

171 FERC ¶ 61,150
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Tilton Energy LLC

Docket No. EL18-145-000

v.

PJM Interconnection, L.L.C.

ORDER ON PAPER HEARING AND DENYING COMPLAINT

(Issued May 21, 2020)

1. On May 11, 2018, Tilton Energy LLC (Tilton) filed, pursuant to sections 206, 306, and 309 of the Federal Power Act (FPA),¹ and Rule 206 of the Commission's Rules of Practice and Procedure,² a complaint against PJM Interconnection, L.L.C. (PJM) (Complaint). Tilton alleges that PJM wrongly determined that Tilton's pseudo-tie from the Midcontinent Independent System Operator, Inc. (MISO) Balancing Authority Area³ into the PJM Balancing Authority Area does not pass the market-to-market flowgate test set forth in the PJM Open Access Transmission Tariff (Tariff) at Attachment DD, Section 5.5A(b)(i)(B) (Flowgate Test). Thus, Tilton alleges that PJM wrongly determined that the pseudo-tied resource would not be eligible to participate in the PJM capacity auctions after the 2021/2022 Delivery Year. Tilton requests that the Commission direct PJM to reverse its determination. On September 20, 2018, the

¹ 16 U.S.C. §§ 824e, 825e, 825h (2018).

² 18 C.F.R. § 385.206 (2019).

³ A Balancing Authority Area is "[t]he collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area." See North American Electric Reliability Corporation, *Glossary of Terms Used in NERC Reliability Standards*, (NERC Glossary), https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf.

Commission established paper hearing procedures to examine issues raised in the Complaint, including PJM's interpretation and application of the Flowgate Test.⁴ In this order, we deny the Complaint, as discussed below.

I. Background

2. In order for external resources to participate in PJM's capacity auctions, they must be pseudo-tied from their native Balancing Authority Area into PJM.⁵ In order to be eligible for a pseudo-tie, an external resource must meet a set of threshold requirements that the Commission approved in November 2017 in the Pseudo-Tie Enhancement Order.⁶ One of those requirements, referred to herein as the Flowgate Test, is the subject of the Complaint.

3. In the Pseudo-Tie Enhancement Order, the Commission approved a five-year transition period to allow resources that had an existing pseudo-tie to meet the new threshold requirements. This transition period applied to pseudo-tied resources that had cleared in a capacity market auction prior to May 9, 2017.⁷ Resources subject to the transition period are required to comply with the Flowgate Test and PJM's other new pseudo-tie requirements by May 2019 in order to be eligible to offer into the capacity auction for the 2022/2023 Delivery Year.

4. Although the Flowgate Test determines the eligibility of a pseudo-tied *external* resource, the test focuses on *internal* resources, because PJM may use a dispatchable internal resource to alleviate the impact on congestion caused by the external pseudo-tied resource. For an external resource to pass the Flowgate Test, the pseudo-tied resource must meet the following requirement:

at least one generation resource that has [an] historic economic minimum offer lower than its historic economic

⁴ *Tilton Energy LLC v. PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,204 (2018) (Paper Hearing Order). A pseudo-tie refers to a time-varying energy transfer that is updated in real-time and included in the actual net interchange term in the same manner as a tie-line in the affected Balancing Authorities' Reporting Area Control Error equation. See NERC Glossary.

⁵ See *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at PP 96-97 (2015), *order on reh'g*, 155 FERC ¶ 61,157 (2016).

⁶ *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,197 (2017) (Pseudo-Tie Enhancement Order), *reh'g denied*, 170 FERC ¶ 61,217 (2020).

⁷ *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,197 at PP 119, 134-138.

maximum offer, located inside the metered boundaries of the PJM Region, has a minimum flow distribution impact of 1.5 percent on each eligible coordinated flowgate resulting from such Pseudo-Tie.⁸

When PJM proposed the Flowgate Test, PJM explained that the purpose of the Flowgate Test is to ensure PJM does not have to “add[] new coordinated flowgates unless PJM has adequate options to manage congestion on that flowgate in addition to reducing the output of the pseudo-tied resource itself.”⁹

5. PJM’s Manual 12: Balancing Operations (Manual 12) specifies five steps in PJM’s application of the Flowgate Test:

1. Identify new coordinate [*sic*] flowgates impacted by requested Pseudo-Tie pursuant to any interregional agreements.
2. Identify flexible internal PJM Generation.
3. Perform analysis to determine the percentage of flow impact (shift factor) for a transfer of flow from the flexible internal PJM Generation with respect to the PJM RTO load on coordinated flowgates previously identified.
4. Identify which coordinated flowgates have a flexible internal PJM generator with at least ± 1.5 [percent] impact.
5. If any flowgates do not have an internal PJM generator with at least ± 1.5 [percent] impact, the resource fails the

⁸ *Id.* P 79 (directing PJM to revise PJM, Intra-PJM Tariffs, OATT, Attachment DD, § 5.5A(b)(i)(B), setting forth the Flowgate Test, to include the 1.5% impact level, as quoted above); *see also* PJM, Compliance Filing, Docket No. ER17-1138-002 (filed Dec. 15, 2017) (accepted Mar. 20, 2020, *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,217).

⁹ Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 63; *see also* PJM, Pseudo-Tie Enhancement Filing at 14-15, Docket No. ER17-1138-000 (filed Mar. 9, 2017) (Pseudo-Tie Enhancement Filing).

M2M Flowgate Eligibility Test and will not be approved for implementation.¹⁰

II. Complaint Overview

6. Tilton states that it owns and operates a 176 MW natural gas-fired generation facility (Facility) located in Tilton, Illinois within the MISO Balancing Authority Area. Tilton explains that the Facility has been pseudo-tied into PJM for approximately two years¹¹ and has cleared in each of PJM's last two Base Residual Auctions.¹² Tilton explains that the Facility qualified for the transition period and thus is allowed to remain pseudo-tied through the 2021/2022 Delivery Year, but it must demonstrate compliance with the Flowgate Test and PJM's other pseudo-tie criteria before offering into PJM's Base Residual Auction for the 2022/2023 Delivery Year, to be held in May 2019.¹³ Tilton states that on December 26, 2017, PJM notified Tilton that the Facility is not

¹⁰ PJM Manual 12: *Balancing Operations* at 94-95 (Attachment F: Dynamic Transfers) (Rev. 38, effective Apr. 20, 2018) (Manual 12), <http://www.pjm.com/-/media/documents/manuals/m12.ashx>.

¹¹ Complaint at 6.

¹² *Id.* at 9. The last two capacity Base Residual Auctions include the May 2017 and May 2018 capacity auctions for the 2020/2021 and 2021/2022 Delivery Years, respectively.

¹³ *Id.* at 4. We note that on August 30, 2018, the Commission granted PJM's request for waiver to delay the 2019 Base Residual Auction for the 2022-2023 delivery year from May 2019 to August 14-28, 2019. *PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,153 (2018). On July 25, 2019, the Commission ordered PJM not to run the 2019 Base Residual Auction in August 2019 (*Calpine Corp. v. PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,051, at P 2 (2019)), and PJM delayed the 2019 Base Residual Auction and all subsequent Base Residual Auctions indefinitely, pending further Commission action (PJM Message Regarding Suspension of Reliability Pricing Model Base Residual Auction Activities and Deadlines Until Further Notice (issued Sept. 27, 2019), <https://pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2022-2023/2022-2023-pjm-message-regarding-suspension-of-rpm-base-residual-auction-activities-and-deadlines-until-further-notice.ashx?la=en>). On December 19, 2019, the Commission issued an order that, among other things, required PJM to propose revised dates and a timeline for the 2019 Base Residual Auction and the May 2020 Base Residual Auction. *Calpine Corp. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,239, at P 4 (2019), *order on reh'g*, 171 FERC ¶ 61,035, at P 373 (2020).

eligible for a pseudo-tie into PJM after the 2021/2022 Delivery Year because 44 of the tested flowgates failed the Flowgate Test.¹⁴

7. Tilton asserts that PJM erred in concluding that the Facility failed the Flowgate Test because the PJM Tariff provides that the Flowgate Test is applied to “each eligible coordinated flowgate resulting from such Pseudo-Tie,” and PJM has acknowledged that none of the 44 tested flowgates are coordinated flowgates. Tilton argues that PJM should not be permitted to disqualify the Facility’s pseudo-tie even if flowgates that are currently uncoordinated may become coordinated in the future.

8. Tilton further argues that even if the Commission finds PJM’s extension of the Flowgate Test to uncoordinated flowgates to be consistent with the Tariff, application of the test in that manner is unjust and unreasonable because it permits PJM to terminate a pseudo-tie without any demonstrated need to do so to protect PJM customers from congestion costs on coordinated flowgates.¹⁵ Tilton argues that PJM’s application of the Flowgate Test will exclude needed Tilton capacity from the PJM capacity market without reasonable justification because there is nothing that Tilton can do to come into compliance—namely, there is no way for Tilton to affect whether an internal resource has a minimum impact on the 44 tested flowgates.¹⁶ Tilton also argues that PJM has refused to provide it with documentation supporting the Flowgate Test results, and asks the Commission to direct PJM to comply with its request for documentation, subject to Tilton’s signing a confidentiality agreement.¹⁷ The Complaint is addressed in greater detail below.

