costs. But in the PJM Capacity Market, there is extensive structural market power which means that every element of a competitive offer has to be defined clearly because every element of an offer is a mechanism to exercise market power.<sup>9 10</sup> PJM fails to recognize or accept these basic facts about the capacity market, preferring to pretend that the market

---

<sup>8</sup> See *IMM v. PJM*, 176 FERC ¶ 61,137 at P 72 (2021) (“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,’” citing *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157 at P 203 (2016)), *order on reh’g*, 178 FERC ¶ 61,121 (2022), *appeal denied*, *Vistra Corp. v. FERC*, Case No. 23-1214 (D.C. Cir. October 10, 2023). As the Commission explained on brief to the U.S. Court of Appeals for the District of Columbia, “Energy market risks have never been incorporated into the PJM tariff’s unit-specific offer cap formula tariff since the time PJM’s capacity auction rules were first approved in 2006. And the Commission made no changes to this formula in the orders on review. .... The exclusion of energy market risks from the capacity market offer cap formula was appropriate in 2006 and it remains appropriate today.” Brief of Respondent FERC, Case no. 23-1214 (April 19, 2022) at 46.

<sup>9</sup> See 2022 Annual State of the Market Report for PJM: Vol. 2, Section 5: Capacity Market, (March 9, 2023).

<sup>10</sup> “Analysis of the 2024/2025 RPM Base Residual Auction,” (October 30, 2023) <[https://www.monitoringanalytics.com/reports/Reports/2023/IMM\\_Analysis\\_of\\_the\\_20242025\\_RPM\\_Base\\_Residual\\_Auction\\_20231030.pdf](https://www.monitoringanalytics.com/reports/Reports/2023/IMM_Analysis_of_the_20242025_RPM_Base_Residual_Auction_20231030.pdf)>

structure is competitive. The market structure is not competitive but market results can be competitive if there are clear and enforceable rules that accurately define a competitive offer. PJM proposes to ignore the need for meaningful market power mitigation.

In response to part e. of the question, PJM's fails to provide a meaningful response to why PJM modified the definition of CPQR from the cost of "mitigating risk" to the cost of "mitigating, retaining or otherwise managing" the risks of non performance charges. PJM (at 13) asserts, without support, that this much broader language "does not substantively change the definition of CPQR." If that were true there would be no reason to change the language. PJM fails to provide a single example of why this broader language is required. PJM fails to provide a single example of how PJM would interpret this broader language in a different way than the current language. PJM's proposed language is broad and effectively uninterpretable and therefore unenforceable. Rather than adding clarity, it adds confusion and would permit the exercise of market power through inflated estimates of CPQR based on this broad language. This is the case both logically and based on the Market Monitor's experience in reviewing proposed approaches to CPQR.

In response to part f. of the question, PJM further reveals its intention to eliminate market seller offer caps. PJM proposes to dramatically change the definition of avoidable costs and offsetting net revenues. PJM states that CPQR plus undefined "other" costs could also be avoidable and thus be added to the capacity market offer with no net revenue offset.<sup>11</sup> In the response to the deficiency letter question (at 14-15), PJM lists additional examples of costs including labor expenses, avoidable fuel availability expenses ("AFAE"), and avoidable project investment recovery ("APIR"). This list includes examples only and is not exhaustive. While PJM states (at 14) that staffing costs captured in the avoidable operations and maintenance labor component of the ACR would be an example of other costs that could be

---

<sup>11</sup> PJM Filing at 22-23.



avoided if not taking on a capacity commitment, the redline in OATT Attachment DD § 6.8(b) states that “labor, maintenance, and other operating expenses are not avoidable.”<sup>12</sup> But PJM fails to note the critical point that these are avoidable costs in the current tariff that are offset by the net revenues from the energy and ancillary services markets. PJM is effectively proposing to include most (PJM makes vague and contradictory statements about includable costs) existing avoidable costs, and possible new costs, but to eliminate the net revenue offset. This destroys the key link between the energy market and the capacity market that is a fundamental part of the PJM capacity market design, sometimes referred to as the missing money concept. In PJM’s view, all avoidable costs are missing money. If implemented, this would have a dramatic impact on capacity market offers and prices.<sup>13</sup> PJM failed to provide any sensitivity analyses on the elimination of the net revenue offset other than the conservatively low estimate of \$600 million in higher capacity market revenues that resulted from adding CPQR of \$15 per MW-day to offers.<sup>14</sup> Given that CPQR could be \$100 per MW-day or more the impact on capacity market revenues of CPQR alone could be extremely large. Complete elimination of the net revenue offset, as proposed by PJM for resources that continue to operate, would increase MSOCs by varying amounts depending on technology and would change the profile of the supply curve and expected marginal units. The increase could be in the range of \$500 per MW-day for resources with high net revenues and high avoidable costs, depending on the final definition of includable costs. In response to the deficiency letter, PJM states (at 14-15) that incremental costs that would be avoided by not taking on a capacity commitment could include CPQR, APIR, AFAE, and labor expenses.

