142 FERC ¶ 61,216
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

PJM Interconnection, L.L.C. Docket No. EL05-121-008

ORDER ON REHEARING

(Issued March 22, 2013)

Paragraph Numbers

1. On March 30, 2012, the Commission issued an order in response to a remand by the United States Court of Appeals for the Seventh Circuit regarding cost allocation for new transmission facilities that operate at or above 500 kV.[1] Several parties have requested rehearing of the Order on Remand. In this order we affirm the finding that, in this context, using the static distribution factor (DFAX) modeling for PJM transmission facilities operating at 500 kV and above is unjust and unreasonable.[2] Having made that determination, we are required to choose a just and reasonable rate and, based on the record, conclude that using a postage-stamp allocation of the costs of those facilities results in a just and reasonable rate.[3]

2. In making these findings, we acknowledge that issues of cost allocation are some of the most contentious and difficult issues that face the industry and the Commission. They are contentious because the transmission costs to be allocated are usually precise, concrete, and quantifiable whereas the benefits that arise from the improved transmission grid are generally difficult to quantify with precision, involving a greater need for prediction about the future use and operation of electricity systems. As we acknowledged in the Order on Remand, there may be more than one reasonable way to allocate the costs of transmission facilities. We recognize that this is the case in PJM. Indeed, subsequent to this proceeding, the PJM transmission owners submitted an alternative approach to cost allocation, which we accept in a concurrent order as consistent with Order No. 1000.[4]

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[1] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 (2012) (Order on Remand). *See Illinois Commerce Comm'n* v. *FERC*, 576 F.3d 470 (7th Cir. 2009) (Seventh Circuit Opinion).

[2] The DFAX methodology utilizes a computer model of the electric network and power flow modeling software to calculate individual distribution factors for each facility on which a reliability violation has been identified, performing this calculation prior to the addition of the reinforcement identified to resolve the violation. The distribution factors, represented as percentages, express the portions of a transfer of energy from a defined source to a defined sink that will flow across a particular transmission facility or group of facilities, and which represent a measure of the effect of the load of each transmission zone on the transmission constraints being analyzed.

[3] Under a region-wide, postage-stamp methodology, all transmission service customers in a region pay a uniform rate per unit-of-service, based on the aggregated costs of all covered transmission facilities in the region.

[4] *See PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214 (2013). *See also Transmission Planning and Cost Allocation by Transmission Owning and Operating*

(continued…)

3. In this proceeding on remand, in which we consider cost assignment for a now-limited number of new high voltage facilities planned and approved before February 1, 2013, the Commission must reach a reasoned decision about cost allocation that is based on substantial evidence. The record before us contains only two well-developed methodologies: the static DFAX and the postage-stamp methodology. We have selected the methodology that is the best supported on this record in the context of high voltage facilities planned and approved by the PJM Board of Directors before February 1, 2013. The other approaches suggested by parties in this proceeding, proposing a blend of these two methodologies, are mere outlines of a methodology lacking in implementation details and, importantly, supporting evidence that the proposed methodology would meet the cost causation principle. Although alerted to these deficiencies by the Commission, proponents of these blended or hybrid approaches did not submit such evidence on rehearing of the Order on Remand. Therefore, on the record before us, we do not find evidence, substantial or otherwise, for a hybrid cost allocation methodology.

4. Nor do we adopt parties' suggestion that we set for another administrative hearing or settlement judge proceedings the allocation of these costs. We are now addressing a defined universe of projects – those planned and approved by the PJM Board before February 1, 2013. Because of canceled projects and the Commission's action in the concurrently-issued order on prospective PJM cost allocation, the facility costs are now limited to approximately half of the amount under review when we issued the Order on Remand. Moreover, the costs at issue in this proceeding may decrease further as PJM continues its transmission planning process. The Commission has, after significant process – both initially and on remand – selected the postage-stamp cost allocation methodology as a just and reasonable cost allocation method that is supported by substantial evidence on the record in this proceeding. Moreover, given the context noted above – *i.e.*, the lack of evidence on this record supporting a hybrid cost allocation methodology, the now defined universe of projects, and the reduced amount of costs at issue - we do not find a sufficient basis to warrant expending additional time and resources of the parties and the Commission on still further administrative procedures. We act today to provide some certainty to parties concerning the cost allocation for this discrete set of facilities, ending this phase of the litigation.

I. Background

5. On April 19, 2007, the Commission issued Opinion No. 494, an order on an initial decision concerning PJM's transmission rates for the allocation of costs for existing and new transmission contained in PJM's then current Open Access Transmission Tariff

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Public Utilities, Order No. 1000, 76 Fed. Reg. 49842 (Aug. 11, 2011), FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132 (2012).

(Tariff).[5] In Opinion No. 494, the Commission found the existing methodology for cost recovery for existing facilities just and reasonable.[6]

6. Regarding the cost allocation for new transmission, the Commission also found that, because the DFAX methodology was not included in the PJM Tariff in sufficient detail, the Tariff was not just and reasonable. With respect to lower voltage facilities, the Commission found that PJM's previous use of a DFAX model would be acceptable, but required that PJM set forth in its Tariff a detailed methodology for cost recovery of investment in new facilities below 500 kV.[7] Of particular relevance here, with respect to facilities that operate at 500 kV and above, the Commission found that the static, flow-based model for allocating costs was not just and reasonable because it failed to account for the system-wide benefits of those facilities. The Commission concluded that allocating the costs of those facilities using a postage-stamp methodology is a just and reasonable rate.

7. Several parties sought review of Opinion No. 494 and the subsequent Opinion No. 494-A. The Seventh Circuit affirmed the Commission's determination that the cost allocation methodology for existing facilities was reasonable. The Seventh Circuit, however, granted the petition for review regarding the use of a postage-stamp cost allocation methodology for new transmission facilities that operate at or above 500 kV and remanded the case to the Commission for further proceedings.

8. The Commission established paper hearing procedures to allow parties to supplement the record in this proceeding.[8] As part of the paper hearing procedures, PJM and the other parties were encouraged to provide studies, methodologies or other evidence to support their positions. Two cost allocation methodologies were developed on the record in this proceeding, the static DFAX and postage-stamp methodology. In affirming use of a postage-stamp methodology, the Commission dismissed suggestions

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[5] *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007), *order on reh'g,* Opinion No. 494-A, 122 FERC ¶ 61,082 (2008).

[6] For existing facilities, a customer pays the cost of transmission facilities that are located in the same zone as the customer.

[7] The Commission accepted a settlement submitted by PJM that set forth the details and assumptions used in applying the static, flow-based allocation methodology for new facilities that operate below 500 kV in Schedule 12, section (b)(ii). *PJM Interconnection, L.L.C.*, 124 FERC ¶ 61,112 (2008).

