

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

PJM Interconnection, L.L.C.

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Docket No. ER26-455-000

**ANSWER AND MOTION FOR LEAVE TO ANSWER
OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 212 and 213 of the Commission's Rules and Regulations,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor ("Market Monitor") for PJM Interconnection, L.L.C. ("PJM")² submits this answer to the answer submitted by PJM on January 2, 2026, to the Market Monitor's protest in this proceeding filed December 8, 2025 ("Market Monitor Protest").

The Quadrennial Review has frequently been viewed as a technical exercise designed to update the basic parameters of the demand curve (VRR curve) in the PJM Capacity Market. That is not the case this time. PJM markets and especially the capacity market face a crisis illustrated by the \$23 billion in excess payments for capacity over the last three BRAs. PJM's attempts in this case to modify the fundamental parameters of the capacity market in order to further increase prices and in order to weaken the relationship between the energy market and the capacity market should be rejected. PJM is separately attempting to increase prices in the energy and reserve markets in the Reserve Certainty Senior Task Force (RCSTF). If PJM is successful in both efforts, the prices of energy and ancillary services will increase

¹ 18 CFR §§ 385.212 & 385.213 (2025).

² 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").

significantly but those higher revenues will not be appropriately reflected in capacity market prices through Net Revenues.

PJM's answer attempts to support PJM's overstatement of Gross CONE and to support PJM's effort to overstate the maximum price in the capacity market by significantly attenuating the relationship between the energy market and the capacity market at a time when maintaining that relationship is key to the PJM market design. These proposals are especially inappropriate at a time when customers are already overpaying for capacity.

PJM provides some high school economics to help us all understand why really high prices are essential for beef markets and wheat markets and therefore for the PJM Capacity Market. PJM would have us believe that beef and wheat are comparable to power when they are not. Most importantly, the PJM Capacity Market is not a competitive market. PJM fails to distinguish between competitive market prices that reflect the participation of many suppliers, including parts of the world outside the U.S. and the PJM Capacity Market that includes relatively few suppliers and all with market power. PJM fails to distinguish between high prices that reflect market power and PJM's administrative decisions, and a competitive commodity market. The PJM Capacity Market is not a standalone commodity market. The PJM Capacity Market is designed to work in conjunction with the PJM energy market such that revenues from both markets provide the appropriate price signals. Electricity is critical to maintaining every part of the economy. Electricity is a necessity with a correspondingly very low elasticity of demand. PJM ignores the fact that electric power is literally necessary for all parts of modern life. That role as a necessity amplifies the ability to exercise market power and exacerbates the negative consequences of high prices on basics like light and heat. PJM forgets the fact that the Commission created wholesale power markets as a substitute for cost of service regulation in order to have just and reasonable rates. The PJM wholesale power market is not just another textbook market. It is a market with a complex set of rules designed to ensure that customers pay what is needed to ensure that power can be provided at the lowest possible cost but no lower. PJM's proposal should be rejected because it is demonstrably not just and reasonable.

PJM's recitation of simplistic textbook supply and demand basics ignores the shock to the market that has resulted from the addition and forecast addition of 17,071 MW of data center load so far.³ PJM's simple lesson also ignores the fact that the incentive to enter and remain in the PJM Capacity Market already exists. As of December 31, 2025, there were 86,969 MW on an energy basis (55,596 MW on a capacity basis that requested CIRs) in the interconnection queues.⁴ ⁵ PJM ignores the impact of its own role in managing the interconnection queue over the last five years on the uncertainty faced by generators. PJM ignores its own role in unilaterally and arbitrarily reducing the value of gas fired combined cycles, and almost all other generation technologies, and increasing the uncertainty faced by investors in generation based on its approach to ELCC.

The Market Monitor supports efficient markets with prices that reflect the actual costs of providing power. The longstanding maximum price in the PJM Capacity Market reflects both reasonable shortage pricing and market power mitigation in the presence of endemic market power in the capacity market. PJM's approach would incorrectly and arbitrarily increase the maximum price in the capacity market above its efficient and competitive level.