---

<sup>12</sup> PJM Filing, Attachment A (Redlines), OATT Attachment DD § 6.8(b).

<sup>13</sup> PJM’s cites to ISO-NE fail to recognize the fact that PJM’s approach is a dramatic departure from the principles of the PJM capacity market but also the ISO-NE capacity market and every other capacity market in organized US wholesale power markets.

<sup>14</sup> See “Simulation Analysis of PJM CIFP-RA Proposals,” PJM (August 14, 2023) <<https://pjm.com/media/committees-groups/cifp-ra/2023/20230814/20230814-item-05d---2023-08-14-market-simulation-analysis.ashx>> at 9-10.

Under the PJM proposal, an MSOC could be defined as CPQR plus APIR plus AFAE plus labor expenses plus other claimed incremental costs minus zero net revenues. This could result in MSOCs that exceed the Net CONE times B approach that the Commission rejected.

- 2. PJM states that, for resources for which the Tariff does not contain a default Net CONE value, it is appropriate to “allow the Capacity Market Sellers of such resource to offer the resource into the RPM Auction while allowing the Net CONE of the Reference Resource” to “provide a reasonable estimate for the costs of new entry for this limited group of resources.” Please provide an explanation as to why Net CONE for a combined cycle resource would be a reasonable estimate for the costs of these resources.**

Market Monitor’s Response to Question I.2.

PJM’s response to the question is again a non response. It does not make sense to use the Net CONE of a gas fired combined cycle unit to represent the Net CONE of resources for which there is no default value. PJM provides no support for the assertion that the Net CONE for all resource types is higher than the Net CONE for a combined cycle. PJM also ignores locational issues which have a significant impact on the cost of entry for combined cycles and other resource types. PJM refers to the quadrennial review as somehow proving that all other Net CONE values are greater than the combined cycle Net CONE. That is not consistent with what the Market Monitor and presumably PJM learned in the review of intermittent capacity costs in the MOPR review process. A unit specific review should be applied in cases where PJM has not calculated a default value. This would be consistent with the approach used for MSOCs for existing resources. No one knows what new technologies or hybrid combinations of new technologies may emerge as new entrants in the PJM markets. Those technologies should be evaluated on their specific characteristics. If such entry is expected to be significant, new default values should be calculated. PJM has provided no support for the assumption that a competitive offer for a new resource or for adding capacity to an additional resource is Net CONE, regardless of the technology.

## B. [II.] Capacity Performance

3. **PJM proposes that “only committed Generation Capacity Resources that outperform their expected performance during a Performance Assessment Interval, up to their committed level of installed capacity, are eligible to receive Performance Payments.” Similarly, the proposed Tariff states that “Actual Performance shall not exceed the installed capacity commitment for the resource.” PJM does not provide proposed definitions for these terms nor are these terms defined in the existing Tariff. However, section 1.2 of Manual 21 defines Installed Capacity as “the summer net capability of a generating unit as determined in accordance with PJM manual M-21, Rules and Procedures for Determination of Generation Capability and within the capacity interconnection right limits of the bus to which it is connected.”**

- a. Please clarify the meaning of the terms “installed capacity” and “installed capacity commitment” with respect to Tariff, Attachment DD, section 10A, including whether one or both is meant to refer to Installed Capacity as defined in Manual 21 or a different value.*
- b. PJM proposes to revise Tariff, Attachment DD section 10A(c) to state that PJM will determine a resource’s Performance Shortfall “as further detailed in the PJM Manuals.” PJM does not discuss this proposal in its transmittal letter. Please support this modification.*

Market Monitor’s Response to Question II.3.a and II.3.b.