[8] *PJM Interconnection, L.L.C.*, 130 FERC ¶ 61,052 (2010).

that it should have adopted alternative cost allocation methods, such as the hybrid approaches. In the Order on Remand, the Commission considered these approaches and found that, when fully developed, such approaches could be just and reasonable.[9]

9. In the Order on Remand, the Commission also recognized that PJM and its stakeholders were considering, in response to Order No. 1000, new approaches for new high voltage transmission cost allocation.[10] The Commission found that PJM and its stakeholders were not precluded by the Order on Remand from considering an approach that combines the attributes of flow-based modeling and the realization that 500 kV and above facilities provide broad regional benefits in development of the Order No. 1000 compliance filing. On October 11, 2012, PJM Transmission Owners proposed such a hybrid cost allocation methodology for new high voltage transmission facilities planned and approved on or after February 1, 2013. As a result the cost allocation methodology approved in this proceeding applies only to those facilities planned and approved by PJM before February 1, 2013.

10. The costs to be allocated under the methodology approved in the Order on Remand have been significantly reduced by the cancellation of several 500 kV transmission upgrades, including both the Branchburg-Roseland-Hudson and Potomac Appalachian Transmission Highline (PATH) project, discussed by the Seventh Circuit, and the Mid-Atlantic Power Pathway (MAPP) project.[11] At the time of the Order on Remand, there were approximately $6.6 billion in new 500 kV and above facilities at issue. Using the estimates provided by PJM in the Order on Remand proceeding, the cancellation of projects reduces the estimated costs of the new 500 kV and above facilities from approximately $6.6 to $2.7 billion. Even with inclusion of construction work in progress and abandonment costs, estimated costs at issue are half of the original $6.6 billion.

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[9] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 49 & n.70.

[10] *Id*. at P 2.

[11] *See* PJM Transmission Expansion Advisory Committee, August 2012 (http://www.pjm.com/committees-and-groups/committees/teac.aspx).

II. March 30, 2012 Order on Remand

A. DFAX Static Modeling of PJM Transmission Facilities Operating at 500 kV and Above

11. The Order on Remand found that PJM's use of a static, flow-based model for allocating the costs of new transmission facilities that operate at or above 500 kV is unjust and unreasonable and unduly discriminatory. In support of this finding, the Commission noted that the DFAX methodology used by PJM is static insofar as it models at a single point in time, and fails to account for changes that occur over time that affect the benefits received by parties from these facilities. These changes can be to generator's, loads, and flow patterns, as well as structural changes such as new transmission facilities and changes to, or retirement of, old transmission facilities.[12]

12. The Commission recognized that a snapshot-in-time model does not reflect these changes in power flows, instead looking at the system as it existed at one point in time prior to the upgrade, and found that the deficiencies in aligning costs and benefits were particularly acute with respect to high voltage lines that serve large portions of the PJM system.[13] The Commission concluded that PJM's static DFAX methodology used for allocating the costs of lower voltage, localized projects does not capture the regional reach nor accurately identify all the benefits, and beneficiaries, of PJM's planned high voltage system, particularly with respect to transmission facilities that relieve multiple transmission constraints over long distances, multiple zones, and long periods of time.[14]

B. Postage-Stamp Allocation of PJM Transmission Facilities Operating at 500 kV and Above

13. In the Order on Remand, the Commission also found that allocating the costs of new transmission facilities that operate at or above 500 kV using a postage-stamp allocation methodology is a just, reasonable and not unduly discriminatory method of allocating the costs of such new facilities. Specifically, the Commission found that the reliability benefits of these facilities will be sufficiently shared by all in the PJM region, including the western part of PJM, to justify regional cost allocation.

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[12] Order on Remand, 138 FERC ¶ 61,230 at P 38.

[13] *Id.* PP 38-46.

[14] *Id.* P 47.

14. The Commission found that transmission facilities operating at 500 kV and above provide benefits in: (1) moving large amounts of power to multiple zones of the region;[15] (2) addressing multiple reliability violations over wide areas; (3) readily accommodating changing power flows (daily, seasonal and in emergencies) and needs of the region; and (4) protecting all parts of the region from significant disruptions. The Commission acknowledged that reliability is a benefit that is difficult to quantify, but that the evidence in this proceeding illustrates that this is a valuable benefit that is enjoyed by all customers interconnected to the integrated PJM system.[16] The Commission further acknowledged that 500 kV and above Regional Transmission Expansion Plan (RTEP) projects, while not all located proximate to all PJM utilities, have been selected by the PJM planning process as the most effective way to resolve looming reliability violations that, left unaddressed, would jeopardize the reliability of the entire integrated system.[17] The Commission predicted that, but for such 500 kV facilities, the PJM system would be unable to provide reliable transmission service. Thus, the Commission concluded that the transmission facilities that directly address such region-wide reliability concerns are reasonably allocated on a *pro rata* basis among all PJM customers.

15. For example, in support of its finding, the Commission recognized the ability of transmission facilities that operate at or above 500 kV to reduce reserve margins by enabling utilities to share resources. The Commission noted that the extent to which the members can share reserves is a direct function of the capability of the transmission system to transfer and deliver power throughout the region. The Commission stated that the evidence shows that transmission facilities that operate at or above 500 kV have greater transfer capability than 345 kV transmission facilities.[18] For instance, the Commission noted that a transmission facility operating at 500 kV has approximately twice the power transfer capability of a transmission facility operating at 345 kV. The transfer capability of transmission facilities operating at 765 kV is even greater; roughly six single-circuit (or three double-circuit) 345 kV lines are required to achieve the load carrying ability of a single 765 kV line. The Commission concluded that the greater reach of 500 kV and above voltage transmission facilities displaces the need for a larger number of lower voltage facilities that would otherwise be constructed. Importantly, the Commission noted that, for every mile of wire installed, the greater reach of higher

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[15] *See* Attachment A (PJM Pricing Zones). http://www.pjm.com/~/media/about-pjm/pjm-zones.ashx

[16] *Id.* P 97.

[17] *Id.*

[18] *Id.* P 103 (citing Fair Pricing Group Comments at 21 (May 28, 2010)).

voltage facilities provides both access to more, geographically diverse sources and a greater ability to share reserves than would lower voltage facilities.

16. In the Order on Remand, the Commission provided an example where Commonwealth Edison Company (ComEd), which is located on the western edge of PJM, operated as a stand-alone entity, would have an operating reserve requirement to meet contingency conditions of 1,175 megawatts (MW),[19] and would have to procure or construct all 1,175 MWs from its own resources, and its customers would have to compensate ComEd for those resources. However, with PJM's robust high voltage transmission grid, the Commission noted that ComEd can reduce its overall cost of maintaining adequate reserves. Specifically, PJM's contingency operating reserve requirement for Western PJM is 150 percent of the largest unit,[20] or 1,950 MW,[21] and ComEd, by being connected to PJM via its robust high-voltage transmission grid, is required to have only its *pro rata* share of the total reserve requirement for Western PJM, approximately 585 MW, rather than having to support its individual 1,175 MW operating reserve requirement.

17. The Commission noted that reliability is not a benefit that can be quantified in absolute terms, and that new high voltage transmission projects in PJM offer a range of reliability benefits to users of the PJM system.[22] The Commission found that the reliability of the PJM transmission system provides for the efficient operation of the PJM markets, which produces up to $2.2 billion in estimated system-wide savings each year, along with additional estimated annual savings associated with decreased service interruptions and power quality disturbances, reduced line losses, and reduced congestion.[23] While the Commission recognized that there is imprecision in valuing the benefits of new transmission facilities that operate at or above 500 kV, the estimated savings provide sufficient justification for the use of the postage-stamp methodology for new transmission facilities necessary to maintain the integrity and reliability of the existing system so that customers will continue to have access to savings and to provide

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[19] Order on Remand, 138 FERC ¶ 61,230 at P 102. *See* Exelon Initial Comments (May 28, 2010), Affidavit of Steven T. Naumann at 40.

