

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

**Reactive Power Capability Compensation )**

**Docket No. RM22-2-000**

**COMMENTS OF THE PJM POWER PROVIDERS GROUP  
ON REACTIVE POWER CAPABILITY COMPENSATION**

Pursuant to the Errata Notice issued by the Federal Energy Regulatory Commission (the “Commission” or “FERC”) in the above-captioned proceeding on February 10, 2022, the PJM Power Providers Group (“P3”) submits these comments<sup>1</sup> in response to the Commission’s November 18, 2021, Notice of Inquiry, regarding Reactive Power Capability Compensation (“Reactive Power NOI”).<sup>2</sup>

As discussed more fully herein, P3 supports the comments made by the Electric Power Supply Association (“EPSA”) (“EPSA Comments”) and incorporates by reference its accompanying affidavit of Mr. Adrian J. Kimbrough, provided as Attachment A of EPSA’s Comments (the “Kimbrough Affidavit”). In particular, P3 supports EPSA’s recommendation that the AEP Method<sup>3</sup> should be continued to be utilized, especially in the PJM Interconnection

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<sup>1</sup> P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. (“PJM”) region. Combined, P3 members own over 67,000 MWs of generation assets and produce enough power to supply over 50 million homes in the PJM region covering 13 states and the District of Columbia. The comments contained herein represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue. For more information on P3, visit [www.p3powergroup.com](http://www.p3powergroup.com).

<sup>2</sup> *Reactive Power Capability Compensation*, Notice of Inquiry, 177 FERC ¶ 61,118, Docket No. RM22-2-000 (“Reactive Power NOI”).

<sup>3</sup> This methodology was established in *American Electric Power Serv. Corp.*, Opinion No. 440, 88 FERC ¶ 61,141 (1999) (“AEP Method”).

(“PJM”), where it has been used for over twenty years to determine just and reasonable rates for reactive power. P3 agrees that there are relatively minor changes that can be made to the AEP Method to provide the necessary updates to enhance its efficiency and ensure it continues to be a fair methodology in application.

Finally, as PJM is currently undergoing a comprehensive review of the various issues surrounding the use and compensation of reactive power within its markets, via its Reactive Power Compensation Task Force (“RPCTF”), P3 recommends that the Commission enable PJM to complete this stakeholder process before rendering any new reactive power requirements or methodology for use by resources in PJM.

## **I. COMMENTS**

P3 has reviewed EPSA’s Comments and accompanying expert affidavit of Mr. Kimbrough and supports its conclusions and recommendations. P3 writes separately to focus on reactive power as utilized by generators within PJM.

### **A. The AEP Method Should Be Maintained In PJM, As It Is Appropriate For Both Synchronous And Asynchronous Resources.**

As the Commission noted, there is no uniform method of compensation for reactive power among RTOs and ISOs. PJM and the Midcontinent Independent System Operator, Inc. (“MISO”) generally use the AEP Method to set reactive power compensation on an individual resource basis, whereas resources in ISO New England Inc. (“ISO-NE”) and New York Independent System Operator, Inc. (“NYISO”) are compensated for reactive power under a proscribed flat rate. The Commission also noted that outside of these RTOs/ISOs, when transmission providers pay for the capability to provide reactive power within the standard power factor range, resources generally

propose to use the AEP Method to set reactive power compensation on an individual resource basis.<sup>4</sup> While P3 commends the Commission for conducting a thorough review of reactive power issues, we none-the-less recommend that the Commission stop short of attempting to find a uniform replacement reactive power methodology for all of these regions/non-regions, and instead allow focused updates or minor changes to existing methodologies, such as the AEP Method.

With respect to PJM, P3 agrees with Mr. Kimbrough that the AEP Method should be maintained as it is appropriate for both synchronous and asynchronous resources. Per Mr. Kimbrough, alternative methodologies to the AEP Method should not be considered for the calculation of reactive power capability revenue requirements because of the following reasons:

1. The *AEP Method* is a proven, durable mechanism for developing just and reasonable reactive revenue requirements for many different types of resources with varying cost structures and operating characteristics.
2. Calculating the ARR under the *AEP Method* is the same for all resources regardless of generation technology.
3. Asynchronous resources like wind farms and solar photovoltaic facilities are increasingly being designed to provide reactive power support even without wind or sunshine.
4. Alternative methods are unlikely to provide just and reasonable cost recovery for required reactive capability or a sufficient long-term price signal to invest in additional reactive capability.
5. Reactive power capability compensation under the *AEP Method* does not result in double recovery.<sup>5</sup>

Instead, Mr. Kimbrough suggests targeted modifications to the AEP Method that can help improve the (1) consistency with which reactive rates are developed; (2) efficiency through which reactive rates can be verified; and (3) accountability of reactive rate filers to ratepayers and system

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<sup>4</sup> The Commission also noted that in addition, California Independent System Operator Corporation (CAISO); Southwest Power Pool, Inc. (SPP); and some non-RTO/ISO transmission operators (e.g., Bonneville Power Administration, Arizona Public Service Company, Southern Companies) do not pay for reactive power capability. Reactive Power NOI, P 12.

<sup>5</sup> Kimbrough Affidavit, p. 4.

reliability.<sup>6</sup> For all these reasons, P3 agrees with EPSA’s Comments and recommends that the AEP Method should be maintained in PJM, albeit with targeted updates and modifications.

