

170 FERC ¶ 61,122
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Linden VFT, LLC v. PJM Interconnection, L.L.C.	Docket Nos. EL15-67-002 EL15-67-003
PJM Interconnection, L.L.C.	ER15-2562-002
PJM Interconnection, L.L.C.	ER14-972-005 ER14-972-006
Consolidated Edison Company of New York, Inc. v. PJM Interconnection, L.L.C.	EL15-18-003 EL15-18-004

ORDER DENYING REHEARING REQUESTS

(Issued February 20, 2020)

1. On April 22, 2016, the Commission denied a complaint submitted by Linden VFT, LLC (Linden) under section 206 of the Federal Power Act (FPA)¹ (Linden Complaint), alleging the assignment of costs pursuant to the solution-based distribution factor (DFAX) method provisions of the regional cost allocation method included in the PJM Interconnection, L.L.C. (PJM) Open Access Transmission Tariff (Tariff) produces unjust and unreasonable rates.² Linden specifically objected to the portion of cost responsibility that was assigned pursuant to the solution-based DFAX method for certain transmission

¹ 16 U.S.C. § 824e (2012).

² The Commission accepted the regional cost allocation method as part of PJM's Order No. 1000 compliance filings. *See Transmission Planning & Cost Allocation by Transmission Owning & Operating Pub. Utils.*, Order No. 1000, 136 FERC ¶ 61,051 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014). *See also PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 (2013), *order on reh'g & compliance*, 147 FERC ¶ 61,128 (2014), *order on reh'g & compliance*, 150 FERC ¶ 61,038, *order on reh'g & compliance*, 151 FERC ¶ 61,250 (2015).

projects approved through the PJM Regional Transmission Expansion Planning (RTEP) process.³ These projects are the Bergen-Linden Corridor Project, Edison Rebuild Project, and Sewaren Projects (Complaint Projects).⁴ The Linden Complaint addressed only 50% of the costs of certain subprojects of the Bergen-Linden Corridor Project that were allocated using solution-based DFAX, as well as 100% of the costs of the Edison Rebuild Project and the Sewaren Project that were allocated using the solution-based DFAX method. Petitioners' rehearing requests similarly address only these specific portions of cost responsibility assigned pursuant to the solution-based DFAX method.

2. Linden, Consolidated Edison Company of New York, Inc. (Con Edison), Hudson Transmission Partners, LLC (Hudson), and the New York Power Authority (NYPA) (together, Petitioners) have requested rehearing of the Linden Complaint Order.⁵

3. In addition, on April 22, 2016, in Docket No. ER15-2562-000, the Commission accepted, pursuant to section 205 of the FPA,⁶ revisions to Schedule 12-Appendix A of the PJM Tariff in accordance with Schedule 12 of the Tariff and section 1.6 of

³ See *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,089 (2016) (Linden Complaint Order).

⁴ The Complaint Projects were not selected through PJM's Order No. 1000 regional transmission planning process, which became effective on January 1, 2014. The Commission accepted PJM's proposal that, for purposes of compliance with Order No. 1000, transmission solutions 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. *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,128 at PP 25, 29-30. However, cost responsibility for the Complaint Projects was assigned pursuant to PJM's Order No. 1000 regional cost allocation. As discussed below, under this cost allocation method, one half of the costs of Regional Facilities or Necessary Lower Voltage Facilities are allocated on a load-ratio share basis and the other half are allocated based on the solution-based DFAX method. All of the costs of Lower Voltage Facilities are allocated using the solution-based DFAX method.

⁵ Hudson and NYPA also filed their rehearing requests in Docket Nos. ER14-972, ER14-1485, EL15-18, and EL15-95, raising issues consistent with the requests for rehearing of the Linden Complaint Order. PJM filed a limited request for clarification or in the alternative request for rehearing of issues raised in Docket No. ER14-1485. Rehearing requests related to the Linden Complaint Order are addressed in this order, and the Commission has addressed pleadings related to Docket No. ER14-1485 separately. See *PJM Interconnection, L.L.C.*, 157 FERC ¶ 61,190 (2016) (denying rehearing and clarification related to Docket No. ER14-1485).

⁶ 16 U.S.C. § 824d (2018).

Schedule 6 of the Amended and Restated Operating Agreement of PJM (Operating Agreement).⁷ The Tariff revisions incorporate cost responsibility assignments for transmission projects included in the RTEP approved by the PJM Board of Directors (PJM Board), including the Complaint Projects at issue in the Linden Complaint. Linden, Con Edison, Hudson, and NYPA have also requested rehearing of the Cost Allocation Report Order.

4. In this order, we deny the requests for rehearing of the Linden Complaint Order and the Cost Allocation Report Order.

I. Background

A. PJM RTEP Cost Allocation Tariff Provisions

5. PJM files cost responsibility assignments for transmission projects that the PJM Board of Managers (PJM Board) approves as part of PJM's RTEP in accordance with Schedule 12 of PJM's Tariff and Schedule 6 of the Amended and Restated Operating Agreement of PJM (Operating Agreement).⁸ Schedule 12 of the Tariff establishes

⁷ *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,091 (2016) (Cost Allocation Report Order) (accepting revisions to the Tariff sheets due to reconfiguration of the Bergen-Linden Corridor Project). Assignment of cost responsibility for the Bergen-Linden Corridor Project was originally filed in Docket No. ER14-972-000. In Docket No. ER15-2562-000, PJM filed revisions to the tariff sheets due to reconfiguration of the Bergen-Linden Corridor Project. On April 22, 2016, the Commission also denied rehearing of a complaint by Con Edison in Docket No. EL15-18 and the underlying cost allocation report proceedings (Docket Nos. ER14-972-000 and ER14-1485-000), regarding the cost responsibility assignments for the Sewaren Project and Bergen-Linden Corridor Projects. *See Consol. Edison Co. of N.Y., Inc. v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,088 (2016) (Con Edison Complaint Rehearing Order), *review pending and held in abeyance sub nom. Consol. Edison Co. of N.Y., Inc. & Linden VFT, L.L.C. v. FERC*, Nos. 16-1153 *et al.* (D.C. Cir. filed May 25, 2016).

⁸ In accordance with the Tariff and the Operating Agreement, PJM "shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Section 1.5.6(l) above to bear responsibility for the costs of the project." PJM, Intra-PJM Tariffs, OA Schedule 6 Sec 1.5, OA Schedule 6 Sec 1.5 Procedure for Development of the Regi, 23.0.0, § 1.5. "Within 30 days of the approval of each Regional Transmission Expansion Plan or an addition to such plan by the PJM Board pursuant to Section 1.6 of Schedule 6 of the PJM Operating Agreement, the Transmission Provider shall designate in the Schedule 12-Appendix A and in a report filed with the FERC the customers using Point-to-Point Transmission Service and/or Network Integration Transmission Service and Merchant Transmission

Transmission Enhancement Charges and allows that “[o]ne or more of the Transmission Owners may be designated to construct and own and/or finance Required Transmission Enhancements by: (1) the [PJM RTEP] periodically developed pursuant to Operating Agreement, Schedule 6; or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B.”⁹

6. In developing the RTEP, PJM identifies transmission projects to address different criteria,¹⁰ including PJM planning procedures, North American Electric Reliability Corporation (NERC) Reliability Standards, Regional Entity reliability principles and standards,¹¹ and individual transmission owner Form No. 715 local planning criteria.

Facility owners that will be subject to each such Transmission Enhancement Charge (‘Responsible Customers’) based on the cost responsibility assignments determined pursuant to this Schedule 12.” PJM, Intra-PJM Tariffs, OA Schedule 6 Sec 1.6, OA Schedule 6 Sec 1.6 Approval of the Final Regional Trans, 3.0.0, § 1.6(b); PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(viii).

⁹ PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (a)(1). Required Transmission Enhancements are defined as “enhancements and expansions of the Transmission System that: (1) a [RTEP] developed pursuant to Operating Agreement, Schedule 6; or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, Schedule 12-Appendix B (‘Appendix B Agreement’) designates one or more of the Transmission Owner(s) to construct and own or finance.” PJM, Intra-PJM Tariffs, OATT Definitions – R - S, OATT Definitions – R - S, 18.2.0. Transmission Enhancement Charges are established to recover the revenue requirement with respect to a Required Transmission Enhancement. PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (a)(i).

¹⁰ PJM identifies reliability transmission needs and economic constraints that result from the incorporation of public policy requirements into its sensitivity analyses and allocates the costs of the solutions to such transmission needs in accordance with the type of benefits that they provide. *See PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 441; PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(v) (Economic Projects) (assigning cost responsibility for Economic Projects that are either accelerations or modifications of Reliability Projects, or new enhancements or expansions that relieve one or more economic constraints); PJM, Intra-PJM Tariffs, OA Schedule 6 Sec 1.5, OA Schedule 6 Sec 1.5 Procedure for Development of the Regi, 23.0.0, § 1.5.7(b)(iii).

¹¹ As established by ReliabilityFirst Corporation, Southeastern Electric Reliability Council, and other applicable Regional Entities. *See* PJM, Intra-PJM Tariffs, OA

Types of Reliability Projects¹² identified in the RTEP include Regional Facilities,¹³ Necessary Lower Voltage Facilities,¹⁴ and Lower Voltage Facilities.¹⁵ PJM assigns the costs of reliability projects that are selected in the RTEP for purposes of cost allocation pursuant to the cost allocation method that the Commission accepted in compliance with Order No. 1000.¹⁶ Specifically, in the case of Regional Facilities and Necessary Lower Voltage Facilities that address a reliability need, costs are allocated pursuant to a hybrid cost allocation method in which 50% of the costs of those facilities are allocated on a load-ratio share basis and the other 50% are allocated to the transmission owner zones

Schedule 6 Sec 1.2, OA Schedule 6 Sec 1.2 Conformity with NERC and Other Applic, 2.0.0, §§ 1.2(b) and 1.2(d) (Conformity with NERC and Other Applicable Reliability Criteria) (2.0.0).