PJM has not defined the terms installed capacity and committed level of installed capacity in the tariff as they would be applied in PJM’s ELCC approach.

PJM further confuses the obligation of resources to respond during a PAI and in particular PJM fails to clarify the obligations of thermal and intermittent resources with an ELCC value of less than 100 percent. Such resources are required to have CIRs equal to the resource’s maximum facility output, where that is limited to summer rated output for thermal resources. That maximum facility output is part of the ELCC calculations for intermittents. For example, a 100 MW solar resource derated to 20 MW has a maximum facility output of 100 MW and is required to obtain CIRs equal to 100 MW. This resource has a corresponding obligation to provide 100 MW whenever it can. This is further evidence of

PJM's fundamental confusion about accrediting resources. PJM asserts that this solar resource has an obligation to produce 20 MW when the sun is shining and its maximum possible output is 100 MW and to produce 20 MW at 2:00 in the morning when its maximum possible output is zero. Neither assertion makes sense and neither assertion is consistent with the assumed performance on which the ELCC derate is based.

Having just been through Winter Storm Elliott and the associated confusion about the actual meaning of PAI performance requirements, it is not consistent with Commission standards that PJM put all the key elements of those definitions in PJM Manuals that are subject to change by PJM with effectively no notice.<sup>15 16</sup>

PJM (at 21) asserts, also surprisingly in light of Elliott, that these definitions are not a "significant" element of rates and therefore do not need to be in the tariff. The Commission's rule of reason provides otherwise. The rule of reason "dictates that any rules that significantly affect rates, terms, and conditions of service and are readily susceptible to specification be on file with the Commission."<sup>17</sup> The terms at issue establish sellers' obligations to respond. The terms define the quantity and quality of the capacity that PJM procures. The definitions directly impact market clearing. If these terms are not significant terms affecting price, none are.

---

<sup>15</sup> See, e.g., OA Schedule 1 §§ 1.6.4, 1.7.14.

<sup>16</sup> For example, at the May 10, 2023, meeting of the Operating Committee, PJM announced its unilateral decision to extend the ORDC to increase reserve requirements. The next day, PJM posted a market notice to all PJM members explaining that the ORDC changes would be effective beginning at midnight for the operating day May 12, 2023. See PJM, "[Notification] Notice to PJM Members Regarding Increase in Reserves Requirement MW," email from *pjm@lists.pjm.com* (May 11, 2023). On May 18, 2023, PJM unilaterally revised Manual 11, Section 4.3, to create a basis in the market rules for PJM to extend the ORDC. PJM's prior effort to provide a basis in the market rules to extend the ORDC by revising the tariff had been rejected by the Commission. See *PJM Interconnection, L.L.C.*, 177 FERC ¶ 61,209 at P 2 (2021), *reh'g denied*, 180 FERC ¶ 61,051 (2022), *appeal pending*.

<sup>17</sup> *PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,084 at P 66 (2021).

4. **In its transmittal letter, PJM states that an offline unit will be included in the performance shortfall calculation unless the unit makes a request to PJM Dispatch to come online and “PJM dispatch affirmatively denies that unit’s request to come online.” PJM explains that only resources PJM “affirmatively directs not to come online due to system constraints or other operational reasons should be excused from Non-Performance Charges.”**
  - a. *PJM’s proposed Tariff revisions, however, do not contain the italicized qualification. Rather, PJM’s proposed Tariff revisions state “a Capacity Resource that is offline during a Performance Assessment Interval shall be included in the calculation of a Performance Shortfall unless the Office of the Interconnection affirmatively denies a request to come online for such resource.” Please clarify whether PJM is proposing that offline resources will be excused from Non-Performance Charges if PJM denies their request to come online for any reason, or only for system constraints or other operational reasons.*

