

140 FERC ¶ 61,086
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony T. Clark.

PJM Interconnection, L.L.C.

Docket Nos. ER12-1929-000
EL12-71-000

ORDER ACCEPTING PROPOSED TARIFF AND OPERATING AGREEMENT
REVISIONS SUBJECT TO CONDITIONS

(Issued July 31, 2012)

1. On June 1, 2012, PJM Interconnection, L.L.C. (PJM), pursuant to sections 205 and 206 of the Federal Power Act (FPA),¹ submitted proposed revisions to the PJM Open Access Transmission Tariff (Tariff) and Amended and Restated Operating Agreement (Operating Agreement) to implement changes to the calculation of marginal losses on the transmission facilities used to provide transmission service under the Tariff.² In this order, we accept the proposed revisions to become effective August 1, 2012, subject to a compliance filing to be made within 15 days of the date of this order, as discussed below.

I. Background

2. The Commission accepted PJM's original marginal line loss methodology, effective June 1, 2007.³ PJM calculates and assesses Transmission Loss Charges for every Network Service User, the PJM Interchange Energy Market, and each

¹ 16 U.S.C. §§ 824d, 824e (2006). PJM filed the amendments to the Operating Agreement pursuant to section 206 of the FPA because the necessary changes have not been approved by the required two-thirds supermajority of stakeholders.

² See Appendix for the Tariff provisions.

³ *Atlantic City Electric Company v. PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,169 (2006).

Transmission Customer.⁴ The basis for these charges is the differences in one component of Locational Marginal Prices (LMP), defined as the Loss Price at a bus, between points of delivery and points of receipt.⁵ All facilities in the network model,⁶ including distribution facilities, were included in the dispatch and pricing algorithm for purposes of determining losses.

3. In a prior proceeding in Docket Nos. ER11-12-001 and ER11-3445-000, the Commission rejected a filing by PJM to revise its marginal line loss calculations by eliminating the calculation of line losses on certain facilities, including facilities that PJM controls for the purpose of providing transmission service under its Tariff. The Commission found PJM had not justified its proposal and had failed to explain why it is not necessary to establish correct price signals on facilities that it controls for the purpose of providing transmission service under its Tariff.⁷ The Commission observed that PJM could submit a revised, well-justified Tariff proposal if it believes such a filing is warranted.

II. June 1, 2012 Proposed Revisions

4. In Docket No. ER12-1929-000, PJM submits revisions to revise its Tariff, pursuant to section 205 of the Federal Power Act, to eliminate the calculation of marginal line losses on non-transmission facilities that PJM states it includes in its network model for the purpose of achieving a more accurate model of its system.⁸ In Docket No. EL12-71-000, PJM proposes similar revisions to revise its Operating Agreement, pursuant to section 206 of the Federal Power Act. PJM explains that section 205 revisions to its Operating Agreement require a two-thirds supermajority vote, and that “while there was

⁴ Transmission losses refer to the loss of energy in the transmission of electricity from generation resources to load, which is dissipated as heat through transformers, transmission lines, and other transmission facilities. *See* Section 3F.1 of the Tariff; Section 14A.1 of the Operating Agreement.

⁵ Section 5.4.2 of Schedule 1 of the Operating Agreement, and the parallel provisions of Attachment K-Appendix of the Tariff.

⁶ The network model takes a broad view of facilities for operational purposes, and each facility added to the model incrementally increases the model’s accuracy.

⁷ *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,028 (2012).

⁸ PJM’s network model is a computer representation of the power system facilities in the PJM system and other systems that may impact the reliable operation of PJM.

stakeholder consensus that the current methodology should be changed, a proposal to reform the rules on calculation of marginal losses failed to receive the two-thirds supermajority Member vote.”⁹ PJM further states, that under the Operating Agreement, its Board of Managers can, nevertheless petition the Commission to modify any provision that the PJM Board believes to be unjust, unreasonable, or unduly discriminatory under section 206 of the Federal Power Act.¹⁰ PJM states that its Board of Managers directed PJM staff to file with the Commission pursuant to section 206 to base the marginal losses calculation on all transmission facilities, rather than all facilities in the network model.

5. PJM states that the current method of determining marginal losses is unjust and unreasonable, because it is not limited only to transmission facilities, but also includes distribution facilities. PJM states that it does not operate or control distribution facilities, and as a result, the current marginal loss calculation includes more facilities than the transmission service rate calculation. PJM contends that while including distribution facilities can improve the accuracy and robustness of the network model, inclusion of these facilities in the marginal loss calculation is inappropriate. Further, PJM maintains that equating the network model and the marginal loss calculation would be counterproductive, and that the better approach is to separate these two determinations; that is, include only those facilities that PJM operates and controls in the marginal loss calculation, but continue to include facilities that improve the accuracy and robustness of the network model in that model.