[20] *See* PJM Manual 13 (Emergency Operations) § 2.2 (Reserve Requirements).

[21] Order on Remand, 138 FERC ¶ 61,230 at P 102 (citing Fair Pricing Group Comments (May 28, 2010), Declaration of Esam A. F. Khadr at 82).

[22] *Id.* P 110.

[23] *Id.* P 109.

for future needs.[24] Accordingly, the Commission concluded that, for transmission facilities that operate at or above 500 kV, the reliability and other benefits to customers in the PJM region, including in the western parts of PJM, are roughly commensurate with the costs of those facilities allocated using a postage-stamp load-ratio share methodology.

18. In addition, the Order on Remand dismissed arguments made by LIPA regarding how the costs of 500 kV and above transmission facilities should be allocated to merchant transmission facilities, finding such arguments to be outside the scope of the proceeding.[25] The Order on Remand noted that the assignment of RTEP costs to merchant transmission facilities has been addressed in Opinion No. 503;[26] in Opinion No. 503, the Commission noted that the presiding judge's Initial Decision directed PJM to calculate a merchant transmission facility's load-ratio share for 500 kV and above RTEP facilities, and that "[n]o party excepted to the Initial Decision's finding regarding at or above 500 kV upgrades, and we affirm the Initial Decision's determination on this matter."[27]

III. Requests for Rehearing of the March 30, 2012 Order on Remand

19. Requests for rehearing of the Order on Remand were filed by Illinois Commerce Commission (Illinois Commission), Public Utilities Commission of Ohio (Ohio Commission), Dayton Power and Light Company (Dayton), FirstEnergy Companies (FirstEnergy),[28] and Long Island Power Authority (LIPA).

20. As further discussed below, on rehearing parties contend that: (1) the current DFAX methodology has not been shown to be unjust and unreasonable, and (2) the

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[24] *Id.*

[25] *Id.* P 34.

[26] *PJM Interconnection, L.L.C.*, Opinion No. 503, 129 FERC ¶ 61,161 (2009), *order on reh'g*, Opinion No. 503-A, 139 FERC ¶ 61,243 (2012).

[27] *Id.* n.27.

[28] FirstEnergy is an electric utility holding company that serves customers in the five PJM transmission pricing zones of Allegheny Power Company, American Transmission Systems, Inc., Jersey Central Power and Light Company, Metropolitan Edison Company, and Pennsylvania Electric Company. First Energy Rehearing Request at 1 n.3; *see also* Attachment B, FirstEnergy Regulated Distribution Companies. https://www.firstenergycorp.com/content/fecorp/about.html

postage-stamp cost allocation methodology has not been shown to be just and reasonable. LIPA also contends that the Commission erred in the treatment of merchant transmission facilities.

IV. Discussion

A. Static DFAX Methodology

1. Rehearing Requests

21. The parties argue that the findings of the Order on Remand that the DFAX methodology for new transmission facilities that operate at or above 500 kV is not just and reasonable, is not supported by substantial evidence and is arbitrary and capricious. In support, the parties maintain that the DFAX methodology allocates cost for transmission facilities that operate at or above 500 kV to customers in reasonable proportion to the extent to which they create the need for the upgrade by stressing the overloaded transmission elements that must be buttressed or relieved to maintain reliability.

22. The parties also contend that the Commission subjected the DFAX methodology to a customer-specific comparison of benefits and costs, and held the DFAX methodology's compliance with cost causation to a far greater degree of precision than was applied when evaluating the postage-stamp methodology. FirstEnergy argues that a rate satisfies the cost causation requirement if it "allocates costs to customers in proportion *either* to the benefits they derive from the incurrence of the costs *or* to their respective contribution to the need for those costs to be incurred."[29] According to FirstEnergy, the Commission failed to consider the second prong of this standard, i.e., the respective contribution to the need for the costs incurred.

23. The parties next maintain that the finding in the Order on Remand that transmission facilities that operate at 500 kV and above may create benefits for other customers by resolving constraints other than the constraint that creates the immediate need for the upgrade fails to invalidate the existing methodology. Dayton takes issue with the Commission's statement that the solution for resolving a reliability violation identified in a DFAX analysis often mitigates or solves other potential reliability problems. Dayton disagrees with the implicit assumption that those other potential reliability problems are in some far-off zone that is not being allocated the proper level of costs under the DFAX methodology. Dayton further suggests that there is no record evidence that establishes that midwestern utilities receive any reliability benefits from

[29] FirstEnergy Rehearing Request at 24 (emphasis in original).

eastern transmission projects.[30] According to Dayton, the midwestern utilities have "zero 'need'" for the new transmission lines.[31]

24. The Illinois Commission also sees shortcomings in the way PJM conducted its evaluation of multiple violations contributing to the need for a line and argues that the Commission erred by basing its rejection of the DFAX methodology on these analyses. The Illinois Commission further argues that the Commission wrongly concludes from PJM's evaluation that the static DFAX methodology fails to identify all of the cost causers. Even if it is reasonable to conclude that the DFAX analysis misses some cost causers, Illinois Commission argues that the DFAX methodology is still reasonable because the changes in allocations are small.[32] The parties also take issue with the Order on Remand findings that the DFAX methodology fails to account for changes in usage and flow direction over time. It also states that nothing in the record suggests that the flows across transmission lines projected to relieve eastern congestion will suddenly reverse and start flowing power to the Midwest.

25. Finally, the parties offer suggestions on how to alleviate some of the concern about the snapshot analysis and allege that the Commission failed to demonstrate that the DFAX method is unreasonably burdensome. Dayton suggests employing multiple scenario runs and taking an average of those results or performing a DFAX analysis when the facility is first planned and then again when it goes into service. The Ohio Commission and the Illinois Commission make similar suggestions.[33] Such proposals, according to these parties, do not represent an excessive burden to PJM. Dayton notes that one of the hired experts in this proceeding prepared five different DFAX scenario runs. Furthermore, given the magnitude of costs being allocated, Dayton argues that the administrative burden of doing additional DFAX analyses periodically should not be a fatal impediment. The Ohio Commission notes that PJM routinely collects data and analyzes it to determine the transmission and grid impacts and thus argues that a periodic review is worth any administrative burden it may create for PJM.

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[30] Dayton Rehearing Request at 76.

[31] *Id*.

[32] Illinois Commission Rehearing Request at 33.

[33] Illinois Commission Rehearing Request at 34; Ohio Commission Rehearing Request at 8.

2. Commission Determination

26. On rehearing we affirm that PJM's static DFAX methodology is an unjust and unreasonable mechanism for allocating the costs of the PJM transmission facilities that operate at or above 500 kV. PJM's static DFAX methodology does not allocate the costs of high-voltage facilities in a way that is roughly commensurate with the benefits that these facilities will deliver in the near future or over their useful lives.