Market Monitor’s Response to Question II.4.a

PJM responded (at 22), that resources will only be denied a request to come online for system constraints or other operational reasons. PJM explicitly stated that there would be no other reason for denying a request to come online. As highlighted by the Commission, the proposed tariff revisions do not contain defined terms. As a result, it remains unclear what constitutes a valid reason to deny a request to come online. This means that resources will not know under which situations they will be excused from PAI penalties. This also puts undue pressure on PJM dispatchers to make these decisions when it is the obligation of capacity resources to be available when needed and to produce power during PAIs. PJM does not define a process, does not assign responsibilities or a review standard to determine if the denial meets the PJM’s unknown requirements. PJM has not addressed one of the basic issues with its approach to PAIs which is the lack of clear definitions, the lack of clear requirements, the lack of clear expectations and the resultant confusion that led to multiple complaints after

Elliott and eventually to PJM agreeing to a settlement rather than actually enforcing the tariff.<sup>18</sup>

- b. PJM does not describe how a seller should make the request to come online. Please clarify when a seller would be required to submit the request to come online in order to be excused from Non-Performance Charges.*

Market Monitor's Response to Question II.4.b.

PJM responded (at 23) that PJM is not proposing any changes to the current process for resource operators to self schedule or self commit. PJM stated that under the current process, resources must obtain approval from PJM at least 20 minutes prior to synchronization. PJM failed to respond to the substance of the question. The Commission asked PJM to clarify "when a seller would be required to submit the request to come online." PJM's answer is based on the synchronization time. The time between beginning the start sequence and synchronization can be many hours for some units. Therefore, the tariff does not define exactly when a resource will be required to notify PJM. For example, the request could be one hour, four hours or 24 hours prior to the start of a PAI. Different resources have very different times to start and specific resources may have very different times to start based, for example, on pipeline nomination schedules.

There is a potential for gaming this rule by requesting to come on line at a time of low load but when a PAI is a possibility later in the day. A denial by PJM at that time does not mean that the resource will not be needed later or that such denial should constitute an excuse for not performing later in the day or that it should require a PJM direction, unlike all other capacity resources.

---

<sup>18</sup> See *supra* footnote 16.

There is also lack of clarity for well intentioned generators and for PJM dispatchers. These issues are critical and consequential as illustrated by the complaints related to Winter Storm Elliott.<sup>19</sup>

- c. Please clarify whether a seller who requests to self-schedule before the start of a Penalty Assessment Interval (PAI), and is denied, would need to request to self-schedule again in order to be excused from Non-Performance Charges. For example, a resource requests to self-schedule for a four-hour period (in either the day-ahead or real-time markets) during which it expects multiple PAIs to occur. PJM subsequently declines their request to self-schedule. In what would have been the third hour of their self-schedule period, PJM's system experiences several PAIs. Is this resource excused from the related Non-Performance Charges?*

Market Monitor's Response to Question II.4.c.

PJM (at 24) both states that the excuse would last until the end of the operating day and that it lasts until PJM requests it to come on line or accepts the request to come on line. The excuse is from the affirmative obligation that applies to all capacity resources to provide energy during PAI. PJM states (at 24) that resources will not have to request to come online every interval to remain excused. But PJM does not propose a reasonable interval, e.g. 60 minutes, instead proposing that the excuse lasts until the end of the operating day. A simple offer to come on line should not serve as an unlimited excuse from the obligation of all

---

<sup>19</sup> See *Essential Power OPP, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-53-000; *Aurora Generation, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-54-000; *Coalition of PJM Capacity Resources v. PJM Interconnection, L.L.C.*, Docket No. EL23-55-000; *Talen Energy Marketing, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-56-000; *Lee County Generating Station, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-57-000; *SunEnergy1, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-58-000; *Lincoln Generating Facility, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-59-000; *Parkway Generating Keys Energy Center LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-60-000; *Old Dominion Electric Cooperative v. PJM Interconnection, L.L.C.*, Docket No. EL23-61-000; *Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-63-000; *Calpine Corporation v. PJM Interconnection, L.L.C.*, Docket No. EL23-66-000; *Invenergy Nelson LLC v. PJM Interconnection, L.L.C.*, Docket No. EL23-67-000; *East Kentucky Power Cooperative, Inc. v. PJM Interconnection, L.L.C.*, Docket No. EL23-74-000; *CPV Maryland, LLC, and Competitive Power Venture Holdings, LP v. PJM Interconnection, L.L.C.*, Docket No. EL23-75-000; *Parkway Generation Operating LLC et al. v. PJM Interconnection, L.L.C.*, Docket No. EL23-77-000 (Not Consolidated).

capacity resources to perform, based on PJM's view of the incentive effects of the PAI construct. This excuse removes those incentives. This excuse inappropriately shifts responsibility from resource owners who are being paid to take the responsibility to PJM dispatchers. It is not hard to imagine that this blanket excuse will be used by a significant number of resources concerned about paying penalties after the experience of Winter Storm Elliott. PJM's proposal creates a strong incentive to do so.

