

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

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 ER22-1606-001
Neptune Regional Transmission System, LLC (Consolidated)
Long Island Lighting Co.

**REPLY COMMENTS OF PJM INTERCONNECTION, L.L.C.
TO RESPONSES ADDRESSING PAPER HEARING QUESTIONS**

PJM Interconnection, L.L.C. (“PJM”) hereby files these reply comments addressing comments submitted¹ by Public Service Electric & Gas Company (“PSE&G”) in response to the questions posed by the Federal Energy Regulatory Commission

¹ Three parties submitted responses other than PJM: (1) the PJM Transmission Owners, (2) New York Entities (including Consolidated Edison Company of New York, Inc.; Linden VFT, LLC; Hudson Transmission Partners, LLC; and New York Power Authority), and (3) PSE&G. *PJM Interconnection, L.L.C.*, Response of the Indicated PJM Transmission Owners to Paper Hearing Questions, Docket Nos. EL15-18-005, et al. (June 4, 2026) (“PJM TOs June 4 Response”); Initial Brief of Consolidated Edison Company of New York, Inc., Linden VFT, LLC, Hudson Transmission Partners, LLC, and New York Power Authority, Docket Nos. EL15-18-005, et al. (June 4, 2026); *Pub. Serv. Elec. & Gas Co.*, Initial Comments of Public Service Electric & Gas Company, Docket Nos. EL15-18-005, et al. (June 4, 2026) (“PSE&G Comments”).

(“Commission”) in the Order on Remand issued in the above-captioned proceedings.² PSE&G argues that the Commission should abandon the existing solution-based distribution factor (“DFAX”) methodology for allocating the costs of transmission facilities that address short-circuit reliability violations (“Short Circuit Projects”), and replace it with a new methodology based on each zone’s proportional contribution to the short-circuit fault current (“Short Circuit Methodology”).³

As explained below, PSE&G has not demonstrated that the existing solution-based DFAX methodology is unjust or unreasonable or that its proposed replacement, the Short Circuit Methodology, satisfies the applicable cost causation and “beneficiary pays” principles. To the contrary, solution-based DFAX allocates costs in a manner that is roughly commensurate with benefits.⁴ As best can be determined, PSE&G’s insufficiently developed and otherwise problematic⁵ methodology would not produce just and reasonable cost allocations. Accordingly, the Commission should reject PSE&G’s proposed Short Circuit Methodology and continue to apply the existing solution-based DFAX methodology to allocate the costs of Short Circuit Projects.

I. REPLY TO PSE&G’S COMMENTS

For the reasons explained more fully in PJM’s initial comments, the solution-based DFAX methodology remains just and reasonable for allocating the costs of Short Circuit

² *Consol. Edison Co. of N.Y., Inc. v. PJM Interconnection, L.L.C.*, 194 FERC ¶ 61,179, at PP 72-76 (2026) (“Order on Remand”).

³ PSE&G proposes what it refers to as a “Short Circuit Methodology,” which it contends reflects the contribution of each zone to the short circuit violation. *See* PSE&G Comments at 11.

⁴ *See PJM Interconnection, L.L.C.*, Response of PJM Interconnection, L.L.C. to Paper Hearing Questions, Docket Nos. EL15-18-005, et al. at 4 (June 4, 2026) (“PJM June 4 Response”); PJM TOs June 4 Response at 3-4, 11-14.

⁵ As explained below, PSE&G’s proposed Short Circuit Methodology leaves large procedural gaps, omits significant assumptions, assumes future technical developments, lacks a practical example, and is at-risk for edge cases that could cause unanticipated results. This latter risk is highlighted below in Section I.B.3.

Projects. As discussed below, PSE&G's initial comments do not demonstrate otherwise, nor does PSE&G demonstrate that its proposed Short Circuit Methodology is just and reasonable.

A. *PSE&G Has Not Demonstrated that Solution-Based DFAX Is Not a Just and Reasonable Methodology for Allocating Costs of Short-Circuit Projects.*

PSE&G offers two related arguments in furtherance of its position that solution-based DFAX is not just and reasonable for purposes of allocating costs associated with Short Circuit Projects. First, PSE&G claims that in its remand opinion,⁶ the U.S. Court of Appeals for the D.C. Circuit ("D.C. Circuit") found that solution-based DFAX is not the appropriate cost allocation method to use for Short Circuit Projects.⁷ Second, PSE&G asserts that solution-based DFAX cannot identify the true beneficiaries of Short Circuit Projects because these projects do not address flow-based issues.⁸ Both of these arguments are flawed and fail to demonstrate that solution-based DFAX is not just and reasonable for purposes of allocating the costs of Short Circuit Projects.

