

127 FERC ¶ 61,016  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
and Philip D. Moeller.

PJM Interconnection, L.L.C.

Docket No. ER09-497-000

ORDER ON COST ALLOCATION REPORT AND DIRECTING COMPLIANCE  
FILING

(Issued April 3, 2009)

1. On January 5, 2009, PJM Interconnection, L.L.C., in accordance with Schedule 12 (Schedule 12) of the PJM Open Access Transmission Tariff (OATT or Tariff) and section 1.6 of Schedule 6 (Schedule 6) of the PJM Operating Agreement, filed amendments to reflect the assignments of cost responsibility for 251 baseline upgrades included in the two most recent updates to the Regional Transmission Expansion Plan (RTEP) approved by the PJM Board of Managers (PJM Board) (January 5, 2009 RTEP Filing). In addition, PJM requested a waiver of the PJM Tariff requirement that cost responsibility assignments be filed within 30 days.<sup>1</sup> In this order, we conditionally accept in part PJM's revised tariff sheets, suspend them for a nominal period to become effective April 5, 2009, subject to refund and subject to the outcome of further proceedings, and direct a compliance filing. In addition, we grant the requested waiver of the PJM Tariff's 30-day filing provision.

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<sup>1</sup> The January 5, 2009 RTEP Filing at issue here includes amendments to Schedule 12-Appendix of the PJM Tariff, to reflect new cost responsibility assignments for transmission enhancements and expansions included in the most recent updates to the RTEP approved by the PJM Board on both October 17, 2008 and December 4, 2008.

## **Background**

2. PJM files cost responsibility assignments for transmission upgrades that have been approved by the PJM Board as part of PJM's RTEP, in accordance with Schedule 12 of the Tariff and Schedule 6 of the Operating Agreement, and pursuant to section 205 of the Federal Power Act.<sup>2</sup> The RTEP provides for the construction of expansions and upgrades to PJM's transmission system in order to comply with reliability criteria, and to maintain and enhance the economic and operational efficiency of PJM's wholesale electricity markets.

3. Pursuant to Schedule 12, the costs of new RTEP facilities that operate at or above 500 kV (Regional Facilities), as well as lower voltage facilities that must be constructed or strengthened to support new Regional Facilities (Necessary Lower Voltage Facilities), are allocated on a region-wide basis (postage-stamp allocation).<sup>3</sup> The costs of new RTEP facilities that operate below 500 kV and are not Necessary Lower Voltage Facilities are allocated based on a "beneficiary pays" approach using a distribution factor (DFAX) methodology.<sup>4</sup>

### **PJM's January 5, 2009 RTEP Filing**

4. PJM has submitted amendments to the Schedule 12-Appendix to include the cost responsibility assignments for nineteen new Regional Facilities.<sup>5</sup> PJM states that,

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<sup>2</sup> 16 U.S.C. § 824d (2006).

<sup>3</sup> Tariff, Schedule 12, section (b)(i); see *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007); *order on reh'g and compliance filing*, Opinion No. 494-A, 122 FERC ¶ 61,082; *order denying reh'g*, 124 FERC ¶ 61,033 (2008).

<sup>4</sup> The Commission accepted a settlement submitted by PJM that set forth the details of the "beneficiary pays" methodology in Schedule 12 (Settlement). *PJM Interconnection, L.L.C.*, 124 FERC ¶ 61,112 (2008); see also *PJM Interconnection, L.L.C.*, Docket No. ER05-456-015, *et al.* (unpublished letter order, October 15, 2008). However, the Settlement did not resolve matters regarding assigning cost responsibility to merchant transmission facilities for both above and below 500 kV facilities. An Initial Decision regarding this issue was issued on September 18, 2008, and is currently pending before the Commission. See Docket No. ER06-456, *et al.*

<sup>5</sup> Additionally, PJM submitted one retroactive sheet, to be effective January 1, 2008, to add Allegheny Electric Cooperative (AEC) to the Responsible Customer column for project b0227. In a previous filing, "AEC" was omitted inadvertently and this retroactive sheet ensures that the historical cost responsibility assignments are appropriately reflected.

