ORDER DENYING COMPLAINT, DENYING REHEARING, AND ACCEPTING COMPLIANCE FILING

( Issued June 18, 2015)
III. Requests for Rehearing, Docket No. ER14-972-001 .......................................................... 60.
   A. April 9, 2014 Order ........................................................................................................ 60.
   B. Procedural Matters ........................................................................................................ 66.
   C. Determination ................................................................................................................ 70.
      1. Cost Allocation ........................................................................................................ 70.
      2. Service Agreements .............................................................................................. 74.
      3. Refund ................................................................................................................... 79.

IV. Compliance Filing, Docket No. ER14-972-002 ............................................................. 80.
   A. April 9, 2014 Order ..................................................................................................... 80.
   B. May 9, 2014 Compliance Filing .................................................................................. 81.
      1. Nested Zone Provisions .......................................................................................... 81.
      2. *De minimis* Provision ......................................................................................... 82.
   C. Notice of the Filing and Responsive Pleadings ........................................................... 83.
   D. Determination ............................................................................................................ 84.
1. This order denies a complaint submitted in Docket No. EL15-18-000 (Complaint),
under section 206 of the Federal Power Act (FPA), by Consolidated Edison Company of
New York, Inc. (Con Edison) regarding the assignment of cost allocation for two
transmission projects that were approved through the PJM Interconnection, L.L.C. (PJM)
Regional Transmission Expansion Planning (RTEP) process, and which were proposed in
two underlying cost allocation proceedings submitted by PJM pursuant to the regional
cost allocation method accepted by the Commission to comply with Order No. 1000.2
The RTEP projects at issue are the Bergen-Linden Corridor Project and the Sewaren
Project, and are collectively referred to as the New Jersey Projects.4

---


2 See Transmission Planning and Cost Allocation by Transmission Owning and
Operating Public Utilities, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011) (Order
No. 1000), order on reh’g, Order No. 1000-A, 139 FERC ¶ 61,132, order on reh’g and
Serv. Auth. v. FERC, 762 F.3d 41 (D.C. Cir. 2014). See PJM Interconnection, L.L.C.,
142 FERC ¶ 61,074 (2013) (accepting the proposed cost allocation, effective February 1,
2013, subject to the outcome of PJM’s Order No. 1000 regional compliance filing
proceeding). See also PJM Interconnection, L.L.C., 142 FERC ¶ 61,214 (2013) (PJM
Order No. 1000 First Round Compliance Order). PJM’s Order No. 1000 regional
compliance filing uses a hybrid cost allocation method where 50 percent of the cost is
allocated under a load-ratio share and the other 50 percent is allocated using the solution-
based distribution factor (DFAX) method.

3 The underlying cost allocation proceeding for the Bergen-Linden Corridor
Project is Docket No. ER14-972 et al. The cost allocation proceeding for the Sewaren
Project was accepted in Docket No. ER14-274. See Docket No. ER14-274-000, January
15, 2014 (unpublished letter order). In Docket No. ER14-1485 et al., PJM proposed
amendments to the cost allocation for the Sewaren Project to correct an error in the
DFAX modeling. On August 20, 2014, PJM sought to hold the proceedings in Docket
Nos. ER14-972 et al., and ER14-1485, et al., in abeyance to facilitate settlement
discussions. On December 16, 2014, PJM notified the Commission that the parties have
indicated that they no longer wish to hold proceedings in Docket No. ER14-972 et al. in
abeyance. However, PJM requested to continue the stay of proceedings in Docket No.
ER14-1485 et al.

4 The New Jersey Projects were not selected through PJM’s Order No. 1000
regional transmission planning process, which took effect on January 1, 2014 (10 months
after the new cost allocation method took effect). The Commission accepted PJM’s
proposal that, for purposes of compliance with Order No. 1000, transmission solutions

(continued ...
Projects are located in Public Service Electric and Gas Company’s (PSEG) service territory and construction responsibility was assigned by PJM to PSEG.

2. This order also denies the New York Public Service Commission’s (New York Commission), Con Edison’s (with the City of New York), and Linden VFT, LLC’s (Linden) requests for rehearing of the Commission’s April 9, 2014 order in Docket No. ER14-972-000, regarding the underlying cost allocation proceeding for the Bergen-Linden Corridor Project.

3. This order further accepts a May 9, 2014 compliance filing (Compliance Filing) submitted by PJM pursuant to the April 9, 2014 Order.

I. Background

A. Underlying Cost Allocation Proceedings

1. Docket No. ER14-972-000

4. On January 10, 2014, PJM, pursuant to section 205 of the FPA, PJM, in accordance with Schedule 12 of the PJM Tariff and section 1.6 of Schedule 6 of the Amended and Restated Operating Agreement of PJM (Operating Agreement), filed amendments to Schedule 12-Appendix A of the PJM Tariff (Docket No. ER14-972-000 Filing). As previously noted, the Docket No. ER14-972-000 Filing provided for assignment of cost allocation of, among others, the Bergen-Linden Corridor Project. For the Bergen-Linden Corridor Project, Con Edison was allocated approximately $629 million of the costs, Linden was allocated approximately $13 million, and Hudson Transmission Partners, LLC (HTC) was allocated approximately $69 million. Pursuant for reliability violations and economic constraints identified prior to January 1, 2014 will be evaluated under PJM’s pre-Order No. 1000 regional transmission planning process. See PJM Interconnection, L.L.C., 147 FERC ¶ 61,128, at PP 25, 29-30 (2014).

5 PJM Interconnection, L.L.C., 147 FERC ¶ 61,028 (2014) (April 9, 2014 Order), reh’g and compliance pending.


7 Total estimated costs for the Bergen-Linden Corridor Project are approximately $1.1 billion. The Bergen-Linden Corridor Project (project b2436) is divided into 26 subparts, fifteen of the subparts are subject to both load-ratio share and the solution-based DFAX method, the remaining 11 are subject to only the DFAX analysis.
to the solution-based DFAX method analysis,\textsuperscript{8} approximately $52 million was allocated to PSEG for the Bergen-Linden Corridor Project.

5. In the April 9, 2014 Order, the Commission conditionally accepted the cost allocations in the Docket No. ER14-972-000 Filing subject to the condition that PJM submit a compliance filing explaining and justifying the specific assumptions regarding the \textit{de minimis} and nested zone provisions of the solution-based DFAX method for the Bergen-Linden Corridor Project. As noted, the New York Commission, Con Edison (with the City of New York), and Linden seek rehearing of the April 9, 2014 Order.

2. \textbf{Docket No. ER14-1485-000}

6. On March 13, 2014, in accordance with Schedule 12 of the PJM Tariff and section 1.6 of Schedule 6 of the Operating Agreement, PJM, pursuant to section 205 of the FPA, filed amendments to Schedule 12-Appendix A of the PJM Tariff (Docket No. ER14-1485-000 Filing), which provides for, among other things, changes to the cost allocation for the Sewaren Project to correct the errors in the solution-based DFAX method modeling for this project.\textsuperscript{9} Because the proceedings in Docket No. ER14-1485 are held in abeyance, we do not address the merits of the change in the cost allocation for the Sewaren Project in this order.

7. Linden has protested the cost allocation of the Sewaren Project, stating that PJM misapplied the DFAX method in allocating the costs of the Sewaren Project and project b2218,\textsuperscript{10} and that PJM’s proposed allocations are unjust and unreasonable. Linden also contends that section 1.4(d)(ii) of Schedule 6 of the Operating Agreement places a responsibility on PJM to not permit free-riding by imposing unreasonable costs on any transmission owner or any transmission facilities user. Linden states that the solution-

\textsuperscript{8} Because the project was allocated under the PJM hybrid cost allocation method, some costs were allocated to PSEG under the 50 percent that was allocated under the load-ratio share analysis.

\textsuperscript{9} Total cost for the Sewaren Project is approximately $101 million.

\textsuperscript{10} Cost allocation for project b2218 (rebuilt of a PSEG transmission line) was also accepted in Docket No. ER14-274. Because the Sewaren Project and project b2218 are lower voltage facilities, 100 percent of the project costs are allocated through the solution-based DFAX method. Estimated costs of project b2218 is approximately $46 million.
based DFAX method is inherently unjust, unreasonable, unduly discriminatory and preferential.  

Responsive pleadings were filed by PSEG, PJM and Linden.

8. On June 6, 2014, Commission staff advised PJM that the Docket No. ER14-1485-000 Filing was deficient, and required PJM to provide additional information (June 6, 2014 Deficiency Letter). PJM filed a response to the June 6, 2014 Deficiency Letter on July 7, 2014, and Con Edison and Linden filed protests. As previously noted, PJM has requested to hold the proceedings in Docket No. ER14-1485 et al., in abeyance to facilitate settlement discussions.

