

167 FERC ¶ 61,213  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

PJM Interconnection, L.L.C.

Docket No. ER19-1301-000

ORDER ON COST ALLOCATION REPORT AND TARIFF REVISIONS

(Issued June 11, 2019)

1. On March 14, 2019, PJM Interconnection, L.L.C. (PJM) submitted, in accordance with Schedule 12 of the PJM Open Access Transmission Tariff (Tariff) and pursuant to section 205 of the Federal Power Act (FPA),<sup>1</sup> amendments to Schedule 12-Appendix A of its Tariff to incorporate cost responsibility assignments for 45 new transmission enhancements or expansions (PJM Tariff Filing).<sup>2</sup> In this order, we accept, suspend for a nominal period, and make effective June 12, 2019, as requested, PJM's proposed amendments, subject to refund pending further Commission action on remand of *Old Dominion Elec. Coop. v. FERC*,<sup>3</sup> as discussed below.

**I. Background**

2. PJM files cost responsibility assignments for transmission enhancements or expansions that the PJM Board of Managers (PJM Board) approves as part of PJM's Regional Transmission Expansion Plan (RTEP) in accordance with Schedule 12 of PJM's Tariff and Schedule 6 of the Amended and Restated Operating Agreement of PJM (Operating Agreement).<sup>4</sup> Schedule 12 of the Tariff establishes Transmission

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<sup>1</sup> 16 U.S.C. § 824d (2018).

<sup>2</sup> Appendix A lists the amended tariff records.

<sup>3</sup> *See Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018).

<sup>4</sup> In accordance with the Tariff and the Operating Agreement, PJM "shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and

Enhancement Charges for “[o]ne or more of the Transmission Owners [that] may be designated to construct and own and/or finance Required Transmission Enhancements by (1) the RTEP periodically developed pursuant to Operating Agreement, Schedule 6 or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B.”<sup>5</sup> In developing the RTEP, PJM identifies transmission projects to address different criteria, including PJM planning procedures, North American Electric Reliability Corporation (NERC) Reliability Standards, Regional Entity reliability principles and standards,<sup>6</sup> and individual transmission owner Form No. 715 local planning criteria.<sup>7</sup> Types of

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the market participants designated under Section 1.5.6(1) above to bear responsibility for the costs of the project.” *See* Operating Agreement, Schedule 6, section 1.6 (b). “Within 30 days of the approval of each Regional Transmission Expansion Plan or an addition to such plan by the PJM Board pursuant to Section 1.6 of Schedule 6 of the PJM Operating Agreement, the Transmission Provider shall designate in the Schedule 12-Appendix A and in a report filed with the FERC the customers using Point-to-Point Transmission Service and/or Network Integration Transmission Service and Merchant Transmission Facility owners that will be subject to each such Transmission Enhancement Charge (‘Responsible Customers’) based on the cost responsibility assignments determined pursuant to this Schedule 12.” PJM Tariff, Schedule 12, Section (b)(viii).

<sup>5</sup> Required Transmission Enhancements are defined as “enhancements and expansions of the Transmission System that (1) a RTEP developed pursuant to Schedule 6 of the Operating Agreement or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (“Appendix B Agreement”) designates one or more of the Transmission Owner(s) to construct and own or finance.” PJM Tariff, OATT Definitions - R - S, 13.0.0. Transmission Enhancement Charges are established to recover the revenue requirement with respect to a Required Transmission Enhancement. *See* PJM Tariff, Schedule 12, Section (a)(i).

<sup>6</sup> As established by Reliability First Corporation, Southeastern Electric Reliability Council, and other applicable Regional Entities. *See* PJM Operating Agreement, Schedule 6, sections 1.2(b) and 1.2(d) (Conformity with NERC and Other Applicable Reliability Criteria) (2.0.0).