As discussed in PJM's June 4 Response,⁹ the court *did not* find that applying the solution-based DFAX method to Short Circuit Projects violates cost causation *per se*. Rather, the court held that "[the Commission] may be able to provide a more satisfactory

⁶ *Consol. Edison Co. of N.Y., Inc. v. FERC*, 45 F.4th 265 (D.C. Cir. 2022).

⁷ PSEG Comments at 9-11; *see id.* at 10-11 ("[A]pplying solution-based DFAX to short-circuit projects would not be consistent with the DC Circuit's [remand opinion] and the Commission's precedent in the *Artificial Island Rehearing Order*,[] in which the Commission concluded that solution-based DFAX is not appropriate for non-flowed stability related reliability projects.") (citing *Del. Pub. Serv. Comm'n v. PJM Interconnection L.L.C.*, 164 FERC ¶ 61,035 at P 41 (2018) ("*Artificial Island Rehearing Order*"), *reh'g denied*, 166 FERC ¶ 61,161 (2019), *petition for review denied sub nom. Pub. Serv. Elec. & Gas Co. v. FERC*, 989 F.3d 10 (D.C. Cir. 2021))).

⁸ PSEG Comments at 10 ("Specifically, because short-circuit projects are not built to relieve overload or power flow issues, their true beneficiaries cannot be determined by steady-state power flow modeling." (citing *Artificial Island Rehearing Order*, 164 FERC ¶ 61,035, at P 38)).

⁹ PJM June 4 Response at 6-8.

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.”¹⁰ Specifically, the court did not find error in the Commission’s findings, but in the Commission’s articulation of its decision-making. PSE&G’s references to the D.C. Circuit’s opinion, therefore, do not indicate that the court was concerned about the technical soundness of whether solution-based DFAX should be used for allocating the costs of Short Circuit Projects. Rather, the court was concerned about the soundness of the Commission’s articulation of *its* findings. This is the basis of the remand – to permit the Commission to provide more thorough reasoning for its decisions, without requiring a specific outcome regarding whether solution-based DFAX remains just and reasonable for allocating costs of Short Circuit Projects. It left Commission precedent, including the *Artificial Island Rehearing Order*,¹¹ untouched.

PSE&G’s second argument—“because short-circuit projects are not built to relieve overload or power flow issues, their true beneficiaries cannot be determined by steady-state power flow modeling”¹²—rests on a fundamentally flawed premise. The reliability violation that Short Circuit Projects are intended to remedy does not necessarily dictate the method by which beneficiaries can be identified. As demonstrated in these proceedings, it can be challenging, if not impossible, to point to specific causes as the primary drivers of the solution to a transmission violation¹³ because the drivers are cumulative in nature, fed

¹⁰ Order on Remand, 194 FERC ¶ 61,179, at P 71 (quoting *Consol. Edison Co. of N.Y., Inc.*, 45 F.4th at 281).

¹¹ See *supra* note 7.

¹² PSE&G Comments at 10 (citing *Artificial Island Rehearing Order*, 164 FERC ¶ 61,035, at P 38).

¹³ PJM June 4 Response at 5 (citing *see* Second Revised Transcript of Technical Conference at 10:7-25, 63:10-25, 64:1-5, 78:4-25, 79:1-25, 80:1-25, 81:1-5, *In the Matter of PJM Interconnection, L.L.C.*, Docket Nos. ER15-2562-000, et al. (Feb. 18, 2016)).

from a variety of sources on the system, representing the added impacts of all short-circuit-level increases throughout the system.¹⁴ The short circuit level increases on the system are, in fact, the result of enhancements or expansion to the transmission system, the costs of which are allocated responsibility via the solution-based DFAX method. In this situation, it is more appropriate to use flow-based modeling to evaluate the projected use of a new Short Circuit Project by load of each transmission zone as that use evolves over time throughout a significant portion of the lifespan of the transmission asset. This incorporation of transmission system benefit progression over time is in contrast to PSE&G's Short Circuit Methodology that would bind the allocation to a specific system condition and snapshot in time. The Commission has agreed, finding that this approach is appropriate because, while the underlying reliability issue may not be flow-based, "the evolving use of the facility is well represented by the solution-based DFAX method."¹⁵ The Commission has also concluded that "[t]he ability to reflect changing system conditions and use over time, and thus the changing beneficiaries of a transmission facility, is one of the primary benefits of the solution-based DFAX method, along with the elimination of the necessity of analyzing each violation and driver of a project separately."¹⁶

¹⁴ PJM June 4 Response at 5.