B. PJM Cost Allocation Tariff Provisions

9. Schedule 12 of the PJM Tariff provides for the cost allocation of Required Transmission Enhancements, which include Regional Facilities, Necessary Lower Voltage Facilities, and Lower Voltage Facilities. As noted, PJM’s cost allocation provisions in Schedule 12 of the PJM Tariff provide that cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities shall be allocated 50 percent annually on a load-ratio share, and 50 percent assigned in accordance with the solution-based DFAX method analysis provisions of the PJM Tariff. Lower Voltage Facilities that are

---

11 Linden Protest at 4-5. See Exhibits VFT-1, VFT-2, and VFT-3.

12 See Tariff, Schedule 12, Section (b)(i).

13 Regional Facilities are defined as Required Transmission Enhancements included in the Regional Transmission Expansion Plan 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, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities) (6.1.0). Necessary Lower Voltage Facilities are defined as Required Transmission Enhancements included in the Regional Transmission Expansion Plan that are lower voltage facilities that must be constructed or reinforced to support new Regional Facilities. PJM, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities) (6.1.0). Lower Voltage Facilities are defined as Required Transmission Enhancements that: (a) are not Regional Facilities; and (b) are not “Necessary Lower Voltage Facilities.” PJM, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(ii) (Lower Voltage Facilities) (6.1.0).

14 See Tariff, Schedule 12, Sections (b)(i)(A). Prior to using the solution-based DFAX method, PJM used a violation-based DFAX method. The solution-based DFAX (continued ...
needed for reliability are allocated in accordance with the solution-based DFAX method analysis provisions of the PJM Tariff. Schedule 12 of the PJM Tariff was approved by the Commission as part of PJM’s Order No. 1000 regional compliance filing.

10. As discussed below, the Complaint concerns the application of the PJM Tariff provision implementing the solution-based DFAX method for reliability projects. Specifically, Schedule 12, section (b)(iii)(G) provides:

> If Transmission Provider determines in its reasonable engineering judgment that, as a result of applying the provisions of this Section (b)(iii), the DFAX analysis cannot be performed or that the results of such DFAX analysis are objectively unreasonable, the Transmission Provider may use an appropriate substitute proxy for the Required Transmission Enhancement in conducting the DFAX analysis. If a proxy is used that is not specified in this Schedule 12, Transmission Provider shall state in a written report (a) the reasons why it determined the DFAX analysis could not be performed or that the results of the DFAX analysis were objectively unreasonable; (b) why the substitute proxy produced objectively reasonable results; and (3) a recommendation as to what changes, if any, should be considered in conducting the DFAX analysis.

11. Section (b)(iii)(G) was included in Schedule 12 of the PJM Tariff, which, as previously noted, the Commission accepted as complying with Order No. 1000.\(^{15}\)

C. Wheeling Arrangement Agreements and Tariff Provisions

12. In 2009, PSEG and Con Edison entered into a wheeling arrangement settlement agreement (Settlement Agreement), and two transmission service agreements (Service Agreements) and a Joint Operating Agreement Protocol (Operating Protocol) that enabled Con Edison to continue to wheel 1,000 MW of power from Con Edison through PSEG’s facilities in northern New Jersey for delivery back to Con Edison in New York City (one method evaluates the projected relative use on the new facility by the load of each transmission zone or merchant transmission facility and allocates costs based on such usage. The violation-based DFAX method focused on the contributions that load made to the violation rather than use.

\(^{15}\) See PJM Transmission Owners October 11, 2012 Filing, Attachment B, Schedule 12, section (b)(iii)(I). See also PJM Interconnection, L.L.C., 142 FERC ¶ 61,214, order on reh’g and compliance, 147 FERC ¶ 61,128.
The Settlement Agreement described Con Edison’s RTEP cost responsibility and explained that Con Edison will be assigned cost responsibility for Required Transmission Enhancements in accordance with the terms of Schedule 12 of the PJM Tariff.\textsuperscript{17} The Operating Protocol incorporated as part of the Settlement Agreement requires PJM to plan its system to support the 1000 MW wheeling arrangement.\textsuperscript{18} The facilities upgraded by the Bergen-Linden Corridor Project support the Con Edison/PSEG wheeling arrangement.

\section*{II. Complaint}

\subsection*{A. Summary}

13. On November 7, 2014, Con Edison filed the Complaint requesting that the Commission set aside the cost allocations for the New Jersey Projects established under the PJM Tariff solution-based DFAX method. Con Edison challenges whether PJM has complied with its Tariff and the review requirement, in making the cost allocations for the Bergen-Linden Corridor Project and the Sewaren Project. Con Edison’s Complaint includes the affidavit of Susan L. Pope (Pope Affidavit), the affidavit of Dr. Mayer Sasson (Sasson Affidavit), and the affidavit of Ricardo Austria (Austria Affidavit), which discuss the economic and engineering aspects of the Bergen-Linden Corridor Project.\textsuperscript{19}

14. Con Edison argues that the costs assigned to it for the Bergen-Linden Corridor Project are not roughly commensurate with the benefits it will receive. According to Con Edison, PSEG and its retail customers will benefit the most from eliminating the need for 12 previously planned projects and the increase in transfer capabilities within PSEG by 400 to 500 MW. Con Edison explains that the Bergen-Linden Corridor Project was designed to fix short circuits and high fault currents at the Hudson, Essex, Kearny, and

\textsuperscript{16} See \textit{PJM Interconnection, L.L.C.}, 132 FERC ¶ 61,221 (2010) (approving the Settlement Agreement continuing the wheeling arrangement, and the related Service Agreements and Operating Protocol). The Commission found that the Service Agreements will provide critical reliability benefits. The Settlement Agreement continued two long-standing transmission service agreements.

\textsuperscript{17} Settlement Agreement, PP 20, 22 and 23.

\textsuperscript{18} PJM Joint Operating Agreement submitted on April 22, 2008, PJM Interconnection, L.L.C., Rate Schedule No. 45, Original Sheet No. 47.

\textsuperscript{19} In addition, Con Edison provides exhibits related to the development of the Bergen-Linden Corridor Project and supporting analysis.
Meadows 230 kV substations located in New Jersey, but PJM expects that Con Edison will rarely use those substations once the Bergen-Linden Corridor Project is built. Con Edison explains that PSEG will also receive the benefits of relief from pre-existing load overloads, reduced contingency thermal loading, and improved voltage response and reactive power supply.

15. Con Edison argues that the Sewaren Project also misaligns costs and benefits. After Superstorm Sandy, equipment failure at the Sewaren substation caused an outage for about 45,000 PSEG retail customers in Middlesex and Union counties. Con Edison argues that there is no reason why PSEG should be allocated zero costs and the entire project be allocated to Con Edison and Linden.

16. Con Edison contends that PJM has an obligation under the Tariff to ensure that the DFAX analysis does not produce objectively unreasonable results and that in such cases, the PJM Tariff requires PJM to redo the solution-based DFAX method analysis for cost allocation using an appropriate substitute proxy. Con Edison argues that a substitute proxy is especially appropriate where the flow-based analysis does not identify beneficiaries of projects to address short-circuit fault currents. Con Edison argues that even if its flows were removed from the line, the short-circuit contingency would have to be resolved. Con Edison also argues that its allocated share of the costs for the New Jersey Projects is not consistent with ex ante expectations.

20 Con Edison Complaint at 19.
21 Id. See Sasson Afidavit at 8-12.
22 Id. at 20.
23 Id. at 21.
24 Con Edison also notes that the Sewaren Project is needed to rebuild from Superstorm Sandy, harden infrastructure, and resolve short circuit violations in New Jersey.
17. Con Edison argues that the netting, nesting, and de minimis threshold provisions of the Tariff function as cost allocation exemptions and skew the solution-based DFAX method results. Con Edison claims that netting discriminates against point-to-point customers and artificially inflates Con Edison’s use of the New Jersey Projects because, according to Con Edison, netting assumes that the load can only be served by other generation that the contract agreements indicate is injected into the PJM system and not by other generation near the load. Con Edison states that PJM did not nest Con Edison, and that they should have been nested inside of the PSEG zone and allocated a load share of that zone. Con Edison claims that the de minimis threshold was theoretically intended to exempt minor beneficiaries from cost allocation, particularly from nonadjacent transmission zones for paying for projects in remote locations from which they derive little to no benefit. In arguing that the results of the solution-based DFAX method analysis are objectively unreasonable, Con Edison contends that there is no requirement that the substitute proxy be bound by the nesting, netting, and de minimis parameters that produced the objectively unreasonable results.

18. Con Edison explains that, before the cost allocation exemptions for the Bergen-Linden Corridor Project, PSEG was allocated 17.39 percent and Con Edison was allocated 53.75 percent. After the exemptions were included, Con Edison explains that PSEG’s allocation fell to 7.12 percent and Con Ed’s allocation increased to 82.27 percent. Con Edison explains that the Sewaren Project shows a similar result, with PSEG being allocated 4.82 percent, Linden being allocated 27.76 percent, and Con Ed being allocated 28.23 percent before the cost allocation exemptions. After the

---

26 Netting is factored into the DFAX analysis. Specifically, PJM models a transfer from generation to all load within an individual transmission zone, and the transfer to the transmission zone as a whole (not on a bus-by-bus basis). See PJM, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(iii) (DFAX Analysis for Reliability Projects) (6.1.0).