¹² Reliability Projects are Required Transmission Enhancements that are included in the RTEP to address one or more reliability violations or to address operational adequacy and performance issues. PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(i)(A)(2)(a).

¹³ Regional Facilities are defined as Required Transmission Enhancements included in the RTEP that are transmission facilities that: (a) are AC facilities that operate at or above 500 kV; (b) are double-circuit AC facilities that operate at or above 345 kV; (c) are AC or DC shunt reactive resources connected to a facility from: (a) or (b); or (d) are DC facilities that meet the necessary criteria as described in section (b)(i)(D). PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities).

¹⁴ Necessary Lower Voltage Facilities are defined as Required Transmission Enhancements included in the RTEP that are lower voltage facilities that must be constructed or reinforced to support new Regional Facilities. PJM, Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities).

¹⁵ 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, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(ii) (Lower Voltage Facilities).

¹⁶ See Order No. 1000, 136 FERC ¶ 61,051, *order on reh’g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh’g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044, *aff’d sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d at 41; see also *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, *order on reh’g and compliance*, 147 FERC ¶ 61,128, *order on reh’g and compliance*, 150 FERC ¶ 61,038, *order on reh’g and compliance*, 151 FERC ¶ 61,250.

based on the solution-based DFAX method. Pursuant to the cost allocation method that the Commission accepted in PJM's compliance with Order No. 1000, all of the costs of Lower Voltage Facilities are allocated using the solution-based DFAX method.

7. The solution-based DFAX method allocates the costs of new transmission facilities based on modeling of usage (i.e., how each load zone contributes to the flows over a new transmission facility). Specifically, the solution-based DFAX method first measures the incremental flow on the new transmission facility that results from an increase in load of one megawatt in each load zone,¹⁷ holding load in all other load zones constant. This number is referred to as the distribution factor, and it represents the flows on the new transmission facility attributed to an increase in power transfer to a particular load zone divided by the total increase in power transfer to that load zone. If the distribution factor for a particular load zone is equal to or exceeds 0.01 (i.e., one percent, which is the *de minimis* cut off), PJM will calculate that load zone's use of the new transmission facility by multiplying the distribution factor by the load zone's non-coincident peak load. PJM then sums each load zone's use of the new transmission facility to calculate total use and determines each load zone's relative use of the new transmission facility by dividing that load zone's use by the total use. Finally, PJM multiplies each load zone's relative use of the new transmission facility by that facility's costs to establish each load zone's cost responsibility assignment.

B. RTEP Cost Allocation Applicable to Linden

8. Linden owns and operates a merchant transmission facility that connects the PJM and the New York Independent System Operator, Inc. (NYISO) transmission systems, with 330 megawatt (MW) of Firm Transmission Withdrawal Rights.¹⁸ In 2009, the Commission found that merchant transmission facilities with Firm Transmission Withdrawal Rights are like loads in that they remove energy from PJM, thus requiring PJM to study deliverability of energy from the PJM system to the point of interconnection.¹⁹ The Commission stated that “[a]s the system changes for a variety of reasons (e.g., retirements and load growth), it may be necessary to construct additional

¹⁷ For purposes of its solution-based DFAX method analysis, PJM models merchant transmission facilities and external load as separate load zones.

¹⁸ Firm Transmission Withdrawal Rights are defined in the PJM Tariff as the rights to schedule energy and capacity withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. *See* PJM, Intra-PJM Tariffs, E-F, OATT Definitions – E - F, 22.1.0. Linden and Hudson connect PJM with New York Independent System Operator from the PSEG zone to the Con Edison zone.

¹⁹ *PJM Interconnection, L.L.C.*, Opinion No. 503, 129 FERC ¶ 61,161, at P 3 (2009) (Merchant Transmission Order).

facilities in order to be able to provide the level of Firm Transmission Withdrawal Rights to which the customers subscribed.”²⁰ Additionally, the Commission found that “PJM must plan its system to meet peak load on its system, including the full amount of the [Firm Transmission Withdrawal Rights] allocated to merchant transmission facilities. Thus, these facilities legitimately can be charged their proportionate share of the upgrade costs needed to ensure such deliveries.”²¹

C. Linden Complaint

9. Linden argued that the solution-based DFAX method produced unjust and unreasonable and unduly discriminatory and preferential results for the Complaint Projects, i.e., the Bergen-Linden Corridor Project,²² Sewaren Project,²³ and Edison Rebuild Project.²⁴ The total estimated cost for the Complaint Projects is approximately

²⁰ *Id.* P 110.

²¹ *Id.* P 73 (citing PJM Interconnection, L.L.C., 124 FERC ¶ 63,022, at P 66 (2008) (Initial Decision)).

²² As previously noted, as accepted in orders addressing PJM’s Order No. 1000 regional compliance filings, PJM’s regional cost allocation method allocates one half of the cost of Regional Facilities on a load-ratio share basis and the other half using the solution-based DFAX method. All of the costs of Lower Voltage Facilities are allocated using the solution-based DFAX method. The Bergen-Linden Corridor Project, as revised in Docket No. ER15-2562-000 includes 19 subprojects. Eight subprojects are Regional Facilities, and costs are assigned pursuant to PJM’s hybrid cost allocation method, and the costs of the remaining 11 subprojects that are Lower Voltage Facilities are assigned in accordance with the solution-based DFAX method.

²³ *See PJM Interconnection, L.L.C.*, 152 FERC ¶ 61,187 (2015) (Sewaren Order) (accepting modeling revisions to the Sewaren Project cost responsibility assignments). The Commission originally approved the cost responsibility assignments for the Sewaren Project in Docket No. ER14-274-000. *See PJM Interconnection, L.L.C.*, Docket No. ER14-274-000 (Jan. 15, 2014) (delegated order). *See Con Edison Complaint Rehearing Order*, 155 FERC ¶ 61,088 (denying rehearing of the Sewaren Order).

²⁴ The Commission also accepted the cost responsibility assignment for the Edison Rebuild Project in Docket No. ER14-274-000. Both the Sewaren Project and the Edison Rebuild Project are Lower Voltage Facilities and, thus, 100 percent of their costs were allocated through the solution-based DFAX method. *See Con Edison Complaint Rehearing Order*, 155 FERC ¶ 61,088 at P 51 (allocating the costs of the Sewaren Project to the PSEG zone consistent with the Local Planning Criteria Order), *order denying reh’g, PJM Interconnection, L.L.C.*, 157 FERC ¶ 61,190.

\$1.3 billion. Linden stated that approximately \$900 million of the Complaint Projects' costs are allocated pursuant to the solution-based DFAX method and \$400 million of the Complaint Projects' cost is allocated on either a load-ratio share basis or directly to the local load zone. Of the \$900 million allocated under the solution-based DFAX method, PJM assigned approximately \$92 million to Linden.

10. Linden argued that the portion of costs responsibility assigned for the Complaint Projects pursuant to the solution-based DFAX method is not allocated in a manner that is roughly commensurate with benefits, or that avoids free ridership. Linden also argued that there are numerous deficiencies in PJM's implementation of the solution-based DFAX method for the Complaint Projects that produces unjust, unreasonable and unduly discriminatory and preferential results, including the *de minimis* threshold,²⁵ modeling assumptions that determine DFAX values based on peak load conditions, and netting.²⁶ Linden further argued that PJM had not correctly implemented its Tariff.

D. Linden Complaint Order

11. In the Linden Complaint Order, the Commission found that Linden failed to satisfy its burden under section 206 of the FPA to demonstrate that costs assigned pursuant to the solution-based DFAX method are unjust, unreasonable, unduly discriminatory or preferential.²⁷ The Commission stated that, in accepting the Tariff provisions assigning costs pursuant to the solution-based DFAX method in PJM's Order

²⁵ Under the *de minimis* threshold, no cost responsibility shall be assigned to a Responsible Zone unless the magnitude of the distribution factor is greater than or equal to one percent. PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii) (DFAX Analysis for Reliability Projects). The threshold, initially set at 0.1 percent, was modified in 2012 to one percent to address concerns related anomalous allocations to non-adjacent zones. *PSEG Servs. Corp.*, Docket No. ER12-2412-000 (Sept. 19, 2012) (delegated order).

²⁶ Under netting, PJM models the transfer of the net of energy flow in the positive and negative directions from generation to all load within an individual transmission zone, and the transfer to the transmission zone. The effect of modeling the transfer to the transmission zone as a whole is to net the positive energy flows through the circuit associated with an individual transmission zone with counter-flows associated with the same transmission zone. For point-to-point transactions, such as those over DC merchant transmission lines, however, flows are unidirectional and will not be reduced by opposing flows. PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii) (DFAX Analysis for Reliability Projects). *See* Linden Complaint Order, 155 FERC ¶ 61,089 at P 10 n.25.

²⁷ *Id.* P 54.

No. 1000 compliance filing, the Commission has determined that the solution-based DFAX method identifies benefits from a transmission project in proportion to the entities' use of the project.²⁸

12. Linden, joined by Con Edison, Hudson, and NYPA, contended that a flow-based analysis is not appropriate for non-flow related reliability violations. The Commission disagreed, finding that the solution-based DFAX method focuses on the benefits of the facility as measured through use of the facility over time rather than the immediate reliability violation that drove the need for the project.²⁹ The Commission recognized that the initial nature of the problem may not necessarily be related or entirely related to flows, but over time, the evolving use of the facility is well represented by the solution-based DFAX method.³⁰ The Commission was further persuaded by PJM's argument that because the solution-based DFAX method identifies beneficiaries through use of the facility, the solution-based DFAX method does not need to be replicated for solutions that address multiple problems over changing system conditions. In particular, the Commission noted that the ability to reflect changing system conditions and use over time, and thus the changing beneficiaries of a transmission facility, is one of the primary benefits of the solution-based DFAX method, along with the elimination of the necessity of analyzing each violation and driver of a project separately.³¹

13. In addressing the arguments regarding the specific provisions of the solution-based DFAX method, the Commission noted that the *de minimis* threshold is applied to the distribution factor that is calculated for each entity after performing the solution-based DFAX method analysis and is based on each zone's percentage flow over the solution facility relative to its load. The Commission found that while the *de minimis* threshold exempts zones with a DFAX value of less than one percent from cost responsibility, the

²⁸ *Id.* (citing *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 416, *order on reh'g & compliance*, 147 FERC ¶ 61,128 at PP 335, 342). *See S.C. Pub. Serv. Auth.*, 762 F.3d at 85 (averring, "the Commission's adoption of a beneficiary-based cost allocation method is a logical extension of the cost causation principle"). *See also FirstEnergy Serv. Co. v. FERC*, 758 F.3d 346, 355 (D. C. Cir. 2014) (*FirstEnergy Serv. Co.*) (citing *Am. Transmission Sys., Inc. v. PJM Interconnection, L.L.C.*, 140 FERC ¶ 61,226, at P 26 (2012) ("Even if a new member is not using the system when a particular project was planned or authorized, the new member may nevertheless use and benefit from the new facility in the future.")).