consistent with Schedule 12, these assignments of cost responsibility are determined on a region-wide basis, based on an annual load-ratio share of each transmission zone's annual peak load from the preceding 12-month period ending October 31.<sup>6</sup> Accordingly, the annual peak loads used to determine the new annual cost responsibility assignments for the Regional Facilities included in this filing are the 2008 peak loads. Additionally, cost responsibility assignments to owners of merchant transmission facilities are based on the firm transmission withdrawal rights associated with existing or planned merchant transmission facilities for which they have executed an interconnection service agreement.<sup>7</sup>

5. Also consistent with Schedule 12, PJM submits cost responsibility assignments for 232 lower voltage facilities. PJM states that all of the lower voltage transmission enhancements and expansions were also approved by the PJM Board and are reliability-based upgrades.<sup>8</sup> Assignments of cost responsibility for below 500 kV facilities included in the revised sheets are determined pursuant to the DFAX methodology.<sup>9</sup> PJM states that the DFAX methodology takes into account the contributions of load to the reliability criteria violations for which lower voltage facilities are identified as solutions in the RTEP. Cost responsibility assignments for below 500 kV upgrades to merchant transmission facilities are based on interim values as set forth in the Settlement and the Tariff, Schedule 12.<sup>10</sup>

6. PJM recognizes that issues regarding cost responsibility assignments to merchant transmission facilities are still pending before the Commission. PJM requests that the Commission accept its filing subject to refund and the outcome of further proceedings related to Docket No. ER06-456, *et al.* PJM notes that the Commission took a similar approach in response to its filing of the last three RTEP cost responsibility assignments in July and November 2007, and June 2008.<sup>11</sup>

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<sup>6</sup> Tariff, Schedule 12 § (b)(i)(A).

<sup>7</sup> *Id.*, Schedule 12 § (b)(i)(B); *see* Opinion No. 494-A, 122 FERC ¶ 61,082 at P 92.

<sup>8</sup> In addition to specifying the cost responsibility assignments for each upgrade, PJM also includes, for informational purposes, cost responsibility assignment summaries, which include in-service dates, estimated costs, and the transmission owners with construction responsibility for each upgrade.

<sup>9</sup> Tariff, Schedule 12 § (b)(iii)(C).

<sup>10</sup> *Id.*, Schedule 12 § (b)(ii); Settlement at 9.

<sup>11</sup> *See PJM Interconnection, L.L.C.*, 121 FERC ¶ 61,034, at PP 33-34 (2007); *PJM*  
(continued)

7. PJM requests that the revised tariff sheets become effective on April 5, 2009.

### **Procedural Issues**

#### **Notice**

8. Notice of PJM's filing was published in the *Federal Register*, 74 Fed. Reg. 3,587 (2009), with interventions and protests due on or before February 6, 2009.<sup>12</sup>

#### **Interventions, Comments and Protests**

9. Notice of intervention was filed by Illinois Commerce Commission (ICC). Motions to intervene were filed by Allegheny Power and Trans-Allegheny Interstate Line Company, Dominion Resources Services, Inc., PPL Electric Utilities Corporation, FirstEnergy Service Company, Long Island Power Authority and Long Island Lighting Company, American Municipal Power – Ohio, Inc., PSEG,<sup>13</sup> Exelon Corporation (Exelon), Old Dominion Electric Cooperative (Old Dominion), Dayton Power and Light Company (Dayton) and Baltimore Gas and Electric Company (BGE). Protests or comments were filed by the ICC, PSEG, Exelon, Old Dominion, and Dayton. Motions to answer and answers were filed by PJM, PSEG and BGE, Dayton, Old Dominion and Exelon.

10. ICC recommends that the Commission reject the January 5, 2009 RTEP Filing's proposed cost allocations to the Commonwealth Edison (ComEd) zone for the nineteen projects that will operate at or above 500 kV. With respect to these nineteen projects, the January 5, 2009 RTEP Filing proposes to allocate approximately \$141.85 million in costs to the ComEd zone. ICC contends that neither PJM nor the Commission has shown that: (1) load in the ComEd zone contributed to the need for these projects; or (2) these projects provide corresponding benefits to the electricity customers in the ComEd zone. Further, ICC states that the January 5, 2009 RTEP Filing illustrates the inappropriateness of PJM's region-wide cost allocation method. ICC argues that while costs of approximately \$1 billion are being allocated under the region-wide cost allocation methodology, the bulk of these costs (\$939.29 million) is associated with four projects.<sup>14</sup>

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*Interconnection, L.L.C.*, 122 FERC ¶ 61,130, at P 30; *reh'g denied*, 124 FERC ¶ 61,245 (2008); *PJM Interconnection, L.L.C.*, 124 FERC ¶ 61,197, at P 20 (2008).