27 Nesting is used in the solution-based DFAX method analysis to establish a reasonable level for the source of the PJM generation serving the zonal load in a Locational Deliverability Area (LDA); i.e., what portion of the zonal load in the LDA is served by PJM generation external to the LDA and what portion is served by generation internal to the LDA. See PJM, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(iii) (DFAX Analysis for Reliability Projects) (6.1.0).

28 Con Edison Complaint at 34. See Austria Affidavit at 6-13.

29 Id. at 26.

30 Id. at 36.
exemptions were included, Con Edison explains that PSEG was exempt from costs while Con Edison and Linden were allocated 100 percent. Con Edison states that isolating the effects of nesting and the *de minimis* threshold is the type of sensitivity analysis that PJM should have performed when it saw the changes in the cost allocations.\(^{31}\)

19. Con Edison states that its allocation is objectionably unreasonable because the solution-based DFAX method analysis did not identify the Bergen-Linden Corridor Project's short circuit beneficiaries because energy flow is not a contributing factor to short circuit violations.\(^{32}\) Con Edison argues that PJM should have realized that the Bergen-Linden Corridor Project has two types of beneficiaries (1) flow-based which can be identified by solution-based DFAX method analysis, and (2) short circuit beneficiaries that cannot be identified by solution-based DFAX method anlaysis.\(^{33}\) Con Edison also argues that PJM states that the Sewaren Project will also address short circuit violations and that PJM should have developed a proxy for both projects that accounted for short circuit beneficiaries.\(^{34}\)

20. Con Edison submitted its own proxy for cost allocation for the New Jersey projects. For the New Jersey Projects, Con Edison proposes to allocate half the solution-based DFAX method analysis costs to PSEG as a stand-in for allocation of the short-circuit benefits, and half according to the solution-based DFAX method, with Con Edison treated as part of the PSEG zone.\(^{35}\) Accordingly, under its proposed proxy, Con Edison would be allocated approximately $26 million for the Bergen-Linden Corridor Project and $3 million for the Sewaren Project, or a total of $29 million for the New Jersey Projects.

B. **Notice and Interventions**

21. Notice of the Complaint was published in the *Federal Register*, 79 Fed. Reg. 68,676 (2014), with answers, interventions and comments due on or before December 1, 2014. That deadline was subsequently extended to and including January 15, 2015.

\(^{31}\) *Id.* at 38-39. *See* Pope Affidavit at 11-22.

\(^{32}\) *Id.* at 38.

\(^{33}\) *Id.* at 39.

\(^{34}\) *Id.* at 40. *See* Pope Affidavit at 22-25, Sasson Affidavit at 6-8.

\(^{35}\) *Id.* at 42-43.
22. Notices of intervention were filed by the New Jersey Board of Public Utilities (New Jersey Board), New York Commission, and Illinois Commerce Commission. Timely motions to intervene were filed by Dayton Power and Light Company (Dayton), PSEG, FirstEnergy Service Company, Exelon Corporation (Exelon), City of New York, Monitoring Analytics, LLC, Linden, New Jersey Division of Rate Counsel (NJ Rate Counsel), NRG Corporation, Public Power Association of New Jersey (PPANJ), PSEG Power Companies, Old Dominion Electric Cooperative, NYPA, Neptune, HTP, Long Island Power Authority, American Electric Power Service Corporation (AEP), Duquesne Light Company (Duquesne), Pepco Holdings, Inc., PPL Electric Utilities Corporation (PPL), and Dominion Resources Services, Inc.

C. Pleadings

1. Answer

23. On January 15, 2015, PJM and the Indicated PJM Transmission Owners (together, PJM Answering Parties) filed a response to the Complaint stating that it is based on unsupported allegations and erroneous interpretations. The PJM Answering Parties state that Con Edison's issues stem from the Settlement Agreement for transmission

---

36 Acting as the independent market monitor for PJM.

37 PSEG Power, LLC and PSEG Energy Resource & Trade LLC.

38 Potomac Electric Power Company, Delmarva Power & Light Company, and Atlantic City Electric Company (collectively, the PHI Companies).

service of 1,000 MW to be delivered from Con Edison to PSEG in northern New Jersey and from PSEG to redeliver the same power to Con Edison in New York City. 40 The PJM Answering Parties explain that under the terms of the Settlement Agreement, Con Edison agreed to be assigned cost responsibility for transmission projects and to pay for RTEP upgrades for the duration of the transmission service. The PJM Answering Parties further explain that the Settlement Agreement provided that Con Edison would be treated as a multi-node zone consisting of simultaneous injections into, and withdrawals from, the PJM system at the A, B, C, and J and K transmission line interfaces. PJM states that it applied the DFAX method consistent with the Settlement Agreement. 41

24. The PJM Answering Parties claim that Con Edison would have the Commission revert to a form of causation-based method, very similar to the one it abandoned when it approved a solutions-based method with its Order No. 1000 compliance filing. PJM states that it applied the approved Order No. 1000 method to the New Jersey Projects. 42 The PJM Answering Parties also explain that the Commission found the solutions-based DFAX method to be an improvement over the violation-based DFAX method, which focused on the contributions that load made to the violation rather than the use of the project resolving the violation. The PJM Answering Parties argue that Con Edison ignores the fact that the focus of cost allocation is now use of a transmission project, not causation and that its use of the New Jersey Projects is determined by the results of the solution-based DFAX method analysis. 43 The PJM Answering Parties claim that Con Edison did not protest the application of the solution-based DFAX method and it only does so now because it is unhappy with the results for the New Jersey Projects. 44

25. The PJM Answering Parties state that it has limited discretion when applying the solution-based DFAX method to change cost allocations. The PJM Answering Parties explain that DFAX analysis is formulaic and is calculated using linear matrix algebra. PJM further explains that the solution-based DFAX method was created to determine cost allocations based on "beneficiary pays" principles and would make cost allocation filings

40 Id. at 9.

41 Id. at 10-11.

42 Id. at 13.

43 Id. at 14-15.

44 Id. at 16.
"informational in nature." The PJM Answering Parties state that it does not have discretion to create ad hoc exceptions to the formula the Commission has approved. The PJM Answering Parties explain that the distribution factors represent the ratio of (a) the change in megawatt flow on a transmission facility to (b) a change in megawatts transferred to aggregate load within a transmission zone or the point of withdrawal associated with Firm Transmission Withdrawal Rights over the merchant transmission facility. The PJM Answering Parties explain that if a change in flow cannot be calculated (such as a shunt device like a capacity or static VAR compensator) then PJM is allowed to use a proxy to mimic the flows over that facility. The PJM Answering Parties state that the solution-based DFAX method applies the same basic methodology for calculating distribution factors as the violation-based DFAX method, except that the newly accepted method examines flows on the new facility itself. The PJM Answering Parties state that any substitute proxy would have likely yielded the same result. PJM further states that the Tariff language provides that PJM may determine cost allocation responsibilities for a direct current (DC) facility by replacing it with a comparably proxy alternating current (AC) facility. The PJM Answering Parties state that the Complaint takes the Commission’s statement approving the solution-based DFAX method that PJM has broad discretion to use a substitute proxy in yet unnamed capacities out of context. The PJM Answering Parties state that the Commission determined not to rule on whether or when it was appropriate to use a proxy but instead required PJM to file a report detailing why solution-based DFAX method analysis could not be performed or is objectively unreasonable, why the substitute proxy is objectively unreasonable, and any recommendations or changes to consider.

26. The PJM Answering Parties claim that Con Edison's interpretations of the Tariff would be inconsistent with Order No. 1000 since the Commission required regional transmission providers to establish a transparent ex ante cost allocation method that could be applied consistently to projects of the same type. The PJM Answering Parties explain that this consistency, applied to projects by PJM in a transparent manner, gives certainty to stakeholders and under Con Edison's interpretation, transmission customers would be left in the dark as parties would litigate over whether a project's cost allocations are objectively unreasonable. The PJM Answering Parties also explain that such litigation

45 Id. at 17-18 (citing *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,067, at P 3 (2007)).

46 Id. at 18.

47 Id. at 20. See *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, at P 430.

48 Id. at 18-21 (citing *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 430).
would undoubtedly move to the Commission and parties could re-raise issues as the costs of the project were reallocated under the annual update provision of Schedule 12 years down the road. 49 The PJM Answering Parties also state that it has not been given the authority to make modifications to cost allocations and that doing so would violate filed rate doctrine and be inconsistent with the findings under Atlantic City v. FERC. 50

27. The PJM Answering Parties explain that the de minimis threshold of 0.1 percent (0.001) was introduced in 2008 and changed to one percent (0.01) as a result of an uncontested settlement in 2012. 51 The PJM Answering Parties explain that changing the threshold eliminated the anomalous outcomes where nonadjacent transmission zones were allocated costs for seemingly isolated projects. 52 The PJM Answering Parties state that the threshold advances Order No. 1000 principles and transparency. The PJM Answering Parties claim that Con Edison provides no evidence to support modifying the rule and returning to the prior threshold. 53

28. The PJM Answering Parties explain that the method used to allocate cost responsibility to Con Edison is defined in the Settlement Agreement and there is nothing to suggest that Con Edison be treated as a nested zone. The PJM Answering Parties state that it would not make sense to treat Con Edison as a nested zone because the source of the generation behind the Con Edison/PSEG wheeling arrangement is in upstate New York, not the PJM region. The PJM Answering Parties argue that the source of generation for the Con Edison/PSEG wheeling arrangement is prescribed in the Settlement Agreement and PJM does not have the ability to adjust the source area. The PJM Answering Parties state that Con Edison's claims of undue discrimination and unfair

49 Id. at 22-23 (citing Order No. 1000, FERC Stats. & Regs. ¶ 31,323 at PP 581, 586, and 686).

50 Id. at 24-25 (citing Atlantic City Elec. Co., et al. v. FERC, 295 F.3d 1, 9-10 (D.C. Cir. 2002), mandate enforced, 329 F.3d 856, 858 (D.C. Cir. 2003)) (finding that PJM transmission owners did not lose their unilateral filing rights under section 205 of the FPA).