¹⁴ Complaint at 5.

¹⁵ *Id.* at 8. Tilton also asserts that the application of the Flowgate Test is unjust and unreasonable as applied to coordinated flowgates, contending that the premise of the test is flawed, and it is designed to preclude most if not all external resources from being pseudo-tied. *Id.* at 8 n.14.

¹⁶ *Id.* at 9. Tilton asserts that Order No. 890-A, in which the Commission concluded that transmission providers are not required to accommodate a pseudo-tie, should not be interpreted as granting unfettered discretion to terminate an existing pseudo-tie after a generator has relied on the transmission provider’s accommodation of the pseudo-tie. *Id.* at 9 n.17 (citing *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890-A, 121 FERC ¶ 61,297 at P 631 (2007)).

¹⁷ *Id.* at 9-10.

III. Notice and Responsive Pleadings

9. The September 20, 2018 Paper Hearing Order described the notice of the Complaint and responsive pleadings.

10. On October 4, 2018 and October 9, 2018, respectively, Vistra Energy Corp. and Dynegy Marketing and Trade, LLC (collectively, Vistra) and Entergy Services, LLC filed motions to intervene out-of-time. PJM filed a response to the Paper Hearing Order (PJM Paper Hearing Response) on November 5, 2018. Brookfield Energy Marketing, LP (Brookfield) filed a reply on December 4, 2018 (Brookfield Paper Hearing Reply) and Tilton filed a reply on December 6, 2018 (Tilton Paper Hearing Reply). On January 9, 2019, PJM filed an answer to Tilton's and Brookfield's replies (PJM Paper Hearing Answer).

11. As the answers and comments to the Complaint were summarized in detail in the Paper Hearing Order, we will not repeat those detailed summaries here.¹⁸ Further, as noted above, the parties have exchanged numerous answers and replies to the Paper Hearing Order. We summarize below the final positions of the parties with regard to each issue.¹⁹

12. On May 7, 2019, Tilton filed a motion to lodge two answers filed by PJM in a separate proceeding involving a complaint filed by Brookfield against PJM in Docket No. EL19-34-000 (Motion to Lodge). In its motion, Tilton asserts that PJM in those two answers has disclosed new information indicating that PJM considers previously unknown factors, and makes black box adjustments to the transmission system topology in applying the Flowgate Test to different external generation resources. Tilton contends that this information has not been disclosed in the instant proceeding, despite its "clear relevance" to the issues at hand.²⁰ PJM filed an answer to Tilton's Motion to Lodge on May 22, 2019.

¹⁸ See Paper Hearing Order, 164 FERC ¶ 61,204, at PP 13-37.

¹⁹ We also note that the Paper Hearing Order addressed the timely and late-filed motions to intervene in the instant proceeding and accepted American Municipal Power's (AMP), Brookfield's, the Independent Market Monitor for PJM's (IMM), PJM's, and Tilton's answers to the answers and comments filed in this proceeding. See *id.* PP 38-40.

²⁰ Motion to Lodge at 1.

IV. Discussion

A. Procedural Matters

13. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2019), we grant Vistra's and Entergy Services, LLC's late-filed motions to intervene given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

14. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to an answer unless otherwise ordered by the decisional authority. We accept PJM's answer to Tilton's and Brookfield's answers because it has provided information that assisted us in our decision-making process.

15. We deny Tilton's motion to lodge, as it does not provide information that has assisted us in our decision-making process.²¹ We will address the PJM answers addressed in the motion in the appropriate proceeding.²²

B. Substantive Matters

16. As discussed below, we find that Tilton has not met its burden of proof under section 206 of the FPA, and, therefore, we deny Tilton's Complaint against PJM that its pseudo-tie should have passed the Flowgate Test, and thus be eligible to participate in the capacity auctions after the 2021/2022 Delivery Year. We address each of the disputed issues next.

²¹ See, e.g., *NextEra Energy Res., LLC v. ISO New England, Inc.*, 156 FERC ¶ 61,150, at P 13 (2016).

²² While we deny Tilton's Motion to Lodge, we note that in an order issued today in Docket No. EL19-34-000, the Commission grants in part Brookfield's complaint against PJM with regard to the Flowgate Test, finding that Brookfield raises a legitimate concern regarding the lack of a sufficient level of notice and transparency with respect to the Flowgate Test in PJM's Tariff. *Brookfield Energy Mktg. LP v. PJM Interconnection, L.L.P.*, 171 FERC ¶ 61,151 (2020). While we believe the issues raised by PJM's answers in Docket No. EL19-34-000 are best addressed in that proceeding, we note that the resulting notice and transparency requirements should benefit all pseudo-tie applicants in the future, including Tilton.

1. **PJM's Application of the Flowgate Test to Uncoordinated Flowgates**

a. **Complaint**

17. Tilton asserts that PJM erred in concluding that the Facility failed the Flowgate Test because the PJM Tariff provides that the Flowgate Test is applied to “each eligible coordinated flowgate resulting from such Pseudo-Tie,” and PJM has acknowledged that none of the 44 tested flowgates are coordinated flowgates. According to Tilton, “PJM has not been required to take on any additional responsibility for market congestion management to accommodate the Tilton Pseudo-Tie since its inception almost two years ago.”²³ Tilton asserts that PJM’s application of the Flowgate Test to the Facility is inconsistent with the Tariff and the intent of the test, which was intended to set “objective standards for when [PJM] will assume market congestion management for new coordinated flowgates solely to accommodate a pseudo-tied resource” and is “designed to establish limits on the number of new coordinated flowgates that PJM must add to accommodate a proposed pseudo-tie.”²⁴ Because “no new coordinated flowgates are necessary to accommodate the existing Tilton Pseudo-Tie,” Tilton argues, “the Tilton Pseudo-Tie clearly passes the Flowgate Test as contemplated by the Tariff and the Commission.”²⁵

18. Tilton argues that PJM should not be permitted to disqualify the Facility’s pseudo-tie even if flowgates that are currently uncoordinated may become coordinated in the future. Tilton argues that the Flowgate Test is akin to a generator interconnection study and is an eligibility test; once a resource’s pseudo-tie passes it, any subsequent changes to the system should not adversely affect the pseudo-tie.²⁶ Tilton asserts: “It is discriminatory and unjust and unreasonable to shift the consequences of other system users’ flow impacts to existing pseudo-tied resources that have not changed their operating parameters.”²⁷

²³ Complaint at 5.

²⁴ *Id.* at 6 (citing Pseudo-Tie Enhancement Filing at 4, 14-15; Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 63).

²⁵ *Id.*

²⁶ *Id.* at 7 (citing Pseudo-Tie Enhancement Filing at 15).

²⁷ *Id.*

b. Answers

19. As noted above, the parties exchanged numerous answers in response to the Complaint, which were summarized in detail in the Paper Hearing Order. A consolidated summary of each party's position in these answers follows.

20. PJM contends Tilton has failed to meet its FPA section 206 burden of proof to demonstrate that PJM has applied its Tariff in an unjust, unreasonable, or unduly discriminatory manner.²⁸ According to PJM, the fact that MISO has not yet invoked its coordination rights to require PJM to take responsibility for Tilton's effects on certain flowgates will not alter PJM customers' exposure to coordination costs in the event that MISO does so in the future. According to PJM, the purpose of the Flowgate Test is to ensure that PJM assumes responsibility for coordinating a new flowgate to facilitate a pseudo-tie only if at least one PJM internal resource also has an appropriate flow impact on that flowgate.²⁹ Thus, PJM asserts that the Flowgate Test applies to flowgates that were uncoordinated before the pseudo-tie but would become eligible for coordination as a result of a pseudo-tie under PJM's new pseudo-tie rules.³⁰ PJM asserts this is consistent with the practical meaning and purpose of the Tariff provision, which is to require PJM to accommodate pseudo-ties only when accommodating them would not cause PJM to become responsible for coordinating flowgates for which there are very limited PJM alternatives for relieving constraints.³¹ PJM contends that this interpretation is consistent with the Commission's statements in the Pseudo-Tie Enhancement Order that the test requires PJM to assess "all *new flowgates [PJM] would need to coordinate as a result of the pseudo-tie,*" and that "if the proposed pseudo-tie would require PJM to *add a new*

²⁸ PJM Answer at 6 (citing *Ameren Servs. Co. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,161, at P 9 (2008), *order on reh'g*, 127 FERC ¶ 61,121 (2009); *Cal. Mun. Utils. Ass'n v. Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,315, at PP 69-72 (2009), *reh'g denied*, 143 FERC ¶ 61,174 (2013); *Nantahala Power & Light Co.*, Opinion No. 139, 19 FERC ¶ 61,152, at 61,276, *reh'g denied*, Opinion No. 139-A, 20 FERC ¶ 61,430, *reh'g denied & clarified*, Opinion No. 139-B, 21 FERC ¶ 61,222 (1982)).

²⁹ *Id.* at 7 (citing Pseudo-Tie Enhancement Filing at 15).