PJM's response again highlights persistent issues with PJM's approach to PAI. The excuses have significant subjective elements that are impossible to enforce fairly and the failure to clearly document the rules in the tariff.

5. **PJM's existing Tariff states that, for the 2024/2025 delivery year, a resource shall be considered in the calculation of a Performance Shortfall for a Performance Assessment Interval if the resource is otherwise needed and would have been scheduled, but was not, due solely to "the seller's submission of a market-based offer higher than its cost-based." PJM proposes to revise Tariff, Attachment DD section 10A(d-1) to eliminate this requirement. While PJM states that it does not consider the cost-based offer when dispatching a resource if the seller does not have market power, the existing Tariff language was not limited to sellers with market power. Please provide additional information regarding why PJM is proposing to eliminate the requirement that a Performance Shortfall for a Performance Assessment Interval applies if "the seller's submission of a market-based offer higher than its cost-based."**

Market Monitor's Response to Question II.5.

PJM proposes to reverse its own prior position that reflected an understanding of market dynamics and aggregate market power in emergencies.<sup>20</sup> PJM's proposal (at 25-26) to

---

<sup>20</sup> PJM correctly explained, when it proposed its CP revisions: "Some scheduling decisions, however, can be clearly traced back to the seller's actions, and scheduling will not be an excuse in those circumstances. Thus, not scheduling a resource, or dispatching it down, due to parameter limitations specified by the seller in its energy market offer are attributable to choices made by the seller, rather than actions dictated by PJM. ... The same principle is even more clearly at work when the seller submits a market-based offer higher than its cost-based offer. In such a case, the seller is conceding that it could perform at the lower, cost-based price. If PJM honors the higher, market-based price



change the tariff to permit resources with markups over cost-based offers to avoid being dispatched during a PAI and to be excused from PAI penalties is not supported and is inconsistent with competitive market outcomes. PJM confuses locational market power with aggregate market power. In addition, PJM misunderstands the way in which the TPS test for locational market power is currently applied under the tariff.

PJM's response ignores the reality of aggregate market power in emergency PAI conditions and attempts to define market power as solely locational market power. Market power can and does also exist in the aggregate market. Under PAI conditions, when all resources are needed, all resources have market power in the aggregate market. All resources are needed and the submission of high offers can be a way to avoid being dispatched and subject to the obligations of a capacity resource, a way to avoid penalties for nonperformance, and a way to exercise market power and to increase market prices. None of these should be acceptable. PJM's tariff includes a definition of a cost based offer. A requirement to offer at that level is simply a requirement to behave competitively. That is even more essential when the PJM system is in an emergency and a PAI is called.

PJM simply assumes that the aggregate energy market is competitive in a PAI. There is no basis for this assumption.

The fact that a resource is not dispatched by PJM during a PAI emergency because its price based offer exceeds its cost based offer is itself evidence of market power. The output of the resource is needed but the resource fails to provide the output by adding a markup to its competitive offer.