27. The Seventh Circuit required that the Commission's decision must comport with the principle of cost causation, by comparing the costs assessed against parties to the burdens imposed or benefits drawn by those parties.[34] Courts have recognized that the Commission must take into account both the immediate cause of cost incurrence as well as the ultimate beneficiaries of the construction.[35] In evaluating the reasonableness of PJM's cost allocation mechanism, the Commission therefore has considered both the immediate cause of the construction and the resulting benefits in allocating the costs for the construction of the new transmission facilities. Based on its evaluation, the Commission found, and affirms here, that it is not just and reasonable for PJM to use the static DFAX methodology to allocate costs of transmission facilities that operate at or above 500 kV because the static DFAX methodology fails to appropriately identify those parties that cause the need for the facilities and that benefit from the construction of the facilities.

28. As the Order on Remand noted, the higher voltage transmission facilities provide benefits beyond those identified in PJM's static DFAX modeling analysis. Specifically, the Commission recognized that PJM's static DFAX methodology for allocating the cost of lower voltage, localized projects does not capture the regional reach nor accurately identify all the benefits,[36] and beneficiaries, of PJM's planned high voltage system,

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[34] Seventh Circuit Opinion, 576 F.3d at 476 (citing *Midwest ISO*, 373 F.3d at 1368).

[35] *KN Energy, Inc. v. FERC*, 968 F. 2d 1295, 1302 (D.C. Cir 1992) ("the benefit principle may simply prove to be another prism through which to view the question of cost causation — one that admittedly extends the chain of causation further than FERC has done traditionally. That is, rather than focusing us on the most immediate and proximate cause of the cost incurred, the benefit principle may only ask us to look at a host of contributing causes for the cost incurred (as ascertained by a review of those who benefit from the incurrence of the cost) and assign them liability too").

[36] DFAX does not quantify the long-term benefits of the new lines – it identifies those that are currently flowing power over a facility that is a reliability constraint.

particularly with respect to transmission facilities that relieve multiple transmission constraints over long distances, multiple zones, and over long periods of time.[37] In the case of investments that will last upwards of forty years, it is reasonable for the Commission to balance both short-run causes and benefits and long-run benefits. We disagree with FirstEnergy that our analysis of PJM's use of the static DFAX methodology to allocate the cost of transmission facilities that operate at or above 500 kv failed to consider cost causation. As part our analysis, we evaluated the extent to which the static DFAX methodology fails to recognize the benefits that these facilities will provide to a wide range of customers over their useful life.

29. We continue to find that the static DFAX method has limitations that render it unjust and unreasonable to use as the sole basis for allocating the costs of 500 kV and above transmission facilities within PJM. As previously noted,[38] the static DFAX methodology focuses on a single constraint at a single point in time and, as such, cannot capture the full contribution of high-voltage facilities, which relieve multiple constraints over large areas and over long periods of time. The Commission cannot ignore these failings of the DFAX analysis and find the methodology, nevertheless, reasonable as the Illinois Commission requests.[39] This is demonstrated by PJM's evaluation of the Susquehanna-Roseland facility showing that the project will resolve not one, but 143, violations.[40] Under the DFAX analysis, ComEd and Dayton were allocated a portion, albeit a small portion, of the costs of this facility, and under the sensitivity analysis, the DFAX allocation of this facility to those entities increased.[41] The Illinois Commission faults the Commission for relying on this evaluation, but fails to point to anything that shows that the static DFAX methodology properly identifies all of those that cause the need for the transmission facilities that operate at 500 kV and above.[42] The Illinois Commission argues, in essence, that it is preferable to be under-inclusive of beneficiaries

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[37] Order on Remand, 138 FERC ¶ 61,230 at PP 41-47.

[38] *Id.*

[39] *See* Illinois Commission Rehearing Request at 31-34.

[40] PJM April 13, 2010 Response at 7.

[41] *Id.* at 18. PJM submitted a comparison of DFAX analysis requested by the Commission for the Susquehanna-Roseland facility for the time it was included in the 2007 RTEP, and a sensitivity analysis based on violations for the other facilities found to be overloaded by PJM's review of the 2007 RTEP analysis.

[42] *See* Illinois Commission Rehearing Request at 33.

in allocating these costs. We disagree. Where the relevant transmission facilities are higher voltage, networked facilities that resolve multiple constraints and will provide benefits across their entire forty years of operation, we find that it is appropriate to include those beneficiaries.

30. Moreover, Dayton's allegation that it and other Western PJM utilities do not contribute to the need for facilities is also undermined by PJM's evaluation of the Trans Allegheny Interstate Line (TrAIL) facility.[43] Although in some cases the relative contribution to the need for these facilities by certain Western PJM utilities may be small,[44] we reject Dayton's contention that only far-off zones are causing the reliability violations addressed by the transmission facilities that operate at or above 500 kV. In fact, we note that, even under a DFAX analysis, the need for TrAIL is caused in significant part by violations in the FirstEnergy/APS zone, bordering Ohio.[45]

31. We also continue to find that the snapshot approach of the static DFAX methodology inadequately accounts for the greater transfer capability of high-voltage lines, which provides a widely-shared benefit by allowing the grid to better adapt to changing needs and flow patterns.[46] Similarly, high-voltage facilities increase the system's ability to withstand extreme disturbances, such as the loss of an entire switching station or load center, another benefit not accounted for under the static DFAX methodology. The Commission found in the Order on Remand, and we continue to find, that the static DFAX methodology fails to account for the broad and often difficult-to-measure benefits of high-voltage facilities within PJM. Based on these considerations, for transmission facilities that operate at or above 500 kV, we find that PJM's static DFAX methodology, because of its limitations, is unjust and unreasonable.

32. FirstEnergy alleges that the Commission was arbitrary and capricious in subjecting the static DFAX methodology to a customer-specific comparison of costs and benefits while applying no such analysis to the postage-stamp method. We disagree. The Order on Remand recognized that, unlike lower voltage, localized facilities, high-voltage facilities possess certain inherent characteristics that make measurement of their widely-

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[43] PJM April 13 Response at 7 (showing contributions to need for the lines by APS).

[44] *See* Dayton Rehearing Request, Appendix B at 16.

[45] PJM April 13 Response at 7.

[46] The cancellation of the MAPP and PATH projects highlights the uncertainty of changing needs and flow patterns over time.

distributed benefits on an individualized basis imprecise. As previously discussed, the Commission noted, for example, that the static DFAX methodology fails to account for widely shared benefits such as enhanced reliability of the grid, reduced losses, and other non-quantifiable reliability benefits of higher voltage new transmission facilities.[47] Moreover, the Commission demonstrated that these non-quantifiable reliability benefits accrue to the entire interconnected network. The Commission drew a distinction between the appropriateness of the static DFAX methodology for lower voltage, localized facilities and the inability of the static DFAX methodology to identify beneficiaries for transmission facilities that operate at or above 500 kV.

33. Finally, Dayton, the Illinois Commission and the Ohio Commission contend that the Commission failed to demonstrate that performing periodic or multiple analyses using the static DFAX methodology is unreasonably burdensome. They argue that these identified problems with the static DFAX methodology could be remedied, thereby creating a new type of analysis that is not unjust and unreasonable. This argument, however, lends support to the Commission's finding that the static DFAX methodology is unjust and unreasonable. In fact, it suggests, just as the Commission found, that model is flawed when used for this purpose because it fails to account for changes over time.