³⁰ *Id.*

³¹ PJM Second Answer at 7 (emphasis in original).

coordinated flowgate that does not meet these conditions, the external [Generation Capacity Resource] would not be qualified.”³²

21. PJM further explains that if it were to wait until after committing to a pseudo-tie to learn that coordination is required on a flowgate, then it would be too late to protect PJM loads from exposure to external Balancing Authority congestion costs that PJM could not effectively manage with PJM resources.³³ PJM asserts that it cannot control whether or when a flowgate will become coordinated after a pseudo-tie is in place, and that an approach that applies the Flowgate Test only to pseudo-ties that are already coordinated would unduly advantage external resources and unduly harm PJM loads.³⁴ PJM also notes that the Commission explicitly found that the Flowgate Test does not pose an undue barrier to PJM’s capacity market,³⁵ and that there is no basis for allegations that the Flowgate Test could have adverse impacts on the competitiveness of the capacity market.³⁶ Finally, PJM asserts that issues regarding the application of the Flowgate Test to Brookfield’s facilities, as described below, are outside the scope of this proceeding, and that differences between preliminary and final results of the Flowgate Test are to be expected.³⁷

22. Tilton contends that the test does not apply to all uncoordinated flowgates affected by the pseudo-tied resource; rather, the test applies only to flowgates that PJM is “required to add to the coordination process” to maintain the pseudo-tie.³⁸ As applied to the Tilton Facility, Tilton asserts that MISO has not sought coordination of any of the flowgates that failed the Flowgate Test, and PJM has not provided any evidence showing that MISO intends to do so; therefore termination of the pseudo-tie is premature.³⁹ Tilton also asserts that PJM mischaracterized the Commission’s holdings in the Pseudo-Tie

³² PJM Answer at 10 (quoting, with emphasis added, Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 79).

³³ PJM Second Answer at 4.

³⁴ *Id.* at 5-6 (citing MISO-PJM JOA, Attachment 2, Congestion Management Process, § 3.2).

³⁵ *Id.* at 10 (citing Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76).

³⁶ *Id.* at 11.

³⁷ *Id.* at 12.

³⁸ Tilton Answer at 3.

³⁹ *Id.* at 3-6.

Enhancement Order, failing to quote portions indicating that the Commission understood the test to apply to flowgates that PJM must in fact coordinate.⁴⁰ Tilton also argues that if the flowgates the Tilton Facility failed had been coordinated prior to PJM's application of the Flowgate Test, then the pseudo-tie would have passed. Tilton asserts that this result is unjust and unreasonable because, under that scenario, PJM would have had significantly more responsibility.

23. AMP and Brookfield agree with Tilton that PJM's application of the Flowgate Test is contrary to the plain language of the Tariff and inconsistent with the use of the terms "Coordinated Flowgates" and other "Flowgates" in the MISO-PJM JOA.⁴¹ Brookfield contends that PJM's interpretation of the term "eligible coordinated flowgate" as applying to a flowgate that would become eligible for coordination as a result of the pseudo-tie is grammatically nonsensical, contrary to plain meaning, and inconsistent with PJM's Manual 12.⁴² Instead, Brookfield asserts that this term should refer to the subgroup of coordinated flowgates on which the pseudo-tie being analyzed has a 5 percent or greater flow distribution impact and to which PJM applies the Flowgate Test.⁴³ Brookfield contends that PJM's interpretation may unnecessarily prevent external resources from participating in PJM capacity auctions, adversely impacting the competitiveness of the capacity market,⁴⁴ and notes that it had a similar experience with PJM's implementation of the Flowgate Test on its own facilities.⁴⁵

24. AMP takes issue with the fact that a resource could fail the Flowgate Test even if it has a *de minimis* impact on a particular flowgate and the RTOs forgo coordination under the MISO-PJM JOA, noting that PJM has not provided any evidence that the

⁴⁰ *Id.* at 7 (citing PJM Answer at 10 and quoting Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76 ("We find that the 1.5 percent impact threshold is . . . an appropriate measure to provide PJM options to relieve or mitigate congestion at market-to-market flowgates between PJM and MISO, . . . beyond the sole recourse of redispatching a pseudo-tied resource, where the alternative is discontinuation of a coordinated flowgate.")).

⁴¹ AMP Answer at 3-5 (citing MISO-PJM JOA §§ 2.2.12; 2.2.24).

⁴² Brookfield Answer at 4-5; Brookfield Second Answer at 3-4.

⁴³ Brookfield Answer at 4-5.

⁴⁴ *Id.* at 5-6, 9; Brookfield Second Answer at 5.

⁴⁵ Brookfield Answer at 6-8; Brookfield Second Answer at 5.

flowgates the Tilton Facility failed are likely to become coordinated.⁴⁶ AMP argues that PJM unreasonably interprets the terms of the Flowgate Test without regard to the terms of the MISO-PJM JOA, when the basis for the Flowgate Test is PJM's cost exposure under the MISO-PJM JOA.⁴⁷ According to AMP, "under the [MISO-PJM] JOA, PJM's coordination obligation and associated potential to incur costs arise in the case of coordinated flowgates, but not in the case of mere flowgates."⁴⁸

c. Paper Hearing Order

25. In the Paper Hearing Order, the Commission found that Tilton and other commenters had raised issues related to PJM's interpretation and application of the Flowgate Test that warranted further examination and could not be resolved based on the current record in the proceeding. Therefore, the Commission established paper hearing procedures.

26. The Commission found that the parties' disagreement centers on what it means for a flowgate to be an "eligible coordinated flowgate" under the Flowgate Test. The Commission found that the meaning of the phrase "eligible coordinated flowgate" in Attachment DD, Section 5.5A(b)(i)(B) of the PJM Tariff should be interpreted in the context of the MISO-PJM JOA provisions governing coordinated flowgates. However, based on the record developed to that point, it was unclear how PJM interprets and applies the phrase "eligible coordinated flowgate." The Commission explained that the MISO-PJM JOA describes the fundamentals of coordinating flowgates through the market-to-market process, with such coordination largely based on how NERC defines a significant impact on a flowgate. PJM and MISO rely on NERC's current five percent Generator to Load Distribution Factor (GLDF), also referred to as a shift factor,⁴⁹ threshold to determine whether a flowgate is eligible for coordination, but have additional processes for either PJM or MISO to request market-to-market coordination of a flowgate. The Commission stated that PJM did not explain, with reference to specific MISO-PJM JOA provisions, how it determines a flowgate is "impacted by a Pseudo-Tie under the terms of the MISO-PJM JOA and thus becomes eligible for coordination" in applying the Flowgate Test. In addition, the Commission found that the record did not show how PJM applied the Flowgate Test to the Tilton Facility's pseudo-tie (i.e., the

⁴⁶ AMP Answer at 5-7.

⁴⁷ AMP Second Answer at 3-4 (citing Pseudo-Tie Enhancement Filing at 9, PJM Second Answer at 4, 10).

⁴⁸ *Id.* at 4.

⁴⁹ The parties use the terms "shift factor" and "GLDF" interchangeably. For purposes of consistency, we will use the term "GLDF" going forward in this order.

characteristics of the flowgates to which PJM applied the Flowgate Test) and whether PJM expected coordination rights to be invoked for any of the “eligible coordinated flowgates” identified for the Tilton Facility.

27. To develop the record on these issues, the Commission directed PJM to file within 45 days of the date of the Paper Hearing Order an explanation addressing the following:

(1) How PJM determines a flowgate is “impacted by a Pseudo-Tie under the terms of the MISO-PJM JOA” and how PJM identifies an “eligible coordinated flowgate” resulting from a pseudo-tie from the MISO [Balancing Authority Area] into PJM. Please include a step-by-step description of the process and an explanation of its basis for doing so, with reference to the MISO-PJM JOA where relevant, and include an explanation of how PJM’s process for identifying an “eligible coordinated flowgate” when applying the Flowgate Test departs, if at all, from the MISO-PJM JOA;

(2) Whether PJM applies the five percent [GLDF] threshold in the MISO-PJM JOA, Attachment 3, § 1.1, to determine “eligible coordinated flowgates” or, if not, why it does not, and whether the five percent [GLDF] threshold, other specific thresholds set forth in the MISO-PJM JOA, or some other screen would be a reasonable means of identifying flowgates for which coordination could be required;

(3) How PJM applied the Flowgate Test to the Tilton Facility’s pseudo-tie, including an explanation of how PJM identified the “eligible coordinated flowgates” associated with the Tilton Facility’s pseudo-tie and how PJM implemented each step of the Flowgate Test;⁵⁰ and

(4) Whether PJM intends to request, or whether PJM expects MISO to request, coordination for any of the “eligible coordinated flowgates” identified for the Tilton Facility, and why or why not.

⁵⁰ See Manual 12 at 94-95.

d. Paper Hearing Responses

i. PJM Paper Hearing Response

28. On November 5, 2018, PJM filed the PJM Paper Hearing Response.

29. In response to Question 1, PJM states that it applied the market-to-market Flowgate Test to Tilton's request to become a pseudo-tied external resource in accordance with the filed Tariff and in a not unduly discriminatory manner.⁵¹ With regard to the first question, PJM explains that the Flowgate Test involves a detailed four-step process that: (1) identifies eligible coordinated flowgates; (2) identifies dispatchable generation internal to PJM; (3) calculates the percentage impact for each dispatchable internal generator on eligible coordinated flowgates; and (4) determines whether each eligible coordinated flowgate has at least one PJM Regional dispatchable generator with a GLDF of at least 1.5% on the flowgate.⁵²

30. First, to identify eligible coordinated flowgates, PJM explains that it asked all neighboring Balancing Authorities for a list of flowgates that might be impacted by the requested Pseudo-Tie. In the context of this proceeding, PJM requested the list of affected flowgates from Associated Electric Cooperative Inc., Louisville Gas and Electric,⁵³ MISO, Southwest Power Pool, Inc., and the Tennessee Valley Authority.⁵⁴ PJM states that it then combined these lists with the current list from the Book of Flowgates⁵⁵ maintained by Open Access Technology International, Inc.⁵⁶

31. For each of the affected flowgates on this combined list, PJM determines whether a pseudo-tie passes a minimum GLDF test by calculating the GLDF using Studies 2 and 3 of the flowgate testing procedures articulated in the Congestion Management Process

⁵¹ PJM Paper Hearing Response at 1-2.

⁵² *Id.* at 9-10, Affidavit of Timothy Horger (Horger Paper Hearing Affidavit) at 2-6.

⁵³ While the Horger Paper Hearing Affidavit refers to "Louisiana Gas and Electric," the Commission believes this reference was in error. *See id.*, Horger Paper Hearing Affidavit at 4.

⁵⁴ *Id.* at 18, Horger Paper Hearing Affidavit at 4.

⁵⁵ The flowgates on the combined list are referred to as potential eligible coordinated flowgates. *Id.*, Horger Paper Hearing Affidavit at 4.

⁵⁶ *Id.*, Horger Paper Hearing Affidavit at 4.

(CMP)⁵⁷ of the MISO-PJM JOA. Study 2 is used to determine if a generator passes the five percent GLDF test.⁵⁸ PJM applies Study 3 analysis for any potential eligible coordinated flowgates that resulted in a GLDF between three and five percent under Study 2 to determine whether Study 3 would yield a GLDF of five percent or greater. A GLDF of five percent or more indicates that a flowgate will be considered as an eligible coordinated flowgate resulting from the pseudo-tie.⁵⁹

32. Second, PJM identifies dispatchable generation internal to its system. PJM maintains a list of such dispatchable internal resources, which it updates annually. PJM explains that such generation must be “internal,” (i.e., it is physically located within the PJM Balancing Authority Area); and it must be “dispatchable,” (i.e., the generation’s output has been offered for sale in the Day-ahead Energy Market “with specified operating parameters that have an economic minimum less than the economic maximum (i.e., it is offered with a dispatchable range)) for at least 50 percent of the offered hours in the previous year.”⁶⁰

33. Third, PJM explains that it calculates GLDFs for the identified dispatchable internal PJM generators identified on each of the eligible coordinated flowgates.⁶¹ PJM explains that the GLDFs calculated for the dispatchable internal PJM generators allow PJM to determine the impact each dispatchable internal PJM generator would have on each eligible coordinated flowgate. PJM notes that in January 2018, it performed steps 2 and 3 of the Flowgate Test for Tilton using a list of internal PJM generation, consistent

⁵⁷ The CMP contains five studies intended to measure the impacts on a flowgate from a neighboring Balancing Authority. PJM states that although there are five study methodologies under the CMP, it only uses Studies 2 and 3 to identify Eligible Coordinated Flowgates because “we are dealing with a hypothetical analysis and it is impractical and, in some cases impossible or unnecessary, to apply all five tests to every potential eligible coordinated flowgate.” *Id.* at 14, n.37.

⁵⁸ PJM states that this five percent GLDF threshold is the same minimum GLDF threshold called for in the MISO-PJM JOA, Attachment 2, Section 3.2, which is also the same standard referenced at MISO-PJM JOA, Attachment 3, Section 1.1. *Id.* at 12.

⁵⁹ *Id.*, Horger Paper Hearing Affidavit at 4.

⁶⁰ *Id.* at 15, Horger Paper Hearing Affidavit at 4.

⁶¹ PJM’s Tariff, Attachment DD, Section 5.5A(b)(i)(B) refers to these GLDFs calculated for dispatchable internal PJM generators as flow distribution impacts (FDIs).

with the process outlined in PJM Manual 12.⁶² PJM reiterates that the January 2018 analysis found 44 of the Tilton Pseudo-Tie's eligible coordinated flowgates failed the Flowgate Test and when it refreshed the analysis in June of 2018, it found 28 of the Tilton Pseudo-Tie's eligible coordinated flowgates failed the Flowgate Test.⁶³

34. Fourth, PJM determines which eligible coordinated flowgates have dispatchable internal PJM generation with a GLDF of at least $\pm 1.5\%$ for that particular eligible coordinated flowgate consistent with the Flowgate Test requirements set forth in its Tariff, Attachment DD, section 5.5A(b)(i)(B). PJM explains that if even one eligible coordinated flowgate that would result from that Pseudo-Tie does not have a dispatchable internal generator with a GLDF of $\pm 1.5\%$, then the entire Pseudo-Tie fails the Flowgate Test. PJM's Flowgate Test found that Tilton had over two dozen eligible coordinated flowgates that did not have a dispatchable internal generator with a GLDF of $\pm 1.5\%$. As a result, PJM notified Tilton that its Pseudo-Tie resource did not qualify to participate in the PJM capacity auctions beginning with the 2022/2023 Delivery Year, which is the first Delivery Year after the transition period.⁶⁴

35. In response to Question 2, PJM states that the five percent GLDF threshold it employs in step one to implement the Flowgate Test under the MISO-PJM JOA is the same minimum GLDF threshold required by the MISO-PJM JOA, Attachment 2, Section 3.2, which is also the same standard referenced at MISO-PJM JOA, Attachment 3, Section 1.1.⁶⁵ PJM further explains that this five percent GLDF threshold for determining an eligible coordinated flowgate is the threshold used to identify flowgates for which PJM coordination would be required, subject to the other JOA party invoking its coordination rights "under the JOA to have that flowgate categorized as a Coordinated Flowgate."⁶⁶ PJM further states that the Commission accepted the five percent minimum threshold for coordination under the MISO-PJM CMP in 2008.⁶⁷

⁶² See Manual 12; PJM Paper Hearing Response, Horger Paper Hearing Affidavit at 4.

⁶³ PJM Paper Hearing Response, Horger Paper Hearing Affidavit at 5-6.

⁶⁴ *Id.* at 5.

⁶⁵ *Id.* at 17.

⁶⁶ *Id.*

⁶⁷ *Id.* (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, Letter Order, Docket Nos. ER08-55-000, -001 (Feb. 4, 2008) (accepting the MISO-PJM congestion

36. In response to Question 3, PJM references its response to Question 2, stating that it applied the Flowgate Test to the Tilton Facility's pseudo-tie in four steps. PJM states that it identified each eligible coordinated flowgate according to which one had a dispatchable internal PJM generation with a GLDF of at least $\pm 1.5\%$ or greater. PJM states that data in Attachment 2 to its Paper Hearing Response support steps one through four of its June 2018 administration of the Flowgate Test to the Tilton Pseudo-Tie.⁶⁸

37. In response to Question 4, PJM states that it expects MISO to request coordination of eligible coordinated flowgates under Attachment 3 of the MISO-PJM JOA for the following reasons: (1) MISO has requested such coordination in the past for over 55 flowgates that already resulted from the Tilton Pseudo-Tie before the adoption of the M2M Flowgate Test under Attachment 3 of the MISO-PJM JOA;⁶⁹ and (2) because Tilton's Pseudo-Tie's eligible coordinated flowgates have a significant impact on both MISO's and PJM's markets, PJM expects MISO, under the CMP's rules, to request coordination for one or more of the Tilton's eligible coordinated flowgates. PJM argues that if it lacks internal dispatch control over flows on the flowgates, PJM's loads will be paying congestion management costs for the benefit of Tilton's Pseudo-Tie Facility.⁷⁰

ii. Answers

38. Tilton and Brookfield contend that PJM's Paper Hearing Response confirms that PJM's application of the Flowgate Test is flawed and inconsistent with the Tariff. Tilton reiterates its assertions that PJM's application of the Flowgate Test departs from the Tariff and the MISO-PJM JOA by deeming uncoordinated flowgates to be coordinated market-to-market flowgates. According to Tilton, PJM's test sweeps in every flowgate on which a pseudo-tied resource has a five percent or greater flow distribution impact, without regard to whether the Balancing Authority that owns the flowgate would, or even

management process, including the five percent GLDF threshold for classifying a flowgate as eligible for coordination due to a generator's impact on the flowgate)).

⁶⁸ *Id.* at 18-20. PJM notes that because the Flowgate Test calculations contain market-sensitive data, it requests confidential treatment of Attachment 2 filed with its Response. *Id.* at 24.