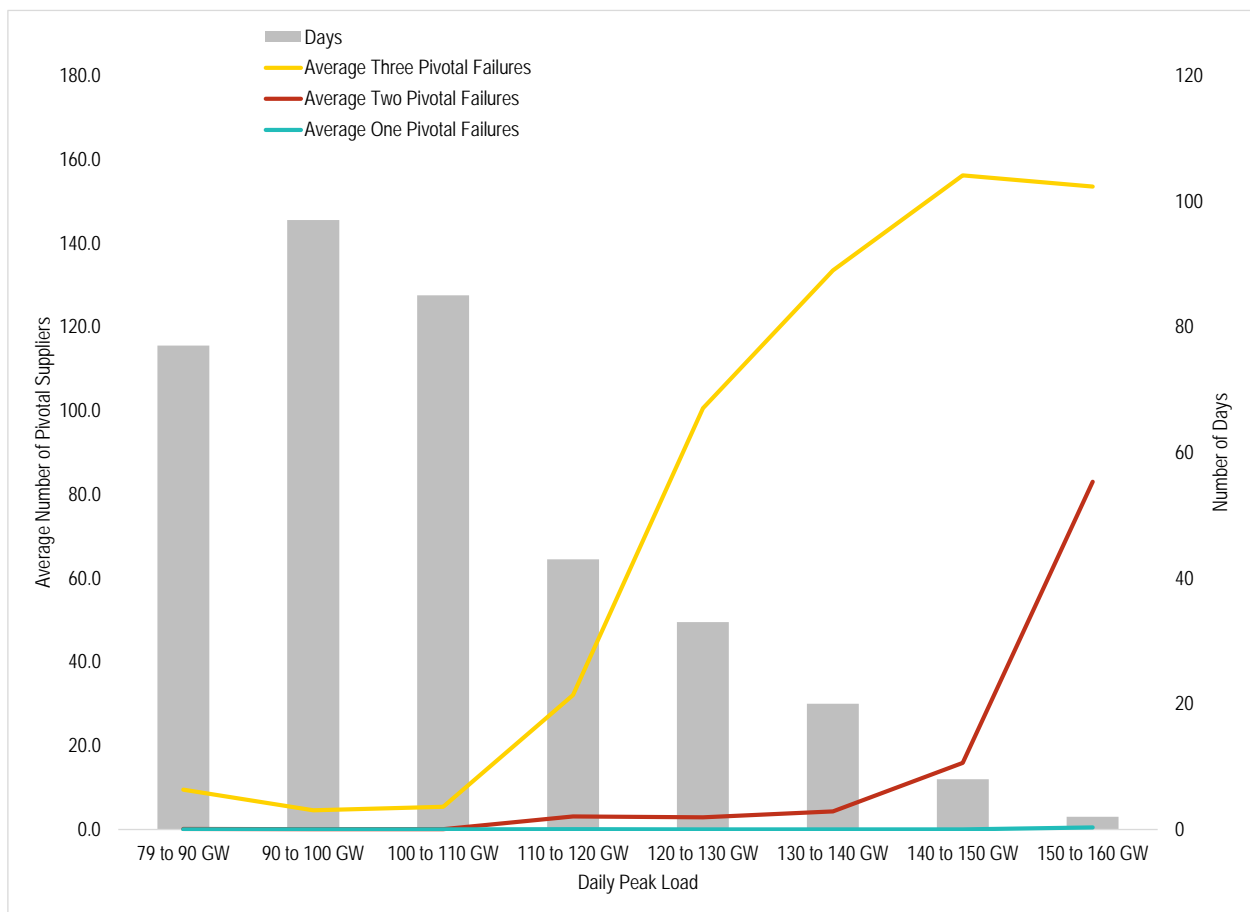
The Market Monitor's analysis of the competitiveness of the aggregate energy market shows that pivotal suppliers exist on high load days, meaning that there is structural market

---

offer when determining whether to schedule the resource, that is simply acceding to an economic decision controlled by the seller. In those circumstances, the seller's economic decision should not entitle it to an excuse for non-performance." See PJM CP Filing, Docket No. ER15-623-000 at 46 (December 12, 2014).

power on high load days. The definition of high load days includes PAI days but also other high load days. Figure 1 shows the daily average number of pivotal suppliers in the PJM Day-Ahead Energy Market by load level, including the average numbers of singly pivotal, two pivotal, and three pivotal suppliers.<sup>21</sup> On the 10 days with load over 140 GW in the 12 months ending September 2023, there were an average of 155.6 companies that were one of three pivotal suppliers. This includes all large and medium sized suppliers in the PJM energy market.

**Figure 1 Day-ahead market pivotal suppliers by load level: October 2022 through September 2023**



<sup>21</sup> For more information on the day-ahead pivotal supplier analysis, see Monitoring Analytics, LLC, 2023 Quarterly State of the Market Report for PJM: January through September, Section 3: Energy Market at p. 239-241.

In addition, PJM misunderstands the way in which the TPS test for locational market power is currently applied under the tariff.

PJM starts by saying that “it would be inappropriate to penalize a Capacity Market Seller when it does not have market power.” Then PJM argues that because only resources that have been determined to have market power by the locational TPS test are mitigated to their cost-based offer, no resources scheduled on market based offers should be penalized. PJM states (at 26) that “a resource of a Market Seller that is not considered to have market power and is committed and dispatched on its market-based offer should not be assessed a Non-Performance Charge if it did not operate at MW levels associated with its cost-based offer.” PJM is incorrect when they state that all resources with locational market power who fail the TPS test are mitigated to their cost-based offers. A significant number of resources that fail the TPS test are on market based offers.

The resources scheduled on their market-based offers include those that failed the TPS test and those that did not. This is a result of the way that PJM applies the TPS test for locational market power. The PJM Market Rules dictate multiple tests to determine if resources must use cost-based offers in the energy market. First, the resource owner must fail the TPS test.<sup>22</sup> Second, the cost-based offer must be determined to be the lower cost offer by PJM.<sup>23</sup> As a result, there are resources that fail the TPS test that are on market based offers. PJM’s statement incorrectly implies that they are only excusing those that passed the TPS test for locational market power. In fact, PJM’s proposal would excuse a significant number of resources that failed the TPS. By removing the penalty for resources with a markup in the

---

<sup>22</sup> PJM Operating Agreement, Schedule 1, Section 6.4.1(e).

<sup>23</sup> PJM Operating Agreement, Schedule 1, Section 6.4.1(a).

market-based offer, PJM proposes to excuse all resources scheduled on market-based offers, not only the ones that passed the TPS test.<sup>24</sup>

Table 1 shows that 25.2 percent of day-ahead and 22.8 percent of real-time marginal units that failed the TPS test are marginal with positive markup. This means that 11.8 percent of day-ahead and 12.5 percent of real-time marginal units scheduled on their market-based offer with a positive markup have market power as determined by the TPS test for locational market power.<sup>25</sup>

**Table 1 Percent of marginal unit intervals with markup and local market power: January through September, 2023**

Markup Category	Day-ahead Market			Real-time Market		
	Not Failing TPS Test	Failing TPS Test	Percent in Category	Not Failing TPS Test	Failing TPS Test	Percent in Category
Negative Markup	29.6%	6.4%	36.0%	39.1%	7.3%	46.4%
Zero Markup	17.0%	7.4%	24.4%	13.3%	6.8%	20.1%
\$0 to \$5	16.6%	1.8%	18.4%	22.0%	2.7%	24.8%
\$5 to \$10	9.3%	1.2%	10.4%	3.9%	0.5%	4.4%
\$10 to \$15	3.3%	0.9%	4.3%	1.4%	0.4%	1.9%
\$15 to \$20	1.9%	0.4%	2.4%	0.6%	0.1%	0.7%
\$20 to \$25	1.0%	0.3%	1.2%	0.4%	0.1%	0.5%
\$25 to \$50	1.6%	0.1%	1.7%	0.6%	0.2%	0.8%
\$50 to \$75	0.8%	0.0%	0.8%	0.2%	0.0%	0.2%
\$75 to \$100	0.2%	0.0%	0.2%	0.1%	0.0%	0.1%
Above \$100	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
Total Positive Markup	34.7%	4.7%	39.4%	29.3%	4.2%	33.5%
Total	81.3%	18.5%	99.8%	81.7%	18.3%	100.0%

<sup>24</sup> PJM Filing at 36; Proposed Tariff, Attach. DD, section 10A - Charges for Non-Performance and Credits for Performance (13.0.0), section 10A(d-1).

<sup>25</sup> The percent values are calculated using the results in the table: 25.2 percent =  $(4.7 \div 18.5)$ ; 22.8 percent =  $(4.2 \div 18.3)$ ; 11.8 percent =  $(4.7 \div 39.4)$ ; and 12.5 percent =  $(4.2 \div 33.5)$ .

6. **In its transmittal letter, PJM states that it proposes “to cap the actual performance for Demand Resources, Price Responsive Demand, and Energy Efficiency Resources to the installed capacity commitment for such resources.” PJM further explains that this change would “effectively preclude Demand Resources, Price Responsive Demand, and Energy Efficiency Resources from being eligible to receive Performance Payments, regardless of whether such resources have a capacity commitment.” Please explain how such changes would “effectively preclude” such resources “from being eligible to receive Performance Payments.” Please also explain whether such changes would also “effectively preclude” such resources from being assessed Non-Performance Charges.**

Market Monitor’s Response to Question II.6.

While Demand Resources that do not provide metered and locational incremental relief when called upon should not be eligible for Bonus Payments, it would be appropriate to include metered and locational incremental relief from Demand Resources in Bonus Payment eligibility. While Demand Resources that do not provide metered and locational incremental relief when called upon should not be eligible for Bonus Payments, it would be appropriate to include metered and locational incremental relief from Demand Resources in Bonus Payment eligibility and Penalty eligibility.

### **C. [III.] Other Issues**

7. **According to the Commission’s regulations, 18 C.F.R. part 35(b), filings to modify rates must include (1) a brief description of the rate change and (2) a statement of the reasons for the rate change. PJM states it proposes a number of clerical and ministerial changes in this filing to account for capacity rules that are no longer applicable or filings with overlapping eTariff records. PJM, however, does not identify which of the proposed changes are being made for this purpose. Please identify which changes are meant to be clerical, ministerial, or non-substantive and the specific reason for each change.**

No additional comment.

8. PJM states that, with respect to the energy and ancillary services offset, it “proposes the same approach for determining the net EAS for the Market Seller Offer Cap and the MOPR (with minor updates to certain values) as the Commission has twice accepted for [determining] the net EAS used in the VRR Curve.” PJM’s proposed language, however, differs from that directed by the Commission in the cited orders. Specifically, the Commission directed PJM to modify the Tariff, Attachment DD, section 5.14(h-1)(2)(B)(ii) as follows:

*a. [(g)]for nuclear resource type: anticipated refueling schedule an average equivalent availability factor of all PJM nuclear resources to account for refueling outages;*

*Please explain whether PJM is proposing the same approach previously accepted by the Commission, or a different approach. If the latter, please support the proposed language.*

No additional comment.

9. Proposed Tariff Attachment DD section 5.14(h-2)(3)(B)(ii) states, in part:

**(ii) Effective with the 2025/2026 Delivery Year and subsequent Delivery Years, the net energy and ancillary services revenue is equal to forecasted net revenues which shall be determined in accordance with the applicable resource type net energy and ancillary services revenue determination methodology set forth in Tariff, Attachment DD, section 5.14(h-2)(2)(A)(ix) through (xvi)...**

However, 5.14(h-2)(2)(A) pertains to Conditioned State Support. Please clarify whether that reference is correct or if it should reference Tariff, Attachment DD, section 5.14(h-2)(3)(A)(ix) through (xvi).

No additional comment.

10. Proposed Tariff Attachment DD, section 6.4(a) contains a reference to Tariff Attachment DD, section 6.8(d) in the first paragraph. The currently effective Tariff references 6.8(d-1). Please clarify whether PJM intends to change this reference.

No additional comment.

### III. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answers to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in creating a complete record.<sup>26</sup> In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision making process and which provides a more complete record. Accordingly, the Market Monitor respectfully requests that this answer be permitted.

### IV. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to this pleading as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



---

Jeffrey W. Mayes

Joseph E. Bowring  
Independent Market Monitor for PJM  
President  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8051  
*joseph.bowring@monitoringanalytics.com*

General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*

---

<sup>26</sup> See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶61,318 at P 36 (2007) (accepted answer to answer that "provided information that assisted ... decision-making process"); *California Independent System Operator Corporation*, 110 FERC ¶ 61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process); *N.Y. Independent System Operator, Inc.*, 121 FERC ¶61,112 at P 4 (2007) (answer to protest accepted because it provided information that assisted the Commission in its decision-making process).

Alexandra Salaneck  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*alexandra.salaneck@monitoringanalytics.com*

Paul G. Scheidecker  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*paul.scheidecker@monitoringanalytics.com*

John Hyatt  
Senior Economist  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*john.hyatt@monitoringanalytics.com*

Devendra R. Canchi  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*devendra.canchi@monitoringanalytics.com*

Joel Romero Luna  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*joel.luna@monitoringanalytics.com*

Keri Dorko  
Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, PA 19403  
(610) 271-8050  
*Keri.Dorko@monitoringanalytics.com*

Dated: December 22 2023



## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,  
this 22<sup>nd</sup> day of December, 2023.



---

Jeffrey W. Mayes  
General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*