34. Dayton, the Illinois Commission, and the Ohio Commission may be arguing that, in determining the just and reasonable rate to replace the current DFAX, their version – a periodic DFAX – is superior to the postage-stamp methodology, adopted by the Commission. We recognize that there may be many just and reasonable methods of cost allocation that the Commission could adopt (or that PJM and its transmission owners may propose).[48] However, as discussed in the Order on Remand and below, we need only

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[47] Order on Remand, 138 FERC ¶ 61,230 at P 38.

[48] In acting under section 206, the Commission is not required to choose the best solution, only a just and reasonable one. *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 703 (D.C. Cir. 2007); *see also Wisconsin Public Power, Inc. v. FERC*, 493 F.3d 239, 266 (D.C. Cir. 2007) (merely because petitioners can conceive of a refund allocation method that they believe would be superior to the one FERC approved does not mean that FERC erred in concluding the latter was just and reasonable); *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 955 (D.C. Cir. 2007) (we need not decide whether the Commission has adopted the best possible policy as long as the agency has acted within the scope of its discretion and reasonably explained its actions); *United Distribution Companies v. FERC*, 88 F.3d 1105, 1169 (D.C. Cir. 1996) ("FERC correctly counters that the fact that AEPCO may have proposed a reasonable alternative to SFV rate design is not compelling. The existence of a second reasonable course of action does not invalidate the agency's determination").

select a just and reasonable methodology and we find that the postage-stamp methodology is just and reasonable. Moreover, as we found in the Order on Remand, the parties suggesting periodic DFAX analysis did not put forward a complete proposal demonstrating how such an analysis could be performed without requiring the unwinding of the transmission grid to determine whether the impacts driving the need for a previously approved project had changed.[49] Moreover, such a periodic analysis that allocates costs solely based on the static DFAX methodology would only identify the immediate direct reliability beneficiaries of these lines and would continue to allow others a free ride for the additional benefits that the lines will provide.

B. <u>Postage-Stamp Cost Allocation</u>

1. <u>Requirement to Compare Costs and Benefits</u>

a. <u>Rehearing Requests</u>

35. The parties contend that the Commission did not fulfill its duty to compare the costs assessed against a party to the burdens imposed or benefits drawn by that party, as required by the Seventh Circuit Opinion. Although all of the parties that requested rehearing argue that the Commission's analysis was incorrect, the parties propose different interpretations of the comparison required by the Seventh Circuit. For example, the Ohio Commission argues that, under a postage-stamp methodology, transmission customers in their state are required to pay costs for which they receive little or no benefit, and that this is contrary to the requirements of the Seventh Circuit. The Ohio Commission states that the Commission's findings of sufficiently broad benefits does not meet the Seventh Circuit's directive to demonstrate how the costs of new transmission facilities that operate at or above 500 kV are roughly commensurate with benefits received. The Ohio Commission contends that the Seventh Circuit's Opinion requires quantification of actual sub-regional or state-by-state benefits associated with each transmission expansion project. The Illinois Commission argues that the Seventh Circuit requires a comparison of the costs and benefits for each customer, and that a comparison be made even if the Commission intended to rely on a presumption that new transmission lines benefit the entire network by reducing the likelihood or severity of outages.

36. The Illinois Commission contends that the Seventh Circuit Opinion does not allow the Commission to rely on presumption of benefits if it can quantify benefits. It asserts that the Commission failed to follow this requirement because nothing in the record indicates that benefits cannot be quantified and clear evidence shows that they are

[49] Order on Remand, 138 FERC ¶ 61,230 at P 44.

quantifiable.[50] It further argues that the postage-stamp methodology is unduly preferential to utilities in Eastern PJM and unduly discriminatory to utilities in Western PJM. The Illinois Commission contends that in applying the postage-stamp allocation methodology, the Commission does not reasonably address these asymmetries. Dayton argues that the costs and benefits must be quantified on a sub-regional or utility-by-utility basis for new transmission facilities that operate at or above 500 kV. It also argues that, when compared to the results of the DFAX methodology, use of the postage-stamp allocation methodology results in an unjustified cost shift. FirstEnergy contends that the Commission did not fulfill its duty of comparing the costs assessed against a party to the burdens imposed or benefits drawn by the party to determine whether customers in different pricing zones benefit from transmission facilities that operate at or above 500 kV or contribute to the need for them in at least rough proportion to their shares of the PJM load.

37. The parties maintain that the Commission's reading in the Order on Remand of the *Midwest ISO* and *Western Massachusetts* cases cited by the Seventh Circuit is erroneous.[51] For example, FirstEnergy and Dayton argue that the Seventh Circuit imposed a burden of comparing the costs assessed against a party to the burdens imposed or benefits received by that party, and that this duty is not excused by a presumption that 500 kV and above facilities benefit the entire network. FirstEnergy also argues that neither *Midwest ISO* nor *Western Massachusetts* excuse the requirement to conduct a customer-focused or sub-regional comparison for the allocation of upgrade costs among transmission customers in a region. Specifically, FirstEnergy contends that the allocation of administrative costs were at issue in *Midwest ISO*, and that the Seventh Circuit distinguished the administrative costs of having a regional transmission organization (RTO) from the cost of using the transmission system. FirstEnergy also contends that while the court in *Western Massachusetts* took note that any enhancements to a utility's integrated system in connection with a generator interconnection are presumed to benefit the entire system, such reliance was based on identifying the beneficiary of the upgrades, and that customers other than the generator will make use of and benefit from the upgrade. Dayton similarly argues that the Commission's interpretation of *Midwest ISO* and *Western Massachusetts* lead to an unwarranted conclusion that a utility-by-utility evaluation is unnecessary. The Illinois Commission argues that *Western Massachusetts* is inapposite because the case involves a single utility in a very small geographic region. According to the Illinois Commission, *Western Massachusetts* also included evidence from flow-based models that showed how customers other than an interconnecting

[50] Illinois Commission Rehearing Request at 23-24.