<sup>7</sup> The Commission accepted a PJM Transmission Owner Tariff proposed revision to allocate 100 percent of the costs for Required Transmission Enhancements that are included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria to the zone of the individual transmission owner whose Form No. 715 local planning criteria underlie each project. *See PJM Interconnection, L.L.C.*, 154 FERC ¶ 61,096, *order on reh’g*, 157 FERC ¶ 61,192 (2016), PJM Tariff,

Reliability Projects<sup>8</sup> identified in the RTEP include Regional Facilities,<sup>9</sup> Necessary Lower Voltage Facilities,<sup>10</sup> and Lower Voltage Facilities.<sup>11</sup>

3. PJM utilizes a hybrid cost allocation method, which the Commission found complies with Order No. 1000,<sup>12</sup> for Regional Facilities and Necessary Lower Voltage

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Schedule 12, Section (b)(xvi). Accordingly, Required Transmission Enhancements that are included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria, where 100 percent of the costs of such projects are allocated to the zone of the individual transmission owner whose Form No. 715 local planning criteria underlie each project, are not selected in the RTEP for purposes of cost allocation. *See supra* note 3.

<sup>8</sup> Reliability Projects are included in the RTEP to address one or more reliability violations or to address operational adequacy and performance issues. *See* PJM Tariff, Schedule 12, Section (b)(i)(A)(2)(a).

<sup>9</sup> Regional Facilities are defined as Required Transmission Enhancements included in the RTEP that are transmission facilities that: (a) are AC facilities that operate at or above 500 kV; (b) are double-circuit AC facilities that operate at or above 345 kV; (c) are AC or DC shunt reactive resources connected to a facility from (a) or (b); or (d) are DC facilities that meet the necessary criteria as described in Section (b)(i)(D). PJM Tariff, Schedule 12, section (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities) (6.1.0).

<sup>10</sup> Necessary Lower Voltage Facilities are defined as Required Transmission Enhancements included in the RTEP that are lower voltage facilities that must be constructed or reinforced to support new Regional Facilities. PJM Tariff, Schedule 12, Section (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities) (6.1.0).

<sup>11</sup> Lower Voltage Facilities are defined as Required Transmission Enhancements that: (a) are not Regional Facilities; and (b) are not “Necessary Lower Voltage Facilities.” PJM Tariff, Schedule 12, Section (b)(ii) (Lower Voltage Facilities) (6.1.0).

<sup>12</sup> *See Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 61,051 (2011) (Order No. 1000), *order on reh’g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh’g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff’d sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014) (*S.C. Pub. Serv. Auth. v. FERC*). *See also PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 (2013), *order on reh’g and compliance*, 147 FERC ¶ 61,128 (2014), *order on reh’g and compliance*, 150 FERC ¶ 61,038, *order on reh’g and compliance*, 151 FERC ¶ 61,250 (2015).

Facilities that address a reliability need.<sup>13</sup> Under this method, PJM allocates 50 percent of the costs of Regional Facilities or Necessary Lower Voltage Facilities on a load-ratio share basis and the other 50 percent based on the solution-based distribution factor (DFAX) method. PJM allocates all of the costs of Lower Voltage Facilities using the solution-based DFAX method.

4. Schedule 12 further provides that cost responsibility for any Required Transmission Enhancements that are included in the RTEP to address reliability violations on transmission facilities that are designed to operate at below 200 kV and, pursuant to Operating Agreement, Schedule 6, section 1.5.8(n), were not included in an Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, shall be assigned to the Responsible Customers in the zone where the Required Transmission Enhancement is to be located.<sup>14</sup>

## **II. Schedule 12-Appendix A Amendments**

5. The PJM Tariff Filing proposes amendments to Schedule 12-Appendix A of the Tariff to incorporate cost responsibility assignments for 45 new transmission enhancements or expansions that were part of the recent update to the RTEP that the PJM Board approved on February 12, 2019. There are no Regional Facilities included in the Schedule 12-Appendix A amendments. The amendments include cost responsibility assignments for four transmission enhancements and expansions that operate as Lower Voltage Facilities whose costs were allocated pursuant to the solution-based DFAX method,<sup>15</sup> one transmission enhancement costing less than five million dollars whose costs were allocated to the zone where the enhancement is located,<sup>16</sup> 13 transmission

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<sup>13</sup> PJM identifies reliability transmission needs and economic constraints that result from the incorporation of public policy requirements into its sensitivity analyses, and allocates the costs of the solutions to such transmission needs in accordance with the type of benefits they provide. *See PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 441. *See also* PJM Tariff, Schedule 12, Section (b)(v) (Economic Projects) (assigning cost responsibility for Economic Projects that are either accelerations or modifications of Reliability Projects, or new enhancements or expansions that relieve one or more economic constraints). *See* PJM Operating Agreement, Schedule 6, section 1.5.7(b)(iii).