¹⁵ PJM June 4 Response at 4-5 (citing *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,089, at P 55 (2016) ("Linden Complaint Order"), *reh'g denied*, 170 FERC ¶ 61,122 (2020), *vacated in part and remanded in part sub nom. Consol. Edison Co. of N.Y., Inc.*, 45 F.4th at 265).

¹⁶ PJM June 4 Response at 7 (citing Linden Complaint Order, 155 FERC ¶ 61,089, at P 57).

B. *PSE&G Has Not Demonstrated that its Proposed Short Circuit Methodology is Just and Reasonable.*

1. *PSE&G has not provided sufficient information for the Commission or PJM to evaluate its proposal.*

PSE&G proposes the Short Circuit Methodology which, it argues, “. . . reflects each PJM zone’s proportional contribution to the short-circuit fault current at the facilities experiencing reliability violations . . . as well as the regional benefits of the project to the PJM region.”¹⁷ Specifically, PSE&G proposes the following:

For Regional Facilities and Necessary Lower Voltage Facilities that address a short circuit reliability violation, PSE&G proposes that the Commission adopt a hybrid cost methodology that allocates (1) 50 percent of the costs on a load-ratio share basis and (2) the other 50 percent based on the Short-Circuit Methodology; and

For Lower Voltage Facilities that address a short circuit reliability violation, 100 percent of the costs [] should be allocated using the Short-Circuit Methodology.¹⁸

PSE&G explains that the Short-Circuit Methodology consists of a two-step process:

Step 1: determine the percentage of excess fault current attributable to the host zone where the short-circuit facilities are located; and

Step 2: determine the percentage of fault current that is attributable to areas outside of the host zone.¹⁹

PSE&G has not provided sufficient detail for the Commission or PJM to meaningfully evaluate how the proposed methodology would operate in practice. Even if PSE&G proposed an illustrative calculation, which it has not, its proposed method appears to misunderstand how different parts of the transmission system contribute to faults, and it

¹⁷ PSE&G Comments at 11.

¹⁸ PSE&G Comments at 11. All capitalized terms that are not otherwise defined herein have the meaning as set forth in the PJM Open Access Transmission Tariff (“Tariff”).

¹⁹ PSE&G Comments at 12.

fails to account for future transmission solutions or the associated enhancements and benefits that those transmission solutions provide.

2. *Even as described, the proposal does not allocate costs based on benefits.*
 - a. The proposal focuses on fault-current sources rather than transmission benefits including enabling generation to serve load.

PSE&G suggests using computer-based engineering models to measure each zone's proportional contribution to the flow of short circuit fault current during a system fault.²⁰ System contributions to a fault, however, are largely driven by generation on the system. Unlike power flow analyses, which are significantly impacted by generation, load, and the transmission network, short circuit analyses are predominately impacted by generation and the transmission network. The strength of the transmission system between the fault supply, i.e., generation, and the fault location has a very significant impact on the magnitude of the fault. Therefore, while generation supplies the fault current, transmission system enhancements that enable generation to serve load increase the propagation of the fault duty on the system. Thus, those enhancements are driven by the need to serve load, even though generation is the direct source of the fault current.

- b. The proposal would improperly localize costs for regional facilities.

Applying a method that allocates costs based on each zone's contribution to fault current contribution to a specific fault on a zonal basis is flawed since any resulting calculation, which PSE&G has not provided enough explanation to determine, will disproportionately assign costs to electrically proximate zones with the greatest amount of

²⁰ PSE&G Comments at 2, 12.

generation.²¹ This approach, by design, would completely ignore usage of the transmission system to serve load, delivery of generation to load, and would essentially penalize the closest zones with the most generation without considering the actual usage of the system to deliver generation to load. But, transmission is required to deliver generation to load. Thus, when one looks at the overall system in the aggregate, PSE&G's Short Circuit Methodology does not adequately consider each element that contributes to higher short circuit fault levels and their solutions. Solution-based DFAX method, on the other hand, appropriately recognizes the global relationship of these three elements by measuring flow requirements and flow usage, and hence the associated short circuit level. Accordingly, solution-based DFAX is better suited to allocate costs for short circuit solutions.

c. Freezing cost shares for the life of the asset ignores evolving system conditions.

PSE&G's focus on identifying the drivers of the violation would not accurately capture the benefits of associated upgrades, particularly given the constantly changing nature of the transmission system. PSE&G proposes performing that calculation then fixing the "calculated shares for the life of the asset."²² This is a flawed approach since the result would essentially be a snapshot of the closest generation to the fault, by zone, at the time and under the specific condition it occurred and would ignore any future generation retirements, generation additions, and transmission system enhancements. It would not be able to more dynamically account for changes to the transmission system over time, which

²¹ Some types of generation produce more fault current than others. For example, rotating or synchronous generation resources contributes much more fault current than inverter-based generation resources, e.g., solar and wind generation, that have electronic inverters between the generating units and the transmission system.

²² PSE&G Comments at 12.

is a principle of the current cost allocation method in PJM,²³ and therefore could not accurately identify the changing beneficiaries, as the solution-based DFAX method naturally does.

3. *The proposal produces unstable and potentially arbitrary cost allocations.*

PSE&G's proposed Short Circuit Methodology also includes a provision for calculating "excess" fault current, but does not indicate how to determine or attribute such excess fault current. Without additional explanation, the proposal appears to define "excess" fault current as beyond the rating of the overloaded circuit breaker. For example, if a breaker is rated at 50 kiloamperes ("kA") and the calculated maximum fault current is 50.1kA then the excess would be 0.1kA or 0.2% over the rating of the breaker. The proposed methodology would therefore require a calculation allocating that 0.2% excess between the host zone and areas outside the host zone. This undefined calculation could have a significant impact on the allocation.

While PSE&G does not include sufficient detail to determine exactly how this 0.2% example would be allocated to the host zone and zones immediately outside the host zone, using an "excess" calculation approach could result in great volatility because a very small value (e.g. 0.1kA) could increase dramatically following relatively minor changes to the model (e.g. 1kA or one order larger or 10kA or two orders larger). Accordingly, despite PSE&G's claim that this allocation "strikes the appropriate balance between cost causation and fairness,"²⁴ that claim cannot be reconciled with a methodology under which very small amounts of excess fault current can produce dramatically different cost allocations.

²³ See Tariff, Schedule 12(b)(iii)(H)(2).

²⁴ PSE&G Comments at 12.

The current solution-based DFAX cost allocation approach does not suffer from this flaw as it is allocating costs based on the overall usage of the transmission facility using a “beneficiary pays” approach.

4. *The proposal suffers from the same deficiencies the Commission previously identified in violation-based DFAX.*

The Commission has recognized that the static nature of the PJM Region’s previous violation-based DFAX was ineffective for allocating costs associated with certain transmission projects. The Commission found that the violation-based DFAX method did not “account for changes in usage and flow direction over time, particularly given the 40 year or longer life span for transmission facilities.”²⁵ That is, the methodology would not account for changing system conditions or the corresponding changes in project beneficiaries over the useful life of a transmission project.

The Commission also found that the violation-based DFAX method could not identify the “causes of multiple constraints,”²⁶ meaning that it could not accurately assign the benefits of a transmission project that addressed more than one reliability issue. Finally, the Commission explained that the violation-based DFAX model geographically “fail[ed] to account for the fact that a high voltage upgrade will resolve multiple constraints in multiple areas in addition to the constraint that is the focus of a DFAX analysis.”²⁷ That is, the Commission determined that the methodology did not capture the broader PJM-wide benefits provided by the Regional Facilities. Taken together, these limitations led the Commission to conclude that the static, violation-based DFAX methodology did not

²⁵ *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230, at P 37 (2012), *order on reh’g*, 142 FERC¶ 61,216 (2013), *rev’d & remanded sub nom. Ill. Com. Comm’n v. FERC*, 756 F.3d 556 (7th Cir. 2014).

²⁶ *PJM Interconnection*, 138 FERC ¶ 61,230, at P 37.

²⁷ *Id.*

adequately identify the beneficiaries of Regional Facilities or allocate costs in a manner consistent with the beneficiary-pays principle.

5. *Accordingly, the Commission should reject PSE&G's proposed Short Circuit Methodology.*

For all of the foregoing reasons, the Commission should reject PSE&G's proposed Short Circuit Methodology. Beyond the fact that PSE&G failed to provide sufficient information for the Commission or commenters to make an informed assessment, the proposal does not allocate costs based on benefits and in fact may lead to unstable and arbitrary cost allocations. It also relies upon cost allocation principles that the Commission has previously rejected in the violation-based DFAX context.

II. CONCLUSION

PJM asks the Commission to consider these comments as it evaluates whether the application of the solution-based DFAX method to allocate costs associated with transmission upgrades addressing short-circuit-based reliability violations is just and reasonable.

Respectfully submitted,

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August 3, 2026

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 3rd day of August 2026.

/s/ Anne Marie Hirschberger

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