²⁹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 55.

³⁰ *Id.*

³¹ *Id.* P 57.

de minimis threshold is an efficient and nondiscriminatory mechanism for identifying entities that have relatively little use of the facility relative to their load.³²

14. With regard to the netting provision, the Commission found that Linden's inability to use a netting mechanism is a result of PJM's treatment of each merchant transmission facility as a separate zone with a single point of withdrawal, rather than as part of a host zone.³³ The Commission further found that Linden's inability to net power flows because it is a merchant transmission facility with a single point of withdrawal is not unduly discriminatory or unreasonable and realistically reflects how energy flows on an integrated transmission system.³⁴ The Commission recognized that accounting for counter-flow in zonal netting is an important factor in considering a load's contribution to a particular constraint because it reduces the need for expanding that constraint.³⁵ The Commission further recognized that netting appropriately accounts for the actual flow contribution from a zone using PJM generation to serve its own load, which is consistent with the zonal nature of cost allocation, and found that it was not unjust and unreasonable to allow PJM to model its transfers from generation to all loads within a zone.³⁶

15. The Commission was unpersuaded by Linden's argument that application of the solution-based DFAX method using Linden's 330 MW of Firm Transmission Withdrawal Rights, which represents their maximum use of a new transmission facility, severely disadvantages Linden. The Commission recognized that while withdrawals may be less firm than those of zonal customers, PJM must plan its system to meet peak load on its system, including the full amount of the Firm Transmission Withdrawal Rights allocated to merchant transmission facilities.³⁷

16. In addressing the assertion that firm rights are static and they have no projected load growth, the Commission recognized that the PJM system overall is not static, and because the system topology may change over time for various reasons, such as generation retirements or load growth, it may be necessary to develop Required

³² *Id.* P 60.

³³ *Id.* P 62.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* P 63.

³⁷ *Id.* P 64.

Transmission Enhancements to ensure firm service.³⁸ Therefore, the Commission found it just and reasonable and not unduly discriminatory or preferential for PJM to assign to the merchant transmission facilities the costs of Required Transmission Enhancements necessary to assure their firm service based on the solution-based DFAX method.³⁹

17. The Commission also addressed the contention that PJM acted unreasonably and in contravention of its Tariff by failing to adjust the results of the solution-based DFAX method by using a substitute proxy in cases in which application of the solution-based DFAX method produces “objectively unreasonable” results.⁴⁰ The Commission disagreed, noting that a substitute proxy would be appropriate when the resulting flows are not consistent with the normal expected flow that an engineer would expect to see, i.e., when the results are “objectively unreasonable.”⁴¹ The Commission found that since flows could be measured using the solution-based DFAX method, a substitute proxy was neither appropriate nor required for the new facility.⁴²

E. Cost Allocation Report Order, Docket No. ER15-2562

18. Concurrent with the Linden Complaint Order, the Commission accepted the Tariff amendments for the updates to the Bergen-Linden Corridor Project. The Commission was persuaded by PJM’s explanation that the costs related to the reconfiguration were necessary to address construction challenges and the elimination of high short circuit current issues identified by Public Service Electric and Gas Company (PSEG). The Commission found that the Tariff revisions were consistent with the cost allocation

³⁸ *Id.* P 68.

³⁹ *Id.*

⁴⁰ See PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(G), which 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.

⁴¹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 66.

⁴² *Id.*

provisions of Schedule 12 of the Tariff, and that PJM complied with its Tariff obligations in applying the solution-based DFAX method.⁴³

II. Rehearing Requests

19. As noted, Linden, Con Edison, Hudson, and NYPA requested rehearing of the Linden Complaint Order and the Cost Allocation Report Order.

20. Linden argues that the Commission acted inconsistently with principles of cost allocation and court precedent in determining that the cost responsibility assignments are just and reasonable, and not unduly discriminatory or preferential.⁴⁴ Specifically, Linden argues that cost allocations must be roughly commensurate with benefits to entities that are paying the allocated costs. Linden further argues that the Commission erred in failing to address the merits of its arguments that PJM is required to avoid the allocation of unreasonable costs.

21. Petitioners argue that the Commission incorrectly concluded that entities benefit from a project in proportion to their use of the project without performing a cost-benefit analysis. Linden, Con Edison, and Hudson argue that the Commission had a responsibility to determine for each of the Complaint Projects whether the cost responsibility assignments are roughly commensurate with benefits.⁴⁵ Petitioners add that the cost responsibility assignments for the Complaint Projects are not roughly commensurate with benefits,⁴⁶ and that the Commission cannot rely on the identification of general reliability benefits or assumptions regarding the general applicability of the solution-based DFAX method for other projects to support the allocation of cost for the Complaint Projects. Petitioners further argue that it is unjust and unreasonable to use the

⁴³ Cost Allocation Report Order, 155 FERC ¶ 61,091 at P 24.

⁴⁴ Linden Rehearing Request at 22 (citing *KN Energy, Inc. v. FERC*, 968 F.2d 1295 (D.C. Cir. 1992); *Ill. Commerce Comm'n v. FERC*, 576 F.3d 470 (7th Cir. 2009) (*Illinois Commerce Comm'n*); *Ill. Commerce Comm'n v. FERC*, 756 F.3d 556 (7th Cir. 2014); Order No. 1000, 136 FERC ¶ 61,051; *Pub. Serv. Comm'n of Wis. v. Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,071 (2014), *order on reh'g*, 150 FERC ¶ 61,104 (2015) (*Wisconsin PSC v. MISO*) (internal quotes omitted)).

⁴⁵ Linden Rehearing Request at 22-25; Con Edison Rehearing Request at 12-13; Hudson Rehearing Request at 3.

⁴⁶ Con Edison also argues that the Commission erred in denying rehearing of the cost allocation report for the Sewaren Project, and should have vacated the allocation instead of allocating the cost for the Sewaren Project to the PSEG zone. Con Edison Rehearing Request at 19.

flow-based solution-based DFAX method to allocate costs of a project needed to address non-flow-based issues. The rehearing requests contend that the Commission's determination that benefits received from flows over time justifies allocation of costs using the solution-based DFAX method does not result in a just and reasonable, and not unduly discriminatory or preferential, rate in certain circumstances.

22. Linden and Hudson argue that the Commission erred in failing to consider that customers already pay for deliverability to the interconnection point through firm point-to-point transmission charges. Hudson further argues that Firm Transmission Withdrawal Rights are the sole basis for cost responsibility assignments to merchant transmission facilities under the solution-based DFAX method, and that there is no basis for assuming that flows would increase without procuring additional Firm Transmission Withdrawal Rights.

23. Petitioners re-argue on rehearing that specific provisions of the solution-based DFAX method are unjust and unreasonable. Specifically, Petitioners argue that application of the *de minimis* threshold distorts the assignment of cost responsibility based on use of the facility. Linden argues that the *de minimis* threshold creates a fundamental exception to the method based solely on an entity's size.⁴⁷ Linden, Con Edison and Hudson argue that assigning costs to entities above the *de minimis* threshold that would have been assigned to transmission zones exempted by that threshold is unjust and unreasonable, and that the costs imposed by this gross-up are the result of an administrative intervention and are not connected to use.⁴⁸ Con Edison contends exempting distribution factors based on the *de minimis* threshold unduly discriminates against entities with smaller loads because it creates a false appearance that their use of a facility is greater than entities that have the same or higher use. As a result, Con Edison

⁴⁷ Linden Rehearing Request at 38.

⁴⁸ The rehearing requests characterize application of the *de minimis* provision as a "gross-up" of the cost allocation. Linden and Hudson state that Con Edison has provided notice to PJM that it intends to terminate the transmission service agreements supporting a wheeling arrangement that enables Con Edison 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 and through which Con Edison is assigned cost responsibility for the Bergen-Linden Corridor Project. Linden and Hudson maintain that, because assignment of cost responsibility to Con Edison is eliminated by terminating the transmission service agreements, the *de minimis* provisions would result in the further reassignment of costs for the Bergen-Linden Corridor Project to them, significantly increasing their costs. *See 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 Protocols).

argues distribution factors do not measure a beneficiary's true contribution to use of the line. Hudson contends the exemption given to the large PJM Transmission Owners has nothing to do with their impact on the new transmission facility.⁴⁹

24. In addition, Petitioners argue that the Commission ignored arguments that netting provisions discriminate against merchant transmission facilities by artificially depressing a transmission owner load zone's usage, distorting solution-based DFAX method results, and exacerbating the harm caused by the *de minimis* threshold. Linden further argues that because Linden's customers already pay for deliverability to Linden's interconnection point through firm point-to-point transmission charges, the Commission's conclusion that Linden can be charged upgrade costs is incorrect. Linden also argues that the Commission finding that the Complaint Projects are not needed if firm rights are relinquished is incorrect.⁵⁰

25. Linden, Con Edison and Hudson argue that the Commission's interpretation of the objectively unreasonable language is arbitrary and capricious, inconsistent with the plain language of the provision and contrary to statutory interpretation canons. Linden and Hudson further argue that PJM's cost responsibility assignments for the Complaint Projects fail to meet Order No. 1000's openness and transparency requirements. Linden argues PJM does not provide any cost allocation information to stakeholders at Transmission Expansion Advisory Committee (TEAC) meetings and the entire RTEP cost allocation regime is a black box that lacks transparency.⁵¹

26. The rehearing requests contend that the cost responsibility assignment in Docket No. ER15-2562-000 for the Bergen-Linden Corridor Project results in rates that are unjust and unreasonable. Linden argues that the Commission's acceptance of the cost responsibility assignments impermissibly collapse the applicable burdens of proof, and that PJM had the affirmative burden to demonstrate that the cost responsibility assignments for the Bergen-Linden Corridor Project were just and reasonable, which Linden contends PJM did not meet.

III. Settlement Procedures

27. Before acting on the rehearing requests, the Commission established settlement judge procedures to permit the parties to consider settlement of the complaint and

⁴⁹ Hudson Rehearing Request at 31.

⁵⁰ Linden Rehearing Request at 43 (citing Linden Complaint Order, 155 FERC ¶ 61,089 at P 67 n.106).

⁵¹ The TEAC conducts meetings to review the assumptions and studies, including sensitivity and scenario analyses, on which the RTEP is based.

underlying cost allocation proceedings.⁵² On July 19, 2019, the Settlement Judge declared an impasse and recommended that settlement judge procedures be terminated.⁵³ On July 22, 2019, the Chief Administrative Law Judge terminated settlement judge procedures, thereby returning the matter to the Commission for disposition.

IV. Determination

28. We deny the requests for rehearing, as discussed below.

A. Linden Complaint Order Rehearing

1. PJM's Adherence to its Tariff

29. Linden maintains that the Commission erred in rejecting the Linden Complaint simply because PJM adhered to its Tariff. However, the Commission did not reject the Linden Complaint merely because PJM adhered to its Tariff. As discussed below, the Commission recognized that PJM did not violate its Tariff, and the Commission has considered all of Linden's arguments under section 206 of the FPA and determined that Linden failed to demonstrate that, for the portions of cost responsibility assignments made pursuant to the solution-based DFAX method, the Tariff provisions are unjust and unreasonable.

2. Use of Solution-Based DFAX Method to Assign a Portion of the Costs for the Complaint Projects

30. Linden, Con Edison, Hudson and NYPA contend that the Commission did not adhere to court and Commission precedent or Order No. 1000 regional cost allocation principles with regard to the assignment of the portion of the costs for the Complaint Projects pursuant to the solution-based DFAX method. They first argue that the Commission erred in equating the benefit of the Complaint Projects with the use of the Complaint Projects without conducting a cost-benefit study of the Complaint Projects themselves. Linden states that, rather than analyzing each of the cost allocation principles as applied to the cost responsibility assignment for the Complaint Projects, the Commission simply held that because it previously found solution-based DFAX method to be just and reasonable, the cost allocations for the Complaint Projects must by definition allocate costs roughly commensurate with benefits. Linden maintains that, in contrast, the Commission is required to determine that each cost responsibility assignment for each individual project is roughly commensurate with benefits, in order to determine whether the specific cost responsibility assignment is consistent with the

⁵² *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,034 (2018).

⁵³ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 168 FERC ¶ 63,005 (2019).

foundational cost allocation principles. Con Edison also contends the Commission failed to perform a cost-benefit analysis for each individual project and relied only on general reliability benefits.

31. In Order No. 1000, the Commission found that the lack of clear *ex ante* cost allocation methods that identify beneficiaries of proposed regional transmission facilities may have been impairing the ability of public utility transmission providers to implement more efficient or cost-effective transmission solutions identified in the transmission planning process.⁵⁴ The Commission stated that in imposing the cost allocation requirements in the final rule, the Commission sought to enhance certainty for developers of potential transmission facilities by identifying, up front, the cost allocation implications of selecting a transmission facility in the regional transmission plan for purposes of cost allocation.⁵⁵ The Commission noted that greater certainty as to the cost allocation of a potential transmission project will enhance the ability of stakeholders in the regional transmission planning process to evaluate the merits of the transmission project.⁵⁶

32. Accordingly, the Commission required public utility transmission providers to have in place an *ex ante* cost allocation method in their tariffs to allocate the costs of new transmission facilities selected in the regional transmission plan for purposes of cost allocation.⁵⁷ The Commission determined that the regional cost allocation method must adhere to six specified regional cost allocation principles, including Regional Cost Allocation Principle 1, which requires “[t]he cost of transmission facilities must 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.”⁵⁸ The Commission did not prescribe a particular definition of “benefits” or “beneficiaries,” finding that the proper context for further consideration of these matters was on review of the compliance proposals.⁵⁹ The Court of Appeals for the D.C. Circuit (D.C. Circuit)

⁵⁴ Order No. 1000, 136 FERC ¶ 61,051 at P 499.

⁵⁵ *Id.* P 561. “Within RTO or ISO regions, particularly those that encompass several states, the allocation of transmission costs is often contentious and prone to litigation because it is difficult to reach an allocation of costs that is perceived by all stakeholders as reflecting a fair distribution of benefits.” *Id.* P 498.

⁵⁶ *Id.* P 559.

⁵⁷ *Id.* P 558; Order No. 1000-A, 139 FERC ¶ 61,132 at P 286.

⁵⁸ Order No. 1000, 136 FERC ¶ 61,051 at PP 603, 622.

⁵⁹ *Id.* P 624.

affirmed the Commission's principle-based approach, finding that the Order No. 1000 reforms do not require any particular provider to pay for the new transmission facilities, or dictate precisely how costs must be allocated.⁶⁰ As noted, the D.C. Circuit further found that the Commission's adoption of a beneficiary-based cost allocation method is a logical extension of the cost causation principle and recognized that the lack of a beneficiary-based cost allocation as a practice is likely to result in rates that are not just and reasonable or are unduly discriminatory or preferential.⁶¹

33. In compliance with Order No. 1000, the Commission accepted PJM's hybrid cost allocation method in which one half of the costs of Regional Facilities and Necessary Lower Voltage Facilities are allocated on a load-ratio share basis and the other half are allocated based on the solution-based DFAX method, which evaluates projected relative use of the facility finding that the hybrid cost allocation method allocates costs in a manner that is roughly commensurate with benefits received.⁶² The Commission also accepted PJM's cost allocation method allocating all of the costs of Lower Voltage Facilities based on the solution-based DFAX method, stating that it will result in cost allocation that is roughly commensurate with the benefits derived through use of the new transmission facility.⁶³ Accordingly, we reject arguments that the Commission erred by failing to perform an *ad hoc* analysis for the Complaint Projects, i.e., by applying each of the Regional Cost Allocation Principles to the individual cost responsibility assignments for the Complaint Projects, and by failing to specifically determine that each cost responsibility assignment matches benefits as closely as possible and is roughly commensurate with benefits. The Commission required adoption of an *ex ante* regional cost allocation method or methods to reduce uncertainty and potential litigation associated with the cost allocation implications of a potential transmission project.⁶⁴ As such, once the Commission determined that PJM's regional cost allocation method for reliability transmission projects was consistent with the Regional Cost Allocation Principles, including that the method allocates costs at least roughly commensurate with

⁶⁰ *S.C. Pub. Serv. Auth.*, 762 F.3d at 85.

⁶¹ *Id.*

⁶² *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 413.

⁶³ *Id.* P 431.

⁶⁴ Order No. 1000, 136 FERC ¶ 61,051 at P 499; Order No. 1000-A, 139 FERC ¶ 61,132 at P 588.

estimated benefits, it is reasonable to conclude that the cost responsibility assignment made pursuant to the *ex ante* regional cost allocation method is also just and reasonable.⁶⁵

34. Moreover, we do not find unjust and unreasonable the application to the Complaint Projects of PJM's regional cost allocation method. For the portion of cost responsibility assignment made pursuant to the solution-based DFAX method, which is the portion specifically challenged in the complaint, the analysis determines benefits based on the relative contribution of each zone and merchant transmission facility to an increase in load, and allocates costs commensurate with the measured usage of the transmission facility.⁶⁶ The rehearing requests have not established that the allocation of costs based on relative usage of the facilities is unjust and unreasonable.⁶⁷

35. The rehearing requests maintain that the cost responsibility assignment for the Complaint Projects departs from the requirement that the Commission have "an articulable and plausible reason to believe that the benefits are at least roughly commensurate" with costs as articulated by the Seventh Circuit Court of Appeals in *Illinois Commerce Commission*.⁶⁸ They maintain the disparity between the costs imposed and the benefits they receive resulting from the portion of cost responsibility assignments made pursuant to the solution-based DFAX method is too great to satisfy the "roughly commensurate" standard. However, the *Illinois Commerce Commission* decision found only that the Commission had failed to justify the pro rata allocation on the basis of load-ratio share of all of the costs of transmission facilities operating at 500 kV and above.⁶⁹ We find that PJM's regional cost allocation method allocates 50 percent of the cost of Regional Facilities and Necessary Lower Voltage Facilities on a load-ratio share basis, and the other 50% using the solution-based DFAX method. For the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, cost responsibility is assigned based on relative use of transmission facilities. We find that the portion of cost responsibility assignments made pursuant to the solution-based

⁶⁵ See Order No. 1000, 136 FERC ¶ 61,051 at P 561.

⁶⁶ See *FirstEnergy Serv. Co.*, 758 F.3d at 355 (finding allocation based on use or the transmission facility just and reasonable).

⁶⁷ *Id.*

⁶⁸ 576 F.3d at 477.

⁶⁹ *Id.*

DFAX method is roughly commensurate with its benefits because that allocation is based on an individual analysis of the relative use of the specific transmission facility.⁷⁰

36. The rehearing requests reiterate their contention that the Linden Complaint Order is inconsistent with the holding in *Public Service Commission of Wisconsin v. Midcontinent Independent System Operator, Inc.*⁷¹ But, as the Commission found in the Linden Complaint Order, we find no inconsistency. In *Wisconsin PSC v. MISO*, the Commission found unjust and unreasonable MISO's allocation of the costs of reliability must run units on a pro rata basis to all load within the footprint of the transmission owner.⁷² In *Wisconsin PSC v. MISO*, MISO had performed a load-shedding analysis, which determined the load-serving entities that benefitted from the retention of the reliability unit, and the Commission required MISO to revise its tariff to allocate costs on a proportionate basis to those load-serving entities that require the unit's operation for reliability. PJM's solution-based DFAX method does not allocate costs on a *pro rata* basis; rather, for each individual transmission project in which a portion of the costs are assigned pursuant to the solution-based DFAX method, costs are assigned based on PJM's analysis of the relative use of the specific transmission project.⁷³ Because the portion of the cost responsibility assignments made pursuant to the solution-based DFAX method are based on an individual analysis of the use of the transmission project, we do not find the cost assignment challenged here to be inconsistent with the Commission's reliance on the load-shedding analysis done by MISO in *Wisconsin PSC v. MISO*.

37. The rehearing requests further contend that the results of applying the solution-based DFAX method to the Complaint Projects demonstrate that the solution-based DFAX method is unjust and unreasonable. However, as the Commission noted in finding that, for the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, this method measures each zone's relative contribution to the flows over the relevant transmission facilities.⁷⁴ While no cost allocation method can perfectly assign costs to the beneficiaries of a transmission project, particularly in the case of the transmission grid,⁷⁵ we continue to find it just and

⁷⁰ *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 416.

⁷¹ 150 FERC ¶ 61,104 (2015), (*Wisconsin PSC v. MISO*), cited in Linden Rehearing Request at 30.

⁷² *Wisconsin PSC v. MISO*, 150 FERC ¶ 61,104 at P 78.

⁷³ See PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii) (DFAX Analysis for Reliability Projects).

⁷⁴ Linden Complaint Order, 155 FERC ¶ 61,089 at P 55.

⁷⁵ See *Illinois Commerce Comm'n*, 576 F.3d at 476-77 ("We do not suggest that

reasonable to assign cost responsibility for the portion of costs allocated pursuant to the solution-based DFAX method based on an analysis of relative use of the Complaint Projects.⁷⁶ PJM explained, during the technical conference established by the Commission,⁷⁷ the difficulties in establishing who or even what caused the need for the project, and further explained why assigning cost responsibility for a portion of the costs pursuant to the solution-based DFAX method is a reasonable measure of determining the parties that benefit from the use of the facility over the long life of these facilities:

this is one of the huge benefits of solution-based DFAX. Somebody's mentioned the Susquehanna-Roseland project which had dozens – it might have been four dozen problems, that were resolved by Roseland. That's a 500-kV line and it was. But to do cost allocation based on 48 or so individual violations and then weight them all and put them all back together again would have been a nightmare. With solution-based DFAX you don't need to do that, you have one solution that solves 50 problems, you have one cost allocation based on who uses the solution, not who caused each one of the 50 different problems. That's a huge advantage. That was one of the big reasons, that and the ability to redo the allocations every year based on changing system conditions.

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, 1369 (D.C. Cir. 2004) (“[W]e have never required a ratemaking agency to allocate costs with exacting precision.”).

⁷⁶ *S.C. Pub. Serv. Auth.*, 762 F.3d at 85 (affirming the Commission’s adoption of a beneficiary-based cost allocation method); *FirstEnergy Serv. Co.*, 758 F.3d at 355 (finding allocation based on facility use just and reasonable).

⁷⁷ *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,245 (2015) (establishing a Technical Conference to explore both whether there is a definable category of reliability transmission projects within PJM for which the solution-based DFAX cost allocation method may not be just and reasonable, such as projects addressing reliability violations that are not related to flow on the planned transmission facility, and whether an alternative just and reasonable *ex ante* cost allocation method could be established for any such category of projects).

Those were the big advantages of moving to solution-based DFAX.⁷⁸

As the Commission found in the Linden Complaint Order, the solution-based DFAX method focuses on the benefits of the project as measured through relative use of the project, and that users of the Complaint Projects benefit from the project on an ongoing basis because the presence of the project ensures reliable delivery of power and alleviates future reliability concerns and reliability violations that could have otherwise caused operational issues.⁷⁹

38. Con Edison contends that the Commission's application of an "evolving use" rationale to justify the solution-based DFAX method is arbitrary and capricious and it is unreasonable to apply that standard to the non-overload Complaint Projects.⁸⁰ Con Edison further maintains that "Con Edison and others are entitled to a just and reasonable cost allocation today, not one that might become just and reasonable in the future, if all the stars align."⁸¹ The Commission's reference to the "evolving use" of the Complaint Projects refers to the fact, as discussed above, that the portion of cost responsibility assignments made pursuant to the solution-based DFAX method is based on the use of the Complaint Projects for each year over the life of such facilities.

39. Con Edison claims that the Commission ignored PJM's uncertainty about how long the necessary "evolution" takes, claiming Mr. Herling conceded that he does not

⁷⁸ Jan. 12, 2016 Technical Conference, Second Revised Transcript, Docket No. EL15-67, at 139 (filed February 18, 2016) (Transcript) (statements of Steven Herling, appearing for PJM).

⁷⁹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 55. *See Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 378 (1989) (stating "when specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts"); *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 702 (D.C. Cir. 2007) (where expert witnesses dispute an issue, the agency need only rely upon sufficient expert evidence to establish a rational connection between the facts and the choice made); *Wis. Valley Improvement v. FERC*, 236 F.3d 738, 747 (D.C. Cir. 2001) (not arbitrary and capricious for the Commission to rely on one expert as opposed to others).

⁸⁰ Con Edison Rehearing Request at 25 (citing Linden Complaint Order, 155 FERC ¶ 61,089 at P 55 (stating "over time, the evolving use of the facility is well represented by the solution-based DFAX method")) (citing Transcript at 9-10) (statements of Steven Herling).

⁸¹ Con Edison Rehearing Request at 27.

know whether “that’s one year, five years, [or] 10 years.”⁸² But that claim is a misunderstanding of the how the solution-based DFAX method is applied and Mr. Herling’s testimony. As discussed above, one benefit of the solution-based DFAX method is that it examines the flows over the facility for each year of the facility’s life as opposed to trying to determine what load caused the need for the facility in the first place. Mr. Herling did not indicate that parties would have to wait for the benefits. Rather, he was commenting on why the original cause of the stability or short circuit problem is not important after a number of years.⁸³ Mr. Herling then went on to explain that the solution-based DFAX method does reasonably identify beneficiaries for each year over the life of the facility: “And that’s why solution-based DFAX is a good indicator over a long period of time.”⁸⁴

40. Con Edison contends the Commission erred by failing to adopt a hybrid system that reflects both the intended benefits of non-overload Complaint Projects and the benefits that evolve over time, instead relying on general reliability benefits.⁸⁵ The only issue in this case is whether PJM’s allocation method is just and reasonable, not whether another allocation method might also be just and reasonable. Moreover, Con Edison does not identify what those intended benefits are or what other method would better isolate the zones benefitting from the Complaint Projects.⁸⁶ As discussed above, we find that for the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, the analysis identifies the benefits through the relative use of the specific transmission facilities.

41. The rehearing requests contend that the solution-based DFAX method is unjust and unreasonable because a flow-based method is the wrong way to measure benefits for non-flow based reliability concerns, such as the short-circuit concerns underlying the

⁸² *Id.* at 28 (citing Transcript at 138) (statements of Steven Herling).

⁸³ Transcript at 138.

⁸⁴ *Id.*

⁸⁵ Con Edison Rehearing Request at 28 (citing Linden Complaint Order, 155 FERC ¶ 61,089 (LaFleur, Comm’r, dissenting, at 2)).

⁸⁶ For the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, the analysis identified the benefits through use of the Bergen-Linden Corridor Project, and no evidence cited by Con Edison suggests that a violation-based DFAX or other method would have identified other flows or other zones that received more discrete benefits from that project. Transcript at 18 (Statement of Mayer Sasson).

Complaint Projects in this proceeding.⁸⁷ We find, however, that the solution-based DFAX method is just and reasonable for non-flow based reliability concerns because it assigns cost responsibility to the beneficiaries based on relative use of the specific transmission facility that addresses the identified reliability concern over the useful life of that facility.⁸⁸ The courts have recognized that allocating costs based on the identification of beneficiaries appropriately recognizes that these facilities have extremely long lives and that customers will use and benefit from these facilities over the entirety of their useful life.⁸⁹ PJM also maintains that the solution-based DFAX method has significant benefits in allocating costs over PJM's prior violation-based DFAX method,⁹⁰ because the violation-based analysis cannot identify the causes of multiple constraints and it does not reflect changes in usage and flow direction over time.⁹¹ While all parties recognize that short-circuit problems are not directly caused by flow overloads on a facility, these Complaint Projects are needed to ensure the reliability of the system for load, and we do not find unjust and unreasonable the assignment of cost responsibility for the Complaint Projects made pursuant to the solution-based DFAX method based on an analysis that identifies beneficiaries by relative use of the transmission facilities. As Mr. Herling pointed out in his testimony, referencing short-circuit issues:

there is no one single cause that you can point to to[sic] that particular short circuit problem; it's something that kind of evolved over time as a great number of solutions were put in place that had very small impacts on the fault duties at the substations in question. ... So as we move forward we'll find that it's going to be very difficult to point to a single causal

⁸⁷ Con Edison Rehearing Request at 21.

⁸⁸ *S.C. Pub. Serv. Auth.*, 762 F.3d at 85 (stating “the Commission’s adoption of a beneficiary-based cost allocation method is a logical extension of the cost causation principle”); *Nat’l Ass’n of Reg. Util. Comm’rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007) (explaining that “but-for” causation is not dispositive of the cost allocation issue).

⁸⁹ *FirstEnergy Serv. Co.*, 758 F.3d at 345-55.

⁹⁰ The Commission recognized that PJM’s prior violation-based DFAX method focused on the contributions that load made to the violation rather than use. Linden Complaint Order, 155 FERC ¶ 61,089 n.98.

⁹¹ Transcript at 9-10 (statements of Steven Herling).

element that you can say on day one is the reason ... So over time the solution-based DFAX [method] works pretty well.⁹²

42. Con Edison argues that the proper method of allocating costs is to identify “who, from an engineering standpoint, will use the Complaint Projects’ intended benefits.”⁹³ Con Edison, however, does not provide any engineering analysis of what the benefits are and who should be considered to be the intended beneficiaries, other than suggesting that the costs should be allocated to the PSEG zone. While other methods may also be just and reasonable,⁹⁴ we continue to find that the solution-based DFAX method is just and reasonable as it evaluates the projected relative use of a new reliability transmission project by load in each zone and by merchant transmission facilities, and through this power flow analysis, identifies the projected benefits for such entities. Con Edison also maintains the identification of beneficiaries through a flow-based method is inconsistent with the manner in which costs are allocated to address individual transmission owner Form No. 715 local planning criteria.⁹⁵ As discussed below, the PJM Tariff provisions that allocated 100 percent of the costs for Required Transmission Enhancements that are included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria to the zone of the individual transmission owner whose Form No. 715 local planning criteria underlie each project were rejected on remand,⁹⁶ and the Commission required PJM apply the provisions of solution-based DFAX method pursuant to Schedule 12 of the PJM Tariff.⁹⁷

3. *De minimis* Threshold

43. The rehearing requests contend that the *de minimis* threshold results in an unjust and unreasonable assignment of costs, because it operates to reallocate the costs for zones

⁹² *Id.* at 10.

⁹³ Con Edison Rehearing Request at 22.

⁹⁴ *New England Power Co.*, 52 FERC ¶ 61,090, at 61,336 (1990), *reh’g denied*, 54 FERC ¶ 61,055 (1991), *aff’d sub nom. Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992); *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984) (utility need establish that its proposed rate design is reasonable, not that it is superior to alternatives); *accord OXY USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995).

⁹⁵ Con Edison Rehearing Request at 24-25.

⁹⁶ *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018) .

⁹⁷ *PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,133 (2019).

that fall below the *de minimis* threshold to zones above the *de minimis* threshold.⁹⁸ They maintain that the *de minimis* threshold creates an exemption based solely on the size of the zone and the reallocation resulting from the *de minimis* threshold is unconnected to use of the facility.

44. The *de minimis* threshold is designed to exempt zones with a DFAX calculation value of less than one percent from cost responsibility and we reaffirm our determination that the parties have not shown that the use of this threshold is unjust and unreasonable. The *de minimis* threshold operates to avoid allocation of costs to zones that receive exceedingly small benefit from the use of the facility.⁹⁹ While the *de minimis* threshold was developed to exempt from cost allocation non-adjacent zones that are remote from the facility being constructed, which receive minor benefits from the facility, we do not find the *de minimis* threshold unjust and unreasonable merely because it operates, in this case, to exempt PSEG from cost allocation for some of the Complaint Projects. As the Commission stated, the *de minimis* threshold is an efficient and nondiscriminatory mechanism for identifying entities that have relatively little use of the transmission facility relative to their load.¹⁰⁰

45. Linden claims the Commission failed to refute evidence that PSEG and other entities make greater use of the Complaint Projects than does Linden, but are exempted from cost allocation due to the *de minimis* threshold.¹⁰¹ But Linden focuses only on absolute flows derived by multiplying the distribution factor for each zone by its peak load, rather than on the marginal use of the transmission facility. The solution-based DFAX method measures the shift in power over the transmission facility associated with an increase in load of one MW irrespective of the size of the zone's load.¹⁰² We do not

⁹⁸ As previously noted, the rehearing requests refer to this allocation as a “gross up.”

⁹⁹ As the PJM Transmission Owners explained, the *de minimis* standard protects against “nonadjacent transmission zones sharing cost responsibility for distant, seemingly isolated Complaint Projects.” PSEG, Transmittal Letter, Docket No. ER12-2412-000 (filed Aug. 6, 2012).

¹⁰⁰ Linden Complaint Order, 155 FERC ¶ 61,089 at P 61.

¹⁰¹ Linden Rehearing Request at 27.

¹⁰² The Tariff defines the solution-based DFAX method formula as:

Distribution Factor = (After-shift power flow – pre-shift power flow)/Total amount of power shifted. PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(A).

find unjust and unreasonable PJM's Tariff provision finding a marginal shift of .01 to be so low as to warrant an exemption from cost allocation. Moreover, the analysis provided by the solution-based DFAX method is conducted every year and the zones that qualify for the *de minimis* exemption may change as well. As discussed above, the parties have not shown that the *de minimis* threshold is an unjust and unreasonable method of excluding zones from cost responsibility when the distribution factor for their load is insignificant.

4. Netting

46. The rehearing requests reiterate their objection to PJM's approach of netting positive and negative flows over a facility in determining the entity's DFAX. Linden maintains that the use of netting discriminates against merchant transmission facilities by assuming power flows in only one direction and ignores evidence that during peak periods in PJM, Linden often moves power from New York into PJM rather than exporting power.¹⁰³

47. We find no discrimination. PJM needs to model the system based on the assumption that Linden exercises its full Firm Transmission Withdrawal Rights to export from PJM no matter what the circumstances.¹⁰⁴ Because PJM has an obligation to deliver that power to Linden for export, we find reasonable PJM's modeling of the system as if that export were taking place.

48. Linden further argues that the Complaint Projects may benefit the PSEG zone, but netting makes the PSEG zone's use of the Complaint Projects appear minimal. Linden then maintains that the Commission failed to explain why PJM must plan for all eventualities for merchant transmission facilities, but not for PSEG. Con Edison similarly argues that the Commission ignored its evidence that netting positive and negative flows distorts the solution-based DFAX method by artificially depressing the use of individual nodes with positive DFAX calculation values. Con Edison alleges that the Commission failed to consider its expert Dr. Mayer Sasson's testimony that all loads are similarly situated for the purposes of netting.¹⁰⁵

49. However, as we have pointed out, power flows in opposite directions offset each other such that the appropriate measure of use is the zone's net power flow over the

¹⁰³ Linden Rehearing Request at 41.

¹⁰⁴ Merchant Transmission Order, 129 FERC ¶ 61,161 at P 87.

¹⁰⁵ Con Edison Rehearing Request at 18 (citing Con Edison Aug. 20, 2015 Comments at 18, Ex. CE-1 at 20 (Affidavit of Mayer Sasson, appearing for Con Edison)).

facility. Accounting for counterflow in zonal netting is an important factor in considering a load's contribution to a particular constraint.¹⁰⁶ As Mr. Khadr states:

Zonal netting is an appropriate part of the calculation of a zone's reliance on a transmission facility because it considers counterflow. Counterflow is an important factor in considering a load's contribution to a particular constraint because it reduces the need for expanding that constraint. In other words, counterflows effectively add capability to a constrained system by offsetting use. ... This makes sense given that the customers without counterflows are actually using the line's capability while those with counterflows are not.¹⁰⁷

Focusing on only power flowing in one direction ignores the fact that the negative flows decrease the amount of power flowing over the line and make additional capacity available. Nor does PJM treat similarly situated loads differently. PJM nets the nodes of all transmission owners that have multiple nodes with positive and negative flows. However, because Linden, Hudson, and Con Edison have only single delivery points in PJM, they do not have positive and negative flows to net. This merely is a reflection of their limited nodes, not discriminatory treatment. The fact that, when economically beneficial, Linden may import power into PJM does not indicate that modeling the system based on Linden's contractual right to export power at any time is unjust and unreasonable.

5. Merchant Transmission Owners' Payment for Deliverability During the Interconnection Process

50. Linden argues that customers of its merchant transmission facility pay for deliverability to its interconnection point through firm point-to-point service, and that charging Linden upgrade costs to ensure deliverability ignores the actual circumstances under which Linden uses the facilities. Hudson argues the Commission failed to consider that merchant transmission facilities have already paid for the benefits that they receive through the PJM interconnection process.

51. During the interconnection process, PJM identifies the upgrades necessary, and that the merchant transmission facility is responsible for at that time for the merchant

¹⁰⁶ Linden Complaint Order, 155 FERC ¶ 61,089 at P 62. *See* PJM Transmission Owners Aug. 20, 2015 Answer, Docket No. EL15-67-000, at 13.

¹⁰⁷ PJM Transmission Owners Aug. 20, 2015 Answer, Declaration of Esam A.F. Khadr at PP 23-24.

transmission facility to receive Firm Transmission Withdrawal Rights.¹⁰⁸ The Commission has found that because merchant transmission facility providers use Firm Transmission Withdrawal Rights to export power from PJM, they also need to be responsible for any additional transmission facilities necessary to maintain the reliability of that withdrawal.¹⁰⁹ We continue to find that the allocation of the costs of transmission facilities necessary to maintain a reliable withdrawal service for merchant transmission facilities is just and reasonable.¹¹⁰

6. Merchant Transmission Owners Inability to Increase Load

52. The rehearing requests maintain that allocating the costs of the Complaint Projects to merchant transmission facilities based on the solution-based DFAX method's assumption of an increase in load is unjust and unreasonable because they cannot exceed their Firm Transmission Withdrawal Rights. The solution-based DFAX method uses a projected increase in flow to load as a modeling tool to measure zones' reliance on the facility.¹¹¹ But this is a modeling measurement, not an indication that load actually will increase. By measuring how much of the incremental one MW increase in load will flow over the affected facility, the solution-based DFAX method measures the marginal reliance on the facility by each load.¹¹² The use of the solution-based DFAX method modeling measures the relative use of the transmission facility,¹¹³ not the level of Firm Transmission Withdrawal Rights.

¹⁰⁸ See Merchant Transmission Order, 129 FERC ¶ 61,161 at P 4.

¹⁰⁹ See *Neptune Reg'l Transmission Sys., LLC v. PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,455, at P 25 (2005) (explaining that interconnection costs do not preclude allocation of future costs pursuant to RTEP); Merchant Transmission Order, 129 FERC ¶ 61,161 at P 21 (allocating RTEP costs to merchant transmission facilities because "there may be a reliability impact when Merchant Transmission Facilities withdraw energy from the PJM transmission system").

¹¹⁰ This argument amounts to a second rehearing of the Commission's acceptance of cost allocation to merchant transmission facilities. Merchant Transmission Order, 129 FERC ¶ 61,161, *reh'g denied*, 139 FERC ¶ 61,243 (2012).

¹¹¹ See PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(A); PJM Manual 14B at 49. <https://www.pjm.com/library/manuals.aspx>

¹¹² See PJM Manual 14 B at 47.

¹¹³ *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 at P 416.

7. Objectively Unreasonable Tariff Provision

53. Schedule 12 of the Tariff permits PJM to use a substitute proxy whenever it “determines in its reasonable engineering judgment ... the DFAX analysis cannot be performed or that the results of such DFAX analysis are objectively unreasonable.”¹¹⁴ The Operating Agreement further states that the PJM RTEP shall “avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities.”¹¹⁵

54. The rehearing requests argue that the Commission erred in interpreting these provisions to apply only to a situation in which PJM determines the modeled flows are not consistent with the normal expected flow results that an engineer would expect over that facility. They maintain that the Commission ignored the plain language of the provision. Con Edison contends that this language requires PJM to look at the overall results of the cost allocation to determine whether a substitute proxy should be used. Linden maintains that even if interpreted to limit the analysis to flows, as PJM and the Commission did, the record shows that these Complaint Projects meet that definition of “objectively unreasonable.”¹¹⁶ Linden points to the transcript in which the PJM transmission owners stated the results of the solution based DFAX method for the Complaint Projects “look strange.”¹¹⁷ Linden and Con Edison also cite to the statement by Mr. Herling that “the DFAX calculation ... is really divorced from the nature of the problem”¹¹⁸ Linden goes on to point out that although the Edison Rebuild Project is a 400 MW project, the costs are allocated based on only 14 MW of total flows. Linden maintains that an allocation of costs based on this level of flows meets even PJM’s standard of unreasonable flow results.

55. As the Commission found in the Linden Complaint Order and in the Con Edison Complaint Rehearing Order, interpreting these provisions to permit PJM to use its subjective judgment to review each cost allocation would essentially require PJM to ignore the cost allocation procedures of its Tariff and examine each project’s cost

¹¹⁴ PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(G).

¹¹⁵ PJM, Intra-PJM Tariffs, OA Schedule 6 Sec 1.4, OA Schedule 6 Sec 1.4 Contents of the Regional Transmission, 2.1.0, § 1.4(d).

¹¹⁶ Linden Rehearing Request at 47 (citing solution-based DFAX method assignment of cost responsibility for the Edison Rebuild).

¹¹⁷ *Id.* at 32, 47 (citing Transcript at 15).

¹¹⁸ Linden Rehearing Request at 47 (citing Transcript at 112-125) (statements of Steven Herling).

allocation to determine whether it is objectively unreasonable, even when those procedures can be applied to the project in question.¹¹⁹ This would result in a standardless, subjective inquiry as to whether any particular cost allocations seems too high, which would violate the requirement in Order No. 1000 that public utility transmission providers must include in their tariffs an *ex ante* cost allocation method to enhance certainty for developers of potential transmission facilities by identifying, up front, the cost allocation implications of selecting a transmission facility in the regional transmission plan for purposes of cost allocation.¹²⁰ It also would ignore the tariff requirement that the analysis must be made on the basis of “engineering judgment.”¹²¹ We therefore agree with PJM that the interpretation of the provisions that is most consistent with the PJM Tariff language and the requirements of Order No. 1000 is that proxy flows can be used when the “Transmission Provider determines in its reasonable engineering judgment” that the analysis for solution-based DFAX method cannot be performed for the facility in question, or when the resulting flows are not consistent with the normal expected flow results that an engineer would expect to see.¹²² PJM has found that because its engineers had no difficulty determining flows across the Complaint Projects, the Tariff did not permit the use of a substitute proxy for such flows. We agree that since PJM was able to determine the flows for the Complaint Projects, the Tariff did not require the use of a substitute proxy.

56. While Linden and Con Edison claim the “objectively unreasonable” provision should be interpreted to require PJM to examine whether the overall cost allocation results appear subjectively reasonable, such an interpretation is inconsistent with the Tariff provision. The “objectively unreasonable” provision addresses the technical details of the solution-based DFAX method analysis, not to the portion of cost responsibility assignment made pursuant to the solution-based DFAX method, which is described in subsequent Tariff provisions. The provision also does not provide for changing the cost responsibility assignments made pursuant to the solution-based DFAX method, but is limited to whether PJM should use “an appropriate substitute proxy for the

¹¹⁹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 66; Con Edison Complaint Rehearing Order, 155 FERC ¶ 61,088 at P 47; *Consol. Edison Co. of N.Y., Inc. v. PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,227, at P 52 (2015) (Con Edison Complaint Order).

¹²⁰ Order No. 1000, 136 FERC ¶ 61,051 at P 558; Order No. 1000-A, 139 FERC ¶ 61,132 at P 286.

¹²¹ PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(G).

¹²² See PJM Answer, Docket No. EL15-18, at 5 (Feb. 18, 2015).

Required Transmission Enhancement in conducting the DFAX analysis.”¹²³ We do not find a substitute proxy is needed here as PJM could measure the flows. We therefore find the most reasonable interpretation of this provision is that the provision is limited to whether the solution-based DFAX method analysis measurement of flows is inconsistent with what would be expected by an engineer employing “reasonable engineering judgment.”

57. Linden and Con Edison claim that, even under the Commission’s interpretation that the provision is limited to flow analysis, statements made during the technical conference indicate that PJM and the transmission owners recognized that the flows were objectively unreasonable. They cite to statements made at the technical conference that some results of the solution-based DFAX method for the Complaint Projects “may look strange,”¹²⁴ and that “the DFAX calculation ... is really divorced from the nature of the problem.”¹²⁵

58. These arguments are not persuasive. Importantly, we note that the PJM Transmission Owners contend that the results are not arbitrary and are defensible.¹²⁶ Further, we find the comments by Mr. Herling consistent with his overall position that the solution-based DFAX method is not intended to establish the cause of the project, but rather the marginal use of that facility by each transmission owner over time. Mr. Herling stated that “over time the evolving use of the facility is well-represented by the solution-based DFAX.”¹²⁷ Indeed, as part of the quotes used by Linden, Mr. Herling states, “in particular now we have a [solution-based DFAX method] calculation that’s based on the use of the solution.”¹²⁸

59. Linden further claims that PJM should be required to find the flows “objectively unreasonable” because the Edison rebuild project is a 400 MW project, but the cost responsibility assignments are allocated based on only 14 MW of total flows (calculated by multiplying the distribution factor by the load imposed by each zone or merchant

¹²³ See PJM Intra-PJM Tariffs, Schedule 12, OATT Schedule 12, 12.0.0, § (b)(iii)(G).

¹²⁴ Linden Rehearing Request at 32, 47 (citing Transcript at 15) (statements of Frank Richardson, appearing for the PJM Transmission Owners).

¹²⁵ *Id.* at 47 (citing Transcript at 112-13) (statements of Steven Herling).

¹²⁶ See Transcript at 15.

¹²⁷ Transcript at 10.

¹²⁸ *Id.* at 112.

facility). The portion of cost responsibility assignments made pursuant to the solution-based DFAX method is not based on the carrying capacity of the line, but on the increase in use of that transmission line caused by an increase in the transmission owner's load as modeled by the solution-based DFAX method. Because the data do not show that the flows could not be calculated or that an objective engineering judgment would result in a higher or lower marginal increase in the use of the line, we find that the Tariff does not support use of a substitute proxy.

60. Linden argues that the Commission failed to address its arguments that the phrase in Schedule 6, section 1.4(d) of the Operating Agreement that requires PJM to “avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities” requires that PJM change the cost allocation required by Schedule 12 of the Tariff.¹²⁹ As we previously found, such an interpretation would improperly insert cost allocation review into the RTEP planning process of Schedule 6 of the Operating Agreement when Schedule 6 applies only to planning and not cost allocation.¹³⁰ Schedule 6 of the Operating Agreement addresses PJM's regional transmission planning process and how PJM will determine the transmission facilities to be selected in the RTEP for purposes of cost allocation, i.e., the more efficient or cost effective transmission facilities. The quoted language in Schedule 6, therefore, applies to the process of planning transmission facilities in a way that, if possible, does not impose unreasonable costs. As PJM states, “cost allocations for RTEP projects appropriately are determined separately and after the projects are chosen for inclusion in the RTEP.”¹³¹ Linden has not challenged the transmission projects at issue as being unneeded for reliability or argued the reliability need could have been addressed in a more efficient or cost-effective manner. Linden challenges the allocation of costs for the more efficient or cost-effective transmission projects that have been selected in the RTEP for purposes of cost allocation, which is governed by Schedule 12 of the Tariff. We find that PJM's selection of the Complaint Projects comports with Schedule 6 of the Operating Agreement as the more efficient or cost-effective transmission projects to resolve the reliability constraint and, as discussed earlier, that the cost allocation complies with the provisions of Schedule 12 of the Tariff.

¹²⁹ Linden Rehearing Request at 47-48. Section 1.4(d) of the Operating Agreement states that the RTEP shall ... “avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities;” PJM Intra-PJM Tariffs, OA Schedule 6 Sec 1.4, OA Schedule 6 Sec 1.4 Contents of the Regional Transmission, 2.1.0, § 1.4(d).

¹³⁰ Con Edison Complaint Rehearing Order, 155 FERC ¶ 61,088 at P 48.

¹³¹ PJM Transmission Owners Aug. 20, 2015 Answer at 10-11.

8. Relinquishment of Firm Withdrawal Rights

61. Linden contends that Con Edison's termination of the Transmission Service Agreements further exacerbates the already unjust, unreasonable and unduly discriminatory and preferential cost allocations, and that unless these cost allocations are overturned, the Commission is effectively forcing Linden to relinquish its Firm Transmission Withdrawal Rights.¹³² Con Edison had every right to terminate transmission service agreements.¹³³ Upon such termination, PJM's Tariff required that it reassign those costs and PJM did so using the solution-based DFAX procedure in its Tariff.¹³⁴ Under that methodology, the cost of the project would then be allocated based on each remaining PJM member's relative usage. As we discussed earlier, we do not find this methodology unjust and unreasonable.

62. Moreover, as with Con Edison, Linden also had options and exercised its ability to change services by terminating its Firm Transmission Withdrawal Rights.¹³⁵ Linden

¹³² Linden Rehearing Request at 43.

¹³³ Pursuant to the terms of a settlement agreement (Settlement) establishing joint operating agreement operating protocols between New York Independent System Operator, Inc. and PJM, and implementing long-term firm point-to-point transmission service agreements entered between PJM and Con Edison, service under the transmission service agreements could be rolled over pursuant to Section 2.2 of the PJM Tariff. Settlement §§ 7, 8. *PJM Interconnection, L.L.C.*, 132 FERC ¶ 61,221, *order on reh'g*, 135 FERC ¶ 61,018 (2011), *aff'd sub nom. NRG Power Mktg., LLC v. FERC*, 718 F.3d 947 (D.C. Cir. 2013). On April 28, 2016, Con Edison notified PJM that it would be terminating its transmission service. PJM, February 8, 2017 Transmittal, Docket No. ER17-950-000, at 4.

¹³⁴ See *PJM Interconnection, L.L.C.*, 159 FERC ¶ 62,082 (2017), *order on reh'g*, *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,124 (2020) (accepting tariff revisions and denying request for rehearing and clarification).

¹³⁵ See *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co.*, 161 FERC ¶ 61,264 (2017), *order on reh'g*, 170 FERC ¶ 61,023 (2020); *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,262 (2017), *order on reh'g*, 170 FERC ¶ 61,021 (2020); see also *PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,201 (2018) (accepting proposed revisions to Linden's Interconnection Service Agreement, effective December 31, 2017, to reflect the conversion of Firm Transmission Withdrawal Rights to Non-Firm Transmission Withdrawal Rights); *PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,200 (2018) (accepting proposed revisions to Hudson's Interconnection Service Agreement, effective December 15, 2017, to reflect the conversion of Firm Transmission Withdrawal Rights to Non-Firm Transmission Withdrawal Rights).

therefore eliminated its own responsibility under the solution-based DFAX method for subsequent allocations.

63. Linden also comments that in the Linden Complaint Order, the Commission mistakenly stated that if Linden relinquished its Firm Transmission Withdrawal Rights, PJM would not need to proceed with the Bergen-Linden Corridor Project.¹³⁶ Linden states that, to the contrary, in response to Linden's specific request to PJM to analyze whether the Bergen-Linden Corridor Project will still be necessary once Con Edison terminates the Transmission Service Agreements, PJM responded that the termination of the Transmission Service Agreements did not alleviate the need for the Bergen-Linden Corridor Project.¹³⁷ We acknowledge the Commission's misstatement. The Commission should have stated that the Bergen-Linden Corridor Project would not necessarily be cancelled if Linden exercised the option of changing to Non-Firm Transmission Withdrawal Rights, but Linden could avoid cost allocation for the upgrades if it converted its Firm Transmission Withdrawal Rights to Non-Firm Transmission Withdrawal Rights.¹³⁸ However, as the Commission stated in the Linden Complaint Order, as long as Linden chooses to retain Firm Transmission Withdrawal Rights, PJM can reasonably allocate costs of the Complaint Projects to it because those facilities are needed to "to provide reliable service" up to the level of the Firm Transmission Withdrawal Rights.¹³⁹

9. Transparency

64. Linden and Hudson argue that the process for identifying cost responsibility assignments fails to meet Order No. 1000 openness and transparency requirements.¹⁴⁰

¹³⁶ Linden Rehearing Request at 43 (citing Linden Complaint Order, 155 FERC ¶ 61,089 at P 67 n.106).

¹³⁷ *Id.*

¹³⁸ In any event, whether the Bergen-Linden Corridor Project is needed if Linden does not retain its Firm Transmission Withdrawal Rights is not at issue in this complaint which addresses only cost allocation.

¹³⁹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 67.

¹⁴⁰ Order No. 1000 required each public utility transmission provider to participate in a regional transmission planning process that complies with the transmission planning principles of Order No. 890, including the transparency principle. Order No. 1000, 136 FERC ¶ 61,051 at PP 146, 151 (referencing *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890, 136 FERC ¶ 61,051, *order on reh'g*, Order No. 890-A, 136 FERC ¶ 61,051 (2007), *order on reh'g*, Order No. 890-B,

Specifically, Linden argues that, for the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, the cost responsibility information is provided only by project rather than sub-project, lacks modeling inputs and assumptions, and does not quantify the benefits to responsible customers. Linden further contends that cost responsibility information is only available on a preliminary basis.

65. As we found in the Linden Complaint Order, the stakeholder process meetings are open and stakeholders can raise any issue regarding any proposed projects, including cost allocation.¹⁴¹ The Commission further recognized PJM conducted numerous TEAC meetings during 2013, at which the Bergen-Linden Corridor Project and the Edison Rebuild Project were presented for review and discussion.¹⁴² Linden recognizes that during the planning process preliminary information is available, but that it would need to request cost allocation information for each project.¹⁴³ Linden requested, and received such cost allocation information,¹⁴⁴ and we therefore do not find the PJM planning process unjust or unreasonable.

66. The Commission also found that Linden provided no support for its contentions that its participation is limited. As noted above, Linden did participate actively in the stakeholder process, and the rehearing requests have not provided any evidence of undue burden in participating in this process.

10. Sewaren Project

67. Con Edison argues that the Commission erred in denying rehearing of the cost allocation report for the Sewaren Project because this project was planned as a project to address an individual transmission owner's Form No. 715 local planning criteria.¹⁴⁵ Con

123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification.*, Order No. 890-D, 129 FERC ¶ 61,126 (2009)).

¹⁴¹ Linden Complaint Order, 155 FERC ¶ 61,089 at P 69.

¹⁴² *Id.* (noting PJM Planning Committee, July 2015 Meeting Minutes (July 2015)). The Commission further noted that PJM's Planning Committee and TEAC meetings typically occur on the same day and at the same location.

¹⁴³ Linden Rehearing Request at 49.

¹⁴⁴ Linden Complaint at 64.

¹⁴⁵ The Commission accepted a PJM Transmission Owner Tariff proposed revision to allocate 100 percent of the costs for Required Transmission Enhancements that are included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria to the zone of the individual transmission owner whose Form No. 715

Edison maintains that, notwithstanding that the Commission accepted a proposal to allocate 100% of the costs for Required Transmission Enhancements that are included in the RTEP solely to address individual transmission owner Form No. 715 local planning criteria to the zone of the individual transmission owner whose Form No. 715 local planning criteria underlie each project, the cost of the Sewaren Project should have been allocated to the PSEG zone because the Sewaren Project provides only local benefits.

68. As noted above, the Sewaren Project is a Lower Voltage Facility and was included in the RTEP to address reliability violations, and cost responsibility is assigned pursuant to the solution-based DFAX method. Concerns related to the assignment of cost responsibility for the Sewaren Project further argue that the solution-based DFAX method does not identify the beneficiaries. As found above, the rehearing requests have not established that the allocation of costs based on relative usage of the facilities is unjust and unreasonable, and the cost responsibility assignments made pursuant to the solution-based DFAX method is based on an individual analysis of the use of the specific transmission facility resulting from the regional cost allocation method accepted as in compliance with Order No. 1000.

B. Cost Allocation Report Order Rehearing

69. In the Cost Allocation Report Order, the Commission found that the Tariff revisions are consistent with the cost allocation provisions of Schedule 12 of the Tariff, and that PJM complied with its Tariff obligations in applying the solution-based DFAX method.¹⁴⁶ Linden argues that PJM had not demonstrated that for the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, the cost responsibility assignments for the Complaint Projects are just and reasonable. As previously noted, the Commission accepted the regional cost allocation method in which one half of the costs of Regional Facilities or Necessary Lower Voltage Facilities are allocated on a load-ratio share basis and the other half of the costs are allocated based on the solution-based DFAX method as compliant with Order No. 1000, establishing the just and reasonable rate. Consistent with our findings in response to the Complaint, we find

local planning criteria underlie each project. With the acceptance of the PJM Transmission Owner proposed revisions, cost responsibility for the Sewaren Project was allocated to the PSEG zone. As a result of the remand, cost responsibility was reassigned pursuant to the solution-based DFAX method. *See PJM Interconnection, L.L.C.*, 154 FERC ¶ 61,096, *order on reh'g*, 157 FERC ¶ 61,192 (2016), *remanded sub nom. Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018) (setting aside the Commission's order accepting the PJM Transmission Owners' proposed Tariff revisions, and remanding for further proceedings); *PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,133 (rejecting PJM Transmission Owner Tariff proposed revisions on remand).

¹⁴⁶ Cost Allocation Report Order, 155 FERC ¶ 61,091 at P 24.

that PJM's filing was reasonable as it applied the cost responsibility assignments for the Complaint Projects pursuant to its just and reasonable Tariff. Specifically, we have found, because the solution based DFAX methodology is the *ex ante* methodology for determining cost allocation in the PJM transmission planning process, PJM's cost allocation report filings need only demonstrate that the allocation complies with the tariff and do not "require[] a separate justification under section 205."¹⁴⁷ In denying the Linden Complaint, the Commission found Linden had not met its burden of demonstrating that PJM failed to abide by its Tariff in making the cost allocations. As discussed throughout this order, Linden also has not shown that, for the portion of cost responsibility assignments made pursuant to the solution-based DFAX method, the solution-based DFAX method is unjust and unreasonable.

The Commission orders:

(A) The requests for rehearing of the Linden Complaint Order are denied, as discussed in the body of this order.

(B) The requests for rehearing of the Cost Allocation Report Order are denied, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

¹⁴⁷ *PJM Interconnection, L.L.C.*, 165 FERC ¶ 61,078, at P 20 (2018).