51 Id. at 26 (citing PSEG Services Corp., Docket No. ER12-2412-000 (Sept. 19, 2012) (unpublished letter order)).

52 Id. at 26.

53 Id. at 27.
disadvantage lack merit and should be disregarded. The PJM Answering Parties state that energy flows in one direction for the Con Edison/PSEG wheeling arrangement and it is not possible to apply netting to Con Edison's solution-based DFAX method allocation.

2. **Supporting Comments**

29. New York Commission, NYPA, the City of New York, HTP, and Linden (collectively, the Supporting Parties) filed supporting comments for Con Edison’s Complaint claiming that PJM’s cost allocation fails to ensure that the costs of the New Jersey Projects are roughly commensurate with the benefits. The Supporting Parties agree with Con Edison that PJM has a responsibility under Schedule 6 of the Operating Agreement and Schedule 12 of the Tariff to ensure that the results of the solution-based DFAX method analysis are not objectionably unreasonable. The Supporting Parties argue that PJM has the ability to make modifications to the results of the solution-based DFAX method analysis to ensure a just outcome, and Linden argues that PJM’s interpretation of the Tariff language contradicts itself. The City of New York states that the Commission is not bound by PJM’s interpretation of the Tariff and must determine if the rate is just and reasonable. HTP states that PJM’s implementation of the solution-

---

54 Id. at 28-30. PJM explains that the purpose of the nested zone provision is to ensure the reasonableness of the source of the generation for a given LDA by modeling system generation and load. PJM states that an LDA will appear to import much more generation from outside the LDA than the transmission system would be able to support, thus nesting is used in the DFAX analysis to establish a reasonable level for the source of the PJM generation serving the zonal load in an LDA. For an LDA “nested” within other LDAs, PJM will use the lowest distribution factor associated with the nested LDA and the LDAs it is nested within. PJM also states that the Con Edison/PSEG wheeling arrangement is specifically designed to take generation from the transmission system in northern New Jersey and wheel that generation through the PJM transmission system into NYISO into New York City.

55 Id. at 31. PJM states that it models the transfer to the transmission zone as a whole and not a bus-by-bus basis. PJM explains that the effect of modeling the transfer to the transmission zone as a whole is to net the positive energy flows associated with the same transmission zone that are contributing negative flow to that circuit. For point to point transactions, PJM states that flows are unidirectional and will not be reduced by opposing flows.

56 The City of New York Comments at 2.
based DFAX method is unjust, unreasonable, and unduly discriminatory.\textsuperscript{57} HTP further explains that while it was foreseeable that it would have to pay for future RTEP upgrades, cost allocation of the magnitude of the Bergen-Linden Corridor Project was not, since at the time of the Settlement Agreement, RTEP costs were based on a facilities’ share of peak load.\textsuperscript{58}

30. HTP claims that a just and reasonable methodology should allocate costs for upgrades between transmission systems owners and merchant facilities in a manner that is roughly commensurate with their respective loads, unless PJM can identify and quantify any benefits that exclusively accrue to merchant transmission owners.\textsuperscript{59} HTP states that PSEG’s 11,138 MW of retail load is approximately 35 times greater than HTP’s 320 MW of Firm Transmission Withdrawal Rights. HTP explains that it has already agreed to fund $170 million in RTEP upgrades in exchange for 320 MWs of Firm Transmission Withdrawal Rights, but now PJM requires an additional $68.5 million just to maintain that level of service.\textsuperscript{60}

31. The Supporting Parties argue that the purpose of the New Jersey Projects was to address short circuit violations and high fault currents on the PSEG system. The Supporting Parties also identify PSEG and its customers in Northern New Jersey as being the primary beneficiaries of the New Jersey Projects. The Supporting Parties state that short circuit benefits were not included since the solutions-based DFAX method is a flow-based analysis which measures thermal flows on a facility. Linden and HTP agree with Con Edison that a flow-based method cannot accurately measure relative benefits based upon relative use because the New Jersey Projects are meant to address a local reliability problem rather than alleviate a constraint or remove a violation.\textsuperscript{61} Linden and HTP state that even if it was appropriate to use solutions-based DFAX method for the New Jersey Projects, it does not measure relative use.\textsuperscript{62}

\textsuperscript{57} HTP Comments at 5.

\textsuperscript{58} Id. at 9.

\textsuperscript{59} Id. at 3.

\textsuperscript{60} Id. at 2.

\textsuperscript{61} HTP Comments at 2; Linden Protest at 14-15.

\textsuperscript{62} HTP Comments at 7; Linden Protest at 16-17.
32. Linden and HTP agree with Con Edison that the cost allocation exemptions (netting, nesting, and the *de minimis* threshold) skew the solution-based DFAX method results. Linden states that they have demonstrated, in Docket Nos. ER14-972 and ER14-1485, that PJM’s application of the *de minimis* threshold are based upon different denominators for each zone and cannot be directly compared to determine relative usage of a facility since no two solution-based DFAX method analysis values are derived using the same base. Similarly, HTP explains that PJM ran the solution-based DFAX method analysis three times and gave PSEG the lowest of all three solution-based DFAX method analysis results and thus the lowest cost allocation.

33. The Supporting Parties agree with Con Edison that PJM is required to use a substitute proxy given the results of the solution-based DFAX method analysis. Linden states that they do not agree with Con Edison’s requested allocation and instead ask the Commission to direct PJM to allocate 100 percent of the costs of the New Jersey Projects to PSEG and to further direct PJM to implement its rate schedules in a manner consistent with applicable law. HTP requests that the Commission grant the Complaint and direct PJM to revise its cost allocation by (1) either eliminating the cost allocation exemptions or applying them in a manner that is not unduly discriminatory to merchant transmission owners and (2) using a method that assigns costs to the short circuit beneficiaries that are roughly commensurate to the benefits they receive, which HTP states should be roughly commensurate with the amount of load served by the affected transmission owner(s) and the implied load of the merchant transmission facility.

3. **PSEG Comments**

34. PSEG filed a motion to reject the Complaint and a protest stating that Con Edison was unable to point to any errors in PJM's application of the approved method and relies heavily on *Ameren*. PSEG explains that in *Ameren*, the Commission noted that with new information or with changed circumstances, the Commission is not estopped from revisiting a prior determination, but in the current Complaint, Con Edison has not

---

63 HTP Comments at 9-11; Linden Protest at 17-19.

64 Linden Protest at 18.

65 HTP Comments at 11.

66 Linden Protest at 27-29.

67 HTP Comments at 13-14.
introduced any information that was not already available or known. PSEG argues that the Complaint should be rejected because it attempts to re-litigate the prior Commission Order accepting the New Jersey Projects.

35. PSEG also states that the Service Agreements provide substantial benefits to Con Edison and New York City, which Con Edison itself has stated is vital to the reliability of electric service in New York City. PSEG states that Con Edison derives virtually all of the benefits provided by the Con Edison/PSEG wheeling arrangement facilities and its comments downplaying the benefits to its system are not credible.

36. PSEG rejects Con Edison's claim that it will not benefit due to "short circuit issues" because it ignores the PJM Whitepaper which identified the Con Edison/PSEG wheeling arrangement facilities as a contributing source of short circuit problems, specifically with the B and C tie-lines between Hudson and Farragut. PSEG explains that the A tie line will also be upgraded, thus three of the five tie lines for the Con Edison/PSEG wheeling arrangement facilities require updates for the Bergen-Linden Corridor Project. PSEG argues that the frequency of a merchant transmission facility's use does not eliminate the obligation of the transmission provider to ensure the reliability of that grid for its use and having a transmission system in a state of readiness to support load is a clear benefit to Con Edison. PSEG also argues that the flow for the Bergen-Linden Corridor Project does not serve PSEG load.

37. PSEG states that Con Edison's proxy is unsupported by technical analysis in terms of netting, nesting, and the de minimis threshold. PSEG also explains that the proxy is not appropriate here since the DFAX analysis is technically feasible, as the flows can be

---

68 PSEG Protest at 10-13 (citing Ameren Services Co., et al., 121 FERC ¶ 61,205, at P 33 (2007)).

69 Id. at 16-17.

70 Id. at 17.

71 Id. at 18-19, (citing Transmission Expansion Advisory Committee Recommendations to the PJM Board, PJM Staff Whitepaper (Oct. 2013) (PJM Whitepaper), at 5).

72 Id. at 19.

73 Id.
measured across the system enhancement. PSEG argues that Con Edison's proxy is unreasonable because Con Edison wants to be treated like it is inside of PJM, when it is in fact inside the New York Independent System Operator, Inc. (NYISO) region and the Settlement Agreements established that it would be treated as if it were outside of the area.

4. **Responsive Pleadings**

   a. **Con Edison and Linden**

   38. Con Edison and Linden claim that PJM and PSEG do not contest that the cost allocations for the New Jersey Project are not roughly commensurate with the benefits. Con Edison further explains that Con Edison is not the primary cause for the short circuit levels. Con Edison states that PSEG’s claim that no power injected into PSEG pursuant to the Settlement Agreement will serve PSEG customers is factually incorrect. Con Edison argues that the Bergen-Linden Corridor Project will increase transfer capability in PSEG by 400 or 500 MW resulting in reliability benefits to PSEG’s customers and to PSEG in the form of reduced contingency thermal loading and improved voltage response and reactive power supply.

   39. Con Edison explains that it does not have an issue with solution-based DFAX method or the Settlement Agreement, but rather how the review requirement requires PJM to determine whether or not the results of solution-based DFAX method are objectively unreasonable. Con Edison states that PJM must apply all provisions of Schedule 12 and that PJM has ignored its requirements. Con Edison and Linden also state that the Commission must give effect to the word “or” and give the review requirement’s two categories their separate, normal meanings of independent and ordinary significance. Con Edison argues that PJM and PSEG take the PJM Order No.

---

74 Id. at 22-23.

75 Id. at 23-24.

76 Con Edison Answer at 8.

77 Id. at 9.

78 Id. at 10.

1000 First Round Compliance Order out of context and that the use of a proxy applies to more than just the authority to replace a DC line with an AC line. Con Edison also argues that the Commission found it unclear as to how PJM would develop a proxy in other circumstances. 80

40. Con Edison states that PJM and PSEG misrepresent its statements regarding the cost allocation exemptions, as Con Edison merely stated that these exemptions shifted the cost allocations in a manner that created a burden to only two parties and that they are not arguing that these exemptions should be changed. Con Edison and Linden argue that its Complaint is not a collateral attack on solutions-based DFAX method and is not advocating for violations-based DFAX method, but rather, the results of the cost allocation method is at issue. Con Edison notes that its proposed proxy includes solutions-based DFAX method.

41. Con Edison states that it could not have possibly known the results of the cost allocation for the New Jersey Projects during the Order No. 1000 compliance filing because they did not yet exist. Linden further states that no cost allocation information is provided to the PJM Transmission Expansion Advisory Committee (TEAC) during the development of the RTEP. Linden explains that the Commission has previously found that stakeholders have the right to initiate actions under section 206 of the FPA if they believe that a cost allocation method produces unjust and unreasonable results for a particular new transmission facility. 81 Finally, Linden argues that even if the cost allocations were an implementation of a formula rate, the Commission has already held that such implementation does not relieve that party from "continuing to bear the burden of demonstrating the justness and reasonableness of the rate resulting from its application of the formula" even after the formula itself has been accepted. 82

b. **PJM**

42. PJM filed an answer stating that Section (b)(iii)(G) of Schedule 12 of the Tariff authorizes PJM to use a substitute proxy in two limited circumstances. PJM states it can use a substitute proxy only when a solution-based DFAX method analysis cannot be

---

80 Id. at 18-21 (citing *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, at P 430 (2013)).

81 Linden Limited Answer at 10-12 (citing Order No. 1000-A, 139 FERC ¶ 61,132 at P 287).

performed because flows cannot be measured for the facility in question, and when, although solution-based DFAX method analysis can be performed, the resulting flows are not consistent with the normal expected flow results that an engineer would expect to see. With respect to the New Jersey Projects, PJM states a proxy was not necessary since PJM measured normal expected flows and was therefore able to complete the solution-based DFAX method analysis in accordance with Schedule 12.\textsuperscript{83}

c. \textbf{PSEG and NJ Rate Counsel}

43. PSEG states that the treatment of merchant transmission facilities has been established as separate load zones, as per the Commission order, because they similarly draw energy from the transmission grid the same way the load zones withdraw energy. PSEG states that HTP’s suggestion that merchant transmission facilities be treated as part of the PSEG zone and allocated based on a load ratio share of the PSEG zone is inconsistent with prior Commission rulings and is beyond the scope of this proceeding.\textsuperscript{84} PSEG argues that HTP had to pay an initial $170 million to make their withdrawal rights possible by creating the system capability to support such service and has nothing to do with ongoing costs to upgrade and maintain system reliability. PSEG explains that merchant transmission facilities have a continuing obligation to pay for these upgrades.\textsuperscript{85} PSEG states that merchant transmission facilities benefit from the New Jersey Projects because they move lower cost power from Western areas of PJM and into New York at a lower price, benefiting New York customers at the expense of higher New Jersey energy and capacity prices. Finally, PSEG argues that the merchant transmission facilities create significant power flows across PJM and can exceed the amount for the Firm Transmission Withdrawal Rights which, over time, contribute to short circuit violations on the system which would still have had costs allocated under the former violations-based DFAX method.\textsuperscript{86}

44. PSEG claims that NYPA’s statement that the Bergen-Linden Corridor Project is being implemented to address transmission owner planning criteria violations are unfounded because these are PJM reliability criteria and because RTEP projects can be planned based on transmission owner criteria. PSEG states that regardless of how the

\textsuperscript{83} PJM Answer at 5.

\textsuperscript{84} PSEG Response at 6-8 (citing \textit{PJM Interconnection, L.L.C.}, 129 FERC ¶ 61,161 at PP 3, 54 (2009)).

\textsuperscript{85} Id. at 8-9 (citing \textit{PJM Interconnection, L.L.C.}, 129 FERC ¶ 61,161 at P 25).

\textsuperscript{86} Id. at 16-17.
project originated, the cost responsibilities are still considered under solutions-based DFAX method.\textsuperscript{87}

5. **Motion to Supplement Record**

45. On March 31, 2015, Con Edison filed a motion to lodge additional information regarding PSEG’s ability to receive insurance proceeds for the Sewaren Project, and the PJM transmission owners recently-filed proposed Tariff revisions providing for zonal cost allocation of local reliability projects. Con Edison contends that the Sewaren Project would qualify as a local reliability project, with 100 percent of the costs allocated to PSEG.\textsuperscript{88}

46. PSEG filed an answer stating that both the PJM transmission owner filing providing for zonal cost allocation of local reliability projects, and the state court case relating to insurance proceeds are beyond the scope of this proceeding.\textsuperscript{89} Con Edison responded that the motion to supplement the record includes material evidence about the Sewaren Project.

D. **Commission Discussion**

1. **Procedural Matters**

47. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2014), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

48. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest and or answer unless otherwise ordered by the decisional authority. We will accept the answers and responsive pleadings because they have provided information that assisted us in our decision-making process.

49. We deny the Con Edison’s motion to lodge additional information regarding PSEG’s ability to receive insurance proceeds for the Sewaren Project, and recent PJM proposed Tariff revisions providing for zonal cost allocation of local reliability projects. As PSEG states, the issues raised by the motion regarding PSEG’s ability to receive insurance proceeds...

\textsuperscript{87} Id. at 10-11. We note that these comments were not made by NYPA, but seem to be either referencing the City of New York or the Linden comments.

\textsuperscript{88} Con Edison Motion to Lodge at 5.

\textsuperscript{89} PSEG Response at 2.
insurance proceeds for the Sewaren Project, and the PJM transmission owners proposed Tariff revisions providing for zonal cost allocation of local reliability projects are beyond the scope of this proceeding.\(^{90}\)

2. **Determination**

50. We deny the Complaint. Con Edison contends in the Complaint that PJM has failed to correctly apply the provision of its Tariff requiring it to use a substitute proxy when in its reasonable engineering judgment the results of a solution-based DFAX method analysis are “objectively unreasonable.” As previously noted, Schedule 12, section (b)(iii)(G) of the Tariff provides, in relevant part:

   If Transmission Provider determines in its reasonable engineering judgment that, as a result of applying the provisions of this Section (b)(iii), the DFAX analysis cannot be performed or that the results of such DFAX analysis are objectively unreasonable, the Transmission Provider may use an appropriate substitute proxy for the Required Transmission Enhancement in conducting the DFAX analysis….