<sup>14</sup> PJM Tariff, Schedule 12, Section (b)(xvi).

<sup>15</sup> *See* PJM Tariff, Schedule 12, Section (b)(iii).

<sup>16</sup> *See* PJM Tariff, Schedule 12, Section (b)(vi) (“[w]here a Required Transmission Enhancement subject to this section (b)(vi) consists of a single transmission element or multiple transmission elements that will be located in more than one Zone, each Zone

enhancements that were included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria and whose costs were allocated to the Zone of the individual transmission owner whose Form No. 715 local planning criteria underlie each enhancement,<sup>17</sup> 23 transmission enhancements that operate at or below 200 kV whose costs were allocated to the zone in which the enhancement is located,<sup>18</sup> and four transmission enhancements needed to address spare parts, replacement equipment and circuit breakers whose costs were allocated to the zone in which the enhancement is located.<sup>19</sup>

### **III. Notice and Interventions**

6. Notice of the March 22, 2019 filing was published in the *Federal Register*, 84 Fed. Reg. 10,815 (2019), with interventions and protests due on or before April 13, 2019. On March 27, 2019, an errata notice was issued extending the date for filing comments in response to the filing to April 15, 2019.

7. Timely motions to intervene were filed by American Electric Power Service Corporation; ITC Lake Erie Connector, LLC; Calpine Corporation; American Municipal Power, Inc.; Virginia Electric and Power Company (Dominion); North Carolina Electric Membership Corporation; Buckeye Power, Inc.; Exelon Corporation, and Old Dominion Electric Cooperative (ODEC). FirstEnergy Service Company (FirstEnergy) filed an out-of-time motion to intervene.

8. ODEC filed comments on the PJM Tariff Filing, and PJM filed an answer.

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shall be assigned cost responsibility for the transmission elements or portions of the transmission elements located in such Zone”).

<sup>17</sup> The PJM Tariff Filing included projects b3059, b3060, b3086.1, b3086.2, b3086.3, b3086.4, b3086.5, b3087.1, b3087.2, b3087.3, b3088, b3089, and b3094 solely to address Form No. 715 planning criteria.

<sup>18</sup> The PJM Tariff Filing included projects b3061, b3063, b3064, b3066, b3067, b3068, b3069, b3070, b3071, b3072, b3073, b3074, b3075, b3076, b3077, b3078, b3080, b3081, b3082, b3083, b3084, b3085, and b3095 that will operate at or below 200 kV and were not included in a competitive proposal window.

<sup>19</sup> See PJM Tariff, Schedule 12, Section (b)(iv).

#### IV. Pleadings

9. ODEC contends that it is unclear what reliability criteria PJM applied in determining the cost responsibility assignments for transmission enhancements that address reliability violations on transmission facilities operating at or below 200 kV, resulting in 100 percent cost allocation to the zone.<sup>20</sup> ODEC specifically references project b3077, for which PJM has identified a 115 kV line criteria violation and a 345 kV line contingency. ODEC states that PJM proposes to allocate 100 percent of the cost of the transmission enhancement to the zone in which the transmission facilities are located because “[t]he driver for [the] upgrade is less than 200 kV.”<sup>21</sup> ODEC contends that clarification of whether the criteria violation or contingency is “the driver” that satisfies the operating “at or below 200 kV” threshold and results in PJM’s proposed 100 percent cost allocation to the zone is necessary.