⁶⁹ PJM notes that at least 25 of the 55 flowgates remain active and several of them do not have a dispatchable internal generator with a GLDF of ± 1.5 percent and have resulted in both operational concerns and increased congestion costs. PJM references Flowgate No. 21470, which has resulted in less than optimal dispatch and increased congestion costs so PJM will rely on Tilton to manage flows on the flowgate. *Id.*, Horger Paper Hearing Affidavit at 6.

⁷⁰ *Id.* at 22-23.

could, select the flowgate for coordination.⁷¹ Tilton contends that this is contrary to the requirements of the MISO-PJM JOA, which require that a flowgate be constrained in operations to become coordinated.⁷² Tilton states that this indiscriminate application of the Flowgate Test precludes the participation of pseudo-tied generators in the PJM capacity market based on costs associated with flowgate coordination requests that will never materialize. Tilton contends that PJM's decision to establish a five percent GLDF as the sole criteria for determining eligible coordinated flowgates for the Flowgate Test substantively departs from the MISO-PJM JOA process.⁷³

39. Tilton also asserts that PJM's claim that eligible coordinated flowgates identified by the Flowgate Test have significant market effects is unsubstantiated. Tilton states that a five percent GLDF does not necessarily equate to a significant market impact and market-to-market coordination. According to Tilton, the simple fact that PJM generation impacts a flowgate provides no indication of whether that flowgate will be constrained in operations, and thus provides no indication of whether market-to-market coordination will be initiated on the flowgate. Tilton asserts that the facts in the instant proceeding support precisely the opposite conclusion. Tilton contends that, if the flowgates identified by PJM for the Tilton pseudo-tie were actually having a significant impact on the MISO market as PJM suggests, MISO would seek to invoke its coordination rights to alleviate the impact, but MISO has not done so. According to Tilton, PJM's failure to recognize the distinction between uncoordinated flowgates and flowgates likely to be selected for the market-to-market coordination process creates a test that allows PJM to reject a pseudo-tie without regard to the actual likelihood of market-to-market coordination.⁷⁴

40. Brookfield reiterates its earlier argument that PJM's implementation of the Flowgate Test is contrary to the plain meaning of the Tariff, and that PJM's interpretation of the term "eligible coordinated flowgate" is grammatically nonsensical. According to Brookfield, the Tariff states that the Flowgate Test applies to coordinated flowgates and not, as posited by PJM, to all flowgates that, while they may become eligible for coordination at some unknown point in the future, may never actually become coordinated as a result of the pseudo-tie being analyzed.⁷⁵ Brookfield asserts that PJM does not attempt to explain in the PJM Paper Hearing Response how its implementation

⁷¹ Tilton Paper Hearing Reply at 2-3.

⁷² *Id.* at 3-5.

⁷³ *Id.* at 5.

⁷⁴ *Id.* at 5-6.

⁷⁵ Brookfield Paper Hearing Reply at 2-3.

of the Flowgate Test is consistent with the plain language of the Tariff, but rather assumes its desired broad treatment that all flowgates eligible for coordination will necessarily become coordinated flowgates is consistent with the Tariff. Brookfield states that the Commission must reject PJM's misinterpretation of the Tariff language in favor of the Tariff's plain meaning.⁷⁶

41. Brookfield also contends that PJM's implementation of the Flowgate Test is inconsistent with Manual 12. According to Brookfield, Manual 12 provides that the first step of the Flowgate Test is to "[i]dentify new coordinate[d] flowgates impacted by requested Pseudo-Tie pursuant to any interregional agreements."⁷⁷ Brookfield states that the remainder of the test proceeds from the new coordinated flowgates identified in the first step, but PJM's response indicates that it does not implement the Flowgate Test in this manner since PJM analyzes flowgates eligible for coordination, not just new coordinated flowgates.⁷⁸

42. In response, PJM asserts that the entire Brookfield Paper Hearing Reply rehashes old arguments the Commission already considered and PJM already addressed, such as the plain meaning of "eligible coordinated flowgates," and does not attempt to answer the questions posed in the Paper Hearing Order. Similarly, PJM asserts, much of the Tilton Paper Hearing Reply restates arguments PJM has already addressed, including the argument that the Flowgate Test is unjust and unreasonable because it allows the disqualification of a pseudo-tie before its impacted flowgates have had market-to-market coordination invoked on them. However, PJM states that it has already explained at length that its last opportunity to avoid market-to-market coordination of pseudo-tied capacity resources is through using the Flowgate Test to evaluate the feasibility of a pseudo-tie before allowing it to participate in the capacity market. PJM contends that none of Tilton's critiques of the likelihood of a single flowgate being called into market-to-market coordination changes that the Flowgate Test is PJM's last chance to avoid additional market-to-market coordination costs and prevent less than optimal dispatch of external capacity resources.⁷⁹

e. Commission Determination

43. We find that Tilton has not met its burden of proof to demonstrate that the PJM Tariff is unjust, unreasonable, unduly discriminatory, or preferential because PJM applies

⁷⁶ *Id.* at 3-4.

⁷⁷ *Id.* at 4 (citing PJM Manual 12, Attachment F at 94-95).

⁷⁸ *Id.*

⁷⁹ PJM Paper Hearing Answer at 6-7.

the Flowgate Test to flowgates on which coordination has not yet been invoked under the MISO-PJM JOA. Under section 206 of the FPA, “the burden of proof to show that any rate, charge, classification, rule, regulation, practice, or contract is unjust, unreasonable, unduly discriminatory, or preferential shall be upon . . . the complainant.”⁸⁰ Accordingly, Tilton must demonstrate that PJM’s existing Tariff provisions have become unjust, unreasonable, unduly discriminatory, or preferential, or that they are unjust, unreasonable, unduly discriminatory, or preferential as applied to the Tilton Facility. We find that Tilton has not made either such demonstration. We also find that Tilton has failed to demonstrate that PJM acted inconsistently with its Tariff in making its determination to terminate Tilton’s pseudo-tie after the 2021/2022 Delivery Year because its Facility does not pass the Flowgate Test set forth in the PJM Tariff.

44. In addition to Tilton, Brookfield and AMP assert that the Flowgate Test departs from both the PJM Tariff and the MISO-PJM JOA by deeming uncoordinated flowgates to be coordinated market-to-market flowgates. We disagree with the interpretation of the Tariff they rely on to make that assertion.

45. The relevant Tariff provision states that, in order for an external resource to pass the Flowgate Test and be eligible to participate in PJM’s capacity market, the pseudo-tied resource must meet the requirement that at least one dispatchable resource inside PJM “has a minimum flow distribution impact of 1.5% on each *eligible coordinated flowgate* resulting from such Pseudo-Tie.”⁸¹ The crux of Tilton’s and PJM’s disagreement centers on the meaning of the phrase “eligible coordinated flowgate.”⁸² Tilton and Brookfield maintain that the word “eligible” modifies the term “coordinated flowgate,” and therefore a flowgate must already be coordinated in order for the Flowgate Test to apply. In contrast, PJM asserts that the phrase “eligible coordinated flowgate” refers to a flowgate that would become eligible for coordination as a result of the pseudo-tie. The Tariff does

⁸⁰ 16 U.S.C. § 824e(b).

⁸¹ PJM, Intra-PJM Tariffs, OATT, ATTACHMENT DD, §.5.5A Capacity Resource Types (2.0.2), § 5.5A(b)(i)(B), <https://etariff.ferc.gov/TariffSectionDetails.aspx?tid=1731&sid=214695> (emphasis added).

⁸² The meaning of the phrase “eligible coordinated flowgate” is important, because if a pseudo-tied resource impacts an eligible coordinated flowgate, then PJM will apply the Flowgate Test to determine whether there is a dispatchable resource inside PJM with a flow distribution impact on that flowgate of at least 1.5%. If there is not a dispatchable resource inside PJM with a flow distribution impact of at least 1.5%, then the pseudo-tie fails the Flowgate Test with regard to that flowgate and cannot participate in the PJM capacity market. In contrast, if a pseudo-tie does not impact any eligible coordinated flowgates, then the resource would pass the Flowgate Test without the need for a qualifying dispatchable resource inside PJM.

not define the term “eligible coordinated flowgate” or specify the criteria for a flowgate to become eligible for coordination under this provision.

46. We find that PJM’s interpretation is the more reasonable interpretation. As discussed above, a coordinated flowgate occurs under the MISO-PJM JOA only when a flowgate has sufficient flow to warrant coordination under the five percent GLDF test *and* either PJM or MISO requests coordination. Thus any already-coordinated flowgate is by definition *eligible* for coordination; for this reason, Tilton’s and Brookfield’s interpretation renders the modifier “eligible” meaningless in the tariff provision. We find that the more reasonable interpretation of this Tariff requirement is one that gives effect to the word “eligible,” with the word “eligible” referring to flowgates on which the External Balancing Authority has the right to request coordination.⁸³ Extrinsic evidence helps to confirm this interpretation, an interpretation which permits PJM to address potential congestion costs on uncoordinated flowgates. As the Commission found in the Pseudo-Tie Enhancement Order, the purpose of the Flowgate Test is to mitigate risks associated with the “potential for increased congestion – and the accompanying potential to increase costs on PJM customers – created by a proposed pseudo-tie.”⁸⁴

47. Moreover, under Tilton’s and Brookfield’s interpretation, PJM would be required to approve a pseudo-tie that impacts one or more flowgates under the terms of the MISO-PJM JOA regardless of the results of the Flowgate Test, so long as coordination has not been requested on any of the flowgates—even though PJM may have no way of resolving a constraint at that flowgate by dispatching an internal resource. Such a result would directly contravene the purpose of the Flowgate Test specifically, and of the pseudo-tie requirements more generally. In contrast, PJM’s interpretation accords with the Flowgate Test and the rest of the pseudo-tie provisions in the Tariff by establishing concrete rules that enable PJM to avoid approving a new pseudo-tie if PJM lacks adequate tools manage its impacts. PJM’s interpretation also is consistent with PJM’s course of dealing. PJM’s Manual 12 sets forth a series of steps PJM uses to apply the Flowgate Test, the first of which requires PJM to “Identify *new* coordinate [*sic*] flowgates impacted by requested Pseudo-Tie pursuant to any interregional agreements.”⁸⁵ For these reasons, we agree with PJM that the Flowgate Test applies to flowgates that are eligible for coordination.

⁸³ See BLACK’S LAW DICTIONARY, *Eligible*, (10th ed. 2014) (defining eligible as “[f]it and proper to be selected or to receive a benefit”).

⁸⁴ See Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 78.

⁸⁵ PJM Manual 12: *Balancing Operations* at 94-95 (Attachment F: Dynamic Transfers) (Rev. 38, effective Apr. 20, 2018) (Manual 12), <http://www.pjm.com/-/media/documents/manuals/m12.ashx> (emphasis added).

We find that PJM's interpretation reasonably permits PJM to reject pseudo-ties that could create new coordination and congestion costs.

48. Tilton and Brookfield take issue with PJM's assertion that the Tariff permits PJM to apply the Flowgate Test to flowgates that PJM alone determines are "impacted by" the requested pseudo-tie, pursuant to Manual 12. However, PJM explains that it uses Balancing Authority-specific threshold criteria to determine whether a pseudo-tie impacts a flowgate rendering it eligible for coordination. In the case of the Tilton Facility, PJM applied the eligibility criteria set forth in the MISO-PJM JOA. Specifically, in its response to the Paper Hearing Order, PJM makes clear that it applies the Flowgate Test to flowgates on which the pseudo-tie has at least a five percent GLDF, and it identifies such flowgates in accordance with the specific engineering studies and standards set forth in Attachments 2 and 3 of the MISO-PJM JOA. PJM and MISO based the five percent GLDF impact threshold on NERC's definition of what constitutes a significant impact from a generator on a flowgate.⁸⁶ Pursuant to the MISO-PJM JOA, "NERC rules currently establish that a significant shift factor is five percent or greater. If NERC adopts a lower shift factor threshold than [five percent], the new threshold will be used to determine whether the generator has a significant GLDF for the purpose of this market-to-market [Interregional Coordination Process]."⁸⁷ After identifying the flowgates on which the pseudo-tie has at least a five percent GLDF, PJM then determines whether a dispatchable internal generator in PJM has at least a GLDF of $\pm 1.5\%$ on those flowgates. PJM previously explained that the $\pm 1.5\%$ GLDF threshold was developed in coordination with MISO, with which PJM has the most pseudo-tied resources, and is the same standard long-held in the MISO-PJM JOA as the minimum percentage impact an internal resource can have on a flowgate for it to be considered a redispatch option to help control flow on that flowgate.⁸⁸

49. PJM and MISO have utilized these same two standards, the five percent GLDF for flows from a generator in the native Balancing Authority and corresponding $\pm 1.5\%$ GLDF impact threshold for an internal generator in the attaining Balancing Authority, to identify and coordinate flowgates as part of the Market-to-Market Congestion

⁸⁶ NERC defines a Generator Shift Factor as a "factor 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* NERC Glossary of Terms, https://www.nerc.com/files/glossary_of_terms.pdf.

⁸⁷ *See* MISO-PJM JOA at Attachment 3, section 1.1.

⁸⁸ *See* PJM Interconnection, L.L.C., Response to Deficiency Letter re: Proposed External Capacity Enhancements, Docket No. ER17-1138-000, at 13-14 (filed Sept. 18, 2017).

Management Process since 2008.⁸⁹ These standards have been in place for more than a decade, and we find that it is reasonable for PJM to apply them in implementing the Flowgate Test for pseudo-tied generators located in the MISO footprint.

50. We disagree with Tilton's assertion that PJM's use of the five percent GLDF threshold to identify flowgates eligible for coordination is inconsistent with the MISO-PJM JOA because PJM does not also consider whether a flowgate is constrained in operations.⁹⁰ In the context of a flowgate on which PJM already has flow impacts, we agree that coordination under the MISO-PJM JOA would be precipitated by a request by MISO on the basis that the flowgate is constrained in operations. However, as discussed above, we find that the five percent GLDF impact threshold is a reasonable method for PJM to identify flowgates on which MISO could request coordination in the future if those flowgates become constrained.

51. We also find that Tilton has not shown that the Tariff is unjust and unreasonable because it does not require the External Balancing Authority to request coordination before PJM denies the pseudo-tie or for PJM to evaluate the likelihood that such a request will be made. Such a requirement would only be feasible if PJM were permitted to revoke pseudo-tie eligibility upon receipt of a coordination request. However, under this scenario, PJM may have already relied on the pseudo-tied generator in acquiring capacity, such that cancellation of the pseudo-tie would result in PJM failing to procure sufficient capacity. Further, PJM cannot control whether or when a flowgate will become coordinated after a pseudo-tie is in place because coordination can be invoked by the native Balancing Authority (in this case MISO). We agree with PJM that using the Flowgate Test to evaluate the feasibility of a pseudo-tie before allowing it to participate in the PJM capacity market avoids the additional market-to-market coordination costs and placing PJM in the position of having inadequate tools to manage dispatch, which is the stated purpose of the Flowgate Test.

2. PJM's Application of the Flowgate Test to the Tilton Facility

a. Complaint

52. Tilton argues that even if the Commission finds PJM's extension of the Flowgate Test to uncoordinated flowgates to be consistent with the Tariff, application of the test in that manner is unjust and unreasonable because it permits PJM to terminate a pseudo-tie

⁸⁹ See *Midwest Indep. Transmission Sys. Operator, Inc.*, Docket Nos. ER08-55-000, -001 (Feb. 4, 2008) (delegated order) (accepting the MISO-PJM CMP, including the five percent GLDF threshold for classifying a flowgate as eligible for coordination due to a generator's impact on the flowgate).

⁹⁰ See Tilton Paper Hearing Reply at 5.

without any demonstrated need to do so to protect PJM customers from congestion costs on coordinated flowgates.⁹¹ Tilton argues that PJM's application of the Flowgate Test will exclude needed Tilton capacity from the PJM capacity market without reasonable justification because there is nothing that Tilton can do to come into compliance—namely, there is no way for Tilton to affect whether an internal resource has a minimum impact on the 44 tested flowgates.⁹²

53. Tilton also argues that PJM has refused to provide it with documentation supporting the Flowgate Test results. Tilton argues that in Order No. 845, in the generator interconnection context, the Commission found that the exchange of models and assumptions used to assess generator interconnections should be made available to customers, subject to appropriate confidentiality safeguards, both to help inform customers and also hold transmission providers accountable for their models and assumptions.⁹³ According to Tilton, the same rationale applies in this context because it “should not be required to blindly accept PJM's [] Flowgate Test results and termination of the Tilton Pseudo-Tie without access to information necessary to understand and verify the results.”⁹⁴ Tilton asks the Commission to direct PJM to comply with its request for documentation, subject to Tilton's signing a confidentiality agreement.

b. Answers

54. PJM explains that its application of the Flowgate Test to the Tilton Facility's pseudo-tie revealed 231 flowgates impacted by the Tilton Facility's pseudo-tie, of which 65 already were coordinated and 166 would newly become eligible for coordination; of those 166 newly eligible flowgates, 44 did not meet the 1.5% internal resource minimum

⁹¹ Complaint at 8. Tilton also asserts that the application of the Flowgate Test is unjust and unreasonable as applied to coordinated flowgates, contending that the premise of the test is flawed, and it is designed to preclude most if not all external resources from being pseudo-tied. *Id.* at 8 n.14.

⁹² *Id.* at 9. Tilton asserts that Order No. 890-A, in which the Commission concluded that transmission providers are not required to accommodate a pseudo-tie, should not be interpreted as granting unfettered discretion to terminate an existing pseudo-tie after a generator has relied on the transmission provider's accommodation of the pseudo-tie. *Id.* at 9 n.17 (citing *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890-A, 121 FERC ¶ 61,297 at P 631).

⁹³ *Id.* at 9-10 (citing *Reform of Generator Interconnection Procedures & Agreements*, Order No. 845, 163 FERC ¶ 61,043, at P 237 (2018)).

⁹⁴ *Id.* at 10.

flow distribution impact threshold.⁹⁵ PJM explains that the potential addition of these 44 flowgates to the flowgates currently in the MISO-PJM market-to-market coordination process would result in 12.2% of the flowgate total being attributable to the Tilton pseudo-tie.⁹⁶ These results indicate that the Tilton pseudo-tie could force PJM to take on additional coordination responsibility that it has already demonstrated PJM should not be obligated to assume.⁹⁷ PJM further notes that, because PJM is not the only Balancing Authority in control over a decision to coordinate flowgates, the congestion management risk to PJM's customers arises regardless of how small a pseudo-tie's impact would be in an impacted flowgate.⁹⁸ PJM contends that Tilton has no reason to believe that its eligibility for the transition period would exempt the Facility from the Flowgate Test at the end of the transition period.⁹⁹

55. Regarding Tilton's assertion that PJM needs the Tilton Facility's capacity to meet its needs, PJM states that it expects any gap to be filled by other resources participating in the capacity market.¹⁰⁰ Regarding Tilton's allegation that PJM's application of the Flowgate Test was unjust and unreasonable and unduly discriminatory, PJM asserts that Tilton has failed to specify an instance of discrimination against Tilton in favor of any other resource, stating that it has implemented the test as proposed and accepted by the Commission.¹⁰¹ Rather than being discriminatory, PJM argues, its application of the Flowgate Test to the Facility demonstrates that the test is needed and "appropriate as it will prevent PJM customers from facing undue excessive costs resulting from congestion on coordinated flowgates."¹⁰²

56. Regarding Tilton's claim that PJM failed to disclose sufficient information, PJM states that it has communicated to Tilton that 44 flowgates failed the test and provided to Tilton the information that PJM has submitted in this proceeding. PJM asserts that it

⁹⁵ PJM Answer at 11 (citing Horger Aff. at PP 7-8).

⁹⁶ PJM Third Answer at 5-6.

⁹⁷ PJM Answer at 11.

⁹⁸ PJM Third Answer at 6.

⁹⁹ PJM Answer at 12.

¹⁰⁰ *Id.* (citing Horger Aff. at P 11).

¹⁰¹ *Id.* at 14 (quoting Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at PP 76-77).

¹⁰² *Id.* at 15 (quoting Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76).

provided an appropriate level of information that balances Tilton's interests with PJM's obligations to observe limits on the disclosure of information.¹⁰³ PJM explains that it tests the flowgates listed in NERC's Book of Flowgates as well as internal flowgate lists provided by neighboring balancing authorities, which are lists PJM neither creates nor owns; PJM does not believe it is authorized to share the proprietary flowgate information that forms the basis for its testing data. PJM states that it is "willing to work with Tilton and the neighboring balancing authorities to provide additional testing information to Tilton with the consent of PJM's neighbors, perhaps under the terms of a confidentiality agreement, if Tilton will take the lead on securing such consent."¹⁰⁴

57. The IMM supports PJM's interpretation and implementation of the Flowgate Test, and agrees with PJM that the Tilton Facility's pseudo-tie does not pass the Flowgate Test.¹⁰⁵ According to the IMM, PJM's pseudo-tie requirements do not create unnecessary barriers to competition, but rather "ensure that inferior products are not permitted to compete with and displace internal PJM resources and suppress prices below competitive levels."¹⁰⁶

c. Tilton Paper Hearing Reply

58. In its reply to PJM's Paper Hearing Response, Tilton contends that, as applied to Tilton's existing pseudo-tie, the Flowgate Test results in unjust and unreasonable termination of Tilton's pseudo-tie on the basis of uncoordinated flowgates that do not have significant market effects and thus are not likely to be selected for market-to-market coordination.¹⁰⁷ According to Tilton, the Tilton Facility was the only resource included in Tilton's Flowgate Test with more than a 1.5% impact on the flowgate. Given the lack of significant impact from any PJM internal resource on the eligible coordinated flowgates that the Tilton pseudo-tie failed, Tilton contends that the PJM market flows on those flowgates should be well below PJM's market-to-market coordination flow entitlement thresholds when the Tilton pseudo-tie is offline. Accordingly, Tilton asserts, it is highly unlikely that MISO will select these flowgates for market-to-market coordination except as a result of the Tilton pseudo-tie, in which case PJM would be able

¹⁰³ *Id.* at 15-16.

¹⁰⁴ *Id.* at 16.

¹⁰⁵ IMM Answer at 1-2.

¹⁰⁶ *Id.* at 2-3.

¹⁰⁷ Tilton Paper Hearing Reply at 6-8.

to manage its flows by dispatching down the Tilton Facility.¹⁰⁸ Tilton argues that, while the Tilton pseudo-tie has a significant impact on the flowgates identified by PJM's test, PJM has the ability to control this impact by decreasing the output of the Tilton Facility. Because other PJM internal resource impacts on the failed flowgate are *de minimis*, PJM does not need an internal dispatchable resource to manage its flows on those flowgates in addition to curtailing the pseudo-tie. Tilton states that, to the extent the Commission finds that the Flowgate Test may consider uncoordinated flowgates, the test must account for the PJM market flows that are necessary to trigger market-to-market coordination – i.e., market flows when the pseudo-tie is offline.¹⁰⁹

d. Commission Determination

59. We find that Tilton has not shown that the Flowgate Test is unjust and unreasonable as applied to Tilton's pseudo-tied resource. We find that the Flowgate Test, as applied, is just and reasonable because it relies on already-defined technical feasibility tests that identify flowgates eligible for market-to-market coordination with the relevant External Balancing Authority. Here, because Tilton's resource is located in MISO, PJM has applied the tests used to identify flowgates eligible for coordination under the MISO-PJM JOA. As discussed above, PJM makes clear in its response to the Paper Hearing Order that it applies the Flowgate Test to flowgates on which the pseudo-tie has at least a five percent GLDF, and it identifies such flowgates in accordance with the specific engineering studies and standards set forth in Attachments 2 and 3 of the MISO-PJM JOA. PJM has also clarified that, after identifying the flowgates on which the pseudo-tie has at least a five percent GLDF, PJM then determines whether a dispatchable internal generation resource in PJM has at least a GLDF of $\pm 1.5\%$ on those flowgates.

60. Consistent with our finding above that it is reasonable for PJM to apply these standards to pseudo-tied resources with flowgates that had not been previously coordinated with external Balancing Authority Areas under the Flowgate Test, we find PJM's application of the Flowgate Test to the Tilton pseudo-tie, specifically using well-defined, existing impact thresholds under the MISO-PJM JOA, to be just and reasonable and consistent with the Commission's acceptance of the Flowgate Test in the Pseudo-Tie Enhancement Order.

61. We find that Tilton's reliance on its current capacity obligation in PJM is misguided. Whether Tilton has participated in PJM's capacity market in the past is not relevant to whether Tilton will qualify for participation in the future. Notably, Tilton has not previously been subject to the Flowgate Test, given the five-year transition period for existing pseudo-tied resources. Because the Flowgate Test is forward-looking, it

¹⁰⁸ *Id.* at 8-9.

¹⁰⁹ *Id.* at 9.

addresses the potential for increased congestion and the accompanying congestion responsibilities and costs, evidenced by the potential creation of new market-to-market flowgates in the future. PJM's response to the Paper Hearing Order made it clear that PJM applied the studies set forth in Attachments 2 and 3 of the MISO-PJM JOA to the Tilton pseudo-tied resource to determine whether a flowgate impacted by the pseudo-tied resource is eligible for coordination. We find that this information sufficiently demonstrates that Tilton's pseudo-tied resource, in fact, creates the coordination concerns that the Flowgate Test was intended to address. Specifically, PJM's application of the Flowgate Test to the Tilton pseudo-tie in January 2018 identified 44 flowgates¹¹⁰ on which Tilton's pseudo-tie has at least a five percent GLDF and for which there is not a dispatchable resource inside PJM with a GLDF of at least $\pm 1.5\%$. This means that MISO could request coordination under the MISO-PJM JOA on any of those 44 flowgates at any time if they were to become constrained in operations. Further, if those flowgates were to become coordinated, PJM may not be able to address congestion on those flowgates by dispatching an internal PJM resource because no dispatchable resource inside PJM has a sufficient GLDF.

62. While we agree with Tilton that PJM did not provide sufficient information at the outset regarding its application of the Flowgate Test to the Tilton Facility, we find that PJM remedied this in its Paper Hearing Response. As discussed above, PJM's Paper Hearing Response provides a step-by-step explanation of the procedure it follows when applying the Flowgate Test to a resource and includes detailed information regarding PJM's application of the Flowgate Test to the Tilton Facility specifically. However, we note that in an order issued today in Docket No. EL19-34-000, the Commission grants in part Brookfield's complaint against PJM with regard to the Flowgate Test, finding that Brookfield raises a legitimate concern regarding the lack of a sufficient level of notice and transparency with respect to the Flowgate Test in PJM's Tariff.¹¹¹ The expanded notice and transparency provisions required by that order should benefit all pseudo-tie applicants in the future, including Tilton.