<sup>12</sup> See January 13, 2009 notice extending comment date.

<sup>13</sup> Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (PSEG Power) and PSEG Energy Resources & Trade LLC (collectively, PSEG).

<sup>14</sup> The specific projects are baseline upgrades b0829, b0830, b0832, and b0833.

The ICC notes that these four projects all propose to relieve “[n]umerous 230 kV circuit contingency overloads in Northern New Jersey.”<sup>15</sup> ICC objects to ratepayers in the ComEd zone paying for facilities intended to address circuit overloads that are occurring “over 750 miles from the ComEd zone.” ICC considers this unreasonable because ratepayers in the ComEd zone will be allocated 14.97% of the \$1 billion expended, while ratepayers in the PSE&G zone (where the New Jersey projects will be located) will be allocated only 7.61% of the costs of upgrades.

11. ICC further states that although it would not be completely equitable, if significant 500 kV and above facilities were also being proposed for the northern Illinois area, then the Commission’s postage-stamp approach to cost allocation might demonstrate greater equity. According to ICC, this is not the case, and it is unlikely that there will be a need for significant 500 kV and above facilities in the ComEd zone in the near future, as it has not been the practice for utilities located in the central part of the United States to develop 500 kV and above facilities to solve local reliability issues. Therefore, ICC contends, the Commission’s region-wide cost allocation policy is inequitable as costs are spread region-wide, but the benefits are not. Moreover, ICC states, the outcome is in violation of both the Federal Power Act’s Section 205(a) requirement that rates be just and reasonable,<sup>16</sup> as well as case law precedent prohibiting a Commission cost allocation methodology that forces some ratepayers to subsidize others in violation of long-standing cost-causation principles.

12. PSEG contends that project b0837, set forth in PJM’s proposed revisions to Schedule 12-Appendix, is incorrectly identified as a PSE&G project. The cost responsibility assignment summary for project b0837 correctly identifies the project as a Virginia Electric and Power Company project.<sup>17</sup> PSEG requests that PJM’s Schedule 12-Appendix be corrected to show project b0837 as a Virginia Electric and Power Company project.

13. Dayton questions whether PJM has followed the tariff methodology for the assignment of cost responsibility for certain facilities operating at voltages under 500kV within northern New Jersey.<sup>18</sup> Specifically, Dayton contends that it is highly unlikely

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<sup>15</sup> ICC Protest at 5. *See* January 5, 2009 RTEP Filing at Attachment B, cost responsibility assignment summaries for baseline upgrades b0829, b0830, b0832, and b0833.

<sup>16</sup> 16 U.S.C.S. §824d (2006).

<sup>17</sup> *See* January 5, 2009 RTEP Filing at Attachment A.

<sup>18</sup> The specific projects are baseline upgrades b0831, b0834, b0835, and b0836.

that these lower voltage facilities in northern New Jersey would affect any flow of power in Dayton's zone in west-central Ohio, if the DFAX methodology was applied correctly. Further, Dayton questions why PJM's modeling resulted in proposed cost allocations for a handful of utilities operating in or very near New Jersey, and to Dayton and Commonwealth Edison, but not to utilities in between. Dayton suggests that PJM did not model the effects of these facilities separately, but instead modeled them in conjunction with four other projects in northern New Jersey that will operate at voltages above 500 kV. While Dayton would favor a DFAX methodology for both higher and lower voltage facilities, Dayton contends that it is inconsistent to over-allocate higher voltage facility costs to Dayton based on load ratio share and then use the DFAX impact of those higher voltage facilities to bootstrap an illusory benefit to Dayton of the lower voltage facilities. Dayton requests that the Commission permit further investigation into how the DFAX methodology is being applied to other projects reflected in this filing.