[51] *Midwest ISO*, 373 F.3d at 1368-69; *Western Massachusetts Electric Company v. FERC*, 165 F.3d 922 (D.C. Cir. 1999) (*Western Massachusetts*).

generator benefited from the upgrade, and here the Commission ignores that same type of evidence.

b. Commission Determination

38. As discussed below, we affirm that the Order on Remand is consistent with the requirements of the Seventh Circuit and deny the requests for rehearing. FirstEnergy argues that the Seventh Circuit did not mandate a particular method of comparing costs and benefits or a numerical target that the comparison must satisfy, but the Seventh Circuit did explicitly require a comparison. In their rehearing requests, the other parties argue for different levels of precision in making this comparison, each asserting that quantification of benefits is required. The Seventh Circuit recognized that, in comparing costs and benefits, the Commission does not have to calculate benefits with exacting precision.[52] The Seventh Circuit further stated that the Commission can approve PJM's proposed pricing scheme even if the Commission cannot quantify the benefits to the Midwestern utilities from new 500 kV lines in the East.[53] In fact, the Illinois and Ohio Commissions, Dayton, and Exelon initially interpreted the Seventh Circuit Opinion as "not require[ing] 'a monetization of benefits,' a 'numerical boundary,' or a 'dollars-and-cents quantification'."[54] Those four parties to the original appeal in the Seventh Circuit agreed, in fact, that "it is perfectly 'fine' for FERC to base a[n] . . . allocation formula on nothing more than an 'articulable and plausible reason to believe benefits are roughly commensurate with [each] utilities' share of total electricity sale in PJM's region.[55] No quantification is necessary."[56] And we agree with their initial interpretation of the Seventh Circuit's Opinion and conclude, as they did, that, in this remand proceeding, "if it cannot quantify the benefits to the midwestern utilities from new 500 kV lines in the East, … but has an articulable and plausible reason to believe that the benefits are at least

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[52] Seventh Circuit Opinion, 576 F.3d at 476 (citing *KN Energy, Inc. v. FERC*, 968 F. 2d 1295, at 1300 (D. C. Cir. 1992) (*KN Energy*) (rates [must] reflect to some degree the costs actually caused by the customer who must pay them)).

[53] *Id.*

[54] *See* Illinois and Ohio Commissions Joint Answer in Opposition to Petition for Rehearing and Rehearing en banc, at 4 (October 6, 2009).

[55] *Id.* (citing Seventh Circuit Opinion, 576 F.3d at 477).

[56] Illinois and Ohio Commissions Joint Answer, at 4.

roughly commensurate with those utilities share of total electricity sale in PJM's region, … the Commission can approve PJM's proposed pricing scheme on that basis."[57]

39. Parties on rehearing contend that, when PJM's static DFAX methodology would not assign them cost responsibility, they are not benefiting from the upgrade. Our analysis, in contrast, recognizes that the new transmission facilities that operate at or above 500 kV are part of PJM's dynamic and integrated system, and we view the benefits of that network system more broadly than the benefits indicated solely by static flow-based modeling. *Western Massachusetts* supports this position.

40. The cost allocation methodology affirmed in *Western Massachusetts* assigned to all network customers the costs of a transmission project that allowed a generator to transmit its electricity across one utility's grid for sale to a neighboring utility in the New England Power Pool.[58] The ability to move power across large areas is one of the broad-based benefits provided by new transmission facilities that operate at or above 500 kV. Even though a generator was the sole proximate cause of the transmission project at issue in *Western Massachusetts*,[59] the Commission based its broader allocation of costs on both (1) a presumption that new transmission lines benefit the entire network; and (2) a study of flows on the system that showed other grid customers would use the upgraded facilities.[60] That study did not show that each and every customer on the grid would, or even could, make use of the facilities once they were built as the Illinois Commission suggests. Rather, it showed that "customers other than [the generator] will make use of and benefit from the grid upgrades," in those few times when the power flowing from the generator is "lower than expected."[61] In fact, the administrative law judge found that although Commission trial staff "suggests that some benefit to the system may have resulted, [its witness] was unable to identify any specific added system benefits accruing to either [Western Massachusetts Electric Company] or to its transmission customers" from the new line.[62] Thus, in *Western Massachusetts*, the only decision cited in the Seventh Circuit Opinion that concerns allocation of the costs of electric transmission

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[57] Seventh Circuit Opinion, 576 F.3d at 477.

[58] *Western Massachusetts*, 165 F.3d at 923.

[59] *Id*. at 925.

[60] *Id*. at 927.

[61] *Id*.

[62] *Western Massachusetts Electric Company*, 64 FERC ¶ 63,028 at 65,128 (1993).

lines, there was no evidence showing with precision how much or even which transmission customers would benefit from the new line. And yet, *Western Massachusetts* affirmed a cost allocation methodology broadly assigning costs.

41. We similarly emphasize, as discussed above, that PJM's static DFAX methodology, while flow-based, does not show how specific customers will actually benefit from the transmission lines once they are built. In this way the DFAX flow-based modeling is unlike the load-flow analysis performed in *Western Massachusetts* that sought to predict future flows.

42. We do not find that the Seventh Circuit required a utility-by-utility or state-by-state assessment; nothing in the Seventh Circuit Opinion mentioned or even alluded to a comparison of costs and benefits for each state, and we do not believe that the Seventh Circuit intended to establish new precedent in defining the required analysis. *Midwest ISO* similarly does not require such a granular approach. *Midwest ISO* recognized that all approved rates reflect "to some degree" the costs actually caused by the customer who must pay them, but noted compliance does not require exacting precision.[63] That the rates at issue in Midwest ISO concerned administrative costs does not undermine the point that there was no party-by-party analysis of costs and benefits submitted by the rate proponent in that case. It was enough, *Midwest ISO* noted, that the cost allocation mechanism not be arbitrary and capricious in light of the burdens imposed or the benefits received. *Midwest ISO* also noted that even if transmission owners are not in some sense using the [system], they benefit from having the [system], and they should share in the costs of having the [system].[64]

43. The parties seeking rehearing state that the Commission is obligated to comply with the Seventh Circuit's requirement that a transmission rate match to some degree the costs allocated to each party and the burdens imposed or benefits drawn by that party. FirstEnergy argues that the Seventh Circuit explicitly imposed this requirement, and contends that the Commission cannot deviate from this prescribed analysis. We agree that we must conduct an analysis that meets the Seventh Circuit's requirements, and that addresses those cost causation concerns upon which that decision was founded, as closely as possible. And we have done that in the Order on Remand and in this Order.

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[63] *Midwest ISO*, 373 F.3d at 1368-69 (citing *KN Energy, Inc. v. FERC*, 968 F.2d at 1300).

[64] *Midwest ISO*, 373 F.3d at 1370-71 (drawing an analogy to the federal court system, which costs a considerable amount to set up and maintain, even though the vast majority of taxpayers will have no contact with that system).

44. While the parties contend that the Commission is required to perform an analysis of the benefits from the new transmission facilities, *KN Energy* did not limit its holding to an analysis of the benefits of each added facility to each and every customer. As previously noted, while articulating a requirement that rates be cost supported, *KN Energy* noted that, under the circumstances, rather than focusing on the most immediate and proximate cause of the cost incurred, consideration of a host of contributing causes may be inquired.[65]

45. The Seventh Circuit stated that the Commission can presume that new transmission lines benefit the entire network by reducing the likelihood or severity of outages, but held that the Commission cannot use that presumption to avoid the duty of comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.[66] We have not relied solely or even predominately on a presumption, but also reviewed evidence of the reliability benefits that the new high voltage lines provide to an interconnected system, and to the extent that these benefits are quantifiable, provided such a quantification. For instance, the Order on Remand described the regional reliability benefits of an interconnected network, finding that new transmission facilities that operate at or above 500 kV have the ability to resolve multiple reliability violations over a broad geographic area.[67] Specifically, the Commission identified resolution of reliability violations,[68] load deliverability, increased transfer capability, and as discussed above, reserve sharing. The Order on Remand further discussed a quantification of these benefits.[69] These findings are discussed below.