63. Consistent with the discussion above, we find that the Flowgate Test, as applied to Tilton's pseudo-tied resource, has not been shown to be unjust, unreasonable, or unduly discriminatory, and we therefore deny the Complaint.

¹¹⁰ As noted above, the number of identified flowgates decreased to 28 when PJM refreshed its analysis in June 2018.

¹¹¹ *Brookfield Energy Mktg. LP v. PJM Interconnection, L.L.P.*, 171 FERC ¶ 61,151 (2020).

3. Justness and Reasonableness of the Flowgate Test

a. Tilton Paper Hearing Reply

64. In its reply to PJM's Paper Hearing Response, Tilton generally contends that the Flowgate Test is not just and reasonable. Tilton maintains that the Flowgate Test does not serve PJM's stated objective because the test does not protect PJM customers from undue excessive costs. Tilton states that PJM's Flowgate Test is designed to exclude the participation of most, if not all, pseudo-ties in order to avoid congestion impacts. In doing so, however, it will dramatically increase the cost of capacity in PJM. Tilton also argues that termination of the Tilton pseudo-tie has the potential to increase PJM's costs associated with maintaining system reliability. According to Tilton, PJM regularly relies on the Tilton Facility to mitigate reliability issues on the PJM system, and the fact that the Tilton Facility typically is cost capped when dispatched in these situations indicates that PJM has limited options to resolve a constraint and the Tilton Facility is likely the least expensive option available.¹¹²

65. Tilton also asserts that the Flowgate Test discriminates against external resources by excluding pseudo-ties on the basis of latent market flows that exist independent of the external resources, and therefore PJM's test inappropriately penalizes external resources for flows caused by internal resources.¹¹³ Finally, Tilton asserts that the Flowgate Test produces transient results with significant consequences. Specifically, Tilton explains that the test is based on information that can change dramatically within a short time frame because it is highly dependent on the offer behavior of other generators. As a result, the ability of a pseudo-tie to pass the test at any given point in time can fluctuate widely due to changes in this behavior. Tilton contends that the Commission should consider whether PJM should be required to implement a test that produces less transient results.¹¹⁴

b. PJM Paper Hearing Answer

66. PJM asserts that the Commission has already rejected Tilton's argument that the Flowgate Test is unjust and unreasonable because it holds external generators accountable for non-dispatchable internal flows that are outside an external generator's control rather than considering decreasing the external generator's output as the means to manage the pseudo-tie's impacts. According to PJM, the Commission in the Pseudo-Tie Enhancement Order found that the 1.5% impact threshold for internal resource options is

¹¹² Tilton Paper Hearing Reply at 10-12.

¹¹³ *Id.* at 12-13.

¹¹⁴ *Id.* at 14-15.

not an undue barrier to entry, but rather an appropriate measure to provide PJM options to relieve or mitigate congestion at market-to-market flowgates.¹¹⁵ PJM states that the Commission expressly found it appropriate that the Flowgate Test was not limited to the sole recourse of redispatching a pseudo-tied resource, where the alternative is discontinuation of service. PJM also contends that allowing an external resource to participate in the PJM capacity market when PJM's sole recourse for congestion management is redispatch would violate the comparability goal at the core of PJM's Pseudo-Tie Enhancement filing.¹¹⁶ According to PJM, an external resource whose impacted flowgates do not meet the internal dispatchable generation threshold of the Flowgate Test is not comparable to an internal capacity resource, and it is reasonable for PJM to find such a resource ineligible for participation in the capacity market. PJM notes that such ineligibility does not prevent external resources from participating in PJM in other ways, such as in PJM's Energy Market. PJM also refutes Tilton's assertion that the Flowgate Test could exclude all external resources from the PJM capacity market, explaining that no one, and especially not PJM, has proposed to exclude all external capacity resources from participating in the PJM capacity market.

67. PJM also contends that the Flowgate Test does not produce transient results. PJM explains that the list of internal PJM generators tested in January 2018 was longer than the list in June 2018 because in January, PJM considered not only dispatchable generators, but also other flexible generators that are not, strictly speaking, dispatchable. It refreshed its administration of the Flowgate Test in June 2018 and used a list only containing dispatchable generation. PJM states that it expects that, going forward, changes to the June 2018 list will only reflect the retirement of old facilities, commencement of operation by new facilities, and occasional reclassification of resources as dispatchable as circumstances require. PJM asserts that it does not expect these changes to cause significant fluctuations in the results of its administration of the Flowgate Test.¹¹⁷

c. Commission Determination

68. We are not persuaded by Tilton's arguments regarding the justness and reasonableness of the Flowgate Test. Specifically, we are not persuaded by Tilton's assertion that the Flowgate Test does not serve PJM's stated objective because it does not protect PJM customers from undue excessive costs. First, as a general matter, we do not find that Tilton's speculation about potential cost impacts render the Flowgate Test unjust

¹¹⁵ PJM Paper Hearing Answer at 2-3 (citing Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76).

¹¹⁶ *Id.* at 4.

¹¹⁷ *Id.* at 5-6.

and unreasonable. The purpose of the Flowgate Test is to ensure PJM has adequate options to manage congestion and coordination costs on new flowgates resulting from pseudo-ties, and is part of a suite of requirements that—together—are designed to ensure that external resources are comparable to internal resources.¹¹⁸ Second, Tilton's argument is based on an assumption that PJM's Flowgate Test will exclude all external resources from the PJM market and thereby would dramatically increase PJM's capacity costs. While the number of external resources eligible to participate in PJM's capacity market may well decrease as a result of the Flowgate Test, Tilton has not provided sufficient evidence to show that all or even most external resources are likely to be excluded. Likewise, we find that Tilton did not provide adequate support for its arguments that the congestion costs associated with the addition of new coordinated flowgates are less than the increase in capacity costs that will result from any alleged elimination of external resources.

69. We disagree with Tilton's assertion that the Flowgate Test discriminates against external resources by excluding pseudo-ties on the basis of latent market flows that exist independent of the external resource.¹¹⁹ We agree that internal resources may cause market flows leading to congestion that triggers coordination on a flowgate that has become eligible for coordination as a result of a pseudo-tie. However, in the scenario described by Tilton, without the pseudo-tie triggering eligibility for coordination in the first place, PJM market flows could not result in a flowgate becoming coordinated. We are not persuaded by Tilton's assertion that PJM could manage congestion on such a pseudo-tie by curtailing the pseudo-tied resource. As we found in the Pseudo-Tie Enhancement Order, it is reasonable for PJM to have options to relieve or mitigate congestion at market-to-market coordinated flowgates beyond the sole recourse of redispatching a pseudo-tied resource.¹²⁰ Moreover, the fact that Tilton cannot affect whether an internal resource has a minimum impact on identified eligible coordinated flowgates, and therefore Tilton cannot take action to come into compliance, does not render the test unjust and unreasonable.

¹¹⁸ See *Potomac Economics, Ltd. v. PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,039, at P 68 (2020) (“Potomac’s analysis has not demonstrated that a reduction in external capacity, or the corresponding increase to capacity market prices would be unjust or unreasonable, because, as discussed above, these data do not refute PJM’s showing that the pseudo-tie requirement is just and reasonable as it helps ensure that external resources are as reliable as internal resources when PJM needs to call upon them.”).

¹¹⁹ See Tilton Paper Hearing Reply at 12-13.

¹²⁰ See Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 76.

70. Finally, we are not persuaded by Tilton’s contention that the transient nature of the Flowgate Test renders the test unjust and unreasonable. As an initial matter, we note that PJM has explained why the list of internal PJM generators tested in January 2018 was longer than the list of internal generators tested in June 2018, and that PJM’s refined list is consistent with the language in the Tariff. Moreover, consistent with the Commission’s acceptance of technical feasibility tests for pseudo-tied resources in the Pseudo-Tie Enhancement Order, we find here that it is not unjust and unreasonable for PJM to determine that it can no longer implement an existing pseudo-tie based on the results of technical feasibility tests and the costs resulting from having to implement additional coordination with MISO. The PJM Tariff requires all external capacity resources to demonstrate that they meet the threshold requirements each year.¹²¹ Nothing in the Tariff provides that once a pseudo-tie is implemented, the pseudo-tied resource is relieved of its obligations to meet the prescribed eligibility criteria each year. Further, in the Pseudo-Tie Enhancement Order, the Commission stated that it “agree[d] with PJM that a lack of recourse for external generators that do not pass the test, or are subject to a change in transmission topology conditions beyond their control, does not render PJM’s market-to-market flowgate test unjust and unreasonable.”¹²² Thus, the Commission expressly acknowledged that system changes may affect a resource’s eligibility to become or to remain pseudo-tied into PJM, and specifically found that this does not render the Flowgate Test unjust and unreasonable.

71. For the reasons discussed above, we deny the Complaint.

The Commission orders:

The Complaint is hereby denied, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹²¹ PJM Tariff, Attachment DD, § 5.5A(b).

¹²² Pseudo-Tie Enhancement Order, 161 FERC ¶ 61,197 at P 77.