14. Exelon also protests the allocations of baseline upgrades b0831, b0834, b0835, and b0836 to the ComEd zone as not in accordance with the terms of the PJM Tariff. Exelon contends that the allocations for these projects were based on modeling of the phase angle regulators that was not in accord with section (b)(iii)(C)(8) of Schedule 12 of the PJM Tariff. Specifically, Exelon states that, under the PJM Tariff, while all phase angle regulator angles shall be fixed at their base case settings, there are two base cases: one for the planning study to identify the need for an upgrade, and another (with an artificial transfer added) for the DFAX analysis of the Outage Transfer Distribution Factors to allocate the cost of an upgrade. Exelon argues that PJM incorrectly maintained the same angle on the phase angle regulators between the base case without the simulated transfer and the base case with the simulated transfer, resulting in an incorrect allocation of cost responsibility.<sup>19</sup> Exelon requests that the Commission require PJM to recalculate the allocations in accordance with the Tariff.

15. Additionally, Exelon protests PJM's cost allocation assignment for baseline upgrade b0831. Exelon notes that PJM describes baseline upgrade b0831 as "replace 138/13 kV transformers with 230/13 kV units as part of Branchburg-Hudson 500 kV project."<sup>20</sup> Exelon contends that PJM has not provided sufficient information to adequately identify the transformers to be replaced. In fact, Exelon believes that the transformers being replaced as part of b0831 may be distribution assets, rather than transmission assets, inappropriate for cost recovery under PJM's tariff. The Commission should reject PJM's

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<sup>19</sup> Exelon references the Affidavit of Dr. Ronnie F. Chu, in which he contends that PJM misinterpreted the tariff provisions relating to modeling of the phase angle regulators leading to an erroneous result.

<sup>20</sup> Exelon Protest at 3. *See* January 5, 2009 RTEP Filing at Attachment B, cost responsibility assignment summary for baseline upgrade b0831.

assignment of these costs unless and until PJM supplies sufficient evidence to prove that these transformers are in fact transmission assets.<sup>21</sup> Exelon requests that at a minimum the Commission issue a deficiency letter requiring PJM to provide sufficient detail in order to evaluate b0831.<sup>22</sup>

16. Old Dominion objects to PJM's proposed allocation of 100 percent of the costs of baseline upgrade b0756 (estimated at \$16 million) to the Dominion zone based on the DFAX methodology.<sup>23</sup> Old Dominion notes that the description of project b0756 included in PJM's cost responsibility assignment summary indicates that the upgrade includes the installation of two 500 kV circuit breakers.<sup>24</sup> As PJM notes in the filing, the costs of Regional Facilities are required to be allocated on a region-wide basis pursuant to the Commission's Opinion No. 494 and Schedule 12. Indeed, elsewhere in the January 5, 2009 RTEP Filing PJM proposes region-wide cost allocation for upgrades involving 500 kV circuit breakers.<sup>25</sup> Thus, the costs of the 500 kV circuit breakers included in upgrade b0756 are required to be allocated on a region-wide basis across PJM, and the Commission should direct PJM to revise its proposed cost responsibility designations accordingly.

### Answers

17. PJM, and PSEG and BGE submitted answers in response to the protests and comments of the January 5, 2009 RTEP Filing. Dayton, Exelon, and Old Dominion filed answers in response. PJM also responded to the answer of Exelon. PJM, PSEG and

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<sup>21</sup> Schedule 12 of the PJM Tariff covers charges for transmission enhancements which are defined by section 1.38C of the Tariff as "Enhancements and Expansions of the Transmission System"; section 1.49 of the Tariff defines transmission system as "the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the Tariff."

<sup>22</sup> Exelon states they do not intend to imply that simply because a distribution owner turns over control of local distribution facilities to PJM that PJM can charge others under Schedule 12.

<sup>23</sup> Old Dominion Protest at 3. *See* January 5, 2009 RTEP Filing at Attachment B, cost responsibility assignment summary for baseline upgrade b0756.

<sup>24</sup> *Id.* The upgrade will also include a "second 500/115 kV autotransformer."

<sup>25</sup> Old Dominion Protest at 4. *See* January 5, 2009 RTEP Filing at Attachment B, cost responsibility assignment summaries for baseline Upgrades b0347.5 – b0347.15, b0577, and b0751.

BGE contend that the statements made by the ICC and Dayton that they should not be responsible for costs of Regional Facilities are outside the scope of this proceeding. PJM, PSEG and BGE note that Opinion Nos. 494 and 494-A required PJM to allocate the costs of Regional Facilities to all zones in PJM on a region-wide basis.

18. Regarding project b0837, PJM acknowledges that it incorrectly identified this project in Schedule 12-Appendix as a PSE&G project. PJM states that it is willing to correct Schedule 12-Appendix to identify Virginia Electric and Power Company as the entity with construction responsibility.

19. In answer to Dayton's protest of projects b0831, b0834, b0835, and b0836, PJM asserts that it correctly applied the DFAX methodology to these projects.<sup>26</sup> PJM states that under Schedule 12, distribution factors are determined based on impacts on the violation to be resolved, and that for the projects at issue, the DFAX methodology revealed that the load in the Dayton zone had an impact on the violation causing the need for the upgrade.<sup>27</sup> Further, while Dayton questions why benefits of these projects were determined to exist in New Jersey and in the far western portion of PJM, but not in between, PJM explains that this is because Schedule 12 sets the distribution factor threshold for assigning cost responsibility to the nearest one-hundredth of a percent.<sup>28</sup> The Dayton zone had a distribution factor of at or above the 0.001 threshold, thus it received cost responsibility assignments for the upgrades. In contrast, the distribution factors for the "utilities in-between" were below the 0.001 threshold and thus were set at zero.

20. Dayton notes in its answer that it has not proposed that the Commission reverse Opinion Nos. 494 and 494-A. Rather, Dayton questioned the narrow issue of whether PJM correctly applied the DFAX methodology to certain projects. Further, Dayton objects to the assertion of PSEG and BGE that it is attempting to modify the DFAX methodology in contravention of the Settlement. Dayton states that its protest pointed out that there are good reasons to believe that PJM misapplied the approved DFAX methodology.

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<sup>26</sup> Additionally, PSE&G and BGE note that changes to the DFAX methodology are not permitted for three years under the terms of the Settlement.

<sup>27</sup> The distribution factor, expressed as a decimal value or percentage, represents the portion of a transfer of energy from a defined source to a defined sink that will flow across a particular transmission facility or group of transmission facilities. Tariff, Schedule 12 § (b)(iii)(C)(1).

<sup>28</sup> PJM Answer at 6-7. Tariff, Schedule 12 § (b)(iii)(C)(5).

21. Regarding Exelon's assertions that PJM did not properly model phase angle regulators for projects b0831, b0834, b0835, and b0836, PJM states that Exelon's claim that there are two base cases used in the DFAX analysis is incorrect. PJM asserts that for the purpose of DFAX analysis only one base case is used to determine the cost responsibility assignments associated with an RTEP lower voltage facility – the base case used to identify the criteria violation that the facility resolves.<sup>29</sup> Further, PJM disagrees with Exelon's assertion that the angle of the phase angle regulators should not be fixed for both base cases, but rather that the flows over the phase angle regulators should be fixed as between the two base cases. PJM notes that Schedule 12 states that “all [phase angle regulator] angles shall be fixed at their base case settings” and that “PJM shall not account for the ability to adjust the use of phase angle regulators in the DFAX analysis.”<sup>30</sup> PJM states that fixing the flows over the phase angle regulators, and not the angles as Exelon suggests, would be contrary to the plain language of Schedule 12.

22. Exelon also questions whether the transformers associated with project b0831 are distribution assets, rather than transmission assets. In response, PJM states that the transformers being replaced as a result of project b0831 are distribution level facilities. However, these transformers are needed to resolve contingency violations on the transmission system. PJM states that project b0831 is appropriately included and assigned cost responsibility under the DFAX methodology.

23. PJM also states that project b0756 is properly classified as a lower voltage facility because of its purpose. While project b0756 includes two 500 kV circuit breakers, it also includes a 500/115 kV transformer. The 500/115 kV transformer is necessary to deliver energy to load, and is therefore a lower voltage facility. Because the circuit breakers are required for the installation of the transformer, they are also appropriately considered lower voltage facilities.

24. Exelon contends that, in defending cost allocations to projects b0831, b0834, b0835, and b0836, PJM reverses the order of two sentences in Schedule 12. According to Exelon, the “use” of phase angle regulators is regulating electrical flows; therefore, the first sentence directs PJM not to adjust the flows of electricity on the phase angle regulators during its DFAX analysis. The second sentence is not intended to nullify the direction of the first sentence to hold the phase angle regulator flows; rather, this sentence requires that phase angle regulator angles be fixed at the base case settings during a contingency situation. Exelon asserts that this interpretation is bolstered by the software

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<sup>29</sup> PJM Answer at 8. Tariff, Schedule 12 § (b)(iii)(C)(1)(e) (“All values and inputs used in the calculation of the distribution factor shall be the same values and inputs as used in the base case for the Regional Transmission Expansion Plan.”).

<sup>30</sup> PJM Answer at 8. Tariff, Schedule 12 § (b)(iii)(C)(8).

that PJM uses to determine DFAX.<sup>31</sup> This program has a “Fixed Angle” modeling option, which PJM used to determine DFAX, but it also includes a “Constant Flow in Base Case, Fixed Angle in Contingencies” option, which is consistent with how PJM operates the system and with Exelon’s interpretation of Schedule 12. Using the second option would result in no cost assignments to the ComEd zone for the projects at issue.

25. In its response to Exelon’s answer, PJM contends that Exelon’s interpretation of Schedule 12 § (b)(iii)(C)(8) is inconsistent with its plain language. Exelon misconstrues this section as requiring PJM to hold flows over phase angle regulators constant; however, this would require adjustments to the angles of the phase angle regulators, which is in direct conflict with the tariff language specifying that all phase angle regulators will be fixed at their base case settings. Further, contrary to Exelon’s assertions, Schedule 12 § (b)(iii)(C)(8) does not limit the requirement to fix the phase angle regulator angles to contingency situations; rather, it plainly states that all angles will be fixed at their base case settings. Finally, PJM contends that the options in the software used to perform the DFAX analysis do not have any bearing on the meaning of Schedule 12 § (b)(iii)(C)(8).

26. Exelon also notes that PJM, in its answer, states that the transformers installed in baseline upgrade b0831 replace existing local distribution level facilities. Even though PJM argues that the transformers would not be required absent the need to resolve contingency violations on the transmission system, the Commission must reject PJM’s assignment of these costs because the PJM Tariff does not allow for cost assignment of local distribution facilities.

27. Old Dominion disagrees with PJM’s treatment of two 500 kV circuit breakers in project b0756 as lower voltage facilities because they support a transformer that is a lower voltage facility. Nothing in the PJM Tariff supports PJM’s proposed treatment of these circuit breakers.

## **Discussion**

### **Procedural Matters**

28. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure,<sup>32</sup> the timely unopposed motions to intervene are hereby granted.

29. Rule 213(a) of the Commission’s Rules of Practice and Procedure prohibits an answer to an answer or a protest unless otherwise authorized by the decisional

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<sup>31</sup> PJM uses the Managing and Utilizing System Transmission program.

<sup>32</sup> 18 C.F.R. § 385.214 (2008).

authority.<sup>33</sup> In this case, we accept the answers of PJM, PSEG and BGE, Dayton, Exelon, and Old Dominion because they have assisted us in our decision-making process.

### **Commission Determination**

30. In its January 5, 2009 RTEP Filing, PJM proposes to allocate the costs of nineteen Regional Facilities to responsible customers on a region-wide basis, and the costs of 232 Lower Voltage Facilities to responsible customers under its DFAX methodology. Except as discussed below, PJM has allocated costs to responsible customers consistent with the methodologies set forth in Schedule 12 of its Tariff. Also, PJM has allocated costs to merchant transmission facilities for these projects based on the methodologies currently set forth in Schedule 12. We will conditionally accept PJM's January 5, 2009 RTEP Filing and suspend it, to become effective April 5, 2009, subject to refund and to the outcome of the proceeding in Docket No. ER06-456, *et al.* We also will grant PJM the requested waiver of the PJM Tariff requirement that cost responsibility assignments be filed within 30 days. Finally, where PJM has deviated from the methodologies set forth in Schedule 12, we direct PJM to make a compliance filing.

31. We address the specific allocation issues below.

### **Allocation for 500 kV Facilities**

32. ICC protests, in this proceeding, the same issue that it raised in protest and on rehearing of Opinion No. 494: that is, the cost allocation methodology for new, centrally-planned transmission facilities that will operate at or above 500 kV. In Opinion No. 494, and on rehearing in Opinion No. 494-A, the Commission found that transmission facilities that operate at or above 500 kV provide region-wide reliability benefits, and the rolled-in approach is justified because the benefits of such facilities are sufficiently broad to support a postage-stamp allocation methodology. For the reasons addressed in Opinion Nos. 494 and 494-A, we deny ICC's protest.<sup>34</sup>

### **Phase Angle Regulator Assumptions**

33. We deny the protests of Dayton and Exelon regarding whether PJM correctly applied the DFAX methodology in allocating costs to projects b0831, b0834, b0835, and b0836. Exelon points out that the software used to perform the DFAX analysis includes different options for the settings of phase angle regulators. Exelon contends that there are

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<sup>33</sup> 18 C.F.R. § 385.213(a) (2008).