10. ODEC also requests clarification with respect to the solution-based DFAX method analysis for project b3090.<sup>22</sup> ODEC contends that PJM has not provided adequate information supporting its conclusion that 100 percent of the upgrade costs are appropriately allocated to the Dominion zone. ODEC thus requests that PJM provide the DFAX analysis and the underlying case used and the solution-based DFAX method analysis for project b3090 as well as a more detailed breakdown of the other zones’ solution-based DFAX method percentages so that ODEC may independently verify PJM’s cost assignment conclusion for this particular transmission enhancement.

11. PJM answers, with respect to project b3077, that provided the violation does not satisfy one of the exceptions detailed in Operating Agreement, Schedule 6, section 1.5.8(n), it will develop a solution “*to address the reliability violation on the below 200 kV facility.*”<sup>23</sup> Consistent with Operating Agreement, Schedule 6, section 1.5.8(n), PJM states that the determining factor for project b3077 was the criteria violation, not the contingency, and pursuant to the Tariff, Schedule 12,

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<sup>20</sup> ODEC Comments at 3.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at 4.

<sup>23</sup> PJM Answer at 2 (emphasis in original).

Section (b)(xvi), project b3077 was allocated 100 percent to the zone in which the project will be located, *i.e.*, the PENELEC (Pennsylvania Electric Company) zone.<sup>24</sup>

12. In response to ODEC's request for clarification as to why Dominion was allocated 100 percent of the cost responsibility for project b3090, PJM states that the solution-based DFAX method value for the Dominion zone was 1.62 percent; and the solution-based DFAX method value for all other zones was less than one percent.<sup>25</sup> PJM states that pursuant to Tariff, Schedule 12, Section (b)(iii)(A)(6):

No cost responsibility shall be assigned to a Responsible Zone unless the magnitude of the distribution factor is greater than or equal to 0.01. Any distribution factor of a smaller magnitude shall be set equal to zero.

PJM states that, because Dominion was the only zone with a solution-based DFAX method value above one percent, Dominion was allocated 100 percent of the cost responsibility for project b3090.

## **V. Discussion**

### **A. Procedural Matters**

13. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2018), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. We grant the late-filed motion to intervene of FirstEnergy, given its interest in the proceeding and the absence of undue prejudice or delay.

### **B. Schedule 12-Appendix A Amendments**

14. As discussed below, we disagree with the protest of ODEC, and find that PJM has acted in accordance with its Tariff in assigning cost responsibility for the 45 new transmission enhancements or expansions in the PJM Tariff Filing. We find that PJM acted in accordance with its Tariff in assigning cost responsibility for the projects at issue here. However, in *Old Dominion Elec. Coop. v. FERC*, the United States Court of Appeals for the District of Columbia Circuit (Court) granted a petition for review of the Commission's order accepting the PJM Transmission Owners' proposed Tariff revisions

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<sup>24</sup> PENELEC's transmission assets are owned and operated by Mid-Atlantic Interstate Transmission, LLC, and is an affiliate of FirstEnergy Corp.

<sup>25</sup> PJM Answer at 2-3. PJM provided a table indicating that the solution-based DFAX method values for all zones but Dominion are less than one percent.

to allocate the costs of projects identified in the RTEP only to address individual transmission owner Form No. 715 local planning criteria 100 percent to the zone of the transmission owner whose Form No. 715 local planning criteria underlie each project. The Court remanded the case for further proceedings, and further Commission action remains pending. Accordingly, we accept, suspend for a nominal period, and make effective June 12, 2019, as requested, PJM's proposed Tariff amendments, subject to refund pending further Commission action on remand of *Old Dominion Elec. Coop. v. FERC*.<sup>26</sup>

15. ODEC states that PJM has not shown that the cost of project b3077 is allocated appropriately to the zone because the project includes a 115 kV line criteria violation and a 345 kV line contingency, and PJM has failed to support its contention that “[t]he driver for [the] upgrade is less than 200 kV.” In its answer, PJM points to Section (xvi) of Schedule 12 of the PJM Tariff, which provides that “cost responsibility for any Required Transmission Enhancements that are included in the Regional Transmission Expansion Plan to address reliability violations on Transmission Facilities that are designed to operate at below 200 kV and, pursuant to Operating Agreement, Schedule 6, section 1.5.8(n), were not included in an Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, shall be assigned to the Responsible Customers in the Zone where the Required Transmission Enhancement is to be located.”<sup>27</sup> Section 1.5.8(n) of Schedule 6 of the Operating Agreement provides that PJM shall not post such a violation for inclusion in a proposal window:

unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations.