**B. Use of the Reactive Power Capability Compensation Under The AEP Method Does Not Result In Double Recovery.**

The Commission’s Reactive Power NOI posits various questions regarding appropriate compensation for reactive power capability pursuant to the AEP Method, generally, and potential overcompensation of reactive power in PJM’s markets, more specifically. P3 agrees with EPSA’s Comments, which rely upon the further analysis conducted by Mr. Kimbrough, that find the AEP Method has resulted in just and reasonable rates for reactive power over the last 20 years.

More specifically, Mr. Kimbrough notes that “[R]eactive power capability compensation under the AEP Method does not result in double recovery because (1) capacity revenues compensate for real power capability – not reactive power capability; (2) the \$2,199/MW-year proxy assumption is unrepresentative of most resources; (3) including reactive revenues in PJM’s Net Avoidable Cost Rate (“ACR”) calculation can increase the need for additional revenues; and (4) reactive rate settlements already include explicit prohibitions against double recovery.”<sup>7</sup>

Therefore, P3 agrees with Mr. Kimbrough’s findings and EPSA’s Comments that no changes to PJM’s rules are needed in order to prevent double-recovery or overcompensation of reactive power costs.

**C. The Commission Should Propose Standardized Forms for An Updated AEP Method In Order To Simplify And Create More Transparent Reactive Power Compensation Filings.**

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<sup>6</sup> *Id.*, p. 4-5.

<sup>7</sup> *Id.*, p. 13.

In exploring potential modifications to the AEP Method, the Commission asked if the requirement of certain “standardized forms” could help to “simplify and provide transparency to proposed reactive power capability compensation filings” in PJM, MISO, and non-RTO/ISO regions that compensate for reactive power capability based on the costs of individual resources or on a fleet-wide basis.<sup>8</sup> As the Commission has found in its Reactive Power NOI, the current application of the AEP Method results “in the majority of the filings being set for hearing and settlement procedures.”<sup>9</sup>

PJM, as part of its RPCTF, has also recognized this problem, noting that the “reactive power compensation process for VAR capability within PJM is time consuming and onerous for generation owners, developers, and transmission customers as it exposes generators, developers, and customers to significant litigation costs, either defending or contesting the requested rates.”<sup>10</sup>

To address these significant litigation and administrative issues, P3 agrees with EPSA’s Comments that the Commission should provide guidance that includes standardized forms and assumptions that can provide substantial evidentiary support for reactive power rate filings in a more simplistic and transparent manner.

Specifically, P3 agrees that it would be helpful for the Commission to provide non-binding guidance on the following: (1) the types of costs which may be included in a reactive power revenue requirement; (2) the types of supporting documentation that may be used; (3) standardized assumptions that may be used, including default allocation factors for each cost category; and (4)

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<sup>8</sup> Reactive Power NOI, P 28, pp. 30-31.

<sup>9</sup> *Id.*, P 17.

<sup>10</sup> PJM RPCTF Problem/Opportunity Statement, p. 1. <https://www.pjm.com/-/media/committees-groups/task-forces/rpctf/2021/20211105/20211105-item-03-problem-statement.ashx>

a checklist of issues that should be addressed in the filing.<sup>11</sup> As EPSA notes, this guidance should help streamline the filing process and lessen the burden on both resources and the Commission. However, it should be an option, rather than a requirement, as resource owners will still need flexibility to adapt their filings based on their resource’s specific circumstances.

**D. The Commission Should Allow PJM’s Reactive Power Compensation Task Force To Conclude Before Enacting Major Changes To Reactive Power in PJM.**

PJM’s Reactive Power Compensation Task Force (“RPCTF”) began its stakeholder meetings in November 2021, in order to evaluate the standards for the provision of reactive service and the mechanism that provides for the opportunity to be compensated for reactive service. In part, the RPCTF was created as a means to thoroughly review both the application of reactive service in PJM’s markets, as well as the compensation model that has been used over the past 20 years.

The RPCTF has been meeting monthly and has scheduled meetings through July 2022. In part, PJM intends to focus on the Commission’s Reactive Power NOI, including the AEP Method; alternative methodologies; and distribution-connected resource eligibility. The RPCTF will also discuss various problems that PJM has identified with the current reactive power compensation construct, including: investment of time/resources; “poor-quality” rate product; uncertainty for all parties; burden of administration in settlements & testing; credit risk; and no consequence for non-performance.<sup>12</sup>

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<sup>11</sup> EPSA Comments, pp. 7-9.

<sup>12</sup> *Concepts for PJM Response to Reactive Capability Notice of Inquiry* (RM22-2-000); PJM Interconnection, L.L.C., Thomas DeVita Assistant General Counsel Office of the General Counsel Reactive Power Compensation Task Force January 7, 2022, pp. 2-3.  
<https://www.pjm.com/-/media/committees-groups/task-forces/rpctf/2022/20220107/20220107-item-02-notice-of-inquiry-response.ashx>

P3 submits that the RPCTF is a timely, important and worthwhile stakeholder process that should result in meaningful recommendations for potential changes to reactive power eligibility and compensation in PJM. In that regard, P3 respectfully requests that the Commission allow the RPCTF to complete its work before finalizing any changes to the reactive power construct in the PJM markets.

## II. CONCLUSION

WHEREFORE, for the foregoing reasons, P3 respectfully requests that the Commission allow PJM's Reactive Power Compensation Task Force to complete its stakeholder meetings and provide recommendations to the Commission, and otherwise consider these comments in consideration of further action on the Reactive Power NOI.

Respectfully submitted,

On behalf of the PJM Power Providers Group

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Dated: February 22, 2022

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 Washington, D.C., this 22<sup>nd</sup> day of February 2022.

On behalf of the PJM Power Providers Group

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