<sup>34</sup> Opinion No. 494, 119 FERC ¶ 61,063 at 76; Opinion No. 494-A, 122 FERC ¶ 61,082 at P 63.

two base cases; one for the planning study to identify the need for an upgrade and one for the DFAX analysis to allocate the cost of the upgrade, and that PJM has mistakenly maintained the same phase angle regulator angle between these cases. PJM states that Exelon has mistakenly asserted that there are two base cases used in the DFAX analysis, and states that, for the purposes of the DFAX analysis, only one base case is used to determine the cost responsibility assignments – the base case used to identify the criteria violation that the facility resolves.

34. We deny the protest on this issue. PJM's Tariff sets forth how PJM is to model phase angle regulators in the DFAX analysis. Schedule 12 provides:

“[a]ll values and inputs used in the calculation of the distribution factor shall be the same values and inputs as used in the base case for the Regional Transmission Expansion Plan.”<sup>35</sup>

PJM's use of the base case associated with the Regional Transmission Expansion Plan is in accord with its tariff, and Exelon points to no Tariff language supporting its contention that the phase angle regulator *angles* should be reset in the DFAX analysis for the purpose of allocating costs.

35. Further, Exelon maintains that PJM should have maintained the flows schedules on the phase angle regulators in each base case, rather than the angles. PJM states that Exelon's position is not supported by the Tariff language. In determining cost responsibility assignments, Schedule 12 further provides:

Transmission Provider shall not account for the ability to adjust use of phase angle regulators (PARs) in the DFAX analysis described in subsection (b)(iii)(C) of this Schedule 12. In the DFAX analysis, all PAR angles shall be fixed at their base case settings.<sup>36</sup>

36. We reject the protest. The Tariff requires PJM to set all phase angle regulator *angles* at their base case settings (emphasis added), and makes no mention of changing the angles in order to maintain flow, as Exelon urges. We find that PJM has correctly followed the DFAX methodology set forth in Schedule 12 by fixing the phase angle regulator angles at the settings in the base case used to identify the violation.

37. Finally, Dayton suggests that PJM modeled the effects of projects b0831, b0834, b0835, and b0836 in conjunction with four other projects in northern New Jersey that will operate at voltages above 500 kV but has provided no evidence to support this. We reject

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<sup>35</sup> Tariff, Schedule 12 § (b)(iii)(C)(1)(e).

<sup>36</sup> *Id.*, Schedule 12 § (b)(iii)(C)(8).

this protest. Schedule 12 of PJM's Tariff sets the distribution factor threshold for assigning cost responsibility at 0.001.<sup>37</sup> As demonstrated by PJM in its answer, costs for these projects were assigned to the Dayton zone because the DFAX methodology revealed that the load in the Dayton zone had an impact on the violation causing the need for the upgrades, and because the Dayton zone had a distribution factor of at or above the 0.001 threshold established in Schedule 12.<sup>38</sup> Therefore, we find that PJM has appropriately allocated costs for projects b0831, b0834, b0835, and b0836.

### **Distribution Facilities**

38. PJM has allocated the costs of project b0831, which involves replacing 138/13 kV transformers with 230/13 kV transformers, based on the DFAX methodology. PJM explains that the transformers being replaced are distribution level facilities, but the replacement of the transformers would not be required except for the need to resolve contingency violations on the transmission system. We find that the PJM Tariff supports PJM's inclusion of this project in Schedule 12-Appendix. Schedule 12 of the PJM Tariff provides for cost allocation for Required Transmission Enhancements. The PJM Tariff defines Required Transmission Enhancements as “[e]nhancements and expansions of the transmission system that ... a Regional Transmission Expansion Plan developed pursuant to Schedule 6 of the Operating Agreement.”<sup>39</sup> Further, the PJM Tariff defines the Transmission System as “[t]he facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the Tariff.”<sup>40</sup> While the transformers at issue are distribution level facilities, they are Required Transmission Enhancements included in the Regional Transmission Expansion Plan and necessary to resolve one or more reliability violations. Therefore according to Schedule 12 § (b)(iii)(C) of PJM's tariff, cost responsibility shall be assigned using the DFAX analysis.