It is total compensation from both energy and capacity markets that is relevant to incentives to invest and maintain generating plants. PJM's approach to the demand curve for capacity, the VRR curve, would weaken that relationship by arbitrarily, and for the first time in the history of the capacity market, not crediting all of the energy revenues when calculating Net CONE and the maximum price.

³ See Monitoring Analytics, LLC, *"Analysis of the 2027/2028 RPM Base Residual Auction – Part A,"* Table 6 (January 5, 2026).

⁴ See PJM. Planning. "Serial Service Request Status," (Accessed on December 31, 2025) <<https://www.pjm.com/planning/service-requests/serial-service-request-status>>.

⁵ See PJM. Planning. "Cycle Service Request Status," (Accessed on December 31, 2025) <<https://www.pjm.com/planning/m/cycle-service-request-status>>.

I. ANSWER

A. PJM Misunderstands Gross CONE

PJM recognizes that PJM and the Market Monitor agree on the most basic measure of Gross CONE, the overnight cost of the required investment. PJM's assertion that the Market Monitor's approach was not subject to review because the Market Monitor's "model" was not public is, at best, a red herring. The Market Monitor presented its cost build up in line item detail in multiple presentations that compared PJM line item detail for comparison. The Market Monitor total overnight costs and PJM total overnight costs are not the issue.

To translate the overnight cost into the relevant Gross CONE and ultimately Net CONE, the construction period, payment schedule and basic financial terms including taxes must all be defined. PJM is wrong on each of these items.

1. Construction Period

The Market Monitor's longer construction period increases the Gross CONE compared to PJM's construction period. The Market Monitor's longer construction period reflects the widely understood facts about how long it takes from ordering a combustion turbine to commercial operation. The Market Monitor's schedule was revised from 37 months to 65 months to reflect the time currently required for development and the 24 months additional delivery time of the CT that has been identified by GE, the original equipment manufacturer (OEM) of the CT Gross CONE resource. PJM's complaint that this increase was done late in the process is irrelevant to whether the proposal is just and reasonable, and it belies many of PJM's other assertions about the importance of current and timely information. The longer schedule reflects the best current information. PJM nowhere notes that the longer construction period increases rather than decreases the final Gross CONE value.

2. Draw Down Schedule

The Market Monitor's draw down schedule reduces the Gross CONE compared to PJM's draw down schedule. The draw down schedule is the schedule of actual payments by

the developer of the power plant over the period from the beginning of project development through ordering the turbine to commercial operation. The Market Monitor's draw down schedule is based on what GE actually requires. PJM nowhere directly addresses this fact nor attempts to refute it. PJM's consultants assume that the developer pays costs before they need to pay them. This assumption has no foundation in GE's requirements. The fact that GE would be willing to accept accelerated payment is not a surprise. The fact that a seller is willing to accept better terms is not a surprise. PJM nowhere asserts that the draw down schedule is based on what GE actually requires. The result of PJM's assumption that the developer will pay before they are required to pay results in requiring PJM customers to pay more. PJM's assumption is unsupported and without reasonable foundation.

The Market Monitor's draw down schedule extends over the 65 month period from starting development through ordering a turbine to commercial operation. This accounts for obtaining an EPC Limited Notice to Proceed ("LNTP") in month 12 (Energy, Procurement and Construction contractor) and a release of the step-up transformer purchase in month 12 due to the long delivery of the transformer. The release of the combustion turbine purchase is also required in month 12 also due to the CT month 48 delivery, and the balance of plant equipment procurement from months 12 through 46. Site construction mobilization occurs in month 47 of the overall schedule and CT delivery to the construction site is in month 59 with commercial operation 6 months later in month 65.

PJM's unsupported assumptions about the draw down schedule would increase Gross CONE by approximately \$67/MW-day in ICAP. If the capacity market clears at the maximum price, this assumption alone would increase customer payments by \$2.6B.

3. Taxes (Bonus Depreciation)

The Market Monitor's inclusion of only required federal income tax payments reduces the Gross CONE compared to PJM's. PJM's consultants simply assume irrational behavior, that the developer of the power plant will overpay its federal income taxes and then charge that overpayment to customers based on PJM's corresponding miscalculation of the

administrative maximum price. PJM's rationale is that the developer is too small to take advantage of the 100 percent bonus depreciation rules created by the OBBBA. This assumption that a developer would fail to take advantage of this significant amount of tax payments ignores the realities of competitive markets and ignores the facts about how to monetize such tax benefits. PJM and Brattle simply assume that investors will not make efficient and profit maximizing use of the available tax benefits. That assumption would increase Gross CONE for the EMAAC CT by \$35/MW-Day ICAP. If the capacity market clears at the maximum price, this assumption alone would increase customer payments by \$1.4B

B. PJM's Proposed VRR Curve Undercuts the Capacity Market Design

In every VRR curve review process (Triennial and Quadrennial Reviews) PJM proposes changes to the basic rules about the VRR curve, the demand curve for capacity in the capacity market, in an effort to micromanage the results in whatever direction PJM deems appropriate at the time. The better approach would be to correctly define the principles to serve as the basis for the VRR curve and stick to them.

The initial VRR curve, introduced in 2007, had a maximum price equal to 1.5 times the Net Cost of New Entry (Net CONE), determined annually based on Gross CONE, net of the three year average energy and ancillary service revenues. That VRR curve was structured to yield auction clearing prices equal to the 1.5 times Net CONE when the amount of capacity cleared was less than 99 percent of the target reserve margin, and below 1.5 times Net CONE when the amount of capacity cleared was greater than 99 percent of the target reserve margin. The use of Net CONE was based on the logic of the capacity market, to ensure that the cost of entry was covered when accounting for revenue from both the energy and capacity markets. The net EAS was the equilibrating factor between the capacity market and energy market.

PJM had it right in 2007 and should return to the VRR curve basics.

The current Quadrennial Review process is no exception to the PJM's ongoing efforts to modify market outcomes through arbitrary changes to the definition of the VRR curve.

PJM's most critical proposed change to the VRR curve is to change the definition of the maximum price. The result is both to increase the maximum price above 1.5 times Net CONE and to undercut the role of EAS revenues as an equilibrating factor between the energy market and the capacity market.

The Market Monitor's proposed maximum price (Point A) is 1.5 times Net CONE, not to exceed Gross CONE.

PJM's proposed VRR curve substantially weakens the equilibrating impact of the EAS offset. This significantly weakens the way in which the energy market and the capacity market work together to help ensure that the total level of prices in PJM is competitive and therefore just and reasonable. The EAS offset (the energy and ancillary services offset) is the Net Revenue from the energy and ancillary services markets in PJM. The Market Monitor uses the terms EAS Offset and Net Revenue interchangeably in this filing.

PJM's proposed maximum price (Point A) is equal to the greater of 0.2 times Gross CONE, or 1.15 times Gross CONE minus 0.75 times the EAS Offset. PJM fundamentally changes the definition of Net CONE by increasing Gross CONE by 15 percent and subtracting only 75 percent of the EAS revenues rather than 100 percent. The result is to increase Net CONE. The result of PJM's proposal is to overstate the maximum price on the VRR curve under all circumstances. (*See Market Monitor Protest Figure 1.*)

PJM's proposal cannot result in a zero maximum price, regardless of the level of Net CONE. A zero maximum price is appropriate when Net Revenue is greater than or equal to Gross CONE. In that case, there is no missing money to be recovered in the capacity market. PJM's maximum price would be positive even when Net Revenue is greater than Gross CONE and when Net CONE is significantly negative. PJM's maximum price calculated as $(1.15 * \text{Gross CONE} - 0.75 * \text{EAS})$ would be positive until Net Revenues were not only enough to fully cover Gross CONE but were equal to more than 1.5 times Gross CONE. However, PJM's floor price of 0.2 times Gross CONE would prevent the maximum price from ever becoming zero. PJM's floor price of 0.2 times Gross CONE would become effective when Net Revenue is approximately 1.25 times higher than Gross CONE.

This illustrates how PJM's proposal undercuts the equilibrating role of Net Revenues. This illustrates how PJM's proposal undercuts the interaction between the energy market and the capacity market. Under PJM's proposal, even if Net Revenues get very high the maximum price remains significantly positive. Under PJM's proposal the maximum price would remain significantly positive even when Net Revenues equal or exceed Gross CONE and Net CONE is zero.

