

194 FERC ¶ 61,179  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Laura V. Swett, Chairman;  
David Rosner, Lindsay S. See,  
Judy W. Chang, and David LaCerte.

|   |                                 |
|---|---------------------------------|
| Consolidated Edison Company of New York, Inc. v. PJM Interconnection, L.L.C.                                | Docket Nos. EL15-18-005         |
| Linden VFT, LLC v. PJM Interconnection, L.L.C.  | EL15-67-005                     |
| Linden VFT, LLC v. PJM Interconnection, L.L.C.  | EL17-68-003                     |
| PJM Interconnection, L.L.C.   | ER17-950-006                    |
|   | (Not Consolidated)              |
| Neptune Regional Transmission System, LLC and Long Island Power Authority v. PJM Interconnection, L.L.C.    | EL21-39-000                     |
| PPL Electric Utilities Corporation  | ER22-1606-000                   |
| PPL Electric Utilities Corporation<br>Neptune Regional Transmission System, LLC<br>Long Island Lighting Co. | ER22-1606-001<br>(Consolidated) |

ORDER ON REMAND, COMPLAINT, REJECTING TARIFF PROPOSAL AND  
SETTLEMENT, DIRECTING A COMPLIANCE FILING, AND ESTABLISHING  
PAPER HEARING PROCEDURES

(Issued March 6, 2026)

1. On August 9, 2022, the U.S. Court of Appeals for the D.C. Circuit (court) issued a remand of the Commission's order on the above-captioned complaints,<sup>1</sup> which were filed by Consolidated Edison Company of New York, Inc. (Con Edison) in Docket No. EL15-18-000 (Con Edison Complaint), Linden VFT, LLC (Linden) in Docket

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<sup>1</sup> *Consol. Edison Co. of N.Y., Inc. v. FERC*, 45 F.4th 265 (D.C. Cir. 2022). (Remand Opinion).

No. EL15-67-000 (Linden Complaint), and Docket No. EL17-68-000 (Second Linden Complaint) pursuant to section 206 of the Federal Power Act (FPA).<sup>2</sup> In this order, we address the court's Remand Opinion which related to the *de minimis* threshold provision of the solution-based distribution factor (DFAX) method, and application of the solution-based DFAX method to the assignment of cost responsibility for transmission facilities that address short circuit reliability concerns.<sup>3</sup> We also address a separate complaint pursuant to section 206 of the FPA filed by Neptune Regional Transmission System, LLC (Neptune) and Long Island Power Authority, L.L.C. (LIPA) in Docket No. EL21-39-000 (Neptune/LIPA Complaint), and address proposed revisions to the PJM Interconnection, L.L.C. (PJM) Open Access Transmission Tariff (Tariff) filed by the PJM Transmission Owners in Docket No. ER22-1606-000 (Host Zone Proposal) pursuant to section 205 of the FPA.<sup>4</sup>

2. First, we find that the *de minimis* threshold exemption is unjust and unreasonable and unduly discriminatory and therefore, we hereby modify the vacated and remanded prior orders on the Con Edison Complaint in Docket No. EL15-18-005, Linden Complaint in Docket No. EL15-67-005, Second Linden Complaint in Docket No. EL17-68-003 and grant the Neptune/LIPA Complaint in Docket No. EL21-39-000 on that issue. Second, we reject the PJM Transmission Owner Host Zone Proposal in Docket No. ER22-1606-000 and reject the Settlement Proposal in Docket No. ER22-1606-001, both of which contain a form of the *de minimis* threshold exemption that the court found unlawful.<sup>5</sup> Third, we direct PJM to eliminate the *de minimis* threshold exemption as the just and reasonable replacement rate. Fourth, we establish paper hearing procedures to obtain additional record evidence to address the concerns raised in the Remand Opinion regarding the application of the solution-based DFAX method to transmission facilities that address short circuit reliability violations. Fifth, we deny the Neptune/LIPA Complaint on the issue of netting, for the same reasons discussed in our orders on the Con Edison and Linden Complaints, as affirmed in the Remand Opinion. Sixth, we affirm the determination in the Cost Reallocation Order in Docket No. ER17-950-006 providing for the reallocation of cost responsibility following

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<sup>2</sup> 16 U.S.C. § 824e.

<sup>3</sup> See *infra* at PP 4-7 for a discussion of the solution-based DFAX method provisions.

<sup>4</sup> 16 U.S.C. § 824d. The PJM Transmission Owners reserved the right to make section 205 filings regarding recovery of costs, including cost allocation. PJM, Intra-PJM Tariffs, 9.1, OATT 9.1 Rights of the Transmission Owners (2.1.0). For convenience, the order will refer to these Tariff provisions as PJM's procedures.

<sup>5</sup> See Appendix for rejected tariff records.

termination of the Con Edison TSAs. Finally, we direct PJM, on behalf of the PJM Transmission Owners, to recalculate the cost allocations in Schedule 12 and correct the billing (with interest calculated pursuant to section 35.19(a) of the Commission regulations) within 90 days of the date of this order for all projects back to June 18, 2015, the date on which the Commission committed legal error by denying the Con Edison Complaint.

## **I. Background**

### **A. PJM Transmission Cost Allocation**

3. PJM uses a hybrid method to allocate to load the costs of transmission facilities driven by reliability needs, applying different allocation methods depending on whether the transmission facility is a Regional Facility,<sup>6</sup> a Necessary Lower Voltage Facility,<sup>7</sup> or a Lower Voltage Facility.<sup>8</sup> Specifically, in the case of Regional Facilities and Necessary Lower Voltage Facilities that address a reliability need other than a stability need, 50% of the costs of those facilities are allocated on a load-ratio share basis, and the other 50% are allocated to transmission zones based on the solution-based DFAX method.<sup>9</sup> All of the

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<sup>6</sup> Regional Facilities are defined as Required Transmission Enhancements included in the Regional Transmission Expansion Plan (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, Sched. 12, OATT Sched. 12 (15.0.0), § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities). *See* PJM, Intra-PJM Tariffs, OATT Definitions – R - S, OATT Definitions – R - S (24.0.0) (definition of Required Transmission Enhancements).

<sup>7</sup> Necessary Lower Voltage Facilities are defined as Required Transmission Enhancements included in the RTEP that are lower voltage facilities that must be constructed or reinforced to support new Regional Facilities. PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § (b)(i) (Regional Facilities and Necessary Lower Voltage Facilities).

<sup>8</sup> Lower Voltage Facilities are defined as Required Transmission Enhancements that: (a) are not Regional Facilities; and (b) are not Necessary Lower Voltage Facilities. PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § (b)(ii) (Lower Voltage Facilities).

<sup>9</sup> For Regional Facilities and Necessary Lower Voltage Facilities that address a stability need, 50% of the costs are allocated on a load-ratio share basis and the other 50% are allocated to transmission zones based on the Stability Deviation Method. All of the costs of Lower Voltage Facilities that address stability needs are allocated using the

costs of Lower Voltage Facilities (other than those that address stability needs) are allocated using the solution-based DFAX method.

1. **Solution-Based DFAX Method, DFAX Values and *de minimis* Threshold Exemption**

4. PJM uses the solution-based DFAX method to allocate the costs of new transmission facilities based on modeling of usage (i.e., how each load zone contributes to the flows of power over a new transmission facility during steady-state conditions). PJM calculates DFAX values (represented as a decimal value) for each transmission facility. This decimal value represents the incremental flow on the transmission facility that would result from an increase in load of one megawatt (MW) in a given load zone during peak load, steady-state conditions, while holding load in all other load zones constant.<sup>10</sup> After calculating a DFAX value for each load zone, PJM then applies a 1% *de minimis* threshold to the calculated DFAX values and replaces any DFAX value less than 1% with a DFAX value of zero.<sup>11</sup> This means that zones with a DFAX value below the 1% *de minimis* threshold are not included in the solution-based DFAX method results, known as the *de minimis* threshold exemption.<sup>12</sup>

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Stability Deviation Method. *See Order denying rehearing*, 166 FERC ¶ 61,161, at P 43 (2019).

<sup>10</sup> PJM identifies the transmission facility in question and uses a linear matrix algebra program to calculate how an incremental (one MW) increase in the zone's load during peak load conditions affects MW flows on the facility in question. Stated formulaically, the DFAX value calculation is (After-shift power flow – pre-shift power flow) / Total amount of power shifted, where power shifted is the MW flow over the transmission facility resulting from the MW transfer. PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § b(iii)(A).

<sup>11</sup> The *de minimis* threshold exemption was previously set at 0.1%, but was increased to 1% in 2012 to address concerns related to anomalous allocations to non-adjacent zones. *PSEG Servs. Corp.*, Docket No. ER12-2412-000 (Sept. 19, 2012) (delegated order).

<sup>12</sup> Schedule 12 of the PJM Tariff provides for the recovery of costs for a transmission facility from zones other than the host zone (i.e., the zone(s) in which the facility is located) only if they have a DFAX value above the *de minimis* threshold. If all zones have a DFAX value below the *de minimis* threshold, the costs of the facility are allocated to the host zone as a default allocation. As discussed below, the Host Zone Proposal would eliminate the *de minimis* threshold exemption for the host zone(s), and so cost responsibility would be assigned to the host zone based on its DFAX value,

5. After determining the DFAX value for each zone, PJM multiplies each zone's percentage DFAX value by its non-coincident peak load (in MW) to determine the use (in MW) of the transmission facility by that zone during steady-state conditions. PJM then calculates the percentage allocation of the transmission facility costs by adding the total use of all zones in each direction and dividing that total by megawatts of use by each responsible zone.<sup>13</sup>

## 2. Allocation of Costs for Transmission Facilities Addressing Short-Circuit and Stability Violations

6. As discussed further below, PJM's Tariff allocates the costs for projects addressing short-circuit violations using the solution-based DFAX method.<sup>14</sup> The Tariff allocates either 50% or 100% of the costs of projects addressing stability violations using the Stability Deviation Method.<sup>15</sup>

## 3. Netting

7. Under the solution-based DFAX method, PJM models the transfer of the net of energy flow in the positive and negative directions from all generation within a zone to all load within a transmission zone, and the transfer of energy flow to the transmission zone as a whole. The effect of modeling the transfer of the net energy flow to the transmission zone as a whole is to net the positive energy flows through the circuit

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regardless of the magnitude. PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § b(iii)(A)(6).

<sup>13</sup> For example, assume a transmission project in which the flow is 70% in the positive direction and 30% in the negative. Based on the DFAX calculation, Zone A is responsible for 10% of the total MW usage in the positive direction. The allocation to Zone A would be 7% of the transmission facility's costs  $((.7 \times .1) = .07)$ .

<sup>14</sup> See *infra* P 64.

<sup>15</sup> The Stability Deviation Method identifies beneficiaries of transmission projects that address stability-related reliability issues by modeling the transient voltage (angle) deviations at each PJM substation to assess the stability performance of a generator or cluster of generators to critical faults, and allocates costs based on a load-weighted deviation for each zone.

associated with an individual transmission zone with counter-flows associated with the same transmission zone.<sup>16</sup>

**4. Solution-Based DFAX Method Allocation to Merchant Transmission Facilities**

8. In Opinion No. 503,<sup>17</sup> the Commission found that Merchant Transmission Facilities that hold Firm Transmission Withdrawal Rights have the same effect on the transmission system as load and found that treating them similarly to load was just and reasonable and not unduly discriminatory or preferential.<sup>18</sup> The Commission found that Merchant Transmission Facilities and transmission zones are similar because they withdraw energy from the transmission system in the same way and have the same effect on the transmission system. Therefore, the Commission found that both Merchant Transmission Facilities and transmission zones should be charged their proportionate share of the transmission facility costs needed to ensure such deliveries.<sup>19</sup> Under Schedule 12 of the PJM Tariff,<sup>20</sup> PJM allocates RTEP project costs to the Merchant Transmission Facilities based on their Firm Transmission Withdrawal Rights.

**B. Remand Opinion Proceedings**

9. The following provides a description of the proceedings that were at issue in the court's Remand Opinion.

**1. Con Edison Complaint and Linden Complaint Proceedings**

10. Pursuant to section 205 of the FPA, PJM files cost allocation assignments for transmission projects that were approved through the PJM RTEP process by proposing revisions to Schedule 12-Appendix A. These cost allocations are made pursuant to

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<sup>16</sup> See PJM, Intra-PJM Tariffs, OATT, Schedule 12, § (b)(iii) (DFAX Analysis for Reliability Projects) (15.0.0).

<sup>17</sup> See *PJM Interconnection, L.L.C.*, Opinion No. 503, 129 FERC ¶ 61,161, at PP 72-73 (2009), *order on reh'g*, 139 FERC ¶ 61,243 (2012).

<sup>18</sup> The Merchant Transmission Facilities at issue in these proceedings are Neptune, Linden, and Hudson Transmission Partners, LLC (Hudson).

<sup>19</sup> Opinion No. 503, 129 FERC ¶ 61,161 at P 73.

<sup>20</sup> PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § (b)(iii)(A)(3).

PJM's Order No. 1000<sup>21</sup>-compliant regional transmission cost allocation method. As relevant to the instant proceedings, the filings assigned cost responsibility for the Bergen-Linden Corridor Project and the Sewaren Project.<sup>22</sup> On November 7, 2014, Con Edison filed the Con Edison Complaint to challenge the cost responsibility assignments for the Bergen-Linden Corridor Project and the Sewaren Project.<sup>23</sup> Con Edison contended that the specific provisions of the solution-based DFAX method, including the *de minimis* threshold exemption and the netting provisions, result in a cost allocation for these projects that is not just and reasonable.<sup>24</sup> Con Edison further contended that the solution-based DFAX method, as a flow-based methodology, does not allocate cost

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<sup>21</sup> *Transmission Plan. & 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).

<sup>22</sup> 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 records due to reconfiguration of the Bergen-Linden Corridor Project. *See PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,091 (2016) (accepting revisions to Schedule 12-Appendix A due to reconfiguration of the Bergen-Linden Corridor Project). Assignment of cost responsibility for the Sewaren Project was originally accepted in Docket No. ER14-274-000. *See PJM Interconnection, L.L.C.*, Docket No. ER14-274-000 (Jan. 15, 2014) (delegated order). In Docket No. ER14-1485-000, PJM proposed amendments to the cost allocation for the Sewaren Project to correct an error in the DFAX modeling. *See PJM Interconnection, L.L.C.*, 152 FERC ¶ 61,187 (2015) (accepting modeling revisions to the Sewaren Project cost allocation).

<sup>23</sup> The Con Edison Complaint was filed in in Docket No. EL15-18-000. On September 16, 2010, the Commission approved a settlement establishing operating protocols between New York Independent System Operator, Inc. and PJM, and implementing long-term firm point-to-point transmission service agreements (TSA) entered between PJM and Con Edison. *PJM Interconnection, L.L.C.*, 132 FERC, ¶ 61,221 (2010), *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). Under the settlement, Con Edison agreed to be assigned cost responsibility for Required Transmission Enhancements and to pay associated Transmission Enhancement Charges during the term of its service.

<sup>24</sup> Con Edison Complaint at 30-35.

responsibility to a significant segment of the entities that receive a benefit from these projects.<sup>25</sup>

11. Separately, on May 22, 2015, Linden filed the Linden Complaint to challenge the cost allocations for the same projects and argued that the solution-based DFAX method – including the *de minimis* threshold exemption, and netting provisions – produces unjust, unreasonable, and unduly discriminatory and preferential results.<sup>26</sup> Specifically, Linden asserted that the effect of the *de minimis* threshold exemption is that the trigger for allocating costs to a zone varies dramatically depending on the size of each zone and because each DFAX Value is a measure of the percentage flows over a line of a particular responsible customer relative to its own total load, the DFAX value cannot be directly compared to determine relative use of a transmission facility.<sup>27</sup> Therefore, Linden maintained that the *de minimis* threshold exemption allows a significantly larger zone with significantly greater PJM-calculated MW usage of a certain facility to be exempted from costs allocation simply because the zone has not met its respective *de minimis* threshold exemption, while the smaller entity would be allocated costs simply because it has exceeded its respective *de minimis* threshold exemption.<sup>28</sup>

12. On June 18, 2015, the Commission denied the Con Edison Complaint,<sup>29</sup> and on April 22, 2016, denied the Linden Complaint.<sup>30</sup> In denying the Linden Complaint, the Commission found 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

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<sup>25</sup> *Id.* at 7, 19-21.

<sup>26</sup> The Linden Complaint was filed in Docket No. EL15-67-000, and was amended on July 10, 2015. Linden owns and operates a controllable alternating-current Merchant Transmission Facility that connects PJM with New York.

<sup>27</sup> *Id.* at 32-33.

<sup>28</sup> *Id.* at 33-34.

<sup>29</sup> *Consol. Edison Co. of N. Y., Inc. v. PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,227 (2015), *reh'g denied*, 155 FERC ¶ 61,088 (2016) (Con Edison Complaint Order). In denying the Con Edison Complaint, the Commission accepted the cost responsibility assignments pursuant to section 205 of the FPA.

<sup>30</sup> *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,089 (2016) (Linden Complaint Order), *reh'g denied*, 170 FERC ¶ 61,122 (2020) (Linden Complaint Rehearing Order).

PJM to model transfers from generation to all loads within a zone.<sup>31</sup> With respect to arguments that the *de minimis* threshold exemption results in an unjust and unreasonable assignment of costs, the Commission found that the *de minimis* threshold exemption is an efficient and nondiscriminatory mechanism for identifying entities that have relatively little use of the facility relative to their load.<sup>32</sup>

13. On February 8, 2017, PJM submitted revisions to Schedule 12-Appendix and Schedule 12-Appendix A of the PJM Tariff to revise cost responsibility assignments for transmission enhancements and expansions included in the PJM RTEP resulting from the termination of Con Edison's TSAs, which the Commission accepted.<sup>33</sup> On April 28, 2017, Linden submitted a second complaint against PJM (Second Linden Complaint) with respect to these revised cost responsibility assignments. On February 20, 2020, the Commission denied the Second Linden Complaint.<sup>34</sup>

## 2. Artificial Island Complaint Proceeding

14. On August 28, 2015, pursuant to section 205 of the FPA, PJM filed revisions to Schedule 12-Appendix A to assign cost responsibility for separate sub-projects that addressed stability limits on generation in southern New Jersey,<sup>35</sup> as well as the

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<sup>31</sup> Linden Complaint Order, 155 FERC ¶ 61,089 at P 62; Linden Complaint Rehearing Order, 170 FERC ¶ 61,122 at P 44.

<sup>32</sup> Linden Complaint Order, 155 FERC ¶ 61,089 at P 61; Linden Complaint Rehearing Order, 170 FERC ¶ 61,122 at P 49.

<sup>33</sup> On April 28, 2016, Con Edison notified PJM that it would be terminating its transmission service from PJM on April 30, 2017, pursuant to its rights under the TSA. The revised cost responsibility assignments resulting from the terminated TSAs were filed in Docket No. ER17-950-000. See *PJM Interconnection, L.L.C.*, 159 FERC ¶ 62,082 (2017), *order on errata*, 159 FERC ¶ 62,310, *reh'g denied*, 170 FERC ¶ 61,124 (2020) (accepting revisions to Schedule 12-Appendix and Schedule 12-Appendix A of the PJM Tariff due to termination of the TSAs) (Cost Reallocation Order).

<sup>34</sup> The Second Linden Complaint was filed in in Docket No. EL17-68-000. *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,123, *reh'g denied*, 172 FERC ¶ 61,176 (2020) (Linden Second Complaint Rehearing Order).

<sup>35</sup> Stability is the ability of a generator to maintain synchronous operation with the transmission system. It is a function of generator operating characteristics and the strength of the transmission system.

transmission constraints that prevent those generators from exporting power at their full capacity under certain circumstances (Artificial Island Project).<sup>36</sup>

15. On August 28, 2015, the Maryland Public Service Commission and the Delaware Public Service Commission filed a complaint contending that the use of the solution-based DFAX method to assign cost responsibility for the Artificial Island Project is unjust, unreasonable, and unduly discriminatory and preferential (Artificial Island Complaint). On April 20, 2016, the Commission denied the Artificial Island Complaint.<sup>37</sup>

16. On July 19, 2018, the Commission granted rehearing of the Artificial Island Order, and on February 28, 2019, found unjust and unreasonable the use of the solution-based DFAX method to allocate costs of transmission facilities addressing stability constraints.<sup>38</sup> The Artificial Island Rehearing Order also established the Stability Deviation Approach as a just and reasonable replacement rate to allocate 50% of the cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities and 100% of the costs of Lower Voltage Facilities that address stability-related reliability issues.

### C. Neptune/LIPA Complaint and PJM Transmission Owner Proposal Proceedings

#### 1. Neptune/LIPA Complaint

17. On December 31, 2020, Neptune/LIPA,<sup>39</sup> pursuant to section 206 of the FPA, filed the Neptune/LIPA Complaint challenging certain provisions of the PJM Tariff for the

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<sup>36</sup> The Artificial Island Project addresses stability in the Artificial Island area in southern New Jersey in which the Salem Units 1 and 2 (Salem) and Hope Creek Unit 1 (Hope Creek) nuclear generating units are located.

<sup>37</sup> *Del. Pub. Serv. Comm'n v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,090 (2016) (Artificial Island Order).

<sup>38</sup> *Del. Pub. Serv. Comm'n v. PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,035 (2018) (Artificial Island Rehearing Order), *order denying rehearing*, 166 FERC ¶ 61,161 (2019), *petition for review denied sub nom. Pub. Serv. Electric & Gas Co. v. FERC*, 989 F.3d 10 (D.C. Cir. 2021).

<sup>39</sup> The Neptune/LIPA Complaint was filed in in Docket No. EL21-39-000. Neptune is the owner of the Neptune Line, a Merchant Transmission Facility that runs from northern New Jersey in the Jersey Central Power and Light (JCPL) Zone of PJM to New York for which Neptune holds 685 MW of Firm Transmission Withdrawal Rights. LIPA contractually holds long-term transmission rights over the Neptune Line and pays

portion of cost responsibility that is assigned pursuant to the solution-based DFAX method.<sup>40</sup> Specifically, Neptune/LIPA contended that the *de minimis* threshold and netting provisions of the PJM Tariff materially distort the assignment of cost responsibility resulting from application of the solution-based DFAX method. Neptune/LIPA contended that the combined effects of the *de minimis* threshold and netting provisions amplify the distortion of derived benefits and ultimately produce unjust and unreasonable outcomes. With respect to the *de minimis* threshold exemption, Neptune/LIPA contended that the application of varying MW thresholds based on zonal peak load values produces irrational results in which two zones, with the same measured MW flow usage, have different outcomes under the *de minimis* threshold. With respect to netting, Neptune/LIPA contended that in a solution-based DFAX method, where all usage is meant to be measured and cost allocation is supposed to be based on total usage, offsetting the positive and negative direction flows to produce a net DFAX value for a zone is not compatible with total flow-based cost allocation. On June 25, 2021, the Commission established paper hearing procedures to develop a further record.<sup>41</sup>

## 2. PJM Transmission Owner Proposal

18. On April 11, 2022, the PJM Transmission Owners, pursuant to section 205 of the FPA, filed the Host Zone Proposal, which proposed revisions to Schedule 12 of the PJM Tariff to provide that the *de minimis* threshold exemption will not apply to the zone in which the relevant transmission facility is located, but will continue to apply to other zones.<sup>42</sup>

19. On June 10, 2022, the Commission accepted and suspended the Host Zone Proposal and established paper hearing procedures.<sup>43</sup> Because the Host Zone Proposal

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the Transmission Enhancement Charges assessed to Neptune under Schedule 12 of the PJM Tariff. Neptune/LIPA Complaint at 3.

<sup>40</sup> Neptune/LIPA included the affidavits of Jeffrey T. Wood (Wood Affidavit) and Recardo Austria (Austria Affidavit).

<sup>41</sup> *Neptune Reg'l Transmission Sys., LLC v. PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,247 (2021).

<sup>42</sup> The April 11, 2022 Host Zone Proposal filing was submitted by the PJM Transmission Owners acting pursuant to the Consolidated Transmission Owners Agreement, Rate Schedule FERC No. 42. PJM, TOA, TOA-42 Rate Schedule FERC No. 42 (1.0.0).

<sup>43</sup> *PPL Elec. Utils. Corp. v. PJM Interconnection, L.L.C.*, 179 FERC ¶ 61,176 (2022).

proceeding and the Neptune/LIPA Complaint proceeding both address the *de minimis* threshold provision of the solution-based DFAX method, and involve common issues of law and fact, the Commission consolidated the proceedings (Consolidated Proceedings).

### **3. Consolidated Proceedings Settlement Proposal**

20. On February 14, 2025, the Settling Parties filed a proposed settlement of the Consolidated Proceedings (Settlement).<sup>44</sup> The Settlement contains two components. First, like the PJM Transmission Owner Host Zone Proposal, the Settlement proposes to eliminate the *de minimis* threshold exemption only for the zone where a transmission facility is located, and includes clarifications to ensure appropriate application of the Host Zone Proposal based on the information available to PJM at the time a project is approved by PJM.<sup>45</sup> Second, the Settlement provides that Merchant Transmission Facilities holding Firm Transmission Withdrawal Rights will no longer be treated as separate PJM zones for purposes of calculating cost assignments under the current solution-based DFAX method.<sup>46</sup> Instead, pursuant to the Settlement and the accompanying Tariff revisions, Merchant Transmission Facilities holding Firm Transmission Withdrawal Rights, such as Neptune, will be treated comparable to load in the PJM zone with which they are interconnected for purposes of determining their responsibility under the solution-based DFAX method.<sup>47</sup>

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<sup>44</sup> The Settlement was filed by the Settling Parties following informal settlement discussions. The Settling Parties are PJM, American Electric Power Service Corporation (AEP), Virginia Electric and Power Company (VEPCo), Duke Energy Corporation (Duke), Duquesne Light Company (Duquesne), East Kentucky Power Cooperative, Inc. (EKPC), Exelon Corporation (Exelon), LIPA, Neptune, PPL Electric Utilities Corporation (PPL), The Dayton Power & Light Company (Dayton), and FirstEnergy Service Company (First Energy).

<sup>45</sup> The Settlement identifies specific transmission facilities that are not associated with particular zones, and for these specific transmission facilities, identifies the host zone. Settlement, § 2.2(c).

<sup>46</sup> Settlement, § 2.1.

<sup>47</sup> The Settlement identifies the specific solution-based DFAX method for Reliability Projects described in the PJM Tariff, Schedule 12, section (b)(iii), and also provides for termination of the integrated treatment of the Neptune Line. Settlement, § 2.3.

## II. Remand Opinion Summary

21. On remand, the court granted in part and denied in part the petitions for review of the Commission's order on the Con Edison Complaint and related proceedings, and remanded two issues to the Commission. The court affirmed the Commission's determinations that netting had not been shown to be unjust and unreasonable,<sup>48</sup> and that Con Edison was not responsible for cost allocations after it terminated its TSAs.<sup>49</sup> The court vacated the Commission's denial of the Con Edison Complaint Order, Linden Complaint Order, and the Second Linden Complaint Order and remanded for further proceedings on two issues: the *de minimis* threshold exemption and the allocation of costs of projects to address short-circuit reliability issues.<sup>50</sup> With respect to the *de minimis* threshold exemption, the court concluded that the *de minimis* threshold exemption violates the cost causation principle and unduly discriminates against smaller zones because they must absorb higher costs when larger zones are exempted.<sup>51</sup> With respect to the allocation of cost to address short-circuit reliability issues, the court found that the Commission had not satisfactorily explained why it treated projects to resolve short-circuit violations differently from the Artificial Island Project that addressed stability related reliability constraints.<sup>52</sup>

## III. Discussion

22. On remand, we address the court's vacatur of the Commission's determinations in the Con Edison Complaint and Linden Complaint orders on the issues of PJM's *de minimis* threshold exemption and cost allocation for short-circuit transmission projects. We also address the Neptune/LIPA Complaint, which challenged the *de minimis* threshold exemption and netting, both of which were at issue in the Remand Opinion proceedings. Additionally, we address the Host Zone Proposal filed under FPA section 205 and the Settlement proposal in the Consolidated Proceedings.

23. As to the *de minimis* threshold exemption, in keeping with the court's conclusions, we find that the *de minimis* threshold exemption is unjust and unreasonable and unduly discriminatory and therefore grant the Con Edison Complaint in Docket No. EL15-18-005, Linden Complaint in Docket No. EL15-67-005, Second Linden

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<sup>48</sup> Remand Opinion, 45 F.4th at 284.

<sup>49</sup> *Id.* at 288.

<sup>50</sup> *Id.* at 290.

<sup>51</sup> *Id.* at 282.

<sup>52</sup> *Id.* at 280.

Complaint in Docket No. EL17-68-003 and Neptune/LIPA Complaint in Docket No. EL21-39-000 on that issue. Additionally, we reject the PJM Transmission Owner Host Zone Proposal and reject the Settlement, both of which contain a form of the *de minimis* threshold exemption that the court found unlawful.

24. As to the cost allocation method for short-circuit transmission projects, we establish paper hearing procedures to obtain additional record evidence to address the concerns raised in the Remand Opinion regarding the application of the solution-based DFAX method to short circuit reliability violations.

25. As to netting, we deny the Neptune/LIPA Complaint on that issue, for the same reasons discussed in our orders on the Con Edison and Linden Complaints, as affirmed in the Remand Opinion.

**A. De Minimis Threshold Exemption**

**1. Remand Opinion**

26. The court found that the *de minimis* threshold exemption in the solution-based DFAX method violates the cost causation principle and results in undue discrimination.<sup>53</sup> The court examined the way in which the solution-based DFAX method is calculated (specifically multiplying a zone's DFAX number by its non-coincident peak load) and concluded that "[b]ecause distribution factors measure a zone's use of a facility *relative to its total load*, the *de minimis* exception depends on the size of the zone, not on the zone's share of the facility's total flow."<sup>54</sup> As a result, the court found the *de minimis* threshold exemption is not based on "the relative use of the facility"<sup>55</sup> compared to other zones' use and "the *de minimis* threshold exempts zones from bearing any costs based on their load size—a quality unrelated to the burdens they impose on or the benefits they receive from any individual facility."<sup>56</sup> The court found that the *de minimis* threshold exemption unduly discriminates against smaller zones because they must absorb higher costs when larger zones are exempted.

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<sup>53</sup> *Id.* at 282.

<sup>54</sup> *Id.* at 281 (emphasis in original).

<sup>55</sup> *Id.* at 283.

<sup>56</sup> *Id.* at 282.

27. The court found that because peak load sizes vary greatly across relevant zones, “[t]he *de minimis* exception border[s] on absurd.”<sup>57</sup> Noting Public Service Electric and Gas’ (PSEG) Zone peak load of 11,000 MW compared to Hudson’s peak load of 320 MW, the court pointed out that if PSEG used 100 MW of flow on a transmission facility and Hudson 4 MW, the *de minimis* threshold exemption would exempt PSEG from any of the facility’s costs but not Hudson, even though PSEG derived 25 times more benefits. After identifying other examples of subprojects in the record where the *de minimis* threshold exemption resulted in PSEG receiving a substantial portion of the subproject’s benefits but Con Edison, Linden, or Hudson being allocated nearly all of the costs, the court found that “[t]his scheme plainly violates the rule that FERC ‘may not single out a party for the full cost of a project, or even most of it, when the benefits of the project are diffuse.’”<sup>58</sup> The court concluded that “[b]ecause the *de minimis* threshold exemption regularly produces ‘wholesale departure[s] from the cost-causation principle,’ it cannot be considered just and reasonable,”<sup>59</sup> found it “unlawful,”<sup>60</sup> and remanded for further proceedings.

## 2. Comments

28. Following the issuance of the Remand Opinion, several parties addressed the court’s conclusions on the *de minimis* exemption in the Consolidated Proceedings.<sup>61</sup> The PJM Transmission Owners contend that simply eliminating the *de minimis* threshold exemption would not produce a just and reasonable outcome. The PJM Transmission Owners contend that the court did not find that the use of a *de minimis* threshold exemption in PJM cost allocation determinations was unlawful as a general matter, but rather that the existing *de minimis* threshold exemption unduly discriminated against small zones. The PJM Transmission Owners contend that it is important to retain some *de minimis* threshold exemption level in the solution-based DFAX method in order to

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<sup>57</sup> *Id.*

<sup>58</sup> *Id.* (quoting *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1255 (D.C. Cir. 2018)).

<sup>59</sup> *Id.* (quoting *Old Dominion*, 898 F.3d at 1255).

<sup>60</sup> *Id.* at 290.

<sup>61</sup> The court issued the Remand Opinion during the comment period established by the paper hearing procedures on the Consolidated Proceedings.

ensure that zones that make relatively insignificant use of a transmission facility are not allocated substantial costs.<sup>62</sup>

29. The PJM Transmission Owners further contend that their additional analysis of PJM's data on cost shifts shows that removing the *de minimis* threshold exemption would work directly contrary to the court's underlying rationale of avoiding the imposition of higher costs on smaller zones while exempting larger zones.<sup>63</sup> Specifically, the PJM Transmission Owners contend that many smaller zones would likely see a substantial increase in costs as a result of eliminating the *de minimis* threshold exemption. The PJM Transmission Owners contend that their additional analyses demonstrate that significantly altering or removing components of the solution-based DFAX method, without fully considering the implications, is likely to lead to large cost shifts and anomalous results.<sup>64</sup>

30. Linden contends that the court's reasoning and holding left no room for the *de minimis* threshold exemption to continue in any form.<sup>65</sup> Linden argues that the exception to the use of the *de minimis* threshold exemption for the host zone as proposed by the PJM Transmission Owners, while maintaining the application of the *de minimis* threshold exemption for all other zones, cannot resolve the fundamentally flawed nature of the *de minimis* threshold exemption as a whole.<sup>66</sup>

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<sup>62</sup> PJM Transmission Owner Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 21 (Sept. 30, 2022); Indicated Transmission Owners Answer, Docket No. EL15-18-005, at 6-7, (June 24, 2025). For the purposes of the June 24, 2025 filing, the indicated transmission owners are Allegheny Electric Cooperative, Inc. (Allegheny); AEP; VEPCo; Duke; Duquesne; EKPC; Exelon; FirstEnergy; Pepco Holdings, Inc. (PHI); PPL; and UGI. For purposes of the Linden Complaint proceeding, the PJM Transmission Owners are acting through the CTOA.

<sup>63</sup> PJM Transmission Owner Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 22 (Sept. 30, 2022); Indicated Transmission Owner Answer, Docket Nos. EL21-39-000 & ER22-1606-000, at 18 (Nov. 16, 2022). For the purposes of the November 16, 2022, filing, the indicated transmission owners are AEP; Dayton; Duke; EKPC; FirstEnergy; PPL UGI, and VEPCo.

<sup>64</sup> PJM Transmission Owners Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 22 (Sept. 30, 2022).

<sup>65</sup> Linden Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 6 (Sept. 30, 2022).

<sup>66</sup> *Id.*

31. The New Jersey Board of Public Utilities (New Jersey Board) argues that the court made clear that the *de minimis* threshold exemption generally does not comply with cost causation principles and that finding was not limited to host zones.<sup>67</sup> The New Jersey Board further contends that the PJM Transmission Owners fail to provide proper evidence for the contention that the host zone receives unmeasurable benefits. New Jersey Board argues that the PJM Transmission Owner Host Zone Proposal would shift millions of dollars to a zone that the solution-based DFAX method has not identified as a beneficiary based on use of the solution facility.<sup>68</sup>

### 3. Determination

32. As discussed below, we find that the current *de minimis* threshold exemption is unjust and unreasonable, and we find the just and reasonable replacement rate is to eliminate the *de minimis* threshold exemption. In considering the replacement rate to be applied, we also considered whether the Host Zone Proposal and the Settlement Proposal are consistent with the cost causation principle and the Remand Opinion. We find that these alternative applications of the *de minimis* threshold exemption do not comport with the court's opinion and are unjust and unreasonable. We therefore reject these proposals as unjust and unreasonable, and direct PJM to remove the *de minimis* threshold exemption from its tariff.

#### a. The *De Minimis* Threshold Exemption is Unjust and Unreasonable

33. On remand, we find, in keeping with the court's conclusions in the Remand Opinion, that the *de minimis* threshold exemption from cost allocation under the solution-based DFAX method results in an assignment of cost responsibility that is unjust and unreasonable, and unduly discriminatory. As to the *de minimis* threshold exemption, we modify the vacated and remanded prior orders in the Con Edison Complaint in Docket No. EL15-18-005, Linden Complaint in Docket No. EL15-67-005, Second Linden Complaint in Docket No. EL17-68-003, and grant the Neptune/LIPA Complaint in Docket No. EL21-39-000.

34. In the Remand Opinion, the court found that, because DFAX values are multiplied by a zone's total load, the *de minimis* threshold exemption operates to exempt large zones from cost allocation even though the zone may use a substantial percentage of the total flow on the facility, and this violates the cost causation principle as well as unduly discriminates against small zones. The court made a clear finding that "the *de minimis*

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<sup>67</sup> New Jersey Board Answer, Docket Nos. EL21-39-000 & ER22-1606-000, at 7-8, (September 30, 2022).

<sup>68</sup> *Id.* at 4.

threshold exempts zones from bearing any costs based on their load size – a quality unrelated to the burdens they impose on or the benefits they receive from any individual facility. And in so doing, it unduly discriminates against small zones.”<sup>69</sup> Consequently, the court concluded that the *de minimis* threshold exemption “cannot be considered just and reasonable” and is “unlawful.”<sup>70</sup>

35. On remand, we find that the record provides further support to conclude, as the court found, that the *de minimis* threshold exemption applied by PJM is unjust and unreasonable because it distorts a zone’s use of a facility by multiplying the DFAX value by the peak zonal load. Since PJM determines cost allocation by dividing each zone’s usage of the facility by the total of all zones’ usage, removing the usage for any zone, particularly that of a larger zone, can significantly change the allocation so that it is no longer “roughly commensurate” with the benefits that each zone receives from its usage of the facility as determined by the distribution factor analysis.<sup>71</sup> As a result, the use of a zone with a larger peak load may be allocated no cost responsibility even if its use reflects a significant usage of the facility. For example, assume a \$1 million transmission project allocated across two zones: Zone A has a peak load of 10,000 MW, with a DFAX value of .009, and Zone B has a peak load of 500 MW, with a DFAX value of .011. With the *de minimis* threshold exemption in place, Zone A, the larger zone, would be allocated no costs, while Zone B would be allocated the full \$1 million cost, even though Zone A uses the transmission facility significantly more than Zone B. Without the *de minimis* threshold exemption, Zone A would be allocated \$942,408 and Zone B would be allocated \$57,591.62, reflecting each zone’s relative use of the transmission facility.

Figure 1

| Company | Peak Load (MW) | DFAX  | Use (MW) | Cost Allocation Percentage | Project Cost   | Cost Allocation Without De Minimis Threshold Exemption | Cost Allocation With De Minimis Threshold Exemption | Per MW Impact of De Minimis Threshold Exemption |
|---------|----------------|-------|----------|----------------------------|----------------|--|---|---|
| A       | 10,000         | 0.009 | 90       | 0.942408377                | \$1,000,000.00 | \$942,408.38   | \$0.00  | -\$94.24  |
| B       | 500            | 0.011 | 5.5      | 0.057591623                | \$1,000,000.00 | \$57,591.62  | \$1,000,000.00                                      | \$1,884.82                                      |
|         |                |       |          |                            |                | \$1,000,000.00   |   |   |

<sup>69</sup> Remand Opinion, 45 F.4th at 282.

<sup>70</sup> *Id.* at 290.

<sup>71</sup> *Ill. Commerce Comm’n v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009).

36. Additional evidence provided in the Neptune/LIPA Complaint proceeding shows the problematic effect that the *de minimis* threshold exemption has on cost allocation. For example, Neptune/LIPA show that, based on the 2022 cost allocation updates in PJM's Regional Transmission Expansion Plan, all zones in the PJM region had usage below the *de minimis* threshold for 132 of 291 transmission facilities, meaning that all costs for the 132 transmission facilities were allocated only to the host zone rather than an assignment of cost responsibility based on usage identified by the solution-based DFAX method.<sup>72</sup> Neptune/LIPA provided further analysis of the 115 remaining transmission facilities demonstrating similar anomalous results, and that the assignment of cost responsibility is not based on usage identified by the solution-based DFAX method.<sup>73</sup>

37. Neptune/LIPA further provide an example from 2020 in which application of the *de minimis* threshold exemption results in an inappropriate allocation of 100% of the \$10.37 million annual costs of a project being assigned to the PECO Energy (PECO) Zone.<sup>74</sup> According to Neptune/LIPA, the data show that PECO's calculated use of the upgrade facility is in the positive direction, but amounted only to 9.88% of the flows on the line, while the zones constituting 90.12% of the flows on the line were exempt due to the *de minimis* threshold exemption. PECO therefore received an allocation of 100% of the costs of the project despite having only a small share of total flow across the facility. An analysis submitted by Neptune/LIPA also shows the wide differential in cost allocations across zones for 18 projects under various *de minimis* threshold scenarios.<sup>75</sup> This analysis shows that, with the current *de minimis* threshold exemption, the costs of these projects are allocated only to three zones, with the bulk of the allocation to Neptune. On the other hand, without the application of the *de minimis* threshold exemption, the costs are allocated across 19 zones, with the largest allocation to the PSEG/Rockland Electric Company (RECO) Zone, not Neptune. This analysis demonstrates that the *de minimis* threshold exemption excludes certain zones from being allocated any costs, notwithstanding the measured use attributed to that zone pursuant to the DFAX analysis.

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<sup>72</sup> See Neptune/LIPA Supplemental Filing, Docket No. EL21-39-000, at 5; Wood Supplemental Filing Affidavit at 5-11, 24 (April 7, 2022).

<sup>73</sup> Neptune/LIPA Supplemental Filing, Docket No. EL21-39-000, at 33; Wood Supplemental Affidavit at 16, Ex. M.

<sup>74</sup> Neptune/LIPA Complaint at 33 (Dec. 31, 2020).

<sup>75</sup> *Id.*; Wood Affidavit at 49-51. The 18 projects constitute the Metuchen-Edison-Trenton-Burlington Corridor Project (b2835, b2836 and b2837) and New Springfield Project (b2933.31). PJM Answer, Docket No. EL21-39-000, at 8 (Feb. 9, 2021).

38. In support of their Host Zone Proposal, the PJM Transmission Owners contend that retaining the *de minimis* threshold exemption for zones other than the host zone will ensure the calculation does not reflect insignificant use of the transmission facility and that elimination of the *de minimis* threshold exemption in its entirety would impose cost increases on small zones, an outcome they assert is at odds with the court's opinion. To the extent PJM Transmission Owners are arguing against the court's conclusion that the *de minimis* threshold exemption is unjust and unreasonable and unduly discriminatory, we find the appropriate course of action for the PJM Transmission Owners to challenge the court's finding on this issue would have been to seek rehearing or *en banc* review of the court's opinion, or to seek *certiorari* from the Supreme Court.<sup>76</sup>

39. Second, we disagree with the PJM Transmission Owners' conclusion that the evidence they provided resulting from the elimination of the *de minimis* threshold exemption demonstrates that the *de minimis* threshold exemption favors smaller zones over larger ones. It may well be that elimination of the *de minimis* threshold exemption may result in increases in cost allocation to some smaller zones in certain instances, but as shown in the court's opinion<sup>77</sup> and in the evidence presented by Neptune/LIPA, retaining the *de minimis* threshold could force small zones to incur a disproportionate share of costs for transmission facilities from which they derive relatively little benefit, contrary to the cost causation principle. We agree with the court's conclusion that, *ceteris paribus*, the *de minimis* threshold exemption disproportionately favors larger over smaller zones. Because the PJM methodology multiplies the DFAX value by the peak load of the zone, it has a disproportionate effect on zones depending on their size.<sup>78</sup> For example, reversing the above example, such that Zone B, the smaller zone, does not meet the *de minimis* threshold (DFAX value of .009), while Zone A, the larger zone, meets the

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<sup>76</sup> See *PJM Interconnection, L.L.C.*, 184 FERC ¶ 61,064, at P 28 (2023) (“If the PJM Transmission Owners disagreed with these aspects of the Court’s opinion, they should have sought further review by the courts, rather than asking the Commission on remand to reinterpret the very same provision the Court found unambiguous.”).

<sup>77</sup> Remand Opinion, 45 F.4th at 282. Neptune/LIPA also submitted an analysis of the 2015 cost-allocation data associated with the Bergin-Linden Corridor Project and 2021 cost-allocation data for a variety of RTEP upgrades, constructed within various zones across the PJM footprint, and identified the same distorting effects on cost allocations from the use of a *de minimis* threshold exemption. Neptune/LIPA Paper Hearing Comments, Docket No. EL21-39-000, at 2 (Oct. 8, 2021); Wood Paper Hearing Affidavit, Docket No. ER21-39-000, at 42-47 (Oct. 8, 2021).

<sup>78</sup> The court obviously is correct that removing a large number from a list of observations, arithmetically increases the percentage of the remaining observations more so than removing a smaller number.

threshold (DFAX value of .011) demonstrates the disproportionate effect. With the *de minimis* threshold exemption in effect, the smaller zone would receive a \$0 allocation and the larger zone would receive the full allocation of \$1 million dollars. But removing the *de minimis* threshold exemption results in an allocation to smaller Zone B of only \$39,301 while larger Zone A still receives the bulk of the allocation, \$960,698 (i.e., 96% of the costs). On a per MW basis, Zone B would receive a cost increase of only \$78.60 as a result of eliminating the *de minimis* threshold exemption as compared to a per MW cost increase of \$1,884 when the situation was reversed as in Figure 1, demonstrating that the *de minimis* threshold exemption disproportionately favors large zones over small ones.

Figure 2

| Company | Peak Load (MW) | DFAX  | Use (MW) | Cost Allocation Percent | Project Cost   | Cost Allocation Without De Minimis Threshold Exemption | Cost Allocation With De Minimis Threshold Exemption | Per MW Impact of De Minimis Threshold Exemption |
|---------|----------------|-------|----------|-------------------------|----------------|--|---|---|
| A       | 10000          | 0.011 | 110      | 0.96069869              | \$1,000,000.00 | \$960,698.69   | \$1,000,000.00                                      | \$3.93  |
| B       | 500            | 0.009 | 4.5      | 0.03930131              | \$1,000,000.00 | \$39,301.31  | \$0.00  | -\$78.60  |
|         |                |       |          |                         |                | \$1,000,000.00   |   |   |

40. Finally, Neptune/LIPA argue that, because PJM calculates zones’ usage of a transmission facility and their corresponding cost allocation by multiplying their DFAX value by their peak load, it is possible for relatively modest year-to-year changes in a larger zone’s DFAX to produce a relatively significant change in cost allocation when the change in DFAX causes the large zone to fall below the *de minimis* threshold, but smaller zones maintain a DFAX greater than 1%.<sup>79</sup> We find that Neptune/LIPA’s analysis of certain cost responsibility assignments demonstrates numerous instances where large zones are responsible for the majority of MW usage yet receive no cost allocation.

41. Based on the above, consistent with the court’s conclusions in the Remand Opinion, we find that the *de minimis* threshold exemption results in an assignment of cost responsibility that is unjust and unreasonable, and unduly discriminatory.

**b. Just and Reasonable Replacement Rate**

42. Having found that the current *de minimis* threshold exemption results in an assignment of cost responsibility that is unjust and unreasonable, the Commission is required to establish the just and reasonable replacement rate. In determining the just and

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<sup>79</sup> Neptune/LIPA Paper Hearing Comments at 27-30.

reasonable replacement rate, we consider the Host Zone Proposal by the PJM Transmission Owners<sup>80</sup> and the proposal reflected in the Settlement. Both the Host Zone Proposal and the Settlement include a different version of a *de minimis* threshold exemption, under which the *de minimis* threshold exemption will not apply to the zone in which the relevant transmission facility is located but will continue to apply to other zones. As discussed below, we find that the Host Zone Proposal and the Settlement do not establish a just and reasonable replacement rate and raise the same concerns about cost causation that the court identified with regard to the current *de minimis* threshold exemption. We find that the just and reasonable replacement rate supported by the record in this proceeding is the elimination of the *de minimis* threshold exemption.

**i. Pleadings**

43. In support of the Settlement, the indicated transmission owners contend that, in addition to the benefits measured by the solution-based DFAX method, transmission facilities located in the host zone provide unmeasurable benefits that are not directly accounted for in the solution-based DFAX method calculations, such as voltage support, resilience, and operational performance.<sup>81</sup> In addition, the indicated transmission owners contend that transmission projects located in the host zone provide economic development opportunities to a region that may otherwise be lacking sources of economic investment and development.<sup>82</sup>

44. In comments supporting the Settlement, Neptune/LIPA state that the Settlement solely resolves the Consolidated Proceedings, and contend that a Commission

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<sup>80</sup> The Host Zone Proposal was filed by the PJM Transmission Owners acting through the provisions of the CTOA, while the Settlement was joined by the indicated transmission owners, as noted above. Pleadings by the transmission owners, unless made through the provisions of the CTOA (PJM Transmission Owners), are as noted.

<sup>81</sup> Indicated Transmission Owners Comments, Docket Nos. EL21-39-000 & ER22-1606-001, at 8-9, (Mar. 28, 2025). For the purposes of these comments, the indicated transmission owners are AEP; VEPCo; Duke; Duquesne; EKPC; Exelon; PPL; Dayton; and FirstEnergy.

<sup>82</sup> Indicated Transmission Owners Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 8-9, (Apr. 18, 2025). The indicated transmission owners contend that economic development benefits can be defined as beneficial attributes of a project that drive economic growth by creating new job opportunities and/or facilitating an improved quality of life that includes increased access to opportunities created by economic growth for existing and future residents.

determination on this Settlement will not predetermine an outcome for the remand proceeding, and vice versa.<sup>83</sup>

45. The Settlement is opposed by the New Jersey Parties.<sup>84</sup> The New Jersey Parties urge the Commission to reject the Settlement because it improperly shifts costs to the majority of New Jersey ratepayers by manipulating the existing solution-based DFAX method in a manner that has not been shown to be consistent with cost allocation principles.<sup>85</sup> The New Jersey Parties argue that the Settlement proposal to not apply the *de minimis* threshold exemption to host zones lacks evidentiary support and does not address the court's cost allocation concerns in the Remand Opinion.<sup>86</sup> The New Jersey Parties assert that, under the Settlement, the solution-based DFAX method still measures a zone's use of a facility relative to its total load and exempts cost allocation based on a 1% threshold, and merely carves out an exception for host zones.<sup>87</sup> The New Jersey Parties state that the justification for this exception is that host zones derive resilience and economic benefits from RTEP upgrades within their territory, but these alleged benefits differ from the direct usage benefits that the solution-based DFAX method is designed to measure for cost allocation purposes. The New Jersey Parties argue that the Settlement conflates different types of benefits under a methodology ill-suited for assessing them, and if additional benefits beyond usage are used to justify cost allocation then a distinct methodology should be developed.<sup>88</sup> The New Jersey Parties contend that, without a separate and robust framework for evaluating resilience and economic benefits, the Settlement proposal is an arbitrary adjustment and fails to provide a just and reasonable resolution to the issues identified in the Remand Opinion. The New Jersey Parties argue that the Settlement forces nearly all the costs of resolving the Neptune/LIPA Complaint

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<sup>83</sup> Neptune/LIPA Comments, Docket Nos. EL21-39-000 & ER22-1606-001, at 23 (March 28, 2025). Neptune/LIPA note that the Settlement contains specific reservation of rights, primarily with respect to other ongoing proceedings before the Commission with respect to the remand. *Id.*

<sup>84</sup> The New Jersey Parties are the New Jersey Rate Counsel and the New Jersey Board.

<sup>85</sup> New Jersey Parties Settlement Protest, Docket Nos. EL21-39-000 & ER22-1606-001, at 8 (March 28, 2025).

<sup>86</sup> *Id.* at 11.

<sup>87</sup> *Id.* at 12.

<sup>88</sup> *Id.*

onto the ratepayers of a single, non-consenting PJM transmission owner rather than establishing a principled cost allocation mechanism.<sup>89</sup>

46. PSEG argues that the Settlement proposal to modify the current solution-based DFAX method by applying the *de minimis* threshold exemption selectively causes significant cost shifts and allows “non-DFAX benefits” to be considered when customers are allocated costs in violation of PJM’s Tariff, which does not recognize any such benefits in the planning criteria. PSEG argues that the non-DFAX benefits are simply “assumed to exist” without any meaningful evidentiary support or attempt at quantification and that the Settlement proposal would constitute “undue discrimination” under the FPA. As such, PSEG argues that the Settling Parties have failed to meet their evidentiary burden under section 205 of the FPA “to establish [that] the filing sets a just and reasonable rate.”<sup>90</sup>

47. The indicated transmission owners answer that the estimated changes in cost allocations that result from the Settlement are reasonable under the circumstances of this case, where the large majority of the transmission projects at issue are located in PJM zones in New Jersey, particularly the PSEG/RECO Zone.<sup>91</sup> The indicated transmission owners argue that a host zone realizes benefits that cannot be explicitly factored into the calculation of the solution-based DFAX method allocation, such as improved transmission system resiliency and economic development.<sup>92</sup> The indicated transmission owners argue that it is not unreasonable for the majority of cost shifts to be borne by customers in New Jersey, rather than being socialized across the entire PJM footprint, given that the host zone for 35 of the 50 transmission projects at issue in this proceeding is the PSEG/RECO zone in New Jersey. The indicated transmission owners note that some cost shifts are inevitable when a cost allocation methodology is changed, but the cost shifts under the Settlement are the most reasonable outcome for these proceedings. The indicated transmission owners maintain that elimination of the *de minimis* threshold

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<sup>89</sup> *Id.* at 12-13.

<sup>90</sup> PSEG Comments, Docket Nos. EL21-39-000 & ER22-1606-001, at 16-17, (March 28, 2025).

<sup>91</sup> Indicated Transmission Owners Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 6 (April 18, 2025). The indicated transmission owners contend under the Settlement, if the Merchant Transmission Facility integration approach had been in effect in 2024, that the total differential in cost allocations would have been \$114.81 million, which they contend is only about 1% of the \$10 billion in total project capital costs subject to cost assignment using the solution-based DFAX method across PJM. *Id.* at 8.

<sup>92</sup> *Id.* at 9.

exemption would result in dramatic cost shifts and would turn the Remand Opinion on its head.<sup>93</sup> The indicated transmission owners state that the Settlement preserves the underlying purpose of the *de minimis* threshold exemption (to exempt zones from cost allocation where they receive an exceedingly small benefit from a transmission project relative to their load) while minimizing cost shifts across PJM.<sup>94</sup> By contrast, the indicated transmission owners argue that elimination of the *de minimis* threshold exemption would result in a dramatic reduction in costs allocated to the PSEG/RECO Zone while zones that are distant from transmission projects would be allocated costs, with certain zones seeing cost allocation increases of up to 400% based on the indicated transmission owners' analysis of the years 2020 to 2022.<sup>95</sup> The indicated transmission owners contend that a reduction in cost allocations for a large zone, such as the PSEG/RECO Zone, while increasing cost allocations to smaller zones, is the exact consequence that the court found discriminatory in the Remand Opinion.<sup>96</sup>

48. The indicated transmission owners state the Commission does not need to address the Remand Opinion to approve the Settlement.<sup>97</sup> The indicated transmission owners maintain that the Remand Opinion concerns different issues and parties, as well as a distinct factual record, time period, and potential refund liabilities.<sup>98</sup> For instance, the indicated transmission owners contend that the Remand Opinion concerns a challenge from certain New York entities on the issue of whether the solution-based DFAX method is a just and reasonable cost allocation methodology for the costs of two specific transmission projects – the Bergen Linden Corridor Project and Sewaren project – both non-flow-based, short circuit projects, and that is not the case in the Consolidated Proceedings.<sup>99</sup>

49. The New Jersey Parties reiterate that the benefits outside of the solution-based DFAX method that the PSEG/RECO Zone purportedly receives are not clearly identified, measured, or in any way proportional to the cost shifts that ratepayers in this zone will

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<sup>93</sup> *Id.* at 10-11.

<sup>94</sup> *Id.* at 12.

<sup>95</sup> *Id.* at 13-14.

<sup>96</sup> *Id.* at 14.

<sup>97</sup> *Id.* at 17.

<sup>98</sup> *Id.* at 18.

<sup>99</sup> *Id.*

realize under the Settlement, and the Settlement cost shifts are not minimal.<sup>100</sup> The New Jersey Parties contend that the transmission owners' concern over cost shifts is misplaced because the objective of this proceeding is not to minimize cost shifts for their own sake, but to ensure that any cost allocation methodology adopted is just and reasonable, and the relevance of cost shifts lies not in their absolute magnitude, but in whether the reallocated costs are commensurate with identifiable and measurable benefits.<sup>101</sup>

50. The New Jersey Parties further respond that the Settlement does not address the court's concerns because it maintains the *de minimis* threshold exemption. In particular, the New Jersey Parties maintain that the transmission owners' interpretation of the court's reliance on the large zone/small zone disparity is misplaced. Instead, the New Jersey Parties argue that the court focused narrowly on the *de minimis* threshold exemption, not the broader question of zonal cost allocation structure.<sup>102</sup> New Jersey Parties contend that maintaining the *de minimis* threshold exemption for non-host zones discriminates in favor of adjacent large load zones against similarly situated small load zones. As such, the New Jersey Parties contend that the most effective and principled way to comply with the Remand Opinion is to eliminate the current *de minimis* threshold exemption entirely.<sup>103</sup>

51. Neptune/LIPA answer that within the range of alternatives, the Settling Parties negotiated and selected a practical and specific alternative, and that this approach is consistent with the Remand Opinion as it is specifically designed to avoid undue discrimination against smaller zones, while striking the appropriate balance between providing a narrow, tailored solution to observed problems while preserving the overall fundamental components of the solution-based DFAX method in order to avoid significant cost shifts across the PJM region.<sup>104</sup>

52. The indicated transmission owners answer that the New Jersey Parties' criticism of the *de minimis* threshold exemption is misplaced.<sup>105</sup> The indicated transmission

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<sup>100</sup> New Jersey Parties Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 10 (May 16, 2025).

<sup>101</sup> *Id.* at 11.

<sup>102</sup> *Id.* at 13.

<sup>103</sup> *Id.* at 16.

<sup>104</sup> Neptune/LIPA Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 13 (June 13, 2025).

<sup>105</sup> Indicated Transmission Owners Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 14 (June 16, 2025). For the purposes of these comments, the

owners contend that the purpose of *de minimis* threshold exemption is to avoid cost allocations to zones that do not rely significantly on a transmission project, which often are zones that are distant from the zone in which the project is located, and that the Host Zone Proposal, along with the integrated treatment of Merchant Transmission Facilities, will preserve the underlying purpose of the *de minimis* threshold exemption, ensure compliance with the Remand Opinion, and minimize cost shifts across PJM.<sup>106</sup> The indicated transmission owners maintain that the approach advocated by the NJ Parties – outright elimination of the *de minimis* threshold exemption – would do just the opposite.<sup>107</sup>

53. The New Jersey Parties respond that Neptune/LIPA and the supporting transmission owners advance erroneous representations and factual errors concerning the New Jersey Board's arguments and the record of evidence, and state that the Commission should reject Neptune/LIPA's answer and the transmission owners' answer.<sup>108</sup> The New Jersey Parties contend that the transmission owners err on the side of overestimating the solution-based DFAX method benefits New Jersey ratepayers receive from the upgrades affected by the Settlement.<sup>109</sup> Additionally, the New Jersey Parties argue that eliminating the *de minimis* threshold exemption does not consistently increase cost allocations to small zones and that, if there are increased cost allocations to small zones, such cost increases would occur for a valid, non-discriminatory reason.<sup>110</sup> The New Jersey Parties argue that the Settlement fails to resolve the court's concerns regarding undue discrimination against smaller zones under the *de minimis* threshold exception and violates the cost causation principle.<sup>111</sup>

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indicated transmission owners are AEP; VEPCo; Duke; Duquesne; EKPC; Exelon; PPL; Dayton; and FirstEnergy.

<sup>106</sup> *Id.* at 16.

<sup>107</sup> *Id.*

<sup>108</sup> New Jersey Parties Answer, Docket Nos. EL21-39-000 & ER22-1606-001, at 15 (July 17, 2025).

<sup>109</sup> *Id.* at 3.

<sup>110</sup> *Id.* at 8.

<sup>111</sup> *Id.* at 15.

ii. Determination

54. At the outset, we consider whether the record before us supports adoption of the Host Zone Proposal or the Settlement as a just and reasonable replacement rate. As discussed in the Remand Opinion and above, the current *de minimis* threshold exemption is unjust and unreasonable.<sup>112</sup> The Host Zone Proposal in Docket No. ER22-1606-000 and the Settlement in Docket No. ER22-1606-001 both propose to retain the same *de minimis* threshold exemption for some transmission zones, such that the exemption does not apply to the host zone (i.e., the zone in which the relevant transmission facility is located) but will continue to apply to other zones. Crucially, because the Host Zone proposal and the Settlement continue to exempt non-host zones based on their “use of a facility relative to their total load,”<sup>113</sup> we find that these proposals do not address the court’s concerns and would be unjust and unreasonable. We also find these proposals would be unduly discriminatory because, as explained earlier, they disproportionately benefit larger zones relative to smaller zones.<sup>114</sup>

55. As an example of the distortions that would continue under the Host Zone Proposal, Neptune/LIPA point out the misallocation of costs under the current *de minimis* threshold for Project b2777.<sup>115</sup> In 2021, PJM allocated 100% of the costs of this project to the EKPC Zone, a relatively small zone, while both the AEP Zone and Commonwealth Edison Company (Com Ed) Zone, two of the largest zones in PJM, were exempt from cost allocation as a result of the *de minimis* threshold exemption despite their making significant use of the facility.<sup>116</sup> While adoption of the Host Zone Proposal would

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<sup>112</sup> 45 F.4th at 281.

<sup>113</sup> *Id.*

<sup>114</sup> *See id.* (“[T]he *de minimis* threshold exempts zones from bearing any costs based on their load size—a quality unrelated to the burdens they impose on or the benefits they receive from any individual facility. And in so doing, it unduly discriminates against small zones, which must absorb higher cost allocations after large zones are exempted.”).

<sup>115</sup> Neptune/LIPA Paper Hearing Comments, Docket No. EL21-39-000, Wood Affidavit at Ex. B, p.1, (Oct. 8, 2021).

<sup>116</sup> PJM, Intra-PJM Tariffs, OATT SCHEDULE 12.APPENDIX A - 17 AEP Service Corporation (28.0.0). Project b2777 is located in the AEP Zone, and AEP was initially assigned cost responsibility because no transmission zone had greater than a 1% DFAX value. PJM, Cost Responsibility Assignment Summary Sheet, Docket No. ER17-753-000, at 46 (Jan. 6, 2017). Indeed, the cost allocation for Project b2777 has flipped between allocation of 100% of the costs to AEP and 100% of the costs to EKPC, demonstrating the erratic nature of the *de minimis* threshold exemption. *See* PJM,

partially ameliorate this distortion by allocating costs to the AEP Zone, it still would not allocate costs to the Com Ed Zone, which, absent the *de minimis* threshold exemption, would have received the largest allocation of costs based on its use of Project b2777.

56. For these reasons, we find that the Host Zone Proposal and the Settlement are unjust, unreasonable, and unduly discriminatory, and therefore we reject the Host Zone Proposal and the Settlement.

57. Although indicated transmission owners argue that host zones derive resilience and economic benefits that justify treating them differently for purposes of cost allocation, this rationale does not address how continuing to exempt non-host zones using the same DFAX-based *de minimis* threshold is consistent with the court's conclusion that the *de minimis* threshold exemption violates the cost causation principle by continuing to exempt zones that benefit from use of facilities from being allocated costs roughly commensurate with those benefits.

58. We find that the just and reasonable replacement rate supported by the record in this proceeding is the elimination of the *de minimis* threshold exemption. Eliminating the *de minimis* threshold exemption results in cost allocations based on relative usage of the transmission facility as determined via the solution-based DFAX method without exemptions that distort the cost allocation. We find that this will address the court's cost causation concerns and ensure that the allocation of costs under PJM's solution-based DFAX method is roughly commensurate with the benefits that zones receive from their use of the facilities.

59. In their Consolidated Proceedings paper hearing comments filed after the Remand Opinion,<sup>117</sup> the PJM Transmission Owners argue against eliminating the *de minimis* threshold exemption because they say it will result in dramatic cost shifts and work contrary to the Remand Opinion by imposing higher costs on smaller zones while exempting larger zones. The PJM Transmission Owners assert that the *de minimis* threshold exemption protects smaller zones from large cost shifts for insignificant use of a transmission facility and contend that many smaller zones would likely see a substantial increase in costs as a result of eliminating the *de minimis* threshold exemption.<sup>118</sup> The indicated transmission owners contend that the Remand Opinion did not require total elimination of the *de minimis* threshold exemption, but rather directed further

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Intra-PJM Tariffs, OATT SCHEDULE 12.APPENDIX A - 17 AEP Service Corporation (48.0.1) (allocating 100% of the costs back to AEP).

<sup>117</sup> PJM Transmission Owner Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 21 (September 30, 2022).

<sup>118</sup> *Id.*

proceedings on its application.<sup>119</sup> However, this misreads the Remand Opinion. The court's opinion considered the operation of the *de minimis* threshold exemption and found that it distorted the allocation of costs between small and large zones as discussed earlier. Given the Remand Opinion and the extensive record made by the parties in this proceeding, as discussed previously, we find no need for further proceedings to evaluate the retention of the *de minimis* threshold exemption for zones other than the host zone. We further disagree with the transmission owners that the Commission can approve the Settlement rate without addressing the Remand Opinion. In both cases, we need to establish the prospective just and reasonable rate, and we cannot find that the Host Zone Proposal establishes an overall just and reasonable rate.

61. We recognize that eliminating the *de minimis* threshold exemption may result in substantial changes in cost allocations, and certain zones (including smaller zones) may experience higher cost allocations than they would have experienced under the method the court deemed unlawful. The elimination of the *de minimis* threshold exemption for all zones will result in cost allocations roughly commensurate with zones' usage and benefits associated with the transmission facility, consistent with the cost causation principle, and therefore such allocations are just and reasonable.<sup>120</sup>

62. The PJM Transmission Owners argue that it is important to retain some version of the *de minimis* threshold exemption in the solution-based DFAX method to ensure that zones that make relatively insignificant use of a transmission facility are not allocated substantial costs, noting that the Commission has permitted *de minimis* exemptions in other contexts.<sup>121</sup> While we remain open to considering alternative *de minimis* exemptions, the current DFAX-based *de minimis* threshold exemption, as discussed above, does not properly capture a zone's relative usage and benefits of facilities, and thus, consistent with the Remand Opinion, violates the cost causation principle and is unjust and unreasonable, as discussed above.<sup>122</sup>

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<sup>119</sup> Indicated Transmission Owners Answer, Docket No. EL15-18-005, at 5 (June 24, 2025). For the purposes of these comments, the indicated transmission owners are Allegheny; AEP; VEPCO; Duke; Duquesne; EKPC; Exelon; FirstEnergy; PHI; PPL; and UGI. For purposes of the Linden Complaint proceeding, the PJM Transmission Owners are acting through the CTOA.

<sup>120</sup> See *Ill. Commerce Comm'n v. FERC*, 576 F.3d at 477 (finding that FERC does not need to calculate benefits "to the last penny, or for that matter to the last million or 10 million or perhaps hundred million dollars;" rather, it must have an articulatable and plausible reason to believe that the costs are "roughly commensurate" with benefits.).

<sup>121</sup> *Id.* at 21-22.

<sup>122</sup> We do not have before us the context of the alternative *de minimis* exemptions

63. We find, as discussed above, that the Settlement cannot be approved as just and reasonable because it leaves in place the *de minimis* threshold exemption that violates the cost causation principle. Accordingly, we direct the PJM Transmission Owners to file a revised Schedule 12 of the PJM Tariff within 90 days of the date of this order, eliminating the *de minimis* threshold exemption, to be effective June 18, 2015, the date the Commission committed legal error in denying the Con Edison Complaint.

**B. Cost Allocation Method for Transmission Projects That Address Short Circuit Reliability Issues**

**1. Cost Allocation for Reliability Network Upgrades**

64. PJM's reliability planning is a series of detailed analyses that ensure reliability under the applicable North American Electric Reliability Corporation (NERC) Reliability Standards and PJM or local reliability criteria.<sup>123</sup> The RTEP baseline analyses include voltage and thermal analysis, system stability, load deliverability, and generator deliverability testing. These tests entail single and multiple contingency testing for violations of established NERC reliability criteria regarding stability, thermal line loadings, and voltage limits.<sup>124</sup> The baseline thermal analysis is a thorough analysis of the power flows applicable to system normal conditions prior to contingencies and emergency conditions (applicable after the occurrence of a contingency) within the thermal ratings specific to the facilities being examined.<sup>125</sup> The baseline voltage analysis parallels the thermal analysis to simulate the expected automatic operation of existing and planned devices designed to provide steady state control of electrical system quantities.<sup>126</sup> The cost responsibility for transmission upgrades to address thermal and voltage reliability violations is allocated pursuant to the hybrid methodology accepted as in

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cited by the PJM Transmission Owners and therefore can make no determination on the justness and reasonableness of those exemptions. We here find only that the current *de minimis* threshold exemption of the solution-based DFAX method of Schedule 12 of the PJM Tariff is unjust and unreasonable.

<sup>123</sup> See PJM Manual 14B, § 1.4.1.1; PJM, Intra-PJM Tariffs, OA Schedule 6 Sec 1.2, OA Schedule 6 Sec 1.2 Conformity with NERC and Other Applic (2.0.0).

<sup>124</sup> Contingency definitions used in PJM RTEP analysis are the same as applicable NERC Reliability Standard TPL-001-5.1 contingency definitions. See PJM Manual 14B, § 2.3.5.

<sup>125</sup> See PJM Manual 14B, § 2.3.6.

<sup>126</sup> See PJM Manual 14B, § 2.3.7.

compliance with Order No. 1000, including the portion of cost responsibility allocated pursuant to the solution-based DFAX method.

65. PJM performs short circuit analysis as part of the RTEP baseline assessment to ensure the high-voltage circuit breakers on the transmission system are sufficiently rated to safely interrupt fault currents.<sup>127</sup> A short circuit reliability violation is identified if the modeled flow of fault current exceeds the equipment rating of the circuit breakers, in which case network upgrades may be needed to resolve the reliability violation. In other words, a short circuit reliability violation is not driven by flows of power during normal, steady-state conditions (i.e., it is not a “flow-based constraint”),<sup>128</sup> but rather by the flow of fault current during a system disturbance.

66. The baseline stability analysis is performed on the RTEP baseline stability cases to evaluate the ability of the power system to return to normal, steady-state conditions after a disturbance.<sup>129</sup> A stability-related reliability violation is identified if, following a disturbance, the system would experience cascading voltages or uncontrolled islanding, in which case network upgrades may be needed to resolve the reliability violation. In other words and similar to a short circuit reliability violation, a stability-related reliability violation is not driven primarily by flows of power during normal, steady-state conditions, but rather by the inability of the power system to return to steady-state conditions following a disturbance.

67. In the Artificial Island Rehearing Order, the Commission found that it is unjust and unreasonable for PJM to rely solely on the solution-based DFAX method to allocate the costs of Lower Voltage Facilities and 50% of the costs of Regional Facilities and Necessary Lower Voltage Facilities that address stability-related reliability issues.<sup>130</sup> The Commission found that stability is analytically unique compared to steady-state voltage or thermal overload problems, and that applying the solution-based DFAX method can result in cost responsibility assignments that seem anomalous where the engineering rationale or need for a transmission project is not driven by power flows.<sup>131</sup> Further, the

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<sup>127</sup> See PJM Manual 14B, Attach. G.7.

<sup>128</sup> A flow-based constraint is one that is related to, or caused by, power flows on the system, such as a thermal constraint caused by an increase in flow on the line. A non-flow based constraint, in contrast, is a constraint that occurs for reasons other than flows. See Artificial Island Rehearing Order, 164 FERC ¶ 61,035 at PP 39-40.

<sup>129</sup> See PJM Manual 14B, §§ 2.3.12-2.3.13; Attach. G.1.

<sup>130</sup> Artificial Island Rehearing Order, 164 FERC ¶ 61,035 at P 38.

<sup>131</sup> *Id.*

Commission found that a load zone allocated costs for stability upgrades using the solution-based DFAX method may neither have caused the need for the transmission facility nor receive commensurate benefits from flows of power over the facility because its transmission system is already adequate to serve its load without the transmission facility.<sup>132</sup> As a replacement rate, the Commission directed PJM to adopt the Stability Deviation Method to allocate the costs of stability projects to the loads that would be most impacted by a stability disturbance and therefore would benefit from resolving the stability-related reliability issues.<sup>133</sup> On appeal, the D.C. Circuit upheld the Commission's findings in the Artificial Island Rehearing Order.<sup>134</sup>

68. In contrast, in the Linden Complaint Order, the Commission found that it is not unjust and unreasonable to allocate the costs of transmission facilities that address short-circuit reliability issues using the solution-based DFAX method.<sup>135</sup> The Commission asserted that, in PJM, whether a short-circuit or stability violation is the primary driver of a transmission project, the solution-based DFAX method allocates costs of a transmission facility that addresses the reliability violations based on use of the facility.<sup>136</sup> The Commission further asserted that one of the primary benefits of the solution-based DFAX method is the ability to reflect changing system conditions and use over time and thus the changing beneficiaries of a transmission facility, as well as eliminating the need to analyze each reliability violation and driver of a project separately.<sup>137</sup> The Commission stated that, in contrast, a reliability violation-based analysis would only capture the driver of a project when that project is first identified in the RTEP and would not objectively measure benefits across time and across all types of reliability projects.<sup>138</sup> On appeal, the D.C. Circuit vacated and remanded the issue of

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<sup>132</sup> *Id.* PP 44-45.

<sup>133</sup> *Id.* The Stability Deviation Method identifies beneficiaries of transmission facilities that address stability-related reliability issues by modeling the transient voltage (angle) deviations at each PJM substation to assess the stability performance of a generator or cluster of generators to critical faults, and allocates costs based on a load-weighted deviation for each zone. See PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § (b) (xviii).

<sup>134</sup> *Pub. Serv. Electric & Gas Co. v. FERC*, 989 F.3d 10.

<sup>135</sup> Linden Complaint Order, 155 FERC ¶ 61,089 at PP 54-57.

<sup>136</sup> *Id.* at 57.

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

using the solution-based DFAX method to allocate the costs of transmission facilities that resolve short-circuit reliability issues, as discussed below.<sup>139</sup>

## 2. Remand Opinion

69. In the Remand Opinion, the court found that the Commission failed to explain why the solution-based DFAX method should be used to allocate the costs of the Bergen-Linden Corridor Project and the Sewaren Project, which addressed short-circuit violations, but not the Artificial Island Project, which addressed stability violations.<sup>140</sup> The court noted that, previously, in the Artificial Island Project proceeding, the Commission had distinguished between flow-based and non-flow based projects, and concluded that, while the solution-based DFAX method is just and reasonable for flow-based projects, it was not appropriate for allocating the costs of non-flow based projects that address stability issues.<sup>141</sup> The court found that the Commission had not satisfactorily explained why it treated projects to resolve short-circuit violations differently since these projects also address non-flow-based constraints.

70. The court found that the Commission could not rationally explain its decision to treat the Bergen-Linden Corridor Project and the Sewaren Project differently from the Artificial Island Project by simply pointing to its earlier finding that “stability is analytically unique compared to voltage or thermal overload problems.”<sup>142</sup> Instead, the court found that the Commission needed to explain why stability is “analytically unique” compared to short circuit issues.<sup>143</sup> The court pointed out that the record in the proceeding recognized that both stability and short circuit projects are “awkward fits for the DFAX method, because neither are flow-based.”<sup>144</sup> The court concluded that “[g]iven the similarities between the projects, basic rule of law principles required FERC to justify its different treatment of the projects.”<sup>145</sup> The court stated that the Commission “needed to explain why, in contrast to Artificial Island, the costs of Bergen and Sewaren

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<sup>139</sup> Remand Opinion, 45 F.4th at 280-281.

<sup>140</sup> *Id.*

<sup>141</sup> Remand Opinion, 45 F.4th at 279.

<sup>142</sup> *Id.* at 280.

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

should be assigned via DFAX to the utilities whose electricity flows across the upgraded facilities, rather than to the projects' other beneficiaries."<sup>146</sup>

71. In contrast to its holding on the *de minimis* threshold exemption, the court did not "hold that the use of the DFAX method for short-circuit projects violates the cost causation principle *per se*."<sup>147</sup> It stated that, "[o]n remand, FERC may be able to provide a more satisfactory explanation of the distinction between stability related projects and those that address short-circuit issues and to articulate why DFAX cost allocations are appropriate for the latter but not the former."<sup>148</sup>

### 3. Determination

72. Upon further review and consideration of the Remand Opinion, we find that additional record evidence is necessary to determine whether the existing rate, in which PJM uses the solution-based DFAX method to allocate either 50% or 100% of the costs of transmission projects that address short circuit reliability issues, is unjust and unreasonable, and in the event the Commission does find it unjust and unreasonable, to determine the just and reasonable replacement rate. Accordingly, we establish paper hearing procedures to further develop the record on this issue.

73. In the Remand Opinion, the court raised the concern that the Commission had not adequately explained why the solution-based DFAX method should be used to allocate the costs of transmission projects that address short circuit reliability issues, noting that the Commission had found it unjust and unreasonable to apply the method to allocate the costs of other non-flow-based projects (i.e., stability projects). We find that the record before us does not include enough information for us to determine whether transmission short circuit violations are sufficiently different from other non-flow violations (e.g., stability violations) or whether transmission facilities selected to resolve short circuit violations are sufficiently different from those that resolve stability violations. We seek comment on whether the existing rate, which allocates either 50% or 100% of the costs of facilities addressing short circuit violations based on modeled power flows/usage during steady-state conditions under the solution-based DFAX method, is unjust and unreasonable and whether short circuit projects should be treated similarly to stability by allocating their costs using a method that is not based on modeled power flows/usage during steady-state conditions.

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<sup>146</sup> *Id.*

<sup>147</sup> *Id.* at 281.

<sup>148</sup> *Id.*

74. In their paper hearing responses, we request that parties address whether the solution-based DFAX method is just and reasonable for allocation of the costs of transmission projects to resolve short circuit reliability issues. Particularly, we seek additional information on whether the costs allocated to zones for transmission facilities that address short-circuit reliability violations under the solution-based DFAX method are roughly commensurate with the benefits derived by zones that contributed to the underlying short-circuit reliability violations and/or use the subject transmission projects. In this respect, parties should address whether there are differences between transmission projects that address stability and short circuit violations that make the solution-based DFAX method appropriate to use to allocate some or all of the costs of transmission facilities selected in the RTEP to address short circuit violations even though the reliability issues are not based on power flows during steady-state conditions.

75. In addition, in the event that parties maintain that solution-based DFAX cost allocation for transmission projects that resolve short circuit violations is unjust and unreasonable, we request that parties address potential replacement rates – that is, other potential cost allocation methods for such projects that align with the cost causation principle. For example, we seek comment on potential approaches that would allocate costs based on zones’ relative contribution to the underlying short circuit reliability violation, e.g., by identifying each zone’s proportional contribution to the flow of short circuit fault current, which is similar in concept to the cost allocation methodology for short circuit related network upgrades for generator interconnection clusters contemplated by Order No. 2023.<sup>149</sup> We seek comment on whether this approach, or an alternative approach, would allocate the costs of short circuit projects to the loads that would be most impacted by an unresolved short circuit violation and therefore would benefit from transmission facilities that address the short circuit reliability issue.<sup>150</sup> We

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<sup>149</sup> *Improvements to Generator Interconnection Procs. & Agreements*, Order No. 2023, 184 FERC ¶ 61,054, at P 461 (2023) (“short circuit network upgrade costs within a cluster will be allocated based on the impact from each generating facility within the cluster, on the constrained facilities under the most constraining fault in the relevant study case(s); or (3) the estimated costs of short circuit related general reliability network upgrades identified through a cluster study shall be assigned to all interconnection requests in that group study pro rata on the basis of the short circuit duty contribution of each generating facility”).

<sup>150</sup> *Order denying rehearing*, 166 FERC ¶ 61,161, at P 44 (2019) (“The Stability Deviation Method [identifies] the loads that would be most impacted by a stability disturbance, and would benefit from transmission projects that address the stability-related reliability issues.”).

also seek comment on the extent to which alternative methods allocate costs based on benefits at a single point in time or reflect changing use of the transmission system.

76. As the PJM Transmission Owners have FPA section 205 rights regarding the cost allocation provisions of Schedule 12 of the PJM Tariff,<sup>151</sup> we direct the PJM Transmission Owners, separately or jointly, to file comments within 90 days of the date of issuance of this order. Other parties, including PJM, may also respond to the questions within the same time period. Reply comments are due within 60 days of the date of initial comments being filed.

### C. Neptune/LIPA Complaint on Netting

77. As discussed above, we grant the Neptune/LIPA Complaint on the *de minimis* threshold exemption issue. The Neptune/LIPA Complaint also challenges PJM's practice of netting (i.e., the practice of offsetting positive and negative energy flows in calculating total energy flow caused by a zone) under the solution-based DFAX method, which we address below.

#### 1. Remand Opinion

78. As to the challenges to the netting provisions of the solution-based DFAX method, the Commission denied the Con Edison Complaint in Docket No. EL15-18-000, the Linden Complaint in Docket No. EL15-67-000, and the Second Linden Complaint in Docket No. EL17-68-000. On appeal, the court held that the Commission reasonably explained its decision to approve netting because "it produces a different benefit by creating extra capacity for the transmission line."<sup>152</sup> The court noted that power flows in opposite directions offset each other, such that negative flows make additional capacity available. The court stated that the Commission reasonably concluded that zones with flows in only one direction should bear more costs for using more capacity, and because counterflows increase capacity, the Commission "could reasonably treat them as benefits that the zones confer on the facility, rather than benefits that they derive from it."<sup>153</sup> As such, the court said, "counterflows can reasonably be considered a basis for discounting rather than increasing a zone's cost allocation."<sup>154</sup>

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<sup>151</sup> See *Atl. City Elec. Co. v. FERC*, 295 F.3d 1 (D.C. Cir. 2002).

<sup>152</sup> Remand Opinion, 45 F.4th at 283-284.

<sup>153</sup> *Id.*

<sup>154</sup> *Id.*

79. The court noted that the approach approved by the Commission was not necessarily the only reasonable one. The court also recognized that, after the Commission issued the orders under review on appeal, the Neptune/LIPA Complaint had been filed, which also challenged netting, and the Commission had ordered further proceedings to examine the practice. The court held that, while the Commission reasonably explained its decision to approve netting in the proceedings under appeal, the court was not prejudging the Neptune/LIPA Complaint and did not foreclose the Commission from reconsidering its position on netting given whatever evidence and arguments may be developed in that proceeding.<sup>155</sup>

## 2. Complaint Arguments

80. In their complaint, Neptune/LIPA state that PJM performs its DFAX calculation by measuring each zone's relative portions of a transfer of energy from a defined source to a defined sink, across an RTEP upgrade element. Within this process, Neptune/LIPA state that PJM is using nodal flow data over the upgrade, which can occur in both positive and negative directions to produce a load-weighted DFAX value by zone, not by bus, averaging the sum of each zone's flow results to produce a single load-weighted DFAX value for the zone.<sup>156</sup> Neptune/LIPA contend that in instances where all buses within the zone have flow in a single direction, this produces an accurate aggregate value of usage for the zone, but where a zone has flow buses with usage over the upgrade in both the positive and negative direction, averaging acts to offset the positive direction and negative direction flows, yielding an understatement of the aggregate usage for the zone.<sup>157</sup> Neptune/LIPA contend that where the solution-based DFAX method assigns cost responsibility based on a measure of use by the load of each zone or merchant transmission facility, netting of directional flows results in load-weighted DFAX values that do not accurately reflect the level of usage attributed to each zone, where all usage should be measured and cost allocated based on total usage. Neptune/LIPA contend that for a flow-based analysis that identifies and assigns cost responsibility to beneficiaries based on use, the masking of flow usage values through the netting procedure is not consistent with basic cost causation and beneficiaries pays principles.<sup>158</sup> Neptune/LIPA

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<sup>155</sup> *Id.* at 284.

<sup>156</sup> Neptune/LIPA Complaint at 10-12.

<sup>157</sup> *Id.* at 19-24. Neptune/LIPA further state that “The magnitude of disparities produced by netting are ... manifestly unjust and unreasonable ... [and] the relative comparison of benefits to costs is extraordinarily lopsided.” *Id.* at 26.

<sup>158</sup> *Id.* at 38, 4 (citing *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254, 1261, *reh'g denied*, 905 F.3d 671 (D.C. Cir. 2018); *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992); and *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361,

offers that instead of calculating a single “netted” load-weighted DFAX value for each zone, the model would calculate a positive flow load-weighted DFAX and a negative flow load-weighted DFAX for every zone (a bus-by-bus approach).<sup>159</sup>

81. In comments filed in the Consolidated Proceedings following the Remand Opinion, the PJM Transmission Owners contend that the court found that the Commission reasonably explained its decision to permit netting and reiterate that Neptune/LIPA have failed to demonstrate that netting is unjust and unreasonable.<sup>160</sup> The New Jersey Board contends that the court upheld the netting procedures and that Neptune/LIPA have not shown that netting is unjust and unreasonable.<sup>161</sup>

82. In response, Neptune/LIPA state that the netting provisions are directly before the Commission in the Consolidated Proceedings and contend that the Commission is not foreclosed by the Remand Opinion from reconsidering the netting provisions of the solution-based DFAX method. Neptune/LIPA contend that substantial evidence presented demonstrates that netting produces unjust and unreasonable cost allocation assignments.<sup>162</sup>

### **3. Determination**

83. We deny the Neptune/LIPA Complaint in Docket No. EL21-39-000 that challenges the netting provisions of the solution-based DFAX method. The Neptune/LIPA Complaint raises arguments against netting that the Commission considered when denying the Con Edison Complaint and Linden Complaint. For the same reasons discussed in the Commission’s orders on the Con Edison Complaint and Linden Complaint, which were upheld by the court in the Remand Opinion, we continue to find that PJM’s Tariff provisions on netting under the solution-based DFAX method are just and reasonable and not unduly discriminatory or preferential. Specifically, 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

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1369 (D.C. Cir. 2004).

<sup>159</sup> *Id.* at 44-45.

<sup>160</sup> PJM Transmission Owners Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 2, 4-18 (Sept. 30, 2022).

<sup>161</sup> New Jersey Board Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 10 (Sept. 30, 2022).

<sup>162</sup> Neptune/LIPA Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 4-5 (Sept. 30, 2022).

reduces the need for expanding that constraint” and “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.”<sup>163</sup> We continue to find this approach just and reasonable in determining zonal cost allocations.

84. Neptune/LIPA argue that costs should be allocated in proportion to a zone’s maximum potential positive and negative MW usage of a transmission facility, with maximum potential MW usage determined based on the zone’s gross usage, over individual buses, in both positive and negative directions. We find that Neptune/LIPA have failed to demonstrate that the netting of individual buses’ DFAX values within a zone is an unjust and unreasonable measure of the zone’s use of a facility as a whole; rather, we find that it is reasonable to consider counterflows caused by a zone’s constituent transmission buses. In performing the DFAX analysis, PJM determines the flows across a transmission facility from each node within the zone. When calculating a DFAX value for a zone, we find that netting those positive and negative flows is just and reasonable because it reflects the zone’s overall use of the facility. Specifically, we find that PJM’s practice of netting a zone’s constituent buses to calculate a DFAX value for the zone as a whole is just and reasonable because it appropriately reflects the fact that a zone’s bus-level power flows in opposite directions will offset each other and result in a combined zonal power flow. While there may be other methods of calculating a zone’s net contribution to the use of a facility, we do not need to consider alternatives to PJM’s practice.<sup>164</sup>

85. Neptune/LIPA show a significant difference between the cost allocations that result from the current solution-based DFAX method and Neptune/LIPA’s proposed bus-by-bus analysis. Such a difference, however, does not establish that PJM’s current practice of calculating DFAX for zones as a whole is unjust and unreasonable. The question is whether PJM’s current practice estimates zones’ usage of, and benefits from, a transmission facility in a manner that is roughly commensurate to satisfy the cost causation principle. While Neptune/LIPA’s methodology also may satisfy the cost causation principle, the fact that other methodologies do so does not mean that PJM’s use of netting is an unjust and unreasonable methodology for calculating a zone’s use of the facility. For these reasons, we find that Neptune/LIPA have not met their burden under

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<sup>163</sup> Linden Complaint Order, 155 FERC ¶ 61,089 at PP 62-63; Linden Complaint Rehearing Order, 170 FERC ¶ 61,122 at P 49 (“Accounting for counterflow in zonal netting is an important factor in considering a load’s contribution to a particular constraint.”).

<sup>164</sup> See *Entergy Ark., LLC v. FERC*, 109 F.4th 583, 594 (D.C. Cir. 2024) (“FERC is not required to choose the best solution, only a reasonable one.” (quoting *Petal Gas Storage, LLC v. FERC*, 496 F.3d 695, 703 (D.C. Cir. 2007))).

FPA section 206 and accordingly deny their complaint's challenge to PJM's use of netting.

**D. Cost Reallocation Order**

86. In the Remand Opinion, the court vacated the Cost Reallocation Order and remanded on the short-circuit and *de minimis* issues.<sup>165</sup> The court noted that appellants did not challenge the Commission's procedural ruling in other orders that when PJM files cost allocations under section 205 of the FPA, its role is limited to determining whether PJM correctly applied the methodology required by its Tariff rather than examining the lawfulness of that methodology. The court found that with respect to the Cost Reallocation Order, the Commission had not similarly found that its role was limited in reviewing the filing, and vacated and remanded that order. The court stated that the Commission on remand may consider in the first instance whether the challenges to the reallocation of cost responsibility following termination of the Con Edison TSAs are procedurally barred.<sup>166</sup>

87. We affirm the determination in the Cost Reallocation Order in Docket No. ER17-950-006 providing for the reallocation of cost responsibility following termination of the Con Edison TSAs. Section 12(b)(xi) of Schedule 12 of the PJM Tariff requires PJM to reallocate the costs previously allocated to Con Edison upon termination of its TSAs.<sup>167</sup> This provision does not specify the cost allocation method to use for the reallocation. As noted in the Cost Reallocation Order, the then-current cost allocation process in Schedule 12 required that PJM reallocate the costs for the Bergen-Linden Corridor Project and the Sewaren Project annually, which is the methodology in which these challenged projects were initially allocated.<sup>168</sup> We therefore find that PJM's determination to use the currently-effective cost allocation in Schedule 12 to reallocate the costs of these projects conforms with Schedule 12 and is a just and reasonable cost

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<sup>165</sup> Remand Opinion, 45 F.4th at 290. The short-circuit and *de minimis* issues are addressed above.

<sup>166</sup> *Id.*

<sup>167</sup> PJM, Intra-PJM Tariffs, Sched. 12, OATT Sched. 12 (15.0.0), § (b)(xi) ("All cost responsibility assignments for Required Transmission Enhancements pursuant to this Schedule 12 shall be adjusted at the commencement and termination of service under the ConEd Service Agreements to take account of the assignments under subsection (xi)(A) of this section.").

<sup>168</sup> Cost Reallocation Order, 170 FERC ¶ 61,124 at P33, *order on reh'g*, 172 FERC ¶ 61,176 at P37 (finding the use of PJM's currently-effective cost allocation method to be just and reasonable).

allocation, and the Commission's role is limited to whether PJM correctly implemented its Tariff. We note that because we have granted the challenges to the use of the *de minimis* threshold exemption, the costs for the reallocated costs from the Con Edison termination of its TSA also will be adjusted.

#### IV. Refunds

##### A. Motions Addressing the Remand Opinion

88. On September 30, 2022, the New York Entities filed a motion requesting that the Commission direct PJM to issue refunds with interest to the New York Entities for their payments for the Bergen-Linden Corridor Project and Sewaren Project, consistent with the Remand Opinion.<sup>169</sup> Indicated transmission owners and New Jersey Rate Counsel opposed the New York Entities motion.<sup>170</sup> In the Neptune/LIPA Complaint proceeding, the PJM Transmission Owners filed a request that the Commission stay the Consolidated Proceeding to allow the parties to consider additional or alternative targeted modifications in light of the Remand Opinion.<sup>171</sup>

89. On September 13, 2023, indicated transmission owners filed a motion requesting that the Commission initiate a briefing schedule on whether the costs of the Bergen-Linden Corridor Project and Sewaren Project should have been allocated using the existing solution-based DFAX method.<sup>172</sup> The New York Entities opposed the motion.

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<sup>169</sup> New York Entities Motion, Docket No. EL15-18-005, at 3 (Sept. 30, 2022). The New York Entities are Con Edison, Linden, Hudson, and New York Power Authority.

<sup>170</sup> Indicated Transmission Owner Answer, Docket No. EL15-18-005 (Oct. 17, 2022). For the purposes of this filing, the indicated transmission owners are Allegheny; AEP; VEPCo; Duke, Duquesne; EKPC; Exelon; FirstEnergy; PHI; PPL; and UGI Utilities, Inc. (UGI). For purposes of the Linden Complaint proceeding, the PJM Transmission Owners are acting through the CTOA.

<sup>171</sup> PJM Transmission Owners Reply Comments, Docket Nos. EL21-39-000 & ER22-1606-000, at 23 (September 30, 2022). Since 2022, the PJM Transmission Owners have filed quarterly status updates indicating progress in the settlement discussions and requesting that the Commission continue to hold the proceeding in abeyance.

<sup>172</sup> Indicated Transmission Owners, Motion, Docket No. EL15-18-005 (Sept. 13, 2023). For the purposes of this filing, the indicated transmission owners are Allegheny; AEP; VEPCo; Duke; Duquesne; EKPC; Exelon; FirstEnergy; PPL; and UGI. For purposes of the Linden Complaint proceeding, the PJM Transmission Owners are acting

90. On June 9, 2025, the New York Entities filed a renewed motion for Commission action. The New York Entities contend that to the extent the Commission was concerned with the resolution of Consolidated Proceedings prior to acting on the remand, with the filing of the Settlement, that is no longer an obstacle to the Commission's consideration of the remand.<sup>173</sup> Indicated transmission owners filed comments opposing the New York Entities motion,<sup>174</sup> and answers were filed by the New York Entities, PSEG, the New Jersey Parties. The indicated transmission owners filed an answer. In opposing the New York Entities June 9, 2025 motion, the indicated transmission owners renewed their September 13, 2023 motion governing the remand proceeding because they contend that any refunds to the New York Entities are limited to the cost allocation for the Bergen-Linden Corridor Project and Sewaren Project that both address short circuit violations, and in order to resolve the proceeding on remand, the Commission need not consider or reach any global decisions regarding the allocation of the costs of any other transmission projects in PJM.<sup>175</sup>

### **B. Determination**

91. We disagree with the indicated transmission owners that, if we resolve the cost allocation of the Bergen-Linden Corridor Project and Sewaren Project, we do not have to address the cost allocation of any other projects in PJM. In the Linden Complaint in Docket No. EL15-67-000 and the Second Linden Complaint in Docket No. EL17-68-000, the complainant challenge was not limited to the cost allocations for the Bergen-Linden Corridor Project and Sewaren Project, but the *de minimis* threshold exemption generally as unjust and unreasonable. In the Remand Opinion, the court remanded the Commission's findings on both the *de minimis* threshold exemption and the cost allocation for transmission facilities addressing short circuit reliability violations, and that remand was not limited to the cost allocation for the Bergen-Linden Corridor Project and the Sewaren Project. As discussed above, in this order we modify the vacated and remanded Con Edison Complaint Order in Docket No. EL15-18-005, the Linden Complaint Order in Docket Nos. EL15-67-005, and the Second Linden Complaint Order in Docket No. EL17-68-003; direct elimination of the *de minimis* threshold exemption as the just and reasonable replacement rate; and establish a briefing schedule on whether the solution-based DFAX method is just and reasonable for allocation of the costs of

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through the CTOA.

<sup>173</sup> New York Entities Motion, Docket No. EL15-18-005, at 3 (June 9, 2025).

<sup>174</sup> Indicated Transmission Owner Answer, Docket No. EL15-18-005 (June 24, 2025).

<sup>175</sup> Indicated Transmission Owners Answer, Docket No. EL15-18-005, at 6 (Sept. 19, 2025).

transmission projects that address short-circuit reliability violations, or whether there are other potentially just and reasonable cost allocation methods for projects that address these reliability violations.

92. Because we have made a finding on the *de minimis* threshold exemption and established a just and reasonable replacement rate, we find it appropriate to require PJM to correct its billing and provide relief to the parties at this time. We therefore require PJM, on behalf of the PJM Transmission Owners,<sup>176</sup> to recalculate the cost allocations in Schedule 12 and correct the billing (with interest calculated pursuant to section 35.19(a) of the Commission regulations)<sup>177</sup> within 90 days of the date of this order for all projects back to June 18, 2015,<sup>178</sup> the date on which the Commission committed legal error by denying the Con Edison Complaint.<sup>179</sup> Should the Commission conclude that further relief, including refunds, is warranted following the paper hearing, the Commission will address such relief at that time.

The Commission orders:

(A) On remand, as to the *de minimis* threshold exemption, we hereby modify the vacated and remanded Con Edison Complaint Order in Docket No. EL15-18-005 and Linden Complaint Order in Docket Nos. EL15-67-005 and the Second Linden Complaint Order in Docket No. EL17-68-003, and grant the Neptune/LIPA Complaint in Docket No. EL21-39-000, as discussed in the body of this order.

(B) On remand, we affirm the Cost Reallocation Order in Docket No. ER17-950-006, as discussed in the body of this order.

(C) The Neptune/LIPA Complaint in Docket No. EL21-39-000 challenge to the netting provisions of the solution-based DFAX method is denied, as discussed in the body of this order.

(D) The Host Zone Proposal in Docket No. ER22-1606-000 and Settlement

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<sup>176</sup> PJM has agreed to make eTariff filings for the PJM Transmission Owners.

<sup>177</sup> 18 CFR § 35.19a (2025).

<sup>178</sup> PJM is required to make cleanup filings through eTariff to correct the cost allocations for each cost allocation and is reminded to use a higher Record Effective Priority Order to ensure the correct tariff record is listed as effective on that date.

<sup>179</sup> We note that if the Commission were to establish an alternative just and reasonable cost allocation methodology for transmission facilities that address short circuit reliability issues, additional refunds may be required.

proposal in Docket No. ER22-1606-001 are hereby rejected, as discussed in the body of this order.

(E) PJM, on behalf of the PJM Transmission Owners, is hereby directed to file, within 90 days of the date of this order, a revised Schedule 12 of the PJM Tariff eliminating the *de minimis* threshold exemption, effective June 18, 2015, as discussed in the body of this order.

(F) PJM is hereby directed, within 90 days of the date of this order, to recalculate the cost responsibility assignments for the Transmission Enhancement Charges for the period beginning June 18, 2015 to reflect the elimination of the *de minimis* threshold exemption in the calculation of cost responsibility assignments, and to assess refunds and surcharges, including interest, as discussed in the body of this order.

(G) Paper hearing procedures are hereby established to develop a further record to determine whether the solution-based DFAX method is just and reasonable for the assignment of cost responsibility for transmission facilities that address short circuit reliability concerns, as discussed in the body of this order.

(H) Responses in the paper hearing procedures are due 90 days from the date of issuance of this order and comments on those responses are due 60 days from the date of initial comments being filed, as discussed in the body of this order.

By the Commission.

( S E A L )

Carlos D. Clay,  
Deputy Secretary.

Appendix

Tariff Records Rejected in ER22-1606-000

PJM Interconnection, L.L.C., Intra-PJM Tariffs, [SCHEDULE 12, OATT SCHEDULE 12 \(15.0.0\)](#), <http://etariff.ferc.gov/TariffSectionDetails.aspx?tid=1731&sid=307622>.

Tariff Records Rejected in ER22-1606-001

PJM Interconnection, L.L.C., Intra-PJM Tariffs, [SCHEDULE 12, OATT SCHEDULE 12 \(15.1.0\)](#), <http://etariff.ferc.gov/TariffSectionDetails.aspx?tid=1731&sid=353856>.