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<sup>26</sup> 898 F.3d 1254.

<sup>27</sup> PJM Tariff, Schedule 12, Section (b)(xvi) (emphasis added).



16. For project b3077, PJM lists the criteria violation as “[o]verload on the Franklin Pike B – Wayne 115 kV line” resulting from a “[s]ingle contingency tripping the Erie West – Wayne 345 kV line” under a Generator Deliverability criteria test. Under the Tariff, PJM determines the cost allocation by the voltage of the transmission facility on which the reliability violation is identified, not the contingency that provides the basis for an exemption from the competitive proposal window process. For project b3077, the contingency caused an overload on the Franklin Pike B – Wayne 115 kV line so the voltage on that line will determine the cost allocation. Accordingly, we find project b3077 is included in the RTEP to address a reliability violation on transmission facilities that are designed to operate below 200 kV, an overload on the Franklin Pike B – Wayne 115 kV transmission line. Since neither of the exceptions to the exemption from a competitive proposal window process provided by section 1.5.8(n) of Schedule 6 of the Operating Agreement is met, Section (xvi) of Schedule 12 of the PJM Tariff provides that the costs for project b3077 are assigned to the zone where the project is to be located, PENELEC.

17. For project b3090, ODEC requests that PJM provide the solution-based DFAX method analysis and the underlying case used to conduct the analysis for b3090 as well as a more detailed breakdown of the other zones’ solution-based DFAX method analysis percentages so that ODEC may independently verify PJM’s cost assignment conclusion for this particular project. In its answer, PJM clarified that the solution-based DFAX method value for the Dominion Zone was 1.62 percent; and the solution-based DFAX method value for all other zones was less than one percent.<sup>28</sup> Because Dominion was the only zone with a solution-based DFAX method value above one percent, we find that, consistent with Schedule 12, Section (b)(iii)(A)(6), Dominion was appropriately allocated 100 percent of the costs responsibility for project b3090.

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<sup>28</sup> PJM’s Tariff details how the solution-based DFAX method is performed and the cost allocations in this proceeding merely reflect the application of that method. If questions arise about a project, the Operating Agreement describes the RTEP process by which ODEC should request, and can obtain, such clarification during the RTEP process. *See* PJM, Intra-PJM Tariffs, Operating Agreement, Schedule 6, Section 1.5 (Procedure for Development of the Regional Transmission Expansion Plan).

The Commission orders:

PJM's proposed Tariff amendments are hereby accepted, suspended for a nominal period, and made effective June 12, 2019, subject to refund, pending further Commission action, as discussed in in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

**APPENDIX A**

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

[SCHEDULE 12.APPX A - 7, OATT SCHEDULE 12.APPENDIX A - 7 Pennsylvania Electric Compan, 19.0.0;](#)

[SCHEDULE 12.APPX A - 14, OATT SCHEDULE 12.APPENDIX A - 14 Monongahela Power Company, 15.0.0;](#)

[SCHEDULE 12.APPX A - 17, OATT SCHEDULE 12.APPENDIX A - 17 AEP Service Corporation, 21.0.0;](#)

[SCHEDULE 12.APPX A - 18, OATT SCHEDULE 12.APPENDIX A - 18 Duquesne Light Company, 5.0.0;](#)

[SCHEDULE 12.APPX A - 20, OATT SCHEDULE 12.APPENDIX A - 20 Virginia Electric and Power, 21.0.0;](#)

[SCHEDULE 12.APPX A - 23, OATT SCHEDULE 12.APPENDIX A - 23 American Transmission Syste, 15.0.0;](#)

[SCHEDULE 12.APPX A - 25, OATT SCHEDULE 12.APPENDIX A - 25 East Kentucky Power Coopera, 11.0.0.](#)