6. PJM proposes to base the marginal loss calculation on all transmission facilities under its Tariff,¹¹ and has submitted proposed revisions to Schedule 1, Section 1.2A.2, and Section 14A.2 of the Operating Agreement and the parallel provision of the Tariff,

⁹ PJM Transmittal Letter, Docket No. EL12-71-000, at 4 (June 1, 2012).

¹⁰ Operating Agreement, section 7.7(vi).

¹¹ Transmission Facilities are defined in section 1.44 of the Operating Agreement as facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the transmission system of the PJM Region and integrated into the planning and operation of such to serve all of the power and transmission customers within such region.

Attachment K – Appendix, Section 1.2A.2, and Section 3F.2.¹² Specifically, PJM proposes to revise Schedule 1, Section 1.2A.2, and Section 14A.2 of the Operating Agreement to state that transmission losses “shall be those losses incurred on all Transmission Facilities.”¹³

7. PJM also proposes these revisions to Attachment K – Appendix, Section 1.2A.2, and Section 3F.2 of the Tariff.¹⁴

8. PJM contends that the proposed changes are just and reasonable, because they eliminate the shortcomings of the current method using an approach suggested by the Commission. Basing marginal loss calculations on all transmission facilities only: (a) removes distribution facilities from the calculation; (b) allows the network model to focus on facilities appropriate to its purposes and the marginal losses calculation to focus on the facilities appropriate to its distinct purposes; and (c) relies on an objective standard (all transmission facilities properly classified in accounting records as transmission) that is the same from Zone to Zone, and less subject to variance based simply on the facilities that individual owners may have chosen to identify in a system operations model.

9. PJM requests that the Commission make these Tariff and Operating Agreement changes effective on August 1, 2012. Further, PJM states that the section 205 and 206 filings should be viewed as a single request to modify the marginal loss provisions of the Tariff and Operating Agreement. PJM therefore asks that the Commission consolidate these filings.

III. Notice and Intervention

10. Notice of PJM’s section 205 filing was published in the *Federal Register*, 77 Fed. Reg. 34,377 (2012) and notice of PJM’s section 206 filing was published in the *Federal Register*, 77 Fed. Reg. 34,378 (2012). Protests and interventions were due on or before June 22, 2012.

¹² PJM also is making a conforming change to sections 1.2A.3 and 14A.3 of the Operating Agreement and section 3F.3 and Attachment K – Appendix section 1.2A.3 of the Tariff, and a conforming change in several of the above-cited sections to the reference to generator step-up transformers.

¹³ PJM adds in parenthetical that “to facilitate such calculation, Transmission Owners shall ensure that all such facilities are included in the PJM network model.”

¹⁴ PJM also is adding the definition of Transmission Facilities to the Tariff, as new section 1.45.01.

11. Timely motions to intervene were filed by American Municipal Power, Inc, NRG Companies,¹⁵ American Electric Power Service Corporation (AEP),¹⁶ Hess Corporation, Old Dominion Electric Cooperative, PHI Companies,¹⁷ Dayton Power and Light Company (Dayton), Calpine Corporation, Rockland Electric Company, PJM Industrial Customer Coalition (PJMICC), FirstEnergy Companies,¹⁸ Duke Energy Corporation (Duke),¹⁹ North Carolina Electric Membership Corporation, Northern Indiana Public Service Company, Citigroup Energy Inc., and DC Energy LLC. An out-of-time motion to intervene was filed by Dominion Resources Services, Inc. (Dominion).

12. PJMICC submitted comments. Duke, Dayton, and AEP (jointly, PJM Western Utilities) submitted comments and a limited protest.

IV. Protests and Comments

13. PJMICC states that the proposed changes to one of the sections in the Tariff and Operating Agreement leave some ambiguity regarding transmission owners' discretion to

¹⁵ NRG Power Marketing LLC, Conemaugh Power LLC, Indian River Power LLC, Keystone Power LLC, NRG Energy Center Dover LLC, NRG Energy Center Paxton LLC, NRG Rockford LLC, NRG Rockford II LLC, and Vienna Power LLC.

¹⁶ On behalf of Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Wheeling Power Company, AEP Appalachian Transmission Company, AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, and AEP West Virginia Transmission Company.

¹⁷ Including Pepco Holdings, Inc., Potomac Electric Power Company, Delmarva Power & Light Company, and Atlantic City Electric Company.

¹⁸ For the purposes of this filing, the FirstEnergy Companies are FirstEnergy Solutions Corp., Allegheny Energy Supply Company, LLC, Jersey Central Power & Light Company, Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, Monongahela Power Company, The Potomac Edison Company, West Penn Power Company, The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company.

¹⁹ On behalf of Duke Energy Ohio, Inc. (Duke Energy Ohio), Duke Energy Kentucky, Inc. (Duke Energy Kentucky), Duke Energy Carolinas, LLC, Duke Energy Commercial Asset Management, Inc., Duke Energy Retail Sales, LLC, and Duke Energy Business Services, LLC.

designate facilities as being included or excluded from the marginal loss calculations. Specifically, the proposed wording in Section 3F.2 appears to impose an obligation on Transmission Owners to ensure that all transmission facilities are included in the PJM network model. However, the language also appears to leave open the possibility that market sellers may elect otherwise. PJMICC requests that PJM be directed to clarify the language in Tariff Section 3F.2 (and the corresponding language in Operating Agreement Section 14A.2) to ensure that all transmission facilities, and no other facilities, are included in the marginal losses calculation.

14. The PJM Western Utilities support the revisions proposed by PJM and agree with PJM that the existing transmission modeling is not just and reasonable. The PJM Western Utilities note that the inclusion of distribution-level facilities creates market distortions, and the PJM proposal partially resolves that problem by removing the lower voltage distribution facilities from all zones. However, the PJM Western Utilities contend that it is not correct to model facilities that are known to result in excessive over-collections of marginal losses; the PJM Western Utilities argue that the facilities included in marginal loss calculations should be consistent with the facilities included in the marginal congestion calculation rather than all transmission facilities subject to the PJM Tariff. The PJM Western Utilities submit that this reduces the level of excessive marginal cost collections while retaining the benefits of dispatching the system using marginal loss calculations.

15. The PJM Western Utilities also note that inclusion of all transmission lines subject to the PJM Tariff may create distortions because there appears to be inconsistencies from zone to zone as to which transmission voltage levels have been included in the PJM Tariff.²⁰ Thus, the PJM Western Utilities contend that the effect of the PJM proposal on customers may vary significantly across the PJM region, depending on which facilities are used to determine congestion and losses.

16. The PJM Western Utilities conclude that, while including all transmission facilities under the PJM Tariff matches the facilities used to compute marginal losses with the facilities on which transmission service is provided, there is also a zone of reasonableness in which PJM could craft a proposal reducing the over-collections and reducing the inconsistencies among the transmission zones in calculating marginal losses. The PJM Western Utilities state that the Commission should allow PJM and its stakeholders sufficient latitude to create equitable guidelines for a greater degree of standardization for inclusion of facilities for operational and planning purposes.

²⁰ The PJM Western Utilities suggest that this inconsistency should be addressed through a Technical Conference or Notice of Proposed Rulemaking.

17. Finally, the PJM Western Utilities contend that market participants throughout PJM have known since at least October 1, 2010 that changes were being made to the marginal loss computational method, and there is no reason to delay implementation beyond the proposed August 1, 2012 date.

V. PJM Answer

18. On July 9, 2012, PJM filed an answer to the comments of PJMICC. PJM states that PJMICC misreads its proposal and explains that it is not proposing to allow market sellers to elect to remove their transmission facilities from the marginal losses calculation. While PJM contends that the language in the proposed revisions is clear, PJM would not object to a further revision to separate the treatment of generator step-up transformers from the treatment of transmission facilities if necessary to fully respond to the PJMICC comments. Changes to the Tariff, with respect to the generator step-up transformers facilities, were previously approved by the Commission,²¹ and address an assumption on metering location in the treatment of generator step-up transformers' marginal losses to prevent double-counting.

VI. Discussion

A. Procedural Matters

19. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,²² the timely, unopposed motions to intervene serve to make them parties to this proceeding. Given the lack of undue prejudice or delay, the parties' interest, and the early stage of the proceeding, we find good cause to grant the unopposed, untimely motion to intervene of Dominion.

20. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure prohibits an answer to a protest or to an answer unless otherwise ordered by the decisional authority.²³ We accept the answer of PJM because it has aided us in our decision-making process.

²¹ *PJM Interconnection, L.L.C.*, 134 FERC ¶ 61,246 (2011).

²² 18 C.F.R. § 385.214 (2012).

²³ 18 C.F.R. § 385.213(a)(2) (2012).

B. Proposed Revisions

21. As discussed below, we accept and adopt the proposed revisions to the Operating Agreement and Tariff, subject to a compliance filing, as discussed below. We agree with PJM that including marginal line losses for non-transmission facilities is unjust and unreasonable as such facilities are not governed by PJM's Tariff. We also find that PJM's proposed Tariff, calculating marginal line losses on all transmission facilities is just and reasonable. As the Commission has found in prior orders, such pricing allows for a more efficient allocation of resources and ensures that each customer pays the proper marginal cost for the power it is purchasing.²⁴ Doing so also establishes correct price signals on facilities that PJM controls for the purpose of providing transmission service under its Tariff.²⁵

22. PJMICC requests that we direct PJM to clarify that all transmission facilities, and no other facilities, are included in the marginal losses calculation. PJM responds that it is not proposing to allow market sellers to elect to remove their transmission facilities from the marginal losses calculation. Instead, PJM maintains that the proposed revision is intended to retain the previously approved provision that the marginal loss calculation only includes generator step-up transformers to the extent that the market seller has not elected to remove the facilities from the marginal loss calculation.

23. While PJM contends that the proposed revision is clear, PJM does not object to a further revision to separate the treatment of generator step-up transformers from the treatment of transmission facilities if necessary to fully respond to the PJMICC comments. Thus, specifically, PJM proposes to further revise Schedule 1, Section 1.2A.2, and Section 14A.2 of the Operating Agreement and Attachment K – Appendix, Section 1.2A.2, and Section 3F.2 of the Tariff to provide:

Whenever in this Tariff transmission losses are included in the determination of a charge, credit, load (including deviations), or demand reduction, it is explicitly so stated and such included losses shall be those losses incurred on all Transmission Facilities (to facilitate such calculation, Transmission Owners shall ensure that all such facilities are included in the PJM network model) and *those losses incurred on generator step-up*

²⁴ *Atlantic City Electric Company, et al. v. PJM Interconnection, L.L.C.*, 115 ¶ FERC 61,132, at P 11 (2006).

²⁵ *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,028.

transformers that a Market Seller has not elected to remove from the loss calculation. Absent such explicit statement, such losses are not included in the determination. (emphasis added)

24. To avoid ambiguity, we agree with the proposed further revision, and accept the filing on condition that PJM submit a compliance filing within 15 days of the date of this order with the proposed further revision.

25. While the PJM Western Utilities support the proposed changes, they contend that the facilities used for marginal loss calculation should be further limited such that marginal line losses will be calculated only for facilities included in PJM's congestion cost calculation. We note that marginal losses would be incurred on all facilities in the transmission of electricity from generation resources to load, and reflecting these loss costs in prices will send more accurate price signals. The facilities included in the modeling of congestion are not at issue in this proceeding, and PJM did not propose such a limitation.²⁶ We therefore find PJM's proposal just and reasonable. Moreover, the proposal by the PJM Western Utilities is similar to the proposal the Commission rejected in Docket Nos. ER11-12-001 and ER11-3445-000,²⁷ and we see no reason to reconsider that determination.

26. The PJM Western Utilities are also concerned that the inclusion of all transmission facilities may create distortions because there appear to be inconsistencies from zone to zone as to the definition of transmission facilities. PJM's proposed revisions are intended to provide an objective standard for inclusion in the calculation of marginal losses, and are based on the classification of transmission facilities approved pursuant to Order No. 888,²⁸ rather than the inclusion of facilities based on the identification by transmission owners for purposes of operational modeling. Issues with respect to the

²⁶ Even if a transmission line has no congestion, it may experience line losses, and the LMP should reflect those losses to send accurate price signals.

²⁷ *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,038 (2012).

²⁸ *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), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, *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).

zone-by-zone differences are better addressed in proceedings dealing with classification of transmission facilities. Those issues are beyond the scope of this proceeding.

The Commission orders:

PJM's proposed tariff revisions are accepted and adopted, to become effective August 1, 2012, subject to a compliance filing to be made within 15 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Tariff Provisions Accepted

Docket No. ER12-1929-000

PJM Interconnection, L.L.C.
FERC FPA Electric Tariff
Intra-PJM Tariffs

[T-U-V, OATT Definitions – T – U - V, 2.0.0](#) A 8/1/2012
[3F, OATT 3F Transmission Losses, 1.0.0](#) A 8/1/2012
[OATT ATT K APPX Sec 1.2A, OATT Attachment K Appendix Sec 1.2A Transmission Losses, 1.0.0](#) A 8/1/2012

Docket No. EL12-71-000

PJM Interconnection, L.L.C.
FERC FPA Electric Tariff
Intra-PJM Tariffs

[14A.2, OA 14A.2 Inclusion of Transmission Losses, 1.0.0](#) A 8/1/2012
[14A.3, OA 14A.3 Other Losses, 1.0.0](#) A 8/1/2012
[OA Schedule 1 Sec 1.2A, OA Schedule 1 Sec 1.2A Transmission Losses, 1.0.0](#) A
8/1/2012