51. Con Edison, joined by the New York Commission, HTP and Linden, maintain the “objectively unreasonable” provision requires PJM to consider whether the cost allocation resulting from the solution-based DFAX method analysis is unreasonable, including whether the solution-based DFAX method analysis properly identifies beneficiaries of upgrades to address non-flow related reliability violations (e.g., fault currents in excess of 80 kA). We disagree. We instead find, as PJM contends, that the provision limits the discretion in reviewing the results of the solution-based DFAX method analysis to its engineering judgment of the flows over the subject facility.

52. We agree with the PJM Answering Parties that, when read in the context of its Tariff and its implementation of Order No. 1000, the provision permits PJM to use a substitute proxy only when, in its reasonable engineering judgment, (1) the solution-based DFAX method analysis cannot be performed for the facility in question and (2) the resulting flows are not consistent with the normal expected flow results that an engineer would expect to see, i.e., when the results are “objectively unreasonable.” We agree with the PJM Answering Parties that because the solution-based DFAX method analysis measures flows, this provision is correctly interpreted to mean that when in PJM’s engineering judgment the flows produced by the solution-based DFAX method analysis are objectively unreasonable, it needs to consider the use of proxy flows that better

---

measure the correct flows over the line in question. For example, the use of a substitute proxy may be applied when the solution-based DFAX method analysis cannot be performed for facility. Under section (b)(iii)(F)(1) of the Tariff, the provisions provide that PJM may determine the cost responsibility for a DC facility by replacing a required transmission enhancement with a comparable proxy AC facility. Additionally, the Tariff provides where a DC facility is an integral part of a Required Transmission Enhancement that also includes AC facilities, the methodology described in Tariff section (b)(iii)(F)(1) shall be used only for the DC segment of such Required Transmission Enhancement. Therefore, if PJM is unable to measure the normal flows of electricity over a facility the Tariff permits PJM to use an appropriate substitute proxy to measure the flows in the application of the solution-based DFAX method analysis. In this case, PJM was able to properly conduct the solution-based DFAX method analysis for the New Jersey Projects and, since PJM measured normal flows and was able to complete the solution-based DFAX method analysis, and because Con Edison has provided no evidence the flows were not properly measured, there was no basis upon which to disregard those results.

53. We are not persuaded that the Tariff permits PJM the discretion to use an appropriate substitute proxy whenever it believes that the cost allocation resulting from the solution-based DFAX method analysis is unreasonable. Such an interpretation would require PJM to ignore the cost allocation procedures of its Tariff and examine every cost allocation to determine whether it is objectively unreasonable. We also find that such an interpretation would provide PJM with too much discretion and is at odds with the requirement in Order No. 1000 for determining ex ante cost allocation procedures, so all parties will know in advance how project costs will be allocated.

54. In Order No. 1000, the Commission required public utility transmission providers to adopt an ex ante cost allocation method to provide certainty to prospective transmission developers. The Commission recognized that the lack of clear ex ante cost allocation method or methods that identify beneficiaries of proposed regional and interregional transmission facilities may be impairing the ability of public utility transmission providers to implement more efficient or cost-effective transmission solutions identified during the transmission planning process. The Commission required that the cost of transmission facilities be allocated to those within the transmission planning region that benefit from those facilities in a manner that is at least roughly commensurate with estimated benefits. The courts have recognized that no cost allocation method can perfectly assign costs to the beneficiaries of a transmission

---

91 Order No. 1000, FERC Stats. & Regs. ¶ 31,323 at P 499.

92 Id. P 586.
project. The Commission found that requiring an *ex ante* cost allocation method that provides certainty to all participants is preferable to having the transmission provider undertake a case-by-case analysis of each transmission project, with the possible litigation that may result from each determination. Altering the results of an approved cost allocation method would reduce the certainty that the method provides and, thus eviscerate the primary benefit of having an *ex ante* cost allocation method.

55. Nor does the Tariff enable PJM to determine types of violations, such as a short circuit violation as in the Bergen-Linden Corridor Project, evaluated through the cost allocation procedures, and undertaking such a case-by-case basis approach would create the same uncertainty that *ex ante* cost allocation is intended to avoid. In accepting the solution-based DFAX method as complying with Order No. 1000, the Commission found that the solution-based DFAX method evaluates the projected relative use of a new reliability project by load in each zone and withdrawals by merchant transmission facilities, and through this power flow analysis, identifies projected benefits for individual entities in relation to power flows. While the solution-based DFAX method identifies the beneficiaries of Required Transmission Enhancements, the Commission also has noted the reliability benefits to New York City of the Con Edison/PSEG wheeling arrangement. In addition to the benefits from the Required Transmission Enhancements, the facilities being upgraded provide essential reliability benefits to Con Edison and New York. In the order approving the Settlement Agreement implementing the wheeling arrangement, the Commission cited to statements of the New York Commission and the City of New York explaining those benefits:

> These agreements were freely negotiated by all the participating parties, [Con Edison, PSE&G, PJM, and NYISO, to provide for a continuation of pre-existing

---

93 *See Illinois Commerce Commission, 576 F.3d 470 at 476-77 (Seventh Cir. 2008) (“[w]e do not suggest that the Commission has to calculate benefits to the last penny, or for that matter to the last million or ten million or perhaps hundred million dollars”). See also Midwest ISO Transmission Owners v. FERC, 373 F.3d 1361 at 1369 (D.C. Cir. 2004) (“we have never required a ratemaking agency to allocate costs with exacting precision”).

94 Order No. 1000-A, 139 FERC ¶ 61,132 at P 576.

95 *PJM Interconnection, L.L.C., 142 FERC ¶ 61,214 at P 416, order on reh’g and compliance, 147 FERC ¶ 61,128 at PP 335 and 342.

96 As previously noted, the facilities upgraded by the Bergen-Linden Corridor Project support the Con Edison/PSEG wheeling arrangement.
[Service Agreements] permitting [Con Edison] to exchange power by
displacement from Rockland County, New York with New York City. [Con Edison’s] continued ability to access such power is vital to New York City. Both the New York Commission and the City of New York have asserted that the 2008 1000 MW TSAs provide critical reliability benefits and that, if the agreements were to expire, replacement of the lost imports would be difficult and would, most likely, require a long lead time.

56. Con Edison further argues that netting, nesting, and the de minimis threshold function skew the solution-based DFAX method analysis results for this project and render the cost allocation objectively unreasonable. Once again, review of these concerns is not required under the “objectively unreasonable” provisions of the Tariff which focuses on flows, and PJM measured normal flows in this case. As previously noted, the Tariff authorizes PJM to use the substitute proxy when the results of such solution-based DFAX method analysis are not consistent with the normal expected flow results. However, in this case, PJM has determined that the flows over the facilities used in the solution-based DFAX method analysis match the normal expected flows over the facility, so a substitute proxy is not required.

57. Moreover, we find that PJM applied its Tariff correctly with respect to the de minimis threshold, as well as netting and nesting. PJM adequately explained that the de minimis threshold is applied uniformly as a modeling value, not as a discretionary value. Con Ed does not argue that the de minimis threshold is unjust and unreasonable, only that using the threshold creates an unreasonable cost allocation warranting a substitute proxy. As discussed above, however, the substitute proxy provision is a limited one and applies only when the flows used in the solution-based DFAX method analysis do not match normal expected flows. This provision does not provide PJM with discretion to reevaluate the cost allocation.

58. With respect to the nesting provision of the Tariff, the Settlement Agreement implementing the wheeling arrangement provides that in the distribution factor analyses used to determine the cost responsibility assignment for which Con Edison will be assigned responsibility, the service under the Con Edison transmission Service Agreements shall be treated as a multi-node zone consisting of simultaneous injections into, and withdrawals from, the PJM system. We find that the Settlement Agreements implementing the wheeling arrangement establishes the zonal treatment for purposes of the solution-based DFAX method analysis in this case. In agreeing to the Settlement Agreements implementing the wheeling arrangement, Con Edison agreed to be bound by

97 PJM Interconnection, L.L.C., 132 FERC ¶ 61,221 at P 23 (2010), order on reh’g, 135 FERC ¶ 61,018 (2011).
PJM’s Tariff as it relates to cost allocation for the Bergen-Linden Corridor Project. Since PJM has found the flows resulting from application of solution-based DFAX method as prescribed in the Settlement Agreements match the normal expected flows on the line, we do not find the substitute proxy provision of the PJM tariff applicable, as Con Edison maintains.

59. Con Edison contends that netting discriminates against point-to-point customers and artificially inflates Con Edison’s use of the Bergen-Linden Corridor Project because it assumes that the load can only be served by the generation that the Service Agreements indicate is injected into the PJM system and not by other generation near the load. However, PJM explained that it models the transfer to the transmission zone as a whole and not on a bus-by-bus basis, and that the effect of modeling the transfer to the transmission zone as a whole is to net the positive energy flows associated with one customer with negative flow contributed by that same customer. Netting is therefore not appropriate unless Con Edison’s positive and negative flows offset. On the Bergen-Linden Corridor Project, energy flows in one direction for the Con Edison/PSEG wheeling arrangement, and, therefore, no flows offset allocation.

III. Requests for Rehearing, Docket No. ER14-972-001
A. April 9, 2014 Order

60. As noted, in the Docket No. ER14-972-000 Filing, PJM proposed the assignment of cost allocation for the Bergen-Linden Corridor Project, and Con Edison and Linden protested the solution-based DFAX portion of the cost allocation. In protesting the Docket No. ER14-972-000 Filing, Con Edison argued, among other things, that the DFAX method allocation of 82 percent of the Bergen-Linden Corridor Project costs to it, while allocating only 7 percent of the costs to the host utility PSEG is unjust and unreasonable. Based on this result, Con Edison challenged the use and results of the solution-based DFAX method for allocating the costs of these upgrades under the facts and circumstances of this case, and requested that the Commission reject PJM’s proposed cost allocation for these projects.98 Linden questioned whether PJM’s proposed cost allocation for the Bergen-Linden Corridor Project is consistent with the PJM Tariff, arguing that PJM has chosen to apply the rules applicable to double circuit 345 kV

98 The City of New York and the New York Public Service Commission (New York Commission), raising similar concerns, also protested the cost allocation of the Bergen-Linden Corridor Project.
transmission lines rather than the rules for circuit breakers,\textsuperscript{99} which Linden contended would be more appropriate in this situation. Linden stated that the use of the solution-based DFAX method, which is based on post-project energy flows on the new facilities, “makes no sense where the purpose of the proposed transmission upgrade is the resolution of fault currents.”\textsuperscript{100} Both Con Edison and Linden further stated that the cost allocation is inappropriate because it does not take into account the benefits provided to customers who avoid costs for projects cancelled and replaced by the Bergen-Linden Corridor Project.\textsuperscript{101}

61. The New York Commission, Con Edison, and Linden also argued that PJM’s proposed cost allocation is unjust and unreasonable because it does not meet the Order No. 1000’s principle that costs must be roughly commensurate with benefits. Con Edison further argued that in performing the solution-based DFAX method analysis, PJM made judgments and assumptions regarding such matters as the netting of generation and load, the nesting of zones, and the application of the \textit{de minimus} rule, without satisfactory explanation.\textsuperscript{102}

62. As previously noted, in the April 9, 2014 Order, the Commission found that the proposed cost responsibility assignments comply with the requirements of Schedule 12 – Appendix A of the PJM Tariff and section 1.6 of PJM’s Amended and Operating Agreement. The Commission found that the reasonableness of the solution-based DFAX method is beyond the scope of this proceeding, and that PJM proposed to allocate costs in accordance with the PJM Tariff rate on file as established in PJM’s Order No. 1000 proceeding.

\textsuperscript{99} Linden maintains that “[c]ost responsibility for circuit breakers and associated equipment independently included in the [RTEP] and not a part of the design specifications of a transmission element of a Required Transmission Enhancement as described above in this subsection, shall be assigned to the Zone of the owner of the circuit breaker and associated equipment if the owner of the circuit breaker is a Transmission Owner listed in Attachment J of the Tariff.” \textit{See} Linden Protest at 10 (citing PJM OATT, Schedule 12 (b)(iv)(C)).

\textsuperscript{100} Linden Protest at 10-11.

\textsuperscript{101} \textit{Id.} at 12.

\textsuperscript{102} Answers and responsive pleadings were filed by PJM, PSEG, PJM Transmission Owners, Con Edison and Linden.
63. Con Edison also argued that the Service Agreements implementing the wheeling arrangement specified its responsibilities only for upgrades affecting the B and C Lines connecting to the Hudson Station,\(^{103}\) and that the PSE&G Upgrade altered the Point of Delivery identified in the Service Agreements by disconnecting existing B and C transmission lines from the Hudson substation and diverting them to a new substation at Marion, isolating the Hudson facility and reducing PJM’s deliveries to Con Edison via the Hudson substation to zero.

64. The Commission found that the arguments presented an ambiguity requiring interpretation of the Service Agreements since the technical delivery points had moved, but the service remained the same. The Commission determined, taking all the agreements in context with the history leading to the agreements, that the use of a different point as the source for delivery of energy to Farragut does not obviate Con Edison’s responsibility to pay for the upgrades making that delivery possible. As reasonably interpreted, the Settlement Agreement refers to cost responsibility assignments for Required Transmission Enhancements based on the simultaneous injections into, and withdrawals from, the PJM system at the A, B, C, and J and K transmission line interfaces, not specifically defined substations.

65. The New York Commission, Con Edison (with the City of New York), and Linden seek rehearing.

**B. Procedural Matters**

66. On January 14, 2015, Neptune Regional Transmission System, LLC (Neptune) and HTP filed out-of-time motions to intervene. On April 9, 2015, New York Power Authority (NYPA) filed an out-of-time motion to intervene. On April 24, 2015, the PJM Indicated Transmission Owners filed an answer in opposition, and NYPA responded.

67. We deny the late motions to intervene of Neptune, HTP and NYPA. When late intervention is sought after the issuance of a dispositive order, the prejudice to other parties and burden upon the Commission of granting the late intervention may be

\(^{103}\) The Service Agreements define the Point of Receipt as “The J and K lines, which connect ConEd’s Rampapo substation in Rockland County, New York and Public Services Electric and Gas Company’s (PSE&G) Waldwick substation in New Jersey.” As previously noted, the Service Agreements define the Point of Delivery as “The A line, which connects PSE&G Linden switching station in New Jersey and ConED’s Goethals Station on Staten Island, and the B and C lines which connect PSE&G’s Fossil Hudson Generating Station in Jersey City and Con Edison’s Farragut switching station in Brooklyn.”
substantial. Thus, movants bear a higher burden to demonstrate good cause for granting such late intervention.\textsuperscript{104} Neptune, HTP and NYPA have sought intervention after the issuance of the April 9, 2014 Order. Neptune, HTP and NYPA have not met this higher burden of justifying its late intervention.

68. On April 9, 2014, coincident with the issuance of the April 9, 2014 Order, Linden submitted a motion to submit a supplemental answer, and request for a technical conference. The Commission has already issued a dispositive order, and the motion to submit a supplemental answer and the request for a technical conference is denied.

69. On April 9, 2014, Linden also submitted a motion to consolidate Docket No. ER14-972-000 with Docket No. ER14-1485-000. Linden contended that these proceedings involve common issues of law and fact. PSEG filed comments in opposition. We deny the motion to consolidate Docket No. ER14-972-000 with Docket No. ER14-1485-000 since these proceedings involve the assignments of cost allocation for specific projects and do not present common issues of law and fact.

C. Determination

1. Cost Allocation

70. On rehearing, the New York Commission, Con Edison, and Linden argue that the rates resulting from the application of the solution-based DFAX method have not been demonstrated to be just and reasonable. The New York Commission contends that the Commission failed to make an assessment of the reasonableness of the costs allocated in contravention with policy and precedent, and that the costs allocated to Con Edison are unreasonable. Con Edison contends that the Commission was obligated to review the application and results of the solution-based DFAX method, and states that Con Edison did not cause the need for the project and that the allocations of costs to Con Edison are not commensurate with the benefits. Linden contends that the cost allocations fail to meet the requirement that the costs of the proposed transmission facilities are allocated in a manner that is at least roughly commensurate with estimated benefits.\textsuperscript{105}


\textsuperscript{105} Linden has included an affidavit of John J. Marczewski to support its request for rehearing.
71. For the reasons discussed above addressing the Complaint, we deny the requests for rehearing of the April 9, 2014 Order. As previously discussed, the Commission accepted, as just and reasonable, the use of the solution-based DFAX method to identify projected benefits for individual entities in relation to power flows. The Docket No. ER14-972-000 Filing proposed to allocate costs in accordance with the PJM Tariff as established in PJM’s Order No. 1000 proceeding. Further, to the extent the rehearing requests challenge the reasonableness of the Tariff, that issue is outside the scope of issues raised in a section 205 filing.106

72. Con Edison and Linden contend that PJM did not follow its Tariff. Con Edison argues that the Commission failed to review the manner in which the solution-based DFAX method analysis was applied. Linden maintains that PJM did not include the necessary information in the initial filing to analyze the proposed cost allocations. This is the same argument advanced in the Complaint, and as we found above, PJM properly implemented the “objectively unreasonable” Tariff provision.

73. Con Edison and Linden contend that PJM did not follow the Commission’s requirements requiring an open and transparent planning process. We disagree. As the April 9, 2014 Order pointed out, PJM conducted numerous TEAC meetings during 2013 at which the Bergen-Linden Corridor Project was presented for review and discussion. PJM has stated that TEAC meetings are not restricted and stakeholders can raise any issue regarding proposed projects, including cost allocation. Con Edison could have, but did not raised cost allocation issues at the TEAC meetings.