46. Rather than a granular analysis of the benefits of each new facility to each and every customer, the Seventh Circuit sought a comparison of the costs assessed against a party to the burdens imposed or benefits received by that party, noting an east/west asymmetry. But transmission facilities that operate at or above 500 kV are not limited to

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[65] *See KN Energy*, 968 F.2d at 1301 (the Commission allowed the cost-spreading of take-or-pay costs to be assessed to those who may not have caused the take-or-pay problem, but nevertheless ultimately benefit from their resolution).

[66] Seventh Circuit Opinion, 576 F.3d at 477. *See Algonquin Gas Transportation Co. v. FERC*, 948 F.2d at 1313 (D.C. Cir. 1991) (the Commission must produce evidence to support the presumption of system benefits).

[67] Order on Remand, *L.L.C.*, 138 FERC ¶ 61,230 at P 80.

[68] *Id.* P 60.

[69] *Id.* PP 78-79.

Eastern PJM. While transmission facilities that operate at 500 kV are primarily located in Eastern PJM, transmission facilities that operate above 500 kV (e.g., 765 kV transmission facilities) also are located in Western PJM. In fact, the function of many 345 kV transmission facilities in Western PJM is to provide local transmission and address more local reliability violations much the way 230 kV transmission facilities address local reliability violations in Eastern PJM.[70] The allocation of costs of upgrades to the 230 kV transmission system in Eastern PJM, like the allocation of costs of the upgrades to the 345 kV transmission system in Western PJM, is based on DFAX modeling, and provides further symmetry between Eastern and Western PJM.[71]

47. Nor are flows on the 765 kV transmission system exclusively west to east. The Commission noted that the flows on the Dumont to Wilton Center 765 kV transmission facility, which is proximate to Chicago, are east to west approximately 30 percent of the time.[72] While the Seventh Circuit did not require a utility-by-utility comparison, the Commission did address the east/west asymmetry and found substantial reliance by Western PJM customers on transmission facilities that operate at or above 500 kV. In fact, as reliance on the 765 kV Dumont to Wilton Center transmission facility indicates, Western PJM customers "will make use of and benefit from" the transmission facilities that operate at or above 500 kV, and Eastern PJM customers receive an allocation of the costs of upgrades to those 765 kV transmission facilities.[73] Flows on the transmission facilities that operate at or above 500 kV also can change over time, including the east/west and west/east orientation, which the Commission's Order on Remand relied on in its findings regarding the integrated nature of such facilities.

48. Moreover, we find that the connections between Eastern and Western PJM have grown stronger since the beginning of this proceeding. First Energy's ten distribution company holdings that stretch from Ohio to New Jersey, and cover vast areas in between,

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[70] *See* Fair Pricing Group Comments at 41-43. The 765 kV transmission facilities in Western PJM, like the 500 kV transmission facilities in Eastern PJM, provide broad reliability benefits across the entire PJM region.

[71] In fact, the ratio of 765 kV/345 kV transmission facilities in Western PJM (0.76) is comparable to the ratio of 500/230 kV transmission facilities in Eastern PJM (1.01). PJM Whitepaper at Table 1.

[72] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 107. The Order on Remand also noted Commonwealth Edison's reliance on the strong transmission infrastructure in joining PJM. *Id.* P 93.

[73] *See Western Massachusetts*, 165 F.3d 922 at 927-28.

show that there is greater commonality now between Eastern and Western PJM in terms of ownership and control.[74] ComEd and Baltimore Gas & Electric, former adversaries in this proceeding representing the far Eastern and Western boundaries of PJM, are now both subsidiaries of the same utility holding company.[75] It is reasonable to expect that a parent company's views of the benefits that these subsidiaries receive from the new high voltage connections facilities will change over time as corporate structures change, blurring distinctions between Eastern and Western PJM.

49. The parties also contend that there is not a sufficient connection between the costs for specific projects and the benefits to actual sub-regions (or states). Such a facility-by-facility analysis was not required by the Seventh Circuit. Nor does the static DFAX methodology provide such information, allocated by state. As further discussed below, the Commission recognized that each of the transmission facilities that operate at or above 500 kV is part of an interconnected transmission network. The Seventh Circuit recognized that a failure in one part of the network can affect the supply of electricity in other parts of the network; the Commission noted that not all projects are proximate to all PJM utilities, but that specific projects have been selected by the PJM planning process as the most effective way to resolve reliability violations. We agree that failure in one part of the system can affect the reliability of other parts of the system. As such, these projects are necessary to maintain the reliability of the interconnected network, and the benefits of the interconnected network are realized by all customers. The new transmission facilities that operate at or above 500 kV provide system-wide reliability benefits, and, while difficult to quantify, where the benefits of the interconnected network are broadly realized by all customers, a postage-stamp allocation is a just and reasonable rate.

50. We understand the results of the postage-stamp allocation methodology vary significantly from the results of the static DFAX allocation methodology. But we do not find the use of a postage-stamp allocation methodology to be a cost shift because PJM did not allocate the costs of any 500 kV and above facility using the static DFAX methodology. Dayton acknowledges that the static DFAX methodology did not received final Commission approval because the Commission reversed its decision and included the new transmission cost allocation methodology in the hearing.[76] Given this acknowledgement, Dayton argues in the alternative that the Commission should examine the cost shifts from the pre-existing allocation of costs to the customers in the zone in

[74] *See* Attachment B.

[75] *See* Attachment A.

[76] Dayton Rehearing Request at 86-87.

which the project is built to the postage-stamp allocation of costs to a broader range of customers. This is not required. The Commission would need to examine the cost-shifting effect that a roll-in of existing costs (those already incurred) would have on customers.[77] In this case, however, none of the costs for the transmission facilities at issue were allocated under the zonal method. Thus, there are no actual cost shifts for the Commission to consider.

51. As discussed above, we have found that the static DFAX methodology is an unjust and unreasonable cost allocation methodology for PJM's new transmission facilities that operate at or above 500 kV.[78] Further, as discussed here and in the Order on Remand, we find the postage-stamp cost allocation methodology to be a just and reasonable replacement. While the allocation of costs under the different methodologies will produce different results, the limitations of the DFAX methodology would also result in unjustified subsidies of some ratepayers by other ratepayers, in that, under the static DFAX analysis, there are no costs allocated to those who receive the broader benefits discussed herein. We continue to find that the just and reasonable rate must include a methodology that recognizes both the quantifiable and difficult to quantify benefits, and the beneficiaries of the new transmission facilities that operate at or above 500 kV, and it is not unduly discriminatory to assign costs to all regions of PJM based on load-ratio shares.

2. <u>Postage-Stamp Allocation of Costs</u>

a. <u>Rehearing Requests</u>

52. Dayton, the Illinois Commission, the Ohio Commission, and FirstEnergy assert that the Order on Remand erred in finding the postage-stamp methodology is a just and reasonable method for allocating the costs of new 500 kV and above facilities, and is not the product of reasoned decision making supported by substantial evidence. The parties argue that the new 500 kV and above transmission facilities at issue are too far away to have any impact on western parts of PJM. The parties further contend that the Commission ignored relevant benefits provided by the new 500 kV and above lines at issue, such as the resolution of identified reliability violations and the impact on Locational Marginal Prices (LMPs), and instead, inappropriately focused on the benefits of membership in a large RTO. The parties state that while the materials relied on in the

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[77] *See Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305, 1315 (D.C. Cir. 1991).