PJM incorrectly refers to this as accounting for uncertainty in Net Revenue and therefore Net CONE. That is not what PJM's proposal does. PJM's proposal assumes that Gross CONE is correct and that Net Revenues are significantly overstated compared to PJM's own calculations of what is expected to actually occur. That is not how to account for uncertainty. Uncertainty means that Net Revenues could be higher or lower. PJM's estimated Net Revenues are supposed to be the expected value and therefore correctly already account for uncertainty. That is how PJM has calculated Net Revenues for all prior Triennial and Quadrennial Reviews and applied the results of those calculations in defining the maximum price. If PJM believes that it needs to improve its calculation of Net Revenues, it should propose such improvement rather than simply assuming that PJM has overstated Net Revenues.

The result of PJM's maximum price calculation is to explicitly overstate the maximum price in the capacity market. That is especially inappropriate under current capacity market conditions when the maximum price will set the clearing price until the data center load issues are correctly addressed.

PJM's maximum price calculation is not just and reasonable for all these reasons.

Despite PJM's assertions about the need to account for uncertainty and to equilibrate at a price of Net CONE, PJM ignores the fact that the maximum price was set equal by PJM to 1.5 times Net CONE when the capacity market was implemented in order to account for uncertainty and to allow but not guarantee that prices would equilibrate around actual experienced Net CONE based on actual market results.

In addition to incorrectly calculating the maximum price, PJM arbitrarily shifts Point C on the VRR curve to the right. (See Figure 1 in the Market Monitor's Protest.) Point C is where the VRR curve meets the X axis. PJM proposes to increase Point C (shift to the right) from 104.5 percent to 106 percent of the reliability requirement which would require customers to pay for more capacity when the supply curve intersects the demand curve at less than the price at Point B.

PJM's justification for extending the curve to the right is that extending the curve to the right emulates a feature of the Brattle marginal reliability impact ("MRI") Curve, set forth in the 2025 VRR Curve Study, in which Brattle asserted the reliability benefits of customers paying for capacity above 104.5 percent of the Reliability Requirement. Holding aside the fact that the MRI approach is an unsupported and subjective way to require customers to buy more capacity than needed for reliability, adopting an MRI based curve is out of scope for the Quadrennial Review.

C. PJM's Proposal to Update the Variable Operating and Maintenance Expense Used in the EAS Offset Is Not Just and Reasonable.

PJM's EAS value is higher than the Market Monitor's EAS value. PJM's EAS value reduces Net CONE compared to the Market Monitor's proposal, holding all else constant.

EAS is a key component in the Net CONE calculation, which determines the shape of the VRR curve. The difference between the Market Monitor EAS and the PJM EAS is primarily the amount of major maintenance included in Variable Operations and Maintenance (VOM). For the same dispatch profile, a higher VOM results in lower EAS (and higher Net CONE) than with a lower VOM. Depending on the run profile of a unit, major maintenance can be calculated as a cost per start, or a cost per MWh, or a combination of both. Generally, units that run very few hours will calculate major maintenance as a cost per start. Generally, units with high run hours will calculate major maintenance as a cost per MWh. Both the Market Monitor and Brattle calculate major maintenance for the CT reference resource as a cost per MWh, however the Market Monitor uses a higher major maintenance

value than Brattle does. This affects the EAS calculation since the optimal dispatch dispatches the unit against the unit's VOM.

The Market Monitor calculates major maintenance by iterating dispatch runs until the major maintenance used aligns with the run profile of the reference resource. Brattle does not. Brattle calculates major maintenance by assuming a run profile, determining what major maintenance would be for that run profile, and setting that level of major maintenance as fixed. This method does not account for the circular nature of including major maintenance in the energy offers. If the reference resource's run profile differs significantly from Brattle's initial assumptions, the major maintenance will be too high or too low considering the reference resource's run profile.

II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answers to protests, answers, or requests for rehearing 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.⁶ 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.

⁶ 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).

III. CONCLUSION

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

Respectfully submitted,



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Dated: January 20, 2026

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 20th day of January, 2026.



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