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<sup>37</sup> *Id.*, Schedule 12 § (b)(iii)(C)(7).

<sup>38</sup> PJM also points out that a distribution factor less than 0.001 shall be set equal to zero, and that “utilities in-between” that fell below this threshold were not assigned cost responsibility. *Id.*, Schedule 12 § (b)(iii)(C)(5).

<sup>39</sup> *Id.*, section 1.38C.

<sup>40</sup> *Id.*, section 1.49.

### Circuit Breakers

39. Project b0756 consists of two 500 kV circuit breakers and a 500/115 kV transformer.<sup>41</sup> PJM has allocated the costs of the 500 kV circuit breakers based on the DFAX methodology, asserting that this allocation is appropriate because the circuit breakers are required for the installation of a 500/115 kV transformer. PJM states that this is consistent with the purpose of the project. Old Dominion protests that these circuit breakers should be allocated regionally because they are 500 kV and other 500 kV circuit breakers are allocated regionally.

40. While PJM seeks to allocate the 500 kV circuit breakers in this instance because it asserts the circuit breakers are used to protect a transformer that is allocated based on the DFAX method, it points to no tariff provision that justifies a non-regional allocation of a 500 kV circuit breaker. We therefore will reject PJM's allocation.

41. Under PJM's Tariff all facilities 500 kV or greater are required to be allocated regionally. Schedule 12 provides:

Transmission provider shall assign on a region-wide basis cost responsibility for Required Transmission Enhancements included in the Regional Transmission Expansion Plan that are (1) Transmission Facilities as defined in section 1.27 of the Consolidated Transmission Owners Agreement (Rate Schedule FERC No. 42) that operate at or above 500 kV ("Regional Facilities") ...<sup>42</sup> (emphasis added).

42. The Tariff does contain a provision that provides that certain transformers with high-side voltages of 500 kV and low-side voltages below 500 kV should be allocated under the beneficiary pays methodology.<sup>43</sup> As Old Dominion points out, other 500 kV circuit breakers have been allocated regionally. PJM has provided no citation to its Tariff that permits it to reclassify an above 500 kV facility, like a circuit breaker, based on the configuration of individual projects. The Tariff requires that all 500 kV facilities be allocated regionally. We therefore direct PJM to submit a compliance filing, within 30 days of this order, assigning the cost responsibility for the 500 kV circuit breakers on a region-wide basis.

43. PJM files reports on these allocations two to four times every year containing allocations for numerous projects. Such filings must comply with the criteria established

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<sup>41</sup> PJM has allocated the costs of the 500/115 kV transformer, under Schedule 12, pursuant to the DFAX methodology.

<sup>42</sup> *Id.*, Schedule 12 § (b)(i).

<sup>43</sup> *Id.*, Schedule 12 § (b)(i)(C).

in the tariff. As this proceeding indicates, ambiguity in tariff provisions or in the application of such provisions leads to the very “endless litigation” that adoption of a bright line test is designed to prevent.<sup>44</sup> We therefore strongly urge PJM to consider whether additional revisions to the Tariff and Operating Agreement are needed to make sure that these provisions for allocation are clear, unambiguous, and can be applied without the need for constant review and adjudication.

44. Additionally, PJM recognizes that it incorrectly identified project b0837 as a PSE&G project in Schedule 12-Appendix. We direct PJM to submit a compliance filing, within 30 days of this order, to revise Schedule 12-Appendix accordingly.

The Commission orders:

(A) PJM’s revised tariff sheets are hereby conditionally accepted in part for filing and suspended for a nominal period to become effective on April 5, 2009, subject to refund and to the outcome of further proceedings, as discussed in the body of this order.

(B) PJM’s request for waiver of its tariff provision requiring a filing of the assignment of cost allocation within 30 days of PJM Board approval is hereby granted.

(C) PJM is hereby directed to make a compliance filing, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>44</sup> Opinion No. 494-A, 122 FERC ¶ 61,082 at P 88.