

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

PJM Interconnection, L.L.C.

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Docket No. ER24-99-000

**COMMENTS OF THE ORGANIZATION OF PJM STATES, INC.**

Pursuant to Rule 212 of the Federal Energy Regulatory Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.212, the Organization of PJM States, Inc. (“OPSI”),<sup>1</sup> respectfully submits these comments in response to PJM’s October 13<sup>th</sup> filing describing capacity market reforms to maintain resource adequacy.<sup>2</sup>

**I. COMMENTS**

In February 2023, the PJM Board of Managers (“PJM Board”) issued a letter directing PJM to initiate a Critical Issue Fast Path (“CIFP”) accelerated stakeholder process to consider improvements to risk modeling, the Capacity Performance construct, and resource accreditation, and to synchronize rules common to the Reliability Pricing Model and the Fixed Resource Requirement option.<sup>3</sup> Following several months of education and proposal presentations by PJM and stakeholders, PJM concluded the CIFP process on August 23, 2023, by providing time for stakeholders to present their proposals to the PJM Board and to conduct a vote to inform the PJM Board of member preferences.

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<sup>1</sup> OPSI’s following members support these comments: the Delaware Public Service Commission, Public Service Commission of the District of Columbia, Illinois Commerce Commission, Indiana Utility Regulatory Commission, Kentucky Public Service Commission, Maryland Public Service Commission, Michigan Public Service Commission, New Jersey Board of Public Utilities, North Carolina Utilities Commission, Public Utilities Commission of Ohio, Pennsylvania Public Utility Commission, Tennessee Public Utility Commission, and Virginia State Corporation Commission. The Public Service Commission of West Virginia opposes this filing.

<sup>2</sup> *PJM Interconnection L.L.C.*, “Capacity Market Reforms to Accommodate the Energy Transition While Maintaining Resource Adequacy”, Docket No. ER24-99-000 (Oct. 13, 2023) (“PJM Resource Adequacy CIFP Filing”).

<sup>3</sup> PJM Board of Managers, Letter to Stakeholders (Feb. 24, 2023) available at: <https://pjm.com/-/media/about-pjm/who-we-are/public-disclosures/20230224-board-letter-re-initiation-of-the-critical-issue-fast-path-process-to-address-resource-adequacy-issues.ashx> (“CIFP Letter”).

Following the conclusion of the CIFP process, the OPSI Board of Directors (“OPSI Board”) wrote a letter to the PJM Board noting that the speed, complexity, and volume of information shared “taxed OPSI’s ability to evaluate the many components and the numerous proposals presented....”<sup>4</sup> At the same time, OPSI expressed support for several components of PJM’s proposed reforms, and OPSI’s substantive feedback to the PJM Board is consistent with the points made below. On September 27, 2023, the PJM Board of Managers directed PJM to make the current filing.<sup>5</sup>

These comments support PJM’s reliability risk modeling enhancements and improved generator testing framework and suggest additional analysis and reforms that PJM should undertake before conducting the Base Residual Auction for Delivery Year 2026/2027 to more fully optimize PJM’s capacity market. This limited assessment is driven by the accelerated pace of discussion that led to this proposal and the limited analysis of competing reforms.

#### **A. Reliability Metrics**

PJM currently bases its resource adequacy determinations on a 0.1 day per year Loss of Load Expectation standard. Going forward, PJM proposes to incorporate the use of an Expected Unserved Energy (“EUE”) metric into its analysis, which will give PJM a better understanding of the magnitude of loss of load events in addition to their frequency.<sup>6</sup> Further, by using EUE to accredit resources, PJM indicates it will be able to better tailor the quantities of Unforced Capacity resources provide with each resource’s marginal contribution to maintaining resource adequacy throughout the year.<sup>7</sup>

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<sup>4</sup> OPSI Board of Directors, Letter to PJM Board of Managers, (August 30, 2023) available at: <https://opsi.us/wp-content/uploads/2023/09/2023.08.30-OPSI-CIFP-LETTER-TO-PJM-BOM.pdf>.

<sup>5</sup> PJM Board of Managers, Letter to Stakeholders, (Sept. 27, 2023) (“Final PJM CIFP Letter”).

<sup>6</sup> PJM Resource Adequacy CIFP Filing at 60.

<sup>7</sup> *Id.* at 28.

OPSI supports PJM’s efforts to enhance reliability risk modeling in its resource adequacy studies by including the use of EUE in its reliability analyses, and OPSI encourages PJM to continue evaluating additional reliability metrics. Additional metrics could provide further insight into not just the frequency and magnitude of loss of load events, but also into their duration, cause, and scope. PJM should remain flexible in its approach to using and selecting reliability metrics as it gains more experience with the evolving reliability needs of the system.

**B. Performance Assessment and Testing**

PJM proposes to retain the current Capacity Performance construct. However, PJM proposes to modify the Non-Performance Charge Limit (i.e. stop-loss) to tie it to the Base Residual Auction (“BRA”) clearing prices instead of the net Cost of New Entry (“CONE”).<sup>8</sup> Currently, the stop-loss is capped at 1.5 times the net CONE multiplied by a resource’s Unforced Capacity multiplied by the number of days in the Delivery Year.<sup>9</sup> PJM argues that the proposed change will reflect a penalty structure that is “in better proportion to [the] capacity revenues and the risks associated with taking on a capacity commitment.”<sup>10</sup>

OPSI states support linking total penalty exposure and penalty rates to market outcomes rather than Net CONE and agree penalties based on Net CONE may result in substantial imbalances between imposed penalties and capacity-revenue earnings. Since, PJM has proposed to modify only the Non-Performance Charge Limit and not the Non-Performance Charge Rate, it could be necessary for PJM to reevaluate the effect of this lowered stop-loss vis-a-vis expected bonus payments to ensure the Capacity Performance construct continues to appropriately incentivize reliable generator performance during events that threaten system reliability.

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<sup>8</sup> *Id.* at 93.

<sup>9</sup> *Id.* at 92.

<sup>10</sup> *Id.* at 93.

PJM also proposes testing requirements for Capacity Resources by requiring a test of their performance in both the summer and winter season<sup>11</sup> and to assess operational test failure charges on resources that fail to come online after failing a retest.<sup>12</sup>

OPSI supports this enhanced testing framework, which is intended to increase confidence that units will be available when called upon, especially during particularly hot or cold conditions. Importantly, this framework should better prepare resources that are seldom called upon to be ready to perform when needed. As PJM illustrates, the forced outage rate for resources that had not run within a month of Winter Storm Elliott was 55% higher than those that had. Resources that had last run more than four weeks before the storm had a forced outage rate of 70.5% while more recently run units were forced out at a rate of 45.5%.<sup>13</sup> This data suggests that enhanced testing requirements, rather than relying on event performance penalties alone, could lead to a more reliable system and help ensure generators that are being paid for their capacity are able to perform during challenging system conditions.

In the future, OPSI is open to PJM continuing to explore ways to refine the testing requirements and to penalize resources more quickly following a failed test. Waiting for a unit to fail two tests before penalizing it may not lead to the levels of performance needed to maintain reliability as the resource mix changes.

### **C. Transition to a More Granular Capacity Market Design**

While PJM describes the package of reforms in this docket as a substantial step forward, PJM nonetheless writes that it is “committed to continuing to assess the design of [the] capacity construct, including whether and how a seasonal capacity construct could help support reliability

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<sup>11</sup> *Id.* at 82-85.

<sup>12</sup> *Id.* at 88.

<sup>13</sup> *Id.*, Keech Affidavit at P 27.

and efficiency for the PJM Region.”<sup>14</sup> OPSI supports PJM’s continued efforts to migrate to a more granular capacity market design that enables all resources to match their unique availability to the varying reliability needs of the system throughout the year. This would ensure that the price paid for capacity is more commensurate with the reliability value resources are expected to provide.

During the CIFP process, several stakeholders, including the IMM, advanced sub-annual capacity market proposals. OPSI does not take a position on any of these proposals at this time. However, OPSI continues to believe further evaluation of the benefits of these proposals is merited.

#### **D. Weather History and Modeling**

In its reliability risk modeling, PJM proposes to move to an hourly model that uses weather data going back to June 1, 1993 and enhanced outage modeling.<sup>15</sup> During the CIFP process, PJM studied risk modeling methods that use weather data going back to 1973, and some of that modeling showed significantly less risk in the winter than PJM’s proposed method shows.<sup>16</sup> In support of using the weather data from June 1, 1993, PJM writes that it found it “disconcerting” that these other methods showed reduced reliability risk in the winter, “which ran counter to PJM’s recent experience with Winter Storm Elliot and gave PJM low confidence in the adjustments.”<sup>17</sup>

The split between summer and winter risk has important implications for both the accuracy of resource accreditation and cost allocation. Because PJM’s modeling analysis proved to be very sensitive to different sets of weather data and adjustments, PJM should continue to evaluate

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<sup>14</sup> PJM Resource Adequacy CIFP Filing at 20.

<sup>15</sup> *Id* at 42-43, 63.

<sup>16</sup> PJM, Update on Reliability Risk Modeling, presented during the CIFP stakeholder process at p. 6 (July 17, 2023) available at: <https://pjm.com/-/media/committees-groups/cifp-ra/2023/20230717/20230717-item-03---reliability-risk-modeling---july-update-v2-copy.ashx>.

<sup>17</sup> PJM Resource Adequacy CIFP Filing at 44.

competing reliability risk modeling methods and data sources to ensure PJM’s modeling accurately captures future reliability risks throughout the year.

#### **E. Capacity Must-Offer Requirement**

Lastly, in its September letter, the PJM Board noted that intermittent, storage, and demand resources are not required to offer into the PJM capacity market.<sup>18</sup> Although not a feature in PJM’s filing, OPSI supports must-offer reforms that recognize and align with the known operational characteristics of all generation and storage resources. OPSI supports harmonizing penalty and revenue structures with resource-availability parameters to ensure that resources are properly incented to participate in the capacity market. These reforms should involve requiring all generation and storage resources<sup>19</sup> that hold Capacity Interconnection Rights (“CIRs”) to submit capacity market offers, thereby reducing the potential exercise of market power related to the exclusion of these resources. Allowing some resources to retain CIRs but not submit capacity market offers could impact reliability by misallocating costly and scarce transmission access rights. Allowing this could in turn serve to inflate future interconnection costs and baseline transmission project costs to maintain transmission access for resources that are not recognized for their capacity value.

## **II. CONCLUSION**

OPSI looks forward to further exploration of a more granular resource adequacy construct and additional reforms to improve the current resource adequacy framework so that it more accurately values and aligns resources’ contributions to the system’s varying needs and challenges.

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<sup>18</sup> Final PJM CIFP Letter at 5.

<sup>19</sup> OPSI continues to support an exemption for Demand Response and Energy Efficiency resources consistent with FERC precedent.

Respectfully Submitted,

**Gregory V. Carmean**

Executive Director  
Organization of PJM States, Inc.  
700 Barksdale Road, Suite 1  
Newark, DE 19711  
302-266-0914  
greg@opsi.us

**Benjamin B. Sloan**

Director of Legal and Regulatory Affairs  
Organization of PJM States, Inc.  
700 Barksdale Road, Suite 1  
Newark, DE 19711  
601-214-8481  
ben@opsi.us

Dated: November 9, 2023

**CERTIFICATE OF SERVICE**

I hereby certify that the foregoing has been served in accordance with 18 C.F.R. Section 385.2010 upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Gregory V. Carmean  
Gregory V. Carmean  
Executive Director  
Organization of PJM States, Inc.  
700 Barksdale Road, Suite 1  
Newark, DE 19711  
Tel: 302-266-0914

Dated at Newark, Delaware this November 9, 2023.