

170 FERC ¶ 61,217
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Richard Glick and Bernard L. McNamee.

PJM Interconnection, L.L.C.

Docket Nos. ER17-1138-002
ER17-1138-003

ORDER DENYING REHEARING AND ACCEPTING COMPLIANCE FILING

(Issued March 20, 2020)

1. On December 18, 2017, the Illinois Municipal Electric Agency (IMEA) and American Municipal Power, Inc. (AMP) sought rehearing of the Commission order issued November 17, 2017 (Pseudo-Tie Enhancement Order), which established enhanced requirements for external resources that seek to pseudo-tie into PJM Interconnection, L.L.C. (PJM).¹ For the reasons discussed below, we deny the IMEA and AMP rehearing requests. On December 15, 2017, PJM submitted proposed tariff changes in compliance with the Pseudo-Tie Enhancement Order. As discussed below, we accept PJM's filing effective May 9, 2017.

I. Background

2. In 2014, the Commission approved a PJM proposal that established limits on the amount of capacity from external resources (Capacity Import Limit) that can be reliably committed in the PJM forward capacity auctions.² Under that proposal, an external resource that wishes to participate in the PJM Base Residual Auction can obtain an exception from the PJM Capacity Import Limit.³ To qualify for this exception to the

¹ *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,197 (2017) (Pseudo-Tie Enhancement Order). Southern Power Company (Southern) also requested clarification, or, in the alternative, rehearing. Southern's request was withdrawn on May 9, 2018. *See infra* P 9 n.14.

² *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 (2014) (CIL Order), *order on reh'g*, 150 FERC ¶ 61,041 (2015).

³ A separate Capacity Import Limit is established for each of the five external source-zones and a single total Capacity Import Limit is established for the entire RTO.

Capacity Import Limit, an external resource must meet three conditions: (1) it must be committed to being a pseudo-tied resource prior to the start of the Delivery Year; (2) it must have long-term firm transmission service confirmed on the complete transmission path from such resource into PJM; and (3) it must agree to be subject to the same capacity must-offer requirement as PJM's internal resources.⁴

3. In 2015, as part of broader capacity market reforms by PJM (the Capacity Performance Proposal), the Commission accepted PJM's proposal that, in order to qualify as a Capacity Performance Resource, an external resource *must* meet the conditions for obtaining an exception to the Capacity Import Limit.⁵ As a result, when PJM began procuring 100% Capacity Performance Resources in the May 2017 Base Residual Auction (for the 2020/2021 Delivery Year), no external resources could participate in the capacity auction pursuant to the Capacity Import Limit, since all external resources needed to obtain an exception to the Capacity Import Limit.⁶

4. On March 9, 2017, pursuant to section 205 of the Federal Power Act (FPA), PJM filed revisions to its Open Access Transmission Tariff (Tariff) and Reliability Assurance Agreement (RAA) to: (1) establish pseudo-tie requirements for new external resources that wish to participate in PJM's forward capacity auctions; and (2) a transition period with deliverability requirements to allow for existing pseudo-tied resources that had previously cleared a forward capacity auction to comply with the new requirements.⁷ On May 5, 2017, Commission staff issued a deficiency letter seeking additional information from PJM and on September 18, 2017, PJM filed its response (PJM Deficiency Response). On November 17, 2017, the Commission accepted, subject to condition, PJM's Pseudo-Tie Enhancement Filing, finding that under PJM's Capacity Performance construct, the additional revisions would help ensure that "external resources bidding into [PJM's capacity auctions] are comparable to internal resources in assuring that they will be deliverable to PJM's system when needed."⁸

5. PJM, in the Pseudo-Tie Enhancement Filing, sought to require that a seller of an external resource seeking to participate in PJM's capacity auctions be allowed to submit

⁴ CIL Order, 147 FERC ¶ 61,060 at P 36.

⁵ *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208 (2015) (Capacity Performance Order), *order on reh'g*, 155 FERC ¶ 61,157 (2016).

⁶ Capacity Performance Order, 151 FERC ¶ 61,208 at PP 96-97.

⁷ *PJM Interconnection, L.L.C.*, External Capacity Enhancements Tariff Filing (filed March 9, 2017) (Pseudo-Tie Enhancement Filing).

⁸ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 18.

a Sell Offer only if it demonstrates to PJM, five days prior to the auction, that the external resource: (1) meets the minimum electrical distance requirements; (2) meets a market-to-market flowgate eligibility test that will only require PJM to coordinate a new flowgate with an external Balancing Authority⁹ when the flow impact of a PJM internal resource on that flowgate meets a certain threshold; (3) receives approval from an external Balancing Authority that an external Capacity Market Seller's resource does not require NERC tagging and that firm flow allocations associated with any coordinated flowgates applicable to the external resource be allocated to PJM; (4) ensures that each external entity with which PJM may be required to coordinate flowgates maintains a network model that produces results that are within two percent of the results produced by PJM's model; (5) has arranged for long-term firm point-to-point transmission service that is evaluated for deliverability from the unit-specific physical location to PJM load; and (6) retains the same must-offer requirement as required under the Capacity Import Limit exception.¹⁰

6. The Commission also accepted PJM's proposal for a five-year transition period for resources that had previously cleared a capacity auction to meet the new requirements. For pseudo-tied resources approved prior to the Capacity Import Limit exception,¹¹ PJM proposed requirements that the external resource must remain "Operationally Deliverable" and that the resource be tested for this standard each year.¹²

⁹A Balancing Authority is defined as "[t]he responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time." See *Glossary of Terms Used in NERC Reliability Standards*, North American Electric Reliability Corporation www.nerc.com/files/glossary-of-terms.pdf.

¹⁰ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 7.

¹¹ See CIL Order, 147 FERC ¶ 61,060 at P 50.

¹² Under the PJM Tariff, the term "Operationally Deliverable" shall mean, as "determined by the Office of the Interconnection, that there are no operational conditions, arrangements or limitations experienced or deliverability of capacity or energy from the external Generation Capacity Resource to loads in the PJM Region in a manner comparable to the deliverability of capacity or energy to such loads from Generation Capacity Resources located inside the metered boundaries of the PJM Region, including, without limitation, an identified need by an external Balancing Authority Area for a remedial action scheme or manual generation trip protocol, transmission facility switching arrangements that would have the effect of radializing load, or excessive or unacceptable frequency of regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability dispatch instructions and commitments." See PJM Tariff, Definitions O-P-Q.

PJM also proposed to phase in these new requirements for pseudo-tied resources that have cleared a previous Base Residual Auction over a five-year transition period. In the event that a pseudo-tied resource cannot meet the Operationally Deliverable standards, PJM will notify the seller of the resource no later than October 1 immediately preceding the Delivery Year. PJM will then give the external resource the option to: (1) take any necessary steps to meet the new requirements; (2) be relieved of its capacity obligation and must-offer obligation, forgoing any capacity market revenues; or (3) procure, purchase, or replace the capacity.¹³

7. On December 15, 2017, PJM submitted a compliance filing containing the Tariff revisions required by the Pseudo-Tie Enhancement Order (Compliance Filing). The Compliance Filing proposed revisions to Sections 5.5A, 5.12, and 10A of Attachment DD and Article 1 of PJM's Tariff. These revisions include adding language to specify in the Tariff: the 0.065 threshold value for the Electrical Distance Requirement; the 1.5% minimum flow distribution impact value in the market-to-market flowgate test; a Non-Performance Charge provision for external Generation Capacity Resources beginning in the 2020/2021 Delivery Year; an amendment to the definition of Prior CIL Exception External Resource to be limited to the maximum number of MWs that cleared in a capacity auction prior to May 9, 2017, in recognition of the transition period for Capacity Market Sellers to comply with the new pseudo-tie requirements; the technical standard used to evaluate the Operationally Deliverable standard of a Prior CIL Exception External Resource; and the commitment that PJM will procure replacement capacity in the Third Incremental Auction when a Prior CIL Exception External Resource is found not to be Operationally Deliverable.

II. Notice of Compliance Filing

8. Notice of PJM's Compliance Filing was published in the *Federal Register*, 82 Fed. Reg. 60,597 (2017), with comments due on January 5, 2018. None was filed.

III. Request for Rehearing and Clarification

9. Southern filed a request for clarification, or, in the alternative, request for rehearing of the Pseudo-Tie Enhancement Order (Southern's Clarification Request). IMEA and AMP filed requests for rehearing. On January 18, 2018, PJM filed an answer to Southern's Clarification Request. On May 9, 2018, Southern filed a motion to

¹³ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 8.

withdraw its Clarification Request, which was granted when no party opposed the request.¹⁴

IV. Discussion

10. Under a pseudo-tie agreement, an RTO or transmission owner can dispatch a resource located in another RTO or Balancing Authority as if that resource were part of the Attaining RTO or Attaining Balancing Authority.¹⁵ Because such dispatch can impact and disrupt the Native Balancing Authority,¹⁶ and because the Attaining Balancing Authority may not fully capture the effects of that resource in its system modeling, the Commission allows Balancing Authorities to exercise reasonable discretion in determining whether to permit an external resource to pseudo-tie and to establish the conditions under which to permit a resource to enter into a pseudo-tie arrangement.¹⁷ For example, if a resource is geographically located a significant distance from the Attaining Balancing Authority, there is a greater chance that factors outside of the model of the Attaining Balancing Authority may affect whether the output of that resource will relieve or create constraints for the Attaining Balancing Authority. In addition, when the pseudo-tied resource involves one or more RTOs, which utilize Locational Marginal Prices (LMPs) to reflect the value of energy at various locations throughout the system, the output of the pseudo-tied resource may affect these LMPs for

¹⁴ 18 CFR § 385.216(b) (2019). Southern moved to withdraw its Clarification Request following issuance of the Commission's order in *Southern Power Co.*, 163 FERC ¶ 61,096 (2018), which it claimed rendered the issues raised by Southern moot.

¹⁵ An Attaining Balancing Authority is defined as a Balancing Authority that brings "generation or load into its effective control boundaries through a Dynamic Transfer from the Native Balancing Authority." See *Glossary of Terms Used in NERC Reliability Standards*, North American Electric Reliability Corporation, www.nerc.com/files/glossary-of-terms.pdf.

¹⁶ NERC defines Native Balancing Authority as "A Balancing Authority from which a portion of its physically interconnected generation and/or load is transferred from its effective control boundaries to the Attaining Balancing Authority through a Dynamic Transfer." See *Glossary of Terms Used in NERC Reliability Standards*, North American Electric Reliability Corporation http://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf.

¹⁷ See, e.g., *Midcontinent Indep. Sys. Operator, Inc.*, 164 FERC ¶ 61,069 (2018) (The Commission addresses proposed changes to the Joint Operating Agreement between MISO and PJM to provide for resolution of issues affecting pseudo-tied generation in MISO and PJM).

both RTOs, requiring that the RTOs coordinate the flowgates between them to help manage congestion.

11. In accepting PJM's Pseudo-Tie Enhancement Filing, the Commission found that PJM's new pseudo-tie requirements would help ensure that external resources bidding into the PJM capacity auctions are comparable to internal resources in assuring that they will be deliverable to PJM's system when needed.¹⁸ With this principle in mind, we continue to find that PJM's proposed treatment of pseudo-tied resources is just and reasonable and not unduly discriminatory or preferential. We therefore deny rehearing.

A. Electrical Distance Requirement

1. Pseudo-Tie Enhancement Order

12. In the Pseudo-Tie Enhancement proceeding, PJM proposed to require all external resources to be within a certain Electrical Distance of PJM of 0.065 per-unit¹⁹ because it had received several pseudo-tie requests from resources geographically distant from PJM's borders. PJM explained that if a resource's Electrical Distance is close enough to the PJM system, PJM can safely include the resource in PJM's Energy Management System and State Estimator models of the PJM transmission grid without increasing undue risk as a result of model inaccuracies or loss of data sources. PJM explained that the Electrical Distance threshold is an analytical measurement used as a bright-line screen to communicate the amount of operational and compliance risk that PJM is willing to take on when expanding the State Estimator model to incorporate pseudo-ties. To the extent that PJM relies on data feeds from external Balancing Authorities, data might be aggregated, causing a single point of failure for the PJM State Estimator and that the further the State Estimator model extends beyond the PJM borders, the less resilient the PJM system becomes to data loss or inaccurate models.²⁰ In the Pseudo-Tie Enhancement Order, the Commission found that the Electrical Distance requirement, as proposed by PJM, was just and reasonable because establishing a bright-line test for external participation strikes an appropriate balance

¹⁸ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 18.

¹⁹ PJM set the Electrical Distance Requirement at 0.065 per-unit impedance which represents the threshold used in determining the number of facilities directly adjacent to PJM and would not impose reliability risks to the PJM system.

²⁰ PJM Deficiency Response at 10.

between allowing external resources to participate in PJM's capacity auctions, while providing PJM with a level of reliability assurances.²¹

13. PJM explained in the Pseudo-Tie Enhancement proceeding that the 0.065 per-unit value was based on Distribution Factor Analysis (DFAX) to identify the external facilities that would be impacted by PJM's dispatch of the external resources.²² The Commission accepted PJM's proposed 0.065 per-unit impedance value because it was the result of significant analysis and requiring PJM to rely on an external resource with a higher impedance value would increase the risk to PJM's State Estimator.²³

2. Arguments on Rehearing

14. AMP argues that the Commission erred in accepting PJM's proposed Electrical Distance requirements, arguing that the Commission failed to support the requirement or the value as an appropriate balance between allowing external resources to participate in PJM's capacity auctions and providing reliability assurance. AMP also argues that the Commission's finding is conclusory in nature, as it is not substantiated by any comparison or weighing of the potential adverse impacts on competition within the PJM region versus the reliability benefits claimed by PJM.²⁴ AMP argues that the Commission is not at liberty to rely on such conclusory findings as a basis for its action.²⁵

15. AMP also argues that the Commission's rationale ignores that PJM never established any functional relationship between the value selected as the Electrical

²¹ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 60.

²² According to PJM, the 0.065 per-unit impedance value encompasses at least 130 GW of existing external resources, which allows for extensive parts of the Eastern and Midwestern United States. *Id.* P 53, citing PJM Deficiency Response at 10.

²³ *Id.* P 61. As described in PJM's Tariff, the State Estimator is "a standard industry tool that produces a power flow model based on available real-time metering information, information regarding the current status of lines, generators, transformers, and other equipment, bus load distribution factors, and a representation of the electric network, to provide a complete description of system conditions, including conditions at buses for which real-time information is unavailable." *See* PJM Tariff, § 2.3, Schedule 1.

²⁴ AMP Rehearing Request at 5.

²⁵ *Id.* at 5-6 (citing *Sinclair Broad. Grp. Inc. v. FCC*, 284 F.3d 148, 162 (D.C. Cir. 2002), quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

Distance and the purported adverse impact of including resources with higher Electrical Distance values in the PJM State Estimator.²⁶ AMP argues that the Commission's reliance on PJM's deficient analysis, and its failure to test PJM's analysis by requiring consideration of alternative values, causes the Pseudo-Tie Enhancement Order to fall short of satisfying the requirement that it lay out a discernable path between the facts found and the choices made in the order.²⁷

3. Commission Determination

16. We affirm our finding in the Pseudo-Tie Enhancement Order that PJM's Electrical Distance Requirement is just and reasonable. On rehearing, AMP raises two issues—first, that the Commission failed to weigh and substantiate the impact of the proposed Electrical Distance Requirement with the level of reliability assurance, and second, that the Commission failed to address the relationship between the value selected as the Electrical Distance Requirement and the impact on PJM's State Estimator.

17. On the first issue, we disagree with AMP's assertion. The Commission found that the new requirements were necessary to address the operational and deliverability issues identified on PJM's system as a result of external resources attempting to pseudo-tie into PJM located hundreds of miles from PJM's borders. In making this finding, the Commission also agreed with PJM's rationale that the new requirements were necessary to ensure that external and internal resources would be held to comparable standards.²⁸ More narrowly, the Commission also addressed how the Electrical Distance Requirement was necessary as a means of accommodating external resources, but only at a distance up to a certain electrical impedance.²⁹ The Electrical Distance Requirement ensures that an external resource is sufficiently close, electrically and geographically, to the PJM system and that PJM can rely on the energy produced by that resource to meet the needs of PJM loads throughout the Delivery Year and can reliably model the impact of energy produced by that resource on the PJM transmission system.

18. On the second issue, we find that PJM's choice of the 0.065 per-unit impedance value—as explained further below—is appropriate and supported by the record in this proceeding. In the Pseudo-Tie Enhancement Order, the Commission explained that “electrical distance is an analytical measurement that communicates the amount of

²⁶ AMP Rehearing Request at 5-6.

²⁷ *Id.* at 7.

²⁸ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 27.

²⁹ *Id.* P 60.

operational and compliance risk that PJM is willing to take on when expanding its State Estimator to incorporate pseudo-tied resources.”³⁰ As PJM explained, a higher impedance value increases the risk to PJM’s State Estimator.³¹ To meet NERC requirements, PJM is required to perform real-time assessment of its system on a continuous basis.³² Thus, PJM must model all resources, including external pseudo-tied resources and coordinated flowgates, through the State Estimator to obtain a complete description of system conditions, “including conditions at buses [electrically distant from PJM’s footprint] for which real-time information is unavailable.”³³ PJM developed the 0.065 per-unit impedance value in its Electrical Distance Requirement to mitigate the potential for additional, unforeseen risk in its State Estimator model which could lead to reliability risks. PJM does not have the ability to model and monitor every resource that might seek to participate in its capacity auctions. We find that setting a maximum distance for which it could appropriately manage its State Estimator is both transparent and appropriate.

19. We also disagree with AMP’s arguments that PJM was required to explain any alternative values that it considered for the Electric Distance. The issue before the Commission is whether PJM justified the 0.065 per-unit impedance value as just and reasonable, not whether an alternative value might also be just and reasonable.³⁴ As PJM explained, the 0.065 per-unit threshold is an equivalent per-unit impedance of parallel paths between a facility and the PJM border.³⁵ Further, PJM based its analysis on DFAX analyses to identify system impacts from PJM’s dispatch of the external resources, which as PJM explained, identified the magnitude and complexity of reliably

³⁰ *Id.* P 61.

³¹ PJM Deficiency Response at 10.

³² NERC requires reliability coordinators and transmission operators to perform real-time assessments of their systems “at least once every 30 minutes.” *See* NERC Standards IRO-008-2 at R4, TOP-001-3 at R13.

³³ Pseudo-Tie Enhancement Filing at 7-8.

³⁴ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 61. *See Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (finding that under the FPA, as long as the Commission finds a methodology to be just and reasonable, that methodology “need not be the only reasonable methodology, or even the most accurate one.”). *See also Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,265, at P 21 (2009) (“[T]he issue before the Commission is whether the CAISO’s proposal is just and reasonable and not whether the proposal is more or less reasonable than other alternatives.”).

³⁵ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 56.

coordinating electrically distant external resources.³⁶ Generally, the DFAX analyses identified the external facilities that would be impacted by PJM's dispatch of the external resource. The Commission found this threshold appropriate because PJM needs to determine the operational and compliance risk that it is willing to take on when expanding its State Estimator to incorporate pseudo-tied resources.³⁷

B. Market-to-Market Flowgate Test

1. Pseudo-Tie Enhancement Order

20. In the Pseudo-Tie Enhancement Order, the Commission accepted PJM's market-to-market flowgate test to establish limits on the number of coordinated flowgates³⁸ PJM must add in order to accommodate a new pseudo-tied resource. In the Pseudo-Tie Enhancement Filing, PJM explained that it should only have to take on responsibility for coordinating a new flowgate to facilitate a pseudo-tie if at least one PJM internal resource also has a minimum flow impact of 1.5% on that flowgate in order to ensure it has adequate options to manage congestion on that flowgate.³⁹ The Commission accepted PJM's 1.5% minimum impact threshold, finding that it was not an undue barrier to entry, but an appropriate measure to provide PJM options to relieve or mitigate congestion on market-to-market flowgates between PJM and MISO, as well as other Balancing Authorities and non-market areas, beyond the sole recourse of redispatching a pseudo-tied resource.⁴⁰

2. Arguments on Rehearing

21. AMP argues that the Commission relied on PJM's contention that dispatch control over a pseudo-tied resource might not provide sufficient protection to avoid some undefined level of congestion costs deemed to be excessive.⁴¹ AMP avers that it is

³⁶ PJM Deficiency Response at 9.

³⁷ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 61.

³⁸ A flowgate is defined as a "portion of the Transmission system through which the Interchange Distribution Calculator calculates the power flow from Interchange Transactions." See *Glossary of Terms Used in NERC Reliability Standards*, North American Electric Reliability Corporation, www.nerc.com/files/glossary-of-terms.pdf.

³⁹ Pseudo-Tie Enhancement Filing at 14-15.

⁴⁰ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at PP 76-77.

⁴¹ We note that Tilton Energy LLC filed a complaint against PJM alleging that PJM has misapplied the market-to-market flowgate test to its facility (Docket

arbitrary and capricious for the Commission to accept PJM's assertion concerning the efficacy of control over a pseudo-tied resource in mitigating congestion costs. AMP argues that PJM offers no proof that redispatch of a pseudo-tied resource necessarily would be insufficient to mitigate congestion on a flowgate on which the resource is modeled as imposing real-time flow. AMP argues that, on rehearing, the Commission should require PJM to substantiate its claim that redispatch of a pseudo-tied resource is an insufficient means of preventing undue excessive costs resulting from congestion on coordinated flowgates.⁴²

3. Commission Determination

22. We affirm our finding in the Pseudo-Tie Enhancement Order that PJM's market-to-market flowgate test is just and reasonable and not unduly discriminatory or preferential and that PJM appropriately established the 1.5% threshold.⁴³ PJM's market-to-market flowgate test places reasonable limitations on the number of flowgates PJM must coordinate with an external Balancing Authority for a new pseudo-tied resource by using a specified impact threshold. As PJM noted in PJM's Pseudo-Tie Enhancement Filing, the increase in the number of external resources seeking to pseudo-tie into PJM has significantly increased the total amount of PJM-MISO coordinated flowgates which can, in turn, subject pseudo-tied resources to curtailments based on external system bottlenecks and result in suboptimal dispatch.⁴⁴ Further, as PJM stated, it is reasonable to decline a pseudo-tied resource if it would result in creating a new market-to-market flowgate when the only option for managing congestion on that flowgate is the redispatch of the external resource.⁴⁵ Additionally, as PJM explained, PJM and PJM loads, as the parties that bear congestion costs, are better served operationally and economically if there are options for relieving congestion beyond only redispatching the pseudo-tied resource.⁴⁶ Moreover, PJM explained that the number of flowgates that it had to coordinate with MISO increased by 114 with the addition of seven new pseudo-

No. EL18-145-000). The subject matter of that complaint does not implicate the issue raised by AMP on rehearing in this case, where it challenges whether PJM's adoption of the market-to-market flowgate test is supported and necessary to manage congestion as a general matter. *See Tilton Energy, L.L.C.*, 164 FERC ¶ 61,204 (2018).

⁴² AMP Rehearing Request at 9-10.

⁴³ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76.

⁴⁴ Pseudo-Tie Enhancement Filing at 9; PJM Deficiency Response at 13.

⁴⁵ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 74.

⁴⁶ *Id.* P 72.

tied resources it had to coordinate with MISO.⁴⁷ PJM's ability to redispatch an internal resource to relieve congestion on a coordinated flowgate is a reasonable operational measure to provide an additional adequate option for congestion relief and avoidance of excessive congestion costs for PJM customers. In addition, the 1.5% threshold is already the impact threshold that PJM uses for coordinating flowgates with neighboring Balancing Authorities, such as MISO.⁴⁸

C. Modeling Consistency Requirement

1. Pseudo-Tie Enhancement Order

23. In the Pseudo-Tie Enhancement Order, the Commission accepted PJM's modeling consistency requirement, which requires that, in order to be eligible to pseudo-tie to PJM, PJM's and the relevant Balancing Authorities' network models must produce results that are within two percent of each other for any new coordinated flowgate added to accommodate that pseudo-tie. The Commission found that this modeling consistency requirement provides a transparent, quantitative standard for network consistency to help ensure the reliable delivery of energy and that it did not create a burden on external resources seeking to pseudo-tie into PJM.⁴⁹

2. Arguments on Rehearing

24. AMP argues that the Commission erred in its determination that the two percent modeling consistency requirement is just and reasonable because PJM did not provide the Commission with an evidentiary basis to conclude that internal and external resources are comparably treated under this requirement and, therefore, AMP argues the requirement is unduly discriminatory.⁵⁰

25. AMP states that internal resources are not subjected to a modeling consistency requirement and that they do not face the possibility that system topologies change over time and that if one Balancing Authority's modeling is not updated it will create a variance greater than 2%. AMP explains that external resources would face this

⁴⁷ Pseudo-Tie Enhancement Filing at 14.

⁴⁸ See MISO-PJM Joint Operating Agreement at § 11.3.5; *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,005, at P 33 (2017).

⁴⁹ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at PP 87-88.

⁵⁰ AMP Rehearing Request at 13. See *Fla. Gas Transmission Co. v. FERC*, 604 F.3d 636, 645 (D.C. Cir. 2010) ("The substantial evidence inquiry turns . . . on whether that evidence adequately supports [FERC's] ultimate decision.").

possibility in advance of every capacity auction. AMP argues that PJM seeks to require that the external resource, prior to every capacity auction, certify to PJM that the variance between PJM's own modeling and the Native Balancing Authority's modeling is less than 2%. According to AMP, the new requirement shifts the burden of inaccurate modeling to the pseudo-tied resource in the event that the RTOs shirk their responsibility to model their systems consistently, which could result in the resource being prohibited from participating in PJM's capacity auctions.⁵¹ AMP argues that this requirement provides an opportunity for the RTOs to escape responsibility for accurate modeling. AMP states that an affirmative requirement placed on the RTOs to ensure accurate modeling would be more likely to keep the RTOs on the same page. AMP argues that PJM's proposed modeling consistency requirement is unduly discriminatory in violation of the FPA.⁵²

26. AMP argues that the Commission's finding that the 2% modeling threshold strikes a reasonable balance in allowing for sufficient modeling variance between PJM and an external Balancing Authority is unsupported, inconsistent with the facts, and therefore flawed. AMP states that while external resources may not be required to do any of the modeling under the proposal, this logic ignores the true burden on external resources, which is a prohibition from participation in PJM's capacity auctions. While AMP agrees with PJM and the Commission that variances should be minimized, AMP argues that the Commission failed to explain how the combination of modeling performed by the Balancing Authority and the desire to minimize modeling variance justified penalizing external resources for something outside of their control.⁵³

3. Commission Determination

27. We affirm our finding in the Pseudo-Tie Enhancement Order that PJM's two percent modeling consistency requirement is just and reasonable. We reiterate that the modeling requirement is well-supported by PJM's quantitative standard for modeling consistency and that modeling variance can result in diminished ability to reliably deliver energy between markets.⁵⁴ In this proceeding, we rely on PJM's representation of the robust process in which it engaged in coordinating with the relevant entity (i.e., MISO) to jointly develop the two percent standard as a reasonable threshold value in

⁵¹ AMP Rehearing Request at 13-14.

⁵² *Id.* at 14-15.

⁵³ *Id.* at 15-16.

⁵⁴ Pseudo-Tie Enhancement Order, 161 FERC ¶61,197 at PP 84-88 (citing PJM First Answer at 18-19).

order to align Generator Shift Factors⁵⁵ and Generator to Load DFAX calculations between PJM and MISO to support the market-to-market process.⁵⁶ We agree with PJM that it is beneficial for system reliability to minimize modeling variance to help avoid modeling errors that may arise between coordinating entities.⁵⁷

28. AMP agrees that the modeling consistency requirement is not a burden to external resources because they are not the entities that are required to do any of the modeling.⁵⁸ However, AMP argues that the modeling consistency requirement places a burden on the external resource because the RTO, not the external resource, makes the sole decision on whether or not the resource is accurately modeled by PJM and its Native Balancing Authority.⁵⁹ Any such burden does not render the modeling consistency requirement unduly discriminatory. PJM's filing establishes reasonable rules for when it has enough data to effectively dispatch and manage a resource that is pseudo-tied to its system. If significant discrepancies exist between PJM and the Native Balancing Authority in their modeling of the pseudo-tied resource, PJM cannot effectively determine the impact of the external resource on its system and effectively dispatch and manage that external resource. All pseudo-ties are based on the consent of both Balancing Authorities and the Balancing Authorities' adherence to reasonable requirements to ensure that the Balancing Authority dispatching the external resource can do so appropriately. Through the modeling consistency requirement, PJM is not treating external resources in an unduly discriminatory or preferential manner compared to internal resources, because this need for coordination is present only for external resources.

⁵⁵ See Pseudo-Tie Enhancement Filing at 15. Generator Shift Factors are defined as "factor[s] to be applied to a generator's expected change in output to determine the amount of flow contribution that change in output will impose on an identified transmission facility or flowgate." See *Glossary of Terms Used in NERC Reliability Standards*, North American Electric Reliability Corporation, https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf.

⁵⁶ PJM Deficiency Response at 14.

⁵⁷ *Id.* at 15.

⁵⁸ AMP Rehearing Request at 15.

⁵⁹ *Id.*

D. Firm Flow Entitlement Requirement

1. Pseudo-Tie Enhancement Order

29. In the Pseudo-Tie Enhancement Order, the Commission accepted PJM's Firm Flow Entitlement Requirement, which requires that firm allocations⁶⁰ associated with any coordinated flowgate applicable to an external resource seeking to pseudo-tie must be allocated by the external Balancing Authority to PJM. The Commission found that it was just and reasonable for PJM to expect to receive the full capacity service for which a resource would be compensated, enabling comparable treatment for external resources vis-à-vis internal resources. The Commission did not find persuasive the arguments that external resources lack recourse to obtain Firm Flow Entitlements because additional Firm Flow Entitlements can be created by transmission upgrades that expand the capability of the systems, which are often required to accommodate requests for long-term firm transmission service.⁶¹

2. Arguments on Rehearing

30. AMP argues that the Commission failed to consider the effect of the Firm Flow Entitlement requirement. The Firm Flow Entitlement requirement specifies that an external Balancing Authority must allocate any firm allocations to PJM if the flowgate is associated with any agreed-upon congestion management process in effect between PJM and another Balancing Authority on existing pseudo-tied resources that are not currently eligible for treatment as Prior CIL Exception External Resources. AMP argues that these resources already have firm transmission service from the native transmission provider in order to participate in PJM's capacity auctions. AMP argues that it is impermissible "and pricing," where a customer is charged excessively for using its existing transmission service reservations, if the external transmission provider charges a rolled-in rate and also requires the resource to pay for network upgrades in order to retain the ability to meaningfully utilize its existing transmission service reservations.

⁶⁰ See Joint Operating Agreement Between the Midcontinent Independent System Operator, Inc. And PJM Interconnection, L.L.C., Attachment 3, Appendix A Firm Flow Entitlement is defined as follows: "The firm flow entitlement (FFE) represents the net allocation on M2M Flowgates used in the market-to-market settlement process. The FFE is determined by taking the forward allocation (using 0% allocations) and reducing it by the lesser of the two day-ahead allocation in the reverse direction (using 0% allocations) or the generation-to-load impacts in the reverse direction (down to 0%). The generation-to-load impacts in the reverse direction come from the day-ahead allocation run. The forward allocation comes from the day-ahead network and native load (DA NNL) calculation. The FFE may be positive, negative or zero."

⁶¹ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at PP 100-101.

AMP argues that the Commission provided no explanation for departing from the prohibitions contained in its prior transmission pricing policies.⁶²

31. AMP argues that PJM's proposal unduly discriminates against external capacity resources, because PJM may bar their participation in the capacity auctions based on the unavailability of entitlements to flowgate rights. AMP argues that internal PJM resources are not subject to any corresponding risk. AMP states that PJM has demonstrated that the ability to address allocations of flowgate entitlements is fully within the RTOs' control, and until the RTOs address this issue in a manner that ensures these rights are reasonably and equitably available to external resources seeking to participate in PJM's capacity auctions, PJM's Firm Flow Entitlement requirement will impose a hurdle that may be impossible to overcome.⁶³

3. Commission Determination

32. We disagree with AMP's assertions related to the Firm Flow Entitlement rules and deny rehearing. Firm Flow Entitlements are the amount of firm flow (or energy flows) on a flowgate that PJM is entitled to use based on historical usage.⁶⁴ Firm Flow Entitlements represent the net allocation on market-to-market flowgates used in the market-to-market settlement process. Under PJM's existing Joint Operating Agreement provisions with MISO, the day-ahead market coordination procedures ensure that the day-ahead scheduled flows on all market-to-market flowgates are limited to no more than the Firm Flow Entitlement for each RTO based on historic flows from 2004 (the

⁶² AMP Rehearing Request at 16-18. In support, AMP cites to *Entergy Servs., Inc. v. FERC*, 319 F.3d 536, 542 (D.C. Cir. 2013) ("the Commission provided a reasoned explanation for the change in policy [T]he Commission was clarifying inadvertent statements in prior orders that would have allowed 'and' pricing, where a customer pays for use of the grid at its incremental expansion cost and later is also charged for use of the grid at its average cost." (citing *Penn. Elec. Co.*, 58 FERC ¶ 61,278, *reh'g denied*, 60 FERC ¶ 61,034, at 61,127 (1992))) and to *Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act, Order on Reconsideration and Clarifying Policy Statement*, 71 FERC ¶ 61,195, at 61,690 (1995) ("we have allowed the utility to charge transmission-only customers the higher of embedded costs or legitimate and verifiable opportunity costs, but not the sum of the two ('or' pricing).").

⁶³ AMP Rehearing Request at 18-19.

⁶⁴ See *N. Ind. Pub. Serv. Co. v. Midcontinent Indep. Sys. Operator*, 155 FERC ¶ 61,058, at P 137 n.244 (2016).

date that PJM and MISO began market-to-market coordination).⁶⁵ As PJM noted in the Pseudo-Tie Enhancement Filing, the increase in external resources seeking to pseudo-tie into PJM requires a significant amount of market-to-market congestion management flowgates, which may lead to system constraints.⁶⁶ Further, we note that because PJM's current congestion management processes with other external entities treat an external resource's energy delivery as non-firm, such processes do not guarantee that Firm Flow Entitlements can be modeled in the PJM market.

33. The Firm Flow Entitlement requirement ensures that PJM can fully utilize the external resource's firm transmission service because PJM has sufficient Firm Flow Entitlements at the flowgate. Without such a requirement, the external resource's firm transmission service effectively becomes non-firm as PJM cannot rely on the full quantity procured. As PJM explained, "[i]f the pseudo-tied resource's access to PJM through the flowgate is treated as non-firm, PJM could be exposed to M2M payments and TLR curtailments when external bottlenecks are constrained."⁶⁷

34. In the Pseudo-Tie Enhancement Order, the Commission reasoned that the Firm Flow Entitlement requirement is just and reasonable because, among other things, without the Firm Flow Entitlement, PJM would model a coordinated flowgate at a limit below the amount needed to commit the unit at its capacity obligation.⁶⁸ As the Commission stated, "we find that this requirement reasonably imposes obligations on pseudo-tied resources to ensure PJM can accurately model and procure the full amount of capacity that an external capacity resource is obligated to deliver."⁶⁹ Further, PJM's proposal seeks comparable treatment for internal and external resources participating in its markets.⁷⁰ We find that this Firm Flow Entitlement requirement will ensure that

⁶⁵ *PJM Interconnection, L.L.C.*, 154 FERC ¶ 61,019, at P 2 (2016).

⁶⁶ For the 2016/2017 Delivery Year, PJM found that pseudo-tied resource located in MISO resulted in a 41% increase in total PJM-MISO coordinated flowgates. Pseudo-Tie Enhancement Filing at 9.

⁶⁷ Pseudo-Tie Enhancement Filing at 9. *See also* Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 90.

⁶⁸ *Id.* P 100.

⁶⁹ *Id.* P 101.

⁷⁰ Pseudo-Tie Enhancement Filing at 12-13; PJM Deficiency Response at 19.

external resources will be subject to the same reliability and performance standards as PJM's internal resources.⁷¹

35. We affirm our earlier finding that it is reasonable for PJM to be able to model and procure the full amount of capacity that an external resource is obligated to deliver.⁷² The Firm Flow Entitlement requirement enables this outcome. Further, external resources retain recourse to obtain Firm Flow Entitlements and the Firm Flow Entitlement requirement both reasonably ensures comparable treatment with internal resources, which do not implicate coordination with external transmission providers, and is not unduly discriminatory or preferential because it applies to all external resources seeking to pseudo-tie into PJM.⁷³

36. With regard to AMP's concerns that it is impermissible "and pricing" to excessively charge a customer with firm transmission service from a native transmission provider for using its existing transmission service reservation, we disagree. "And pricing" occurs when a resource is charged both an incremental and a rolled-in price for the same service.⁷⁴ However, in this case, the external resource is being held responsible for two separate services, firm transmission service to reach the flowgate as well as firm flow over the flowgate. In describing its transmission service requirement, PJM considers both of these services as necessary for PJM to avail itself of the full dispatch of the external resource.⁷⁵

37. AMP argues that the Commission contradicts its transmission pricing policy because, among other things, the Commission failed to consider the effect of the Firm Flow Entitlement requirement on existing pseudo-tied resources not currently eligible for exception to the Capacity Import Limit.⁷⁶ In the Pseudo-Tie Enhancement Order, the Commission dismissed the argument that existing impediments to obtaining Firm Flow Entitlements render PJM's proposal unjust and unreasonable. As the Commission

⁷¹ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 100.

⁷² *Id.* P 101.

⁷³ *Id.* P 29.

⁷⁴ See *Old Dominion Elec. Coop. v. PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,052, at P 10 n.16 (2007) ("And' pricing generally refers to the policy allowing a utility to charge transmission-only customers the higher of embedded costs (for the system as expanded) or incremental expansion costs, but not the sum of the two.").

⁷⁵ See, e.g., Pseudo-Tie Enhancement Filing at P 16; PJM First Answer at 21-27.

⁷⁶ AMP Rehearing Request at 18.

found, the Firm Flow Entitlement requirement ensures that PJM can model a coordinated flowgate at the limit level that appropriately reflects the capacity obligation of a pseudo-tied resource with a capacity supply obligation.⁷⁷ Further, as noted above, the Commission found that PJM's Firm Flow Entitlement requirement will ensure comparability between external and internal resources and will limit PJM's exposure to market-to-market payments and potential Transmission Load Relief curtailments when flowgates may be constrained.⁷⁸ We find that the comparability standard is one of the tenets of the Commission pricing policy (for evaluating transmission pricing proposals).⁷⁹ Further, we also note that AMP has not demonstrated that the Firm Flow Entitlement requirement is inconsistent with the Commission's transmission pricing policy.

E. Firm Transmission Service & Deliverability Requirements

1. Pseudo-Tie Enhancement Order

38. In the Pseudo-Tie Enhancement Order, the Commission accepted PJM's proposed firm transmission service requirement, which required an external resource to arrange for evaluation of long-term point-to-point transmission service with rollover rights into PJM. The Commission found that this firm transmission service requirement was just and reasonable because it treats external and internal resources comparably under PJM's Capacity Performance construct by requiring that resources be similarly responsible for the delivery of capacity to the PJM market.⁸⁰ The Commission also found it reasonable to hold external resources to this firm transmission service requirement because discrepancies between PJM's system and an external system may exist that would prevent an external resource from reacquiring firm transmission service with rollover rights and that in order to continue to meet the must-offer obligation, it is just and reasonable to require an external resource to provide assurance to PJM that the resource is deliverable in a manner that is comparable to that of an internal resource.⁸¹

⁷⁷ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 100.

⁷⁸ *Id.*

⁷⁹ *See Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act, Order on Reconsideration and Clarifying Policy Statement*, 71 FERC ¶ 61,195.

⁸⁰ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 114.

⁸¹ *Id.* PP 115-116.

39. The Pseudo-Tie Enhancement Order also accepted PJM's proposal to require resources seeking to pseudo-tie to have firm transmission service evaluated for deliverability from the unit-specific physical location of the resource to PJM load pursuant to a study that is reviewed and approved by PJM in accordance with PJM deliverability criteria to ensure uniformity for internal and external resource deliverability requirements.⁸²

2. Arguments on Rehearing

40. AMP argues that the Commission erred in approving PJM's firm transmission service requirement. AMP argues that it demonstrated in prior pleadings in this proceeding that PJM's proposal would usurp the authority vested in neighboring RTOs pursuant to Order Nos. 888⁸³ and 2000,⁸⁴ which require each RTO to act as the independent administrator of its regional transmission tariff. AMP argues that accepting PJM's proposal allows PJM to infringe the rights and responsibilities of its neighboring RTOs (as well as non-RTO transmission providers).⁸⁵

⁸² *Id.* P 117.

⁸³ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996) (cross-referenced at 75 FERC ¶ 61,080), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 (cross-referenced at 78 FERC ¶ 61,220), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

⁸⁴ *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. ¶ 31,089, at 31,047 (1999) (cross-referenced at 89 FERC ¶ 61,285) *order on reh'g*, Order No. 2000-A, FERC Stats. & Regs. ¶ 31,092 (2000) (cross-referenced at 90 FERC ¶ 61,201), *aff'd sub nom. Pub. Util. Dist. No. 1 v. FERC*, 272 F.3d 607 (D.C. Cir. 2001) ("the principle of independence is the bedrock upon which the ISO must be built"); *id.* at 31,108 ("we adopt the NOPR's requirement that the RTO be the sole provider of transmission service and sole administrator of its own open access tariff.").

⁸⁵ AMP Rehearing Request at 21-22. *See La. Pub. Serv. Comm'n v. FERC*, 184 F.3d 892, 894 (D.C. Cir. 1999) ("We hold that it was arbitrary and capricious for the Commission to assess capacity costs for interruptible service without an explanation for departing from its own precedent.").

41. AMP postulates that if a neighboring transmission provider's study would confirm the reservation for firm transmission service, but PJM's own analysis indicates an issue, PJM would be positioned to simply reject the pseudo-tie as undeliverable, in effect, overriding the neighboring transmission provider.⁸⁶ AMP states that PJM seeks to dictate the study criteria of a neighboring transmission provider in evaluating the pseudo-tied resource's transmission service request, allowing PJM to reject another transmission provider's study results would give PJM a level of super-RTO authority for which there is neither precedent nor justification. AMP argues that PJM should be required to accept that determination and grant the pseudo-tie to the resource.⁸⁷

3. Commission Determination

42. We affirm our decision in the Pseudo-Tie Enhancement Order, in which the Commission found that PJM's "requirement for long-term firm transmission service with rollover rights for external resources and its deliverability criteria is just and reasonable because it treats external and internal resources comparably under PJM's Capacity Performance construct, by requiring that these resources be similarly responsible for the delivery of capacity to the PJM market."⁸⁸ PJM requires firm transmission service to the PJM border, so that PJM can be assured that the external resource meets PJM's deliverability requirements for capacity resources and will not be subject to curtailments based on the internal requirements of the other Balancing Authority. Further, as the Commission established in the Pseudo-Tie Enhancement Order, without a requirement that external resources obtain long-term transmission service, an external resource could clear PJM's capacity market for one year and then be unable to fulfill its existing tariff obligation to offer in the succeeding auction if it were unable to re-acquire firm transmission service. We continue to find that PJM's proposal mitigates that possibility.⁸⁹

43. We disagree with AMP's suggestion that, if PJM were to deny a pseudo-tie because it questioned the deliverability of firm transmission service, such a decision

⁸⁶ AMP Rehearing Request at 22.

⁸⁷ *Id.*

⁸⁸ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 114.

⁸⁹ *Id.* P 113 (As the Commission stated in the Pseudo-Tie Enhancement Order, the "requirement to have this type of firm transmission service is a necessity because PJM will not re-evaluate a pseudo-tied resource for firm transmission service going forward.").

would override a neighboring transmission provider's analysis.⁹⁰ PJM's specific deliverability criteria, which PJM already applies to internal capacity resources, may differ from the deliverability requirements of neighboring transmission providers.⁹¹ These criteria are necessary to ensure that resources can deliver to PJM reliably in the capacity market beyond what firm transmission service provides. As an example, any generation resource interconnecting inside PJM can sell energy to PJM, but participating in the capacity market may require that the resource construct upgrades to be deliverable. The criteria PJM applies to external resources similarly ensure deliverability to PJM loads. This may entail additional studies by PJM, which are intended to capture a variety of specific reliability issues that can arise with pseudo-tied resources serving as capacity resources in PJM, but were only evaluated at the time of the pseudo-tie request. We disagree with AMP's assertion that PJM seeks to dictate the study criteria of a neighboring transmission provider in evaluating the pseudo-tied resource's transmission service request. PJM's pseudo-tie requirements establish criteria a pseudo-tied resource must meet to be a PJM capacity resource, but do not place any requirements on a neighboring transmission provider's evaluation of its own transmission service. We find that nothing under PJM's proposal, or our findings accepting the proposal, usurped any RTO's or transmission provider's legal responsibilities under or rights to administer its own tariff.

F. Operationally Deliverable Standard and Section 217(b)

1. Pseudo-Tie Enhancement Order

44. In the Pseudo-Tie Enhancement Order, the Commission accepted PJM's Operationally Deliverable requirements for a Prior CIL Exception External Resource during the five-year transition period. The Commission found that the Operationally Deliverable standard appropriately allows external resources to participate in PJM's capacity market, while helping to ensure reliability by requiring that they be deliverable in a manner consistent with internal resources.⁹² The Commission was unpersuaded by

⁹⁰ AMP Rehearing Request at 22.

⁹¹ See PJM RAA, Schedule 10. This is consistent with the practice that each transmission provider is permitted its own deliverability requirements under its tariff to ensure generation is deliverable to load. See, e.g., *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 118 FERC ¶ 61,218, at P 1102, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007). (“[T]here is an explicit requirement in the transmission planning standards that all firm load must be supplied under various system conditions with and without contingencies. The Commission is not prescribing how these requirements should be met.”).

⁹² Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 168.

arguments that this standard gave PJM too much discretion or was too ambiguous, finding that it was no broader than other planning provisions under the PJM Tariff.⁹³

45. The Commission was also unpersuaded by arguments that PJM's unilateral authority under this standard threatens the vested rights of market participants under section 217 of the FPA, reiterating earlier findings where the Commission held, in challenges to PJM's Capacity Import Limit, that section 217 does not apply to capacity markets.⁹⁴

2. Arguments on Rehearing

46. In its request for rehearing, IMEA raises two issues for consideration: what is the correct interpretation of section 217(b) of the FPA and does the Commission's decision in the Pseudo-Tie Enhancement Order violate the sanctity of contracts.⁹⁵ On the first issue, IMEA argues that the Commission's determination that section 217(b) only applies to the energy markets effectively destroys the self-supply rights of Load Serving Entities (LSEs). IMEA argues that if section 217(b) does not apply to capacity obligations, then RTOs like PJM can make an FPA section 205 filing to eliminate all self-supply options and exceptions based on the position that it is better for reliability purposes that the RTO has control of all resources and all resource planning.⁹⁶ IMEA continues that if there is no statutory basis for LSEs having self-supply rights, the question on such a filing is simply whether the RTO's determination that the RTO itself will be the sole and single source of capacity is just and reasonable.

47. IMEA contends that the Commission's interpretation of section 217(b) in the Pseudo-Tie Enhancement Order is contrary to the plain language of the statute and its implementing regulations and that the approved Tariff revisions grant PJM extremely broad authority over pseudo-ties and violate the statutory rights afforded to IMEA by section 217(b).⁹⁷ IMEA distinguishes the Commission precedent cited in the Pseudo-Tie Enhancement Order as no longer being valid because the Tariff provisions approved in

⁹³ *Id.* P 169.

⁹⁴ *Id.* P 178, n.281 (citing *Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681, FERC Stats. & Regs. ¶ 31,226, at P 22 (cross-referenced at 116 FERC ¶ 61077), *reh'g denied*, Order No. 681-A, 117 FERC ¶ 61,201 (2006), *order on reh'g and clarification*, Order No. 681-B, 126 FERC ¶ 61,254 (2009)).

⁹⁵ IMEA Rehearing Request at 4.

⁹⁶ *Id.*

⁹⁷ *Id.* at 7.

the Pseudo-Tie Enhancement Order give PJM unilateral discretion over the “Operationally Deliverable” standard.⁹⁸ IMEA argues that the recently approved Operationally Deliverable standard conditions the import limit exception that was available to IMEA on PJM’s sole discretion.⁹⁹ IMEA also argues that the new Operationally Deliverable standard affects the deliverability assurances of both the Network Integration Transmission Service (NITS) and Dynamic Transfer Agreements and no longer guarantees continuation of a pseudo-tie because of PJM’s discretion to apply the standard.¹⁰⁰

48. IMEA argues the plain language of FPA section 217 entitles it to self-supply its load without conditions imposed by PJM. IMEA states that the Commission’s interpretation of section 217 is contrary to rules of statutory construction. It argues that the Commission has effectively removed the entire self-supply rights of section 217 by creating the exception that capacity is not part of the service obligation that an LSE has a right to self-supply.¹⁰¹ In support, IMEA states that nothing about the text of section 217 invokes the energy/capacity distinction upon which the Commission has relied in dismissing IMEA’s argument about the protections afforded by section 217(b).¹⁰²

49. IMEA further contends that whether the Commission is wrong that FPA section 217(b) only applies to energy, not capacity, depends on whether the term “service obligation” in section 217(b) can be interpreted to be restricted to energy aspects of electricity, but exclude the aspects of electricity that have come to be known as capacity.¹⁰³ IMEA argues that no terms of the statutory language for section 217 suggest the distinction between energy and capacity and in fact the distinction is contradicted by the definition of service obligation from the FPA. IMEA states that FPA section 217(a)(2) defines the term “service obligation” to mean: a requirement applicable to, or the exercise of authority granted to, an electric utility under Federal, State, or local law or under long-term contracts to provide electric service to end-users

⁹⁸ *Id.* at 8. *See, e.g., PJM Interconnection, L.L.C.*, 150 FERC ¶ 61,041, at P 19 (2015).

⁹⁹ IMEA Rehearing Request at 9.

¹⁰⁰ *Id.* at 10.

¹⁰¹ *Id.* at 12.

¹⁰² *Id.* at 14.

¹⁰³ *Id.*

or to a distribution utility.¹⁰⁴ IMEA states that the capacity obligation imposed on each LSE by the Tariff and/or other governing documents of PJM is clearly a “‘requirement applicable to an electric utility ... or to a distribution utility,’ and therefore is a service obligation within the meaning of section 217(b) of the FPA.”¹⁰⁵ IMEA concludes that on this basis, the capacity obligation is within the meaning of the definition of service obligation under section 217.¹⁰⁶

50. IMEA argues that due to its load being divided between PJM and MISO and the majority of its generation resources being located in MISO, it had no choice but to attempt to pseudo-tie its generation resources when PJM implemented its Capacity Import Limit on External Resources.¹⁰⁷ IMEA states that it did so by coordinating with all the involved parties and then entering into a Dynamic Transfer Agreement with PJM for each resource. IMEA states that it continues to serve its loads in Illinois with its generating resources located in Ameren Illinois using its long-term, firm transmission rights and the pseudo-ties.¹⁰⁸ IMEA argues that the Commission’s approval of “PJM’s attempt to force a restudy of the deliverability every year through pseudo-tie requirements cannot be reconciled with section 217(b) and 18 CFR §42.1(d)(4). It argues that if a separate deliverability test is allowed under the guise of the pseudo-tie requirements, IMEA’s transmission reservations will become worthless because they would no longer be able to do what they were granted to do.¹⁰⁹

51. Regarding the second issue, the sanctity of contracts, IMEA argues that if contract rights granted to LSEs by RTOs in accordance with their tariff can be eroded by changing the nature of the service under the tariff, the contract right is no longer sufficient to meet the originally intended service obligation for which the contract right was granted. In such cases, IMEA continues, LSEs no longer have the ability to plan for

¹⁰⁴ 16 U.S.C. § 824q(a)(2)(2018).

¹⁰⁵ IMEA Rehearing Request at 16.

¹⁰⁶ *Id.* IMEA also distinguished the use of the phrase “purchased energy” in FPA section 217. IMEA argues that the use of the phrase purchased energy in the context of an LSE meeting its service obligation does not justify the Commission’s decision to not apply section 217 to capacity. *Id.* at 17-18.

¹⁰⁷ *Id.* at 20.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.* at 21.

the long term and make effective self-supply decisions and investments.¹¹⁰ IMEA argues that PJM's proposed Tariff revisions and its *pro forma* agreements would unilaterally amend the terms of both the NITS Agreements filed under the Tariff and the Dynamic Transfer Agreements.¹¹¹ IMEA argues that the PJM proposal would grant PJM the unilateral authority to make the NITS rights useless by terminating the associated pseudo-ties. IMEA argues that PJM cannot unilaterally alter the NITS Agreements and the Dynamic Transfer Agreements through the proposed changes to the Tariff and that the Commission should conclude that the Tariff changes proposed cannot abrogate the contractual rights that IMEA has under its current NITS and Dynamic Transfer Agreements with PJM.¹¹²

3. Commission Determination

52. For the reasons discussed below, we deny IMEA's request for rehearing. In order to safeguard against many of the issues raised by IMEA, PJM has expressly recognized the rights of prior holders of firm transmission rights. Section 5.5A(c) of Attachment DD of PJM's Tariff exempts from its new pseudo-tie requirements any Load Serving Entity that owns a resource that is "used to self-supply (under arrangements initiated before June 1, 2016, with a duration of at least ten years) such entity's PJM Region load" or is "the subject of a contract for energy or capacity or equivalent written agreement entered into on or before June 1, 2016 for a term of ten years or longer with a purchaser that is an internal PJM load customer."¹¹³

53. PJM, however, does require that Load Serving Entities qualifying for these exceptions must still satisfy its Operationally Deliverable standards. PJM has stated that IMEA should qualify under this provision and that it "is committed to working with IMEA to resolve any deliverability issues if they arise just as PJM will with any Capacity Market Seller."¹¹⁴ PJM points out that it "has not [at this time] identified any operational deliverability issues that will affect Capacity Market Sellers in the upcoming

¹¹⁰ *Id.*

¹¹¹ *Id.* at 22.

¹¹² *Id.* at 26.

¹¹³ Intra-PJM Tariffs, OATT VI. Administration and Study of New Service Requests, OATT Attachment DD.5.5A Capacity Resource Types.

¹¹⁴ PJM Answer to Protests to and Comments on Response To Deficiency Letter at 6.

Delivery Year.”¹¹⁵ Moreover, PJM noted that the goal of the Capacity Import Limit exception is to “accommodate, not exclude,” Operationally Deliverable long-term contracts.¹¹⁶ Should PJM determine that IMEA fails to qualify under the Operationally Deliverable standards, IMEA can challenge that determination under FPA section 206.

54. We find that requiring that generation used to serve LSE’s capacity requirements meet an Operationally Deliverable requirement is not a violation of section 217 of the FPA. Section 217 provides that LSEs are entitled to use their firm transmission rights to meet their service obligations to deliver energy:

Any [LSE] described in [section 217(b)(1)] is entitled to use the firm transmission rights, or, equivalent tradable or financial transmission rights, in order to deliver the output or purchased energy, or the output of other generating facilities or purchased energy to the extent deliverable using the rights, to the extent required to meet the service obligation of the [LSE].¹¹⁷

In prior orders, the Commission has found that section 217 of the FPA applies to energy, not capacity. Section 217 provides that LSEs, such as IMEA, are entitled to use their firm transmission rights, or equivalent, to deliver *energy* to meet their service obligations.¹¹⁸ As explained in those orders, unlike energy markets, RTOs implement capacity markets to ensure long-term reliability and resource adequacy and, therefore, different requirements for using generation may be applied to capacity and energy markets.¹¹⁹

¹¹⁵ PJM First Answer at 44.

¹¹⁶ See *id.*; PJM Answer to Protests to and Comments on Response to Deficiency Letter at 5-7.

¹¹⁷ 16 U.S.C. § 824q(b)(2).

¹¹⁸ See *Midcontinent Indep. Sys. Operator, Inc.*, 162 FERC ¶ 61,176, at PP 86-91 (2018); See *PJM Interconnection, L.L.C.*, 150 FERC ¶ 61,041, at P 19 (2015).

¹¹⁹ *PJM Interconnection, L.L.C.*, 150 FERC ¶ 61,041 at P 19 (“Section 217 applies to firm transmission rights or financial transmission rights. These rights apply in the energy market. Capacity markets, however, were established to ensure the long-term reliability and adequacy of the system and, therefore, different requirements may reasonably be applied to these markets.”).

55. In addition, Commission Order No. 681 applied the requirements of section 217 of the FPA to energy and ancillary service markets but not to capacity markets.¹²⁰ The Commission's regulations require only that "[t]he long-term firm transmission right must provide a hedge against day-ahead locational marginal pricing congestion charges or other direct assignment of congestion costs for the period covered and quantity specified."¹²¹ The day-ahead market and congestion charges are only applicable to the energy market.

56. Even if section 217 did apply to generation used to satisfy PJM's capacity requirements, we do not see the need to limit or restrict the applicability of the Operationally Deliverable requirement. Section 217 does not necessarily require RTOs to provide for transmission from particular generators. Section 217 permits PJM to award "tradable or financial transmission rights" in lieu of physical rights.¹²² Awarding financial rights would not require PJM to include IMEA's particular generation in the capacity market; it would require only that PJM provide financial relief to IMEA accounting for the difference between using its generation to satisfy its capacity commitment and the cost of capacity through the PJM market. IMEA's challenge to the Operationally Deliverable standard in this filing therefore goes well beyond the section 217 requirements.

57. Besides challenging the adoption of the Operationally Deliverable standard as applied to LSEs with historic section 217 rights, IMEA contends the substance of the proposed Operationally Deliverable standard applied to LSEs is unreasonable insofar as it provides PJM with sole discretion in applying the Operationally Deliverable standard. We do not find that the Operationally Deliverable standard is unjust and unreasonable. While PJM does reserve the right in its own discretion to make the determination that a resource does not meet its standards to qualify as a pseudo-tie resource, PJM is required to notify the LSE of its determination and the LSE can challenge PJM's action using dispute resolution procedures as provided for in the PJM Tariff or by filing a complaint with the Commission under section 206 of the FPA. Moreover, in the Pseudo-Tie Enhancement Order, the Commission also found that this provision was too vague and required PJM to include a new section in its Tariff that identifies the key triggers for making the determination that a resource is not deliverable.¹²³ As required, PJM

¹²⁰ *Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681, FERC Stats. & Regs. ¶ 31,226, at PP 78-83, *reh'g denied*, Order No. 681-A, 117 FERC ¶ 61,201, *reh'g denied*, Order No. 681-B, 126 FERC ¶ 61,254.

¹²¹ 18 CFR § 42.1(d)(2) (2019).

¹²² 16 U.S.C. § 824q(b)(2).

¹²³ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 177.

included the Commission's requirement in section 5.5A(c)(iv) of Attachment DD of PJM's Tariff and, as discussed below, we accept PJM's Compliance Filing. IMEA does not challenge the reasonableness of those triggers on rehearing.

58. Finally, the Commission disagrees with IMEA that the Tariff changes accepted by the Commission in the Pseudo-Tie Enhancement Order and in various sections of the PJM *pro forma* agreements unlawfully abrogate IMEA's contract rights under the NITS Agreements or Dynamic Transfer Agreements. As noted by PJM, it has not made any modifications to these agreements and stands ready to perform them.¹²⁴ IMEA is arguing that it had assumed those agreements would guarantee it capacity payments for the length of the contracts without modification. But that assumption is without foundation as PJM has reserved the right to file revisions to the capacity market pursuant to the just and reasonable standard of review, and we find the proposed revisions just and reasonable.

V. Compliance Filing

60. In compliance with the Pseudo-Tie Enhancement Order, on December 15, 2017, PJM submitted proposed modifications to its Tariff.¹²⁵ PJM requests a May 9, 2017 effective date for the changes proposed in its Compliance Filing. PJM's Compliance Filing is consistent with the Commission's directives from the Pseudo-Tie Enhancement Order¹²⁶ and, accordingly, accepted, effective May 9, 2017.

¹²⁴ PJM Answer to Protests and Comments on Response to Deficiency Letter at 5-7. Moreover, these are *pro forma* agreements, which are part of PJM's Tariff, and therefore are not individually negotiated bilateral agreements, as IMEA argues, that would be subject to the higher "public interest" standard of review. *See PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,262 (2017) (finding that *pro forma* ISA contains generally applicable provisions and therefore not protected by the *Mobile-Sierra* "public interest" presumption accorded to bilateral agreements); *Petal Gas Storage, L.L.C.*, 135 FERC ¶ 61,152, at P 12 (2011) (*pro forma* service agreements incorporating terms and conditions of service are not covered by the higher "public interest" standard).

¹²⁵ *See supra* P 7.

¹²⁶ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at PP 62, 79, 136, 138, 170, 177 and 193.

The Commission orders:

(A) IMEA's and AMP's requests for rehearing are hereby denied, as discussed in the body of this order.

(B) PJM's Compliance Filing is hereby accepted, with an effective date of May 9, 2017.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

Appendix A

Tariff Records Accepted PJM Interconnection, L.L.C. Intra-PJM Tariffs

[OATT Definitions – O – P - Q, 16.0.1](#)

[OATT Definitions – T – U - V, 10.0.1](#)

[ATTACHMENT DD.5.5A, OATT ATTACHMENT DD.5.5A Capacity Resource Types, 2.0.2](#)

[OATT ATT DD.5.12, OATT ATTACHMENT DD.5.12 Conduct of RPM Auctions, 19.0.0](#)

[ATTACHMENT DD.10A, OATT ATTACHMENT DD.10A CHARGES FOR NON-PERFORMANCE AND CREDI, 2.0.2](#)