2. Service Agreements

74. In the April 9, 2014 Order, the Commission addressed arguments that the Bergen-Linden Corridor Project would impermissibly alter the point of delivery identified in Service Agreements. On rehearing, Con Edison and the New York Commission argue that the Service Agreements are specific as to the points covered, and the Commission erred in finding that the Service Agreements were ambiguous and can be interpreted to apply to the points in the project. Con Edison maintains that the Service Agreements are not ambiguous, and that it is not liable for changes to delivery points not mentioned in the Service Agreements. Con Edison maintains that changes to the original transmission service agreements when the prior transmission service was rolled-over by the Settlement

106 To the extent objections to the reasonableness of the solution-based DFAX method could have been addressed in the Order No. 1000 proceeding, neither Con Edison nor Linden protested or commented on the PJM Order No. 1000 regional compliance filing. The PJM Order No. 1000 regional compliance filing was approved without modification. *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,128 at P 342.
Agreement support Con Edison’s interpretation. The New York Commission also maintains that the Commission incorrectly concluded that the Service Agreement is ambiguous, and that the Commission’s interpretation materially changed the terms of the Service Agreements which, according to the New York Commission, require a hearing to resolve.

75. We deny the request for rehearing that the Commission erred in finding that the Service Agreements presented an ambiguity requiring an interpretation, and that the Commission erred in finding that Con Edison is responsible for the upgrade costs. As we found in the April 9, 2014 Order, the Settlement Agreement provided for the roll-over of an existing wheeling arrangement, and established Con Edison’s commitment to pay RTEP charges resulting from necessary upgrades to continue that service. The fact that the more efficient or cost-effective method of upgrading the system results in a change to the delivery points in the agreement should not change Con Edison’s responsibility to pay for those upgrades necessary to provide the service reliably.

76. Schedule 12 of the Tariff memorializes Con Edison’s agreement to pay for RTEP Upgrades for the duration of the wheeling arrangement. Specifically, Schedule 12, Section (b)(xi) of the PJM Tariff provides:

(A) Cost responsibility assignments to Consolidated Edison Company of New York for Required Transmission Enhancements pursuant to this Schedule 12 with respect to the Firm Point-To-Point Service Agreements designated as Original Service Agreement No. 1873 and Original Service Agreement No. 1874 accepted by the Commission in Docket No. ER08-858 (“ConEd Service Agreements”) shall be in accordance with the terms and conditions of the settlement approved by the FERC in Docket No. ER08-858-000. …

77. Section 23 of the Settlement Agreement approved by the Commission in Docket No. ER08-858-000 provides:

In the distribution factor analyses used to determine the cost responsibility assignments for Lower Voltage Facilities as defined in Schedule 12 of the PJM Tariff and below 500 kV economic upgrades for which ConEd will be assigned cost responsibility, the service under the ConEd TSAs shall be treated as a multi-node zone consisting of simultaneous injections into, and withdrawals from, the PJM system at the A, B, C and J and K transmission line interfaces.

---

78. We affirm the April 9, 2014 Order finding that, as reasonably interpreted, the Settlement Agreement refers to cost responsibility assignments for Required Transmission Enhancements based on the simultaneous injections into, and withdrawals from, the PJM system at the A, B, C, and J and K transmission line interfaces and not, as Con Edison argues, specifically defined substations. The Service Agreements define the delivery points, for the provisions of service at issue, as the A, B and C lines, and, as stated in the April 9, 2014 Order, we find that the language relied on by Con Edison serves to identify these lines, rather than to lock those particularly substations permanently in place. Interpreting the Service Agreements as Con Edison urges would result in Con Edison continuing to receive service, but not be responsible for upgrade costs despite the Service Agreements’ specifications that Con Edison is responsible for such costs. Our interpretation is consistent with continued transmission service under the wheeling arrangement. The changes to the prior transmission service agreements that are reflected in the Service Agreements, which Con Edison contends support its interpretation, point to the Service Agreements, and provide no further clarity. As previously noted, the Service Agreements define the delivery points as the A, B and C lines.

3. Refund

79. Con Edison and Linden argue that the April 9, 2014 Order accepting the January 10, 2015 Filing subject to a compliance filing should have been subject to refund. Since we deny the rehearing requests, we need not address this issue.

IV. Compliance Filing, Docket No. ER14-972-002

A. April 9, 2014 Order

80. In the April 9, 2014 Order, the Commission conditioned its acceptance of the allocation based on PJM’s response to certain questions regarding its application of its Tariff. Specifically, the Commission requested information regarding the assumptions for the nested zone and de minimis threshold determinations for the Bergen-Linden Corridor Project.

B. May 9, 2014 Compliance Filing

1. Nested Zone Provisions

81. On May 9, 2014, PJM submitted its Compliance Filing to the April 9, 2014 Order. In the Compliance Filing, PJM states that the nested zone provision models generation both external and internal to individual zones and merchant transmission facilities to reflect: (i) the boundaries of Locational Deliverability Areas (LDAs) and (ii) limitations with respect to the reliability objective of moving generation capacity across the transmission system. PJM states that the Bergen-Linden Corridor Project upgrades are
located in the PSEG Zone, which is an LDA. The PSEG Zone is located within two other larger LDAs, i.e., the Eastern Mid-Atlantic Area Council (MAAC) and MAAC regions. In calculating the use of the new transmission facility, PJM states that it used the lowest distribution factor derived from the calculations of all three LDAs, i.e., PSEG Zone, Eastern MAAC and MAAC. When establishing the nested zone provision, PJM contends that the rationale for selecting the lowest distribution factor within a region was that a zone should be able to take advantage of the generation available within its own region (PSEG Zone, Eastern MAAC and MAAC) consistent with the levels of external generation that reliability/adequacy criteria require to be imported. For the Bergen-Linden Corridor Project, PJM states that because the Service Agreements implementing the wheeling arrangement define the source, PJM does not have the ability to consider other source areas.

2. **De minimis Provision**

82. In the Compliance Filing, PJM states that the distribution factor represents a measure of the use by the load for each transmission zone and merchant transmission facility. PJM contends that the intent of the *de minimis* provision is that if the contribution to the use of the facility is insignificant, allocation of costs is not justified. As a result, PJM states that no cost responsibility is assigned to a zone whose distribution factor is less than 0.01.

C. **Notice of the Filing and Responsive Pleadings**


D. **Determination**

84. We find that the Compliance Filing satisfies the requirements of the April 9, 2014 Order and therefore we accept it for filing.

---

108 The *de minimis* provision was initially agreed upon by the PJM Transmission Owners and filed with the Commission as part of a settlement proceeding in 2008, and the distribution factor *de minimis* threshold was set at 0.001. See *PJM Interconnection, L.L.C.*, 124 FERC ¶ 61,112 (2008). In 2012, the PJM Transmission Owners determined that the low distribution threshold factor produced DFAX analysis outcomes that resulted in nonadjacent transmission zones sharing cost responsibility for “distant, seemingly isolated projects,” proposed to increase the distribution factor threshold to 0.01. See *PJM Transmission Owners*, Docket No. ER12-2412 (Sept. 19, 2012) (delegated letter order).
85. Con Edison contends that PJM failed to apply nesting provisions to Con Edison consistent with the Tariff. As discussed above, however, with regard to the Complaint, we explained that the Settlement Agreements implementing the wheeling arrangement provides that in the DFAX method analyses used to determine the cost responsibility assignment for which Con Edison will be assigned responsibility, the service under the Con Edison transmission Service Agreements shall be treated as a multi-node zone consisting of simultaneous injections into, and withdrawals from, the PJM system.

86. Linden argues that the *de minimis* threshold does not operate as intended, and has not been applied uniformly. As previously noted, the *de minimis* threshold is applied uniformly as a modeling value, not as a discretionary value. Because the Tariff does not provide discretion in applying the *de minimis* threshold, we find that PJM has applied the *de minimis* threshold consistent with the Tariff. Linden also argues that PJM did not apply the *de minimis* threshold consistently.\^109 We disagree with Linden. PJM explains that the projects referenced by Linden represent different types of projects. For the specific projects referenced by Linden, one project required relocation of a transmission line and any associated equipment for which PJM could calculate a solution-based DFAX method value, and subject to the *de minimis* threshold. The other project involved the relocation of a generating facility. PJM states that it cannot allocate baseline upgrades to a generator, and the Tariff provisions allow PJM to use a substitute proxy. We find this to be consistent with the PJM Tariff.

The Commission orders:

(A) Con Edison’s Complaint is hereby denied, as discussed in the body of this order.

(B) The requests for rehearing of the April 9, 2014 Order are hereby denied, as discussed in the body of this order.

---

109 Linden references subprojects b2436.90 and b2436.91 of the Bergen-Linden Corridor Project.
(C) The May 9, 2014 Compliance Filing is accepted, as discussed in the body of this order.

By the Commission.

( S E A L )

Kimberly D. Bose,
Secretary.