[78] As Dayton notes, PJM's prior practice of allocating cost of transmission enhancements under a flow-based modeling had not been approved by the Commission.

Order on Remand may support the proposition that PJM's planning process provides benefits to customers throughout the PJM region, they are not the type of benefits required by the Seventh Circuit, and that the materials relied on in the Order on Remand have limited probative value. The parties also question specific assumptions that the Commission used in estimating certain benefits included in the Order on Remand.[79]

53. According to Dayton, the Illinois Commission, and FirstEnergy, the Order on Remand erred by failing to give any weight to the fact that all of the new 500 kV and above facilities at issue were proposed to resolve reliability problems in the eastern portion of PJM. The parties state that these identified reliability problems are the cost causative agents for the planned construction of the transmission facilities and should be given more weight than speculation about the potential for a future reversal of load flows, the potential for future cascading outages, or future transmission projects that may be needed to resolve future reliability problems that may arise in the West. Further, given the effective electrical "reaches" of high-voltage lines, the Illinois Commission notes that many load areas within PJM will likely receive minimal benefits from the projects at issue.

54. Dayton and the Illinois Commission also disagree with the Order on Remand's statement that several of the lines at issue were designed to resolve reliability problems in "Western PJM,"[80] noting that these lines are not actually in the West (i.e., Ohio, Indiana, Michigan, and Illinois), but are located in West Virginia, northern Virginia, and eastern Pennsylvania. As such, the Illinois Commission argues that the Commission has redefined Western PJM as the Midwestern utilities that are in PJM's "Western PJM Sub-Region." Regardless of location, Dayton notes that these lines were constructed to solve reliability problems in the east by enhancing west-to-east power flows. Additionally, the Illinois Commission criticizes the Order on Remand for not addressing physical asymmetries between the eastern and western regions of PJM. The Illinois Commission explains that 345 kV is the primary transmission voltage level used to transmit bulk power to load from generators within the western parts of PJM. Thus, according to the Illinois Commission, 500 kV lines will likely never be constructed in the western parts of PJM.

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[79] Dayton requests that the Commission withdraw specific information related to reduced outages, load deliverability data, emergency event information, production cost benefits, and the ISO/RTO Metrics Report. Dayton Rehearing Request at 34.

[80] Dayton Request for Rehearing at 55 and Illinois Commission Request for Rehearing at 12-13 (citing *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 56, n.90 and P 87).

55. Dayton, the Illinois Commission, the Ohio Commission, and FirstEnergy argue that the Order on Remand failed to give any weight to the beneficiaries of reduced energy costs. The parties assert that, once the high voltage lines at issue are constructed, the LMPs in the eastern portions of PJM will drop, while LMPs in the western portions of PJM will rise. To illustrate the effect of reduced energy costs, Dayton notes that, under the postage-stamp methodology, the PSEG zone will pay approximately $12.6 million[81] annually for the Branchburg-Roseland-Hudson Project, while it will receive $31 million[82] in annual energy savings in addition to other incentives for rectifying reliability violations and constructing and owning the facility. In contrast, Dayton notes that under the postage-stamp methodology, the ComEd zone pays twice as much, has higher LMPs, and earns nothing on the investment.

56. Dayton, the Illinois Commission, the Ohio Commission, and FirstEnergy argue that the Order on Remand inappropriately focused on the benefits of membership in an RTO, rather than the benefits of the new 500 kV and above lines at issue. Even if certain benefits are partially derived from PJM having a high voltage system, FirstEnergy states that the issue on remand is not cost allocation for the entire PJM high voltage system, including both new and existing facilities, but cost allocation for the new 500 kV and above upgrades. The Illinois Commission argues that the Commission has not refuted the contention that costs allocated under the postage-stamp cost allocation methodology bear no relation to the costs causation, and that the misalignment of costs and benefits increases over time.[83]

57. The parties also object to the Order on Remand's assumption that certain benefits are shared among transmission zones in proportion to each zone's load-ratio share. For example, regarding benefits associated with PJM's ability to re-dispatch, rather than

[81] Dayton contends that using PSEG's seven percent load-ratio share, it is responsible for approximately $66 million of the $946 million Branchburg-Roseland-Hudson Project. Using the Order on Remand's 19.1 percent carrying charge rate, the annual cost to PSEG is $12.6 million. Dayton Request for Rehearing at 61.

[82] In applying for incentive rates, PSEG claimed the Branchburg-Hudson-Roseland Project would provide approximately $31 million in annual transmission congestion cost savings to the PSEG zone. *Id.* (citing *Public Service Electric and Gas Co.*, 129 FERC ¶ 61,300, at P 20 (2009)).

[83] Illinois Commission Rehearing Request at 19 (citing Illinois Commission Reply Comments, (June 25, 2010) (referencing Dayton Power and Light Initial Comments, Affidavit of Michael M. Schnitzer at 17), and Exelon Initial Comments at 45, Affidavit of Steven T. Naumann, at 45 (May 28, 2010)).

curtail power-sales transactions, Dayton states that the vast majority of congestion occurs in Eastern PJM. Regarding benefits associated with planning on a region-wide basis, Dayton states that, given the location of the reliability problems that the nineteen high voltage facilities at issue are designed to fix, all of the facilities would almost certainly be constructed regardless of whether the study was conducted on a PJM-wide, subregional, state-by-state, or utility-by-utility basis. Dayton also states that savings due to demand response forestalling the need to construct new generation will not be enjoyed proportionally by ComEd and Dayton, since there has been no showing that these zones need new generation.

58. Dayton disagrees with the Order on Remand's calculation of an estimated $53 million in benefits to PJM, and an estimated $7.8 million in benefits to the ComEd zone, related to decreased service interruptions and power quality disturbances from the use of 500 kV facilities rather than 345 kV lines. Dayton notes that all of the 500 kV and above lines at issue are hundreds of miles away from its system, and that it would be a near impossibility for lines located so far away to provide any meaningful role in reducing the number of momentary or outages of less than an hour experienced on the Dayton system.[84] Second, Dayton notes that the Order on Remand's calculations are based on a Lawrence Berkeley National Laboratory (LBNL) report that was intended to compute the average costs of interruptions and power quality disturbances by customers.[85] Dayton asserts that this calculation is not intended to calculate the costs or savings that would be incurred by an individual utility or an RTO. Finally, Dayton notes that neither it, ComEd, nor AEP's Ohio subsidiaries own any 500 kV facilities, yet these companies do not experience abnormally high outage rates on their transmission systems. Dayton asserts that a comparison of the 500 kV and 345 kV average outage numbers cited by the Commission cannot be properly applied to utilities that own no 500 kV facilities.

59. Dayton also disagrees with the Order on Remand's interpretation of Capacity Emergency Transfer Objective/Capacity Emergency Transfer Limit CETO/CETL data as demonstrating that "ComEd and other western zones require imports from the rest of PJM to avoid loss of load."[86] While Dayton believes that the CETO/CETL data could reasonably be used to show whether ComEd will be able to meet a once-in-twenty-five-years emergency solely through its own facilities and its existing interconnections, Dayton asserts that the data does not establish that ComