

192 FERC ¶ 61,190  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: David Rosner, Chairman;  
Lindsay S. See and Judy W. Chang.

PJM Interconnection, L.L.C.

Docket No. ER25-2123-001

ORDER ACCEPTING TARIFF REVISIONS

(Issued August 28, 2025)

1. On April 30, 2025, as amended on June 30, 2025,<sup>1</sup> pursuant to section 205 of the Federal Power Act (FPA)<sup>2</sup> and part 35 of the Commission's regulations,<sup>3</sup> PJM Interconnection, L.L.C. (PJM) filed revisions to its Open Access Transmission Tariff (Tariff) to revise the Base Formula Rate and Capital Cost Recovery Rate for North American Electric Reliability Corporation (NERC) – Critical Infrastructure Protection (CIP) (collectively, NERC-CIP) Specific Recovery for Black Start Service to replace the current variable Net Cost of New Entry (Net CONE) component used to calculate the Black Start Service revenue requirement with a fixed rate.<sup>4</sup> In this order, we accept PJM's proposed revisions, effective September 1, 2025, as requested.

**I. Background**

2. PJM's Tariff, Schedule 6A, establishes the requirements for units to receive payment for Black Start Service, which is a service necessary to re-energize the transmission system following a system-wide blackout.<sup>5</sup> Black Start Service refers to the

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<sup>1</sup> In PJM's June 30, 2025 amendment filing, PJM revised its proposed effective date to September 1, 2025.

<sup>2</sup> 16 U.S.C. § 824d.

<sup>3</sup> 18 C.F.R. pt. 35 (2024).

<sup>4</sup> See Appendix for eTariff records. Capitalized terms that are not defined in this order have the meaning specified in the Tariff.

<sup>5</sup> PJM, Intra-PJM Tariffs, Tariff, SCHEDULE 6A, OATT SCHEDULE 6A (15.0.0).

capability of generating units to start without an outside electrical supply or the demonstrated ability of a generating unit with a high operating factor (subject to Transmission Provider concurrence) to automatically remain operating at reduced levels when disconnected from the grid.<sup>6</sup> The Black Start Service resource's revenue requirement compensates generation—in key locations—that can start without any assistance from the rest of the bulk electric system to be available in case of such an extreme occurrence.<sup>7</sup> Once started, Black Start Service resources can energize select transmission facilities connecting to the next most critical generators or other critical loads that need to be brought online. This cycle establishes and extends service areas to ensure the balance between load and generation, and then brings together (i.e., synchronizes) those separate “islands” until the grid is fully restored.

3. A Black Start Service resource's annual revenue requirement is a function of its specific fixed costs (Fixed Black Start Service costs), variable costs, training costs, fuel storage costs, a multiplier, and an incentive factor.<sup>8</sup> Schedule 6A of the Tariff includes three distinct rates available for a Black Start Service resource to select: the Base Formula Rate, the Capital Cost Recovery Rate – NERC-CIP Specific Recovery, and the Capital Cost Recovery Rate.<sup>9</sup> The Base Formula Rate is for units foregoing any recovery of new or additional Black Start capital costs, while both Capital Cost Recovery Rates are used for resources seeking to recover their capital costs, either through the PJM-established capital recovery factor table or through a unit-specific Commission-approved rate.<sup>10</sup>

4. Fixed Black Start Service costs for units eligible and approved for Black Start Service compensation under the Base Formula Rate are calculated as the product of Net

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<sup>6</sup> See PJM, Intra-PJM Tariffs, Tariff, A-B, OATT Definitions – A - B (21.0.0).

<sup>7</sup> PJM Filing, Transmittal at 3.

<sup>8</sup> Under the generic rate, a Black Start Service resource's annual revenue requirement equals:  $\{(Fixed\ Black\ Start\ Service\ Costs) + (Variable\ Black\ Start\ Service\ Costs) + (Training\ Costs) + (Fuel\ Storage\ Costs)\} * (1+Z)$ , where Z is equal to an incentive factor of 10% for non-fuel assured Black Start Service resources and 20% for fuel assured Black Start Service resources. OATT SCHEDULE 6A, § 18 (15.0.0).

<sup>9</sup> PJM Filing, Transmittal at 5-6. In the Capital Cost Recovery Rate, the unit can include all the capital upgrades needed for Black Start Service plus the NERC-CIP compliance costs. See PJM, *PJM Black Start Request For Proposal* FAQs C5 (July 6, 2023), <https://www.pjm.com/-/media/markets-ops/ancillary/black-start-service/black-start-rfp-faqs.ashx>.

<sup>10</sup> PJM Filing, Transmittal at 6 (citing OATT SCHEDULE 6A, §§ 5, 6 (15.0.0)).

CONE, the Black Start Service unit's capacity, and an allocation factor.<sup>11</sup> Fixed Black Start Service costs for units eligible and approved for Black Start Service compensation under the Capital Cost Recovery Rate are calculated using one of two formulas in the Tariff. The first formula uses a Commission-approved rate instead of Net CONE, and this method will remain unchanged by PJM's proposal because it is not dependent on Net CONE.<sup>12</sup> The second formula is the Capital Cost Recovery Rate – NERC-CIP Specific Recovery, which is used for the recovery of capital costs for incremental equipment necessary solely to enable a Black Start Service resource to maintain compliance with mandatory CIP Reliability Standards approved by the Commission and administered by the applicable Electric Reliability Organization.<sup>13</sup>

## II. PJM Filing

5. PJM proposes to revise the fixed Black Start Service cost component of the calculations in Tariff, Schedule 6A, section 18 that are dependent on Net CONE—i.e., the Base Formula Rate and the Capital Cost Recovery Rate for NERC-CIP specific recovery.<sup>14</sup> PJM proposes to replace the Net CONE variable with a fixed rate, expressed in \$/MW-year, identical for both the Base Formula Rate and the Capital Cost Recovery Rate for NERC-CIP Specific Recovery, which will be adjusted annually based on the Handy Whitman Index and posted on PJM's website by March 31 each year.<sup>15</sup>

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<sup>11</sup> *Id.* PJM currently includes Net CONE in its Base Formula Rate formula. In the context of Black Start Service, Net CONE is currently defined as the then current installed capacity (ICAP) net Cost of New Entry (expressed in \$/MW year) for the CONE Area where the Black Start Service resource is located. Historically, Net CONE is the cost of constructing a new generating plant minus the expected energy and ancillary services revenue in the area in which the generator is located.

<sup>12</sup> Under the existing Tariff, the Capital Cost Recovery Rate equals: (FERC-approved rate) + (Incremental Black Start Capital Costs \* CRF) + (Fuel Assurance Capital Costs \* CRF). CRF or Capital Recovery Factor is equal to the levelized CRF as set forth in the applicable CRF table posted on the PJM website in accordance with Tariff, Schedule 6A, section 18 and Manual 15. *See* OATT SCHEDULE 6A, § 18 (15.0.0).

<sup>13</sup> PJM Filing, Transmittal at 5-6. Under the existing Tariff, the Capital Cost Recovery – NERC-CIP Specific Recovery equals: (Net CONE \* Black Start NERC-CIP Unit Capacity \* X) + (Incremental Black Start NERC-CIP Capital Costs \* CRF) + (Fuel Assurance Capital Costs \* CRF). OATT SCHEDULE 6A, § 18 (15.0.0).

<sup>14</sup> PJM Filing, Transmittal at 11.

<sup>15</sup> *Id.* at 12. The Handy Whitman Index is used for annual escalation factors. PJM posts information on the Handy Whitman Index used for annual escalation factors on its

Specifically, PJM proposes that beginning with the 2025/2026 Delivery Year, the fixed rate will be \$272.62/MW-day, which is calculated from a five-year average of RTO-wide Net CONE.<sup>16</sup> PJM explains that, as a result, future Black Start Service compensation will not be tied to Net CONE for future Delivery Years, thereby reducing the volatility and uncertainty in the base formula rate and capital cost recovery rate for NERC-CIP specific recovery.<sup>17</sup>

6. According to PJM, the fixed past five-year average (as opposed to a rolling average) will more reasonably approximate costs incurred by unit owners to maintain their Black Start Service, “while reducing future volatility of compensation for these units given the notable differences in substitutability as between capacity resources and Black Start Service resources.”<sup>18</sup>

7. PJM states that Black Start Service is voluntary for individual units offering such service in PJM’s markets and that compensation for Black Start Service must be sufficient to incentivize resources to provide this critical reliability service either in PJM or in neighboring systems.<sup>19</sup> PJM notes that Net CONE-derived fixed Black Start Service costs have decreased in recent years and have not increased following a sharp drop in 2022.<sup>20</sup> According to PJM, this is to be expected because, despite increases in gross CONE, energy and ancillary services revenues have increased at a greater pace, resulting in an overall decrease to Net CONE, despite PJM’s recent filing restoring the Reference Resource to a combustion turbine instead of a combined cycle resource.<sup>21</sup> PJM explains that changes in the Reference Resource and the potential for fluctuations in Net CONE

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website, at: <https://www.pjm.com/committees-and-groups/subcommittees/cds/handy-whitman-index>.

<sup>16</sup> Proposed Tariff, Schedule 6A, § 18 (16.1.0).

<sup>17</sup> PJM Filing, Transmittal at 10.

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

<sup>19</sup> *Id.* at 8.

<sup>20</sup> *Id.* at 8-9 (citing PJM MRC, *Net CONE Impacts on Black Start Revenues* 6, (Mar. 19, 2025), <https://www.pjm.com/-/media/DotCom/committees-groups/committees/mrc/2025/20250319/20250319-item-06---1-black-start-base-formula-rate---presentation.pdf>).

<sup>21</sup> *Id.* at 9 (citing *PJM Interconnection, L.L.C.*, Revisions to Reliability Pricing Model, Docket No. ER25-682-000, at 8, 37 (Dec. 9, 2024)). According to PJM, the combined cycle resource’s Net CONE had a chance of being zero in certain areas.

have led PJM and stakeholders to reconsider basing the incentive structure for resources providing Black Start Service on Net CONE going forward.<sup>22</sup>

8. PJM states that it is concerned that diminishing incentives will impact PJM's ability to provide Black Start Service, as evidenced by a 40% drop in the number of units offering non-fuel assured Black Start Service in response to PJM's most recent RTO-wide request for proposals for new Black Start Service resources in 2023 as compared to PJM's previous RTO-wide request for proposals in 2018.<sup>23</sup> Moreover, PJM states that the most recent request for proposals for fuel assured Black Start Service did not provide sufficient options in all zones.<sup>24</sup> PJM asserts that it is critical for compensation for Black Start Service to be sufficient to incentivize existing and new resources to invest in potential upgrades necessary to provide PJM with this critical reliability service.<sup>25</sup>

9. PJM states that while Net CONE has been used in the Base Formula Rate and the Capital Cost Recovery Rate – NERC-CIP Specific Recovery as a proxy for the fixed cost for a Black Start Service resource to stay online, the locational aspects of Black Start Service needs do not correspond to the locational aspects driving Net CONE in specific zones.<sup>26</sup> PJM also states that its proposed approach will end the geographic disparities caused by the use of changing Net CONE numbers by zone.<sup>27</sup> PJM adds that, although geographical differences in gross CONE reflect the different costs to construct generation in different areas, Net CONE is dependent on the projected energy and ancillary services revenues in each geographic area. Further, PJM states that the costs to maintain Black Start Service are fixed and not offset by extensive participation in other markets. PJM asserts that the proposed approach reflects the realities that Black Start Service resources would operate when transmission service is unavailable, making the CONE Area-dependent locational Net CONE calculation, which reflects locational transmission

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<sup>22</sup> *Id.* (citing PJM MRC, *Black Start Base Formula Rate Problem Statement*, (2024), <https://www.pjm.com/-/media/DotCom/committees-groups/committees/mic/2024/20241204/20241204-item-02-1---black-start-base-formula-rate---problem-statement.pdf>).

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 9-10.

<sup>25</sup> *Id.* at 10.

<sup>26</sup> PJM Filing, Transmittal at 7.

<sup>27</sup> PJM Filing, Transmittal at 10.

constraints, less relevant for Black Start Service resource compensation.<sup>28</sup> Thus, PJM asserts that Black Start Service is necessary in all zones of PJM, thereby justifying the use of an RTO-wide historical Net CONE calculation (trended by the Handy Whitman index).

10. Moreover, PJM states that recent fluctuations in Net CONE have reduced incentive for units to maintain their Black Start capability and that, unlike capacity resources where a given capacity resource can replace another in a particular Delivery Year based on their position in the bid stack, Black Start Service resources are not similarly fungible.<sup>29</sup> PJM states that the proposed approach also preserves the incentives for PJM's existing Black Start Service fleet to continue to provide service, thereby reducing the risk of Black Start Service shortage and reliability issues.<sup>30</sup> PJM adds that its proposal also reduces the need for significant capital investment to procure new Black Start Service resources under a time constraint at an exponentially higher cost. Further, PJM states that its proposal provides a transparent, predictable rate, an increased level of certainty, and stability in future rates and market rules regarding Black Start Service.

11. PJM initially requested a July 1, 2025 effective date to implement the proposed revisions.<sup>31</sup> However, PJM now requests an effective date of September 1, 2025.<sup>32</sup>

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

12. Notice of PJM's filing was published in the *Federal Register*, 90 Fed. Reg. 19297 (May 7, 2025), with interventions and protests due on or before May 21, 2025.

13. Timely motions to intervene were filed by: American Electric Power Service Corporation; Buckeye Power, Inc.; Calpine Corporation; FirstEnergy Service Company; LS Power Development, LLC; Monitoring Analytics, LLC, as Independent Market Monitor for PJM (IMM); New Jersey Division of Rate Counsel; and Rockland Electric Company. On May 21, 2025, IMM filed a protest (IMM May 21 Protest).

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<sup>28</sup> *Id.* at 11.

<sup>29</sup> *Id.* at 8.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* at 2.

<sup>32</sup> Deficiency Letter Response at 17.

14. On May 30, 2025, Commission staff issued a deficiency letter seeking additional information, and on June 30, 2025, PJM filed its response to the deficiency letter (Deficiency Letter Response).

15. Notice of PJM's Deficiency Letter Response was published in the *Federal Register*, 90 Fed. Reg. 29865 (July 7, 2025), with interventions and protests due on or before July 21, 2025. On July 21, 2025, IMM filed a protest to the Deficiency Letter Response (IMM July 21 Protest). On August 5, 2025, PJM filed a motion for leave to answer and answer (PJM Answer).

**A. IMM May 21 Protest**

16. IMM states that it supports a careful review of the actual fixed and total costs of providing Black Start Service and supports paying Black Start Service resources their full costs of providing the service plus an incentive.<sup>33</sup> However, IMM argues that the most fundamental deficiency with PJM's proposal is that PJM does not explain the relationship between the proposed Tariff and the actual costs of providing Black Start Service. IMM argues that PJM does not address the fact that the purpose of the Black Start Service costs is to pay Black Start Service resources the costs of providing Black Start Service and that PJM makes no assertions about the actual level of Black Start fixed costs and provides no evidence about those costs.<sup>34</sup>

17. IMM contends that PJM's proposal fails to explain why or how the proposed change is related to the fixed costs of providing Black Start Service under the Base Formula Rate in the Tariff and therefore the filing has not been demonstrated to be just and reasonable.<sup>35</sup> IMM argues that PJM offers no actual evidence to support the elimination of the longstanding locational differences among Black Start Service costs based on locational differences among Net CONE values.<sup>36</sup> IMM states that PJM does not explain why an arbitrary five-year time period and escalating Net CONE is equivalent to escalating Gross CONE and net energy market and ancillary service revenues. IMM also states that PJM has not explained the reasonableness of adjusting net revenues by an

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<sup>33</sup> IMM May 21 Protest at 6.

<sup>34</sup> *Id.* at 5.

<sup>35</sup> *Id.* at 2.

<sup>36</sup> *Id.* at 4.

inflation index (i.e., the Handy Whitman Index). IMM asserts that net revenues are the result of the energy and ancillary services markets and do not track inflation.<sup>37</sup>

18. IMM provides alternative proposals to PJM's proposal. For example, IMM argues that PJM should continue to use Net CONE as the basis for Black Start Service resources' payments and to use average Net CONE across CONE areas for each delivery year rather than separate Net CONE values.<sup>38</sup> IMM also believes that there must be a need to define ongoing costs to provide Black Start Service plus an incentive as the appropriate basis for Black Start Service revenue.<sup>39</sup>

## **B. Deficiency Letter Response**

19. The deficiency letter requested that PJM explain how: (1) the proposed fixed past five-year average of overall system-wide Net CONE will reasonably approximate the costs incurred by unit owners to maintain and provide Black Start Service; and (2) the use of an RTO-wide historical Net CONE calculation regardless of the location of a Black Start Service resource is just and reasonable.

20. In response, PJM contends that the proposed fixed rate based on five-year historical average RTO-wide Net CONE, adjusted annually by the Handy Whitman index, will provide a reasonable proxy for the capital costs of providing Black Start Service and the incentive to maintain existing resources at a reasonable cost.<sup>40</sup> Specifically, PJM states that the proposed fixed rate of \$272.62/MW-day provides sufficient incentive for resources to offer Black Start Service, while removing the possibility of the rate fluctuating in ways unrelated to the need for Black Start Service within PJM in future years.<sup>41</sup> PJM adds that the proposed fixed cost component closely mirrors over a decade of accepted values, which over the past 12 years ranged from an average low of \$220.42/MW-day in 2012 to an average high of \$320.23/MW-day in

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<sup>37</sup> *Id.*

<sup>38</sup> *Id.*, attach. at 4.

<sup>39</sup> *Id.*, attach. at 5.

<sup>40</sup> Deficiency Letter Response at 8.

<sup>41</sup> *Id.* at 9. PJM states that Black Start Service compensation should not be based on Net CONE values because the need for such service is not offset by revenues in the energy and ancillary services markets such that revenues should rise or fall depending on variability in those markets. PJM further states that the fixed costs of providing Black Start Service are never presumed to be \$0 because of the compliance obligations and risk associated with providing Black Start Service.

2017, maintaining a steady average of \$260.68/MW-day over that time frame. PJM states that it warned stakeholders, at the May 8, 2025 Operating Committee meeting, that it may need to trigger the Black Start Service reliability backstop provisions<sup>42</sup> for the first time to meet the minimum fuel assured Black Start Service requirement for the 2025/2026 Delivery Year because the Net CONE-dependent fixed cost component that went into effect for that Delivery Year was significantly lower than in prior years.<sup>43</sup> Specifically, PJM states that Net CONE for the 2025/2026 Delivery Year was \$181.55/MW-day, a disincentive only slightly offset by generation owners' knowledge that the proposal in this proceeding would, if accepted, increase this rate by \$91.07/MW-day.

21. PJM argues that its proposal provides a reasonable compromise that will save costs to load in the long run and reasonably approximate capital costs while providing adequate compensation to Black Start Service resources.<sup>44</sup> PJM asserts that the proposal is supported by the majority of stakeholders and provides a more efficient and cost-effective metric for the actual cost of compensating the development of new Black Start Service capable resources under the Capital Cost Recovery Rate. PJM states that owners of existing Black Start Service resources have communicated to PJM that without certainty and stability in future Black Start Service revenue requirements, resources may cease offering Black Start Service.<sup>45</sup> According to PJM, this would require it to develop

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<sup>42</sup> The triggers for the Reliability Backstop process are: (1) Black Start generation shortage or a failure to meet the Black Start Fuel Assurance criteria in a transmission owner zone; (2) two failed requests for proposals (no technically viable solutions to address the Black Start shortage or a failure to meet the fuel assurance criteria are identified or cost recovery terms that do not conform to the PJM OATT): a) two failed Incremental requests for proposals, or b) failed RTO Wide request for proposals and one failed Incremental request for proposals; (3) no cross-zonal solutions available; and (4) no Regional Transmission Expansion Plan transmission solutions available (e.g., operational performance baseline upgrade). See PJM Manual 14D: Generator Operational Requirements, § 10.3 (Mar. 19, 2025), <https://www.pjm.com/-/media/DotCom/documents/manuals/m14d.pdf>.

<sup>43</sup> Deficiency Letter Response at 10 (citing *id.*, attach. A, Affidavit of David Hauske (Hauske Affidavit) at PP 18-19, Ex. 1; PJM, Operating Committee, *PJM Black Start Reliability Backstop Process* 6 (May 8, 2025), <https://www.pjm.com/-/media/DotCom/committees-groups/committees/oc/2025/20250508/20250508-item-12---reliability-backstop-education.pdf>).

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 11.

new Black Start Service resources at a far greater cost and could result in a reliability gap period during which PJM would not be able to procure sufficient Black Start Service capability.

22. PJM states that a joint FERC-NERC Regional Entity report has highlighted the need for adequate compensation for Black Start Service and concluded that “the adequacy of compensation for services and benefits provided by blackstart resource[s] needs to be examined, to ensure compensation levels are adequate to secure and retain necessary blackstart resources.”<sup>46</sup> PJM asserts that, since the issuance of the FERC-NERC Blackstart Report, it has observed an increased likelihood that Black Start Service compensation may become inadequate to procure necessary Black Start Service resources, especially for fuel assured Black Start Service resources with firm supply.<sup>47</sup> According to PJM, its proposal reduces the possibility that it will fail to procure sufficient Black Start Service resources and provides a just and reasonable rate to continue to incentivize Black Start Service resources.

23. PJM states that the Commission has long recognized that resources need an additional incentive to provide Black Start Service, as captured in the “X” variable of the compensation formulas, the “Black Start Service allocation factor,” which varies for hydroelectric non-fuel assured units compared to units powered by a combustion turbine due to different expectations in the amount of investment originally necessary in developing the unit to be capable of providing Black Start Service.<sup>48</sup> However, PJM states that if, due to changes in Net CONE, fixed costs approach \$0, then operations, maintenance, and training costs would provide a revenue requirement of only a couple thousand dollars a year, which may not be worth the exposure to increased risk of noncompliance with NERC Reliability Standard EOP-005-3 (System Restoration from Blackstart Resources), which requires Black Start Service resources to document procedures for starting each unit and energizing a bus and to perform tests to verify that the Black Start Service resource can perform as expected.<sup>49</sup>

24. PJM’s response includes an affidavit from David Hauske, Principal Engineer for the Performance Compliance Department at PJM, which PJM explains further illustrates

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<sup>46</sup> *Id.* (quoting FERC, *Report on the FERC-NERC-Regional Entity Joint Review of Restoration and Recovery Plans, Recommended Study* (May 2018) (FERC-NERC Blackstart Report), <https://www.ferc.gov/sites/default/files/2020-05/bsr-report.pdf>).

<sup>47</sup> *Id.* at 12 (citing to *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,197, at PP 32-34 (2009)).

<sup>48</sup> *Id.*

<sup>49</sup> *Id.* at 12-13.

the impact of this proposal on customers by showing that approximately 80% of PJM Black Start Service resources are receiving compensation under the Base Formula Rate.<sup>50</sup> PJM asserts that replacing only 10% of the current units on the Base Formula Rate with new units requiring capital expenditures to upgrade to Black Start Service capability would increase the total annual revenue requirement paid to Black Start Service resources by \$19,000,000, or an approximately 41% increase. According to PJM, this assumes that resources will be incentivized to provide Black Start Service under the Capital Cost Recovery Rate, which could result in potential reliability risks if insufficient Black Start Service resources are available in all zones. In addition, PJM argues that the recent 2023 RTO Wide Black Start Service request for proposals showed that new resources would not be available to provide Black Start Service for approximately 24 to 36 months after being awarded due to lead times in purchasing diesel generator sets that are frequently required to make a resource capable of providing Black Start Service.<sup>51</sup>

25. PJM argues that the use of an RTO-wide historical Net CONE calculation regardless of the location of the Black Start Service resource is just and reasonable because the locational aspects of Net CONE do not correspond to either the locational need for Black Start Service or the actual locational costs of providing that service.<sup>52</sup> PJM argues that while Gross CONE reflects the locational aspects of constructing and developing a new resource specific to a CONE area, Net CONE is offset by energy and ancillary services revenues (E&AS offset),<sup>53</sup> which creates a potential disconnect between the Net CONE and both the locational need for investment in Black Start Service resources and the capital costs of providing that Black Start Service.<sup>54</sup>

26. PJM argues that the majority of Black Start Service resources operate as peaker facilities, which do not participate as extensively in energy and ancillary services markets as other resources, including combined cycle facilities, which are being considered as a top contender to be the Reference Resource beginning with the 2028/2029 Delivery

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<sup>50</sup> *Id.* at 13 (citing Hauske Affidavit at P 21).

<sup>51</sup> *Id.* at 13-14.

<sup>52</sup> *Id.* at 14.

<sup>53</sup> PJM argues that although the calculation of the E&AS offset on a forward basis is appropriate and has been approved by the Commission for setting PJM's capacity market demand curve, the increasing variability of Net CONE values has diminished the value of continuing to use updated Net CONE values as a proxy for Black Start Service capital costs, given that the costs of providing Black Start Service do not vary in lockstep with changing energy and ancillary service revenues. *Id.* at 3.

<sup>54</sup> *Id.* at 14.

Year.<sup>55</sup> According to PJM, using a CONE-area specific Net CONE value introduces an unnecessary variable that may skew the incentive for resources to continue to provide Black Start Service unrelated to the actual need for that service.

27. PJM asserts that in an event where Black Start Service may be needed, it could call upon Black Start Service resources wherever they are located to assist in the effort to re-energize the grid.<sup>56</sup> PJM argues that as a result, unlike capacity resources that may be physically located outside of constrained zones, which have more limited value in constrained zones, the value of a Black Start Service resource is not limited by transmission constraints.<sup>57</sup> According to PJM, this marks another disconnect in applying the locational aspects of the Net CONE determination to Black Start Service resources, given that the need for Black Start Service is not a function of transmission constraints and therefore not necessarily a function of locational CONE Areas.

### **C. IMM July 21 Protest**

28. IMM argues that PJM fails to address the deficiencies identified in the deficiency letter because PJM does not show that the proposal reasonably approximates Black Start Service costs and does not justify using system-wide Net CONE rather than locational Net CONE.<sup>58</sup> IMM contends that PJM cannot answer the question of the relationship between the actual costs of providing Black Start Service and the fixed past five-year average of overall system-wide Net CONE.<sup>59</sup> IMM states that Net CONE is the gross cost of new entry, historically for a combustion turbine, net of energy and ancillary service revenues expected to be earned by that resource, not the cost incurred to maintain and provide Black Start Service.

29. IMM adds that the change to five years of Net CONE is not a reason to ignore differences in Net CONE values by location.<sup>60</sup> IMM asserts that the proposed fixed values are based on Net CONE values, which vary by location. IMM argues that if PJM continues to rely on Net CONE as a basis for Black Start Service payments, then PJM should justify its proposal to terminate the use of actual locational Net CONE, but PJM's

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<sup>55</sup> *Id.* at 14-15.

<sup>56</sup> *Id.* at 15-16.

<sup>57</sup> *Id.* at 16.

<sup>58</sup> IMM July 21 Protest at 1.

<sup>59</sup> *Id.* at 2.

<sup>60</sup> *Id.* at 4.

Deficiency Letter Response fails to do so. Thus, IMM argues that the proposal has not been shown to be just and reasonable and should not be approved.<sup>61</sup>

**D. PJM Answer**

30. PJM answers that, contrary to IMM's contentions, Net CONE has served as a reasonable proxy for the costs of providing Black Start Service since 2009 and indirectly reflects the cost of providing Black Start Service, plus an adequate incentive, by providing an approximation for the costs of procuring new supply if existing resources are unable or unwilling to provide the service.<sup>62</sup> PJM adds that IMM's proposed solution at the March 5, 2025 Market Implementation Committee meeting also proposed to continue using Net CONE as a proxy despite acknowledging that Net CONE is not based on the actual costs of providing Black Start Service.<sup>63</sup>

31. PJM also states that it is just and reasonable to adjust the proposed fixed cost of \$272.62/MW-day by the Handy Whitman Index to account for inflation.<sup>64</sup> PJM argues that IMM mistakenly conflates adjusting approximate costs by inflation, as proposed in this proceeding, with adjusting net revenues by inflation.<sup>65</sup> PJM states that it employs a similar escalation in its variable operating and maintenance costs, which use a default value in place of unit specific costs, and that default value is then escalated yearly based on the Handy Whitman Index.<sup>66</sup> Thus, PJM states that establishing a fixed rate to represent Black Start Service costs and provide an incentive while failing to account for inflation would create a fixed rate that would almost certainly become obsolete in a matter of years. With respect to the use of the fixed past five-year average of overall

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<sup>61</sup> *Id.* at 3-4.

<sup>62</sup> PJM Answer at 7 (citing *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,197 at P 39).

<sup>63</sup> *Id.* at 15 (citing IMM May 21 Protest, attach. at 4-5).

<sup>64</sup> *Id.* at 8. PJM states that the Handy Whitman Index provides escalation factors that reflect inflation as it relates to construction costs, which will allow PJM to update that fixed rate based on a recognized neutral industry-wide measure of inflation of construction costs. *Id.* at 8-9.

<sup>65</sup> *Id.* at 9.

<sup>66</sup> *Id.* (citing PJM, Intra-PJM Tariffs, Tariff, OATT ATT DD.5.14, OATT ATTACHMENT DD.5.14 Clearing Prices and Charges § h-2(3)(B) (40.0.1)).

system-wide Net CONE, PJM asserts that the past five years present a reasonable time frame that is centered around 2022, a year in which a significant decrease in Black Start Service compensation was observed and, as such, this range can capture an average value representative of a range of recent historical circumstances.<sup>67</sup>

32. PJM reiterates that it is appropriate to remove the locational aspects of Net CONE from the compensation methodology for Black Start Service because the locational aspects relevant to Black Start Service costs do not directly correspond to the locational aspects informing Net CONE.<sup>68</sup> PJM explains that the difference in locational revenue for Black Start Service does not reflect the relative supply and demand dynamics for Black Start Service generation in specific zone areas.<sup>69</sup> For example, areas with higher Black Start Service revenues based on Net CONE differences do not always represent areas with a higher need for Black Start Service resources, and vice versa for areas with lower Black Start Service revenues.<sup>70</sup>

#### **IV. Commission Determination**

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

33. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2024), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

34. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2024), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept PJM's answer because it has provided information that assisted us in our decision-making process.

##### **B. Substantive Matters**

35. We find PJM's proposed Tariff revisions to be just and reasonable and not unduly discriminatory or preferential, and we accept them effective September 1, 2025, as requested. PJM proposes to change the compensation methodology for resources that provide Black Start Service to replace the current Net CONE variable with a \$272.62/MW-day fixed rate that is based on a five-year historical average of RTO-wide

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<sup>67</sup> *Id.* at 16.

<sup>68</sup> *Id.* at 10.

<sup>69</sup> *Id.* at 10-11.

<sup>70</sup> *Id.* at 11.

Net CONE that will be adjusted annually for inflation. We find that this change is just and reasonable because PJM has demonstrated that the fixed rate is a reasonable proxy for the costs of providing Black Start Service that will enable PJM to attract sufficient Black Start Service resources. As PJM explains, Net CONE has varied recently due to increases in energy and ancillary services revenues. That, in turn, has caused compensation for Black Start Service resources to become volatile, despite the notable differences in substitutability as between capacity resources and Black Start Service resources.<sup>71</sup> We agree with PJM that its proposed fixed rate will improve predictability, stability and transparency of Black Start Service revenues, thereby enabling PJM to secure a sufficient amount of Black Start Service to meet its reliability needs. PJM has demonstrated the need for its proposed rate increase coupled with changes to ensure that the Black Start rates are stable to ensure that it can attract sufficient Black Start Service resources.<sup>72</sup>

36. PJM proposes to set a baseline fixed cost at the five-year historical average RTO-wide Net CONE and then adjust that fixed value on an annual basis using the Handy-Whitman Index, which PJM has used to measure yearly cost increases.<sup>73</sup> Although the IMM argues that PJM has not demonstrated that the proposed fixed rate is related to the costs of providing Black Start Service, we find that PJM has explained that replacing the Net CONE variable with a fixed rate based on a five-year historical average of Net CONE, as adjusted annually by the Handy Whitman Index, reasonably approximates actual costs while also providing adequate compensation to Black Start Service resources.<sup>74</sup> Specifically, we agree with PJM that using a five-year historical average RTO-wide Net CONE as a baseline reasonably reflects the costs of providing Black Start Service, plus adequate incentive, by providing an approximation for the costs of procuring new supply if existing resources are unable or unwilling to provide the

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<sup>71</sup> See PJM Filing, Transmittal at 10.

<sup>72</sup> As evidence of the difficulty of meeting its need for Black Start Service, PJM cites a 40% drop in the number of units offering non-fuel assured Black Start Service in response to PJM's most recent request for proposals for new Black Start Service resources in 2023, as compared to its prior request for proposals in 2018, as well as the failure of its most recent request for proposals for fuel assured Black Start Service resources to provide sufficient resources in all zones. PJM Filing, Transmittal at 9-10.

<sup>73</sup> PJM, Intra-PJM Tariffs, Tariff, ATTACHMENT DD.6.7, OATT ATTACHMENT DD.6.7 Data Submission § (c)(2) (3.0.0); PJM, Intra-PJM Tariffs, Tariff, OATT ATT DD.5.14, OATT ATTACHMENT DD.5.14 Clearing Prices and Charges § (g)(3)(B) (40.0.1).

<sup>74</sup> See Deficiency Letter Response at 10.

service.<sup>75</sup> Moreover, adjusting this number for inflation reflects the general increase in the cost of providing the service.

37. While the IMM objects to the use of an RTO-wide Net Cone, we find that PJM's proposal is reasonable. As PJM points out, the costs of providing Black Start Service do not vary depending on whether the unit is in a constrained or unconstrained zone.<sup>76</sup> As PJM further explains, the need for and use of Black Start Service resources are system wide. For example, when Black Start Service resources are needed to restore an electricity outage, no transmission constraints would impede the flow of energy from one area to another.<sup>77</sup>

38. We also disagree with IMM that PJM provides no evidence to support the elimination of the longstanding locational differences among Black Start Service costs based on locational differences among Net CONE values. PJM need not establish that its past methodology is unjust and unreasonable or explain why it proposed to change that methodology; PJM only has to establish that its proposal is just and reasonable.<sup>78</sup> PJM has shown that it is just and reasonable to establish the same fixed cost for all Black Start Service resources based on a five-year historical average RTO-wide Net CONE. As PJM explains, regardless of the location of the resource, using the historical average RTO-wide Net CONE is just and reasonable because it reflects the costs of constructing and developing a new Black Start Service resource.<sup>79</sup> We agree with PJM that differences in energy and ancillary services revenues are not related to the costs of providing Black Start Service.

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<sup>75</sup> See PJM Answer at 7 (citing to *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,197 at P 39).

<sup>76</sup> Deficiency Letter Response at 16.

<sup>77</sup> *Id.* at 15-16.

<sup>78</sup> *N.J. Bd. of Pub. Utilities v. FERC*, 744 F.3d 74, 94 (3d Cir. 2014) (“It is not necessary, in a filing pursuant to § 205, that FERC find that the previous rate was unjust or unreasonable.”); *Columbia Gas Transmission Corp.*, 124 FERC ¶ 61,123 (2008) (“When a pipeline makes a section 4 filing under the NGA, its only burden is to show that its proposed change is just and reasonable. It does not bear a section 5 burden of showing that its existing tariff or practices are unjust and unreasonable”).

<sup>79</sup> See Deficiency Letter Response at 14.

The Commission orders:

PJM's proposed Tariff revisions are hereby accepted, effective September 1, 2025, as discussed in the body of this order.

By the Commission.

( S E A L )

Debbie-Anne A. Reese,  
Secretary.

## APPENDIX

PJM Interconnection, L.L.C.  
Intra-PJM Tariffs

| Tariff Provision                                                                                                                                                                                              | Effective Date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <a href="http://etariff.ferc.gov/TariffSectionDetails.aspx?tid=1731&amp;sid=359730">SCHEDULE 6A, OATT SCHEDULE 6A (16.1.0),<br/>http://etariff.ferc.gov/TariffSectionDetails.aspx?tid=1731&amp;sid=359730</a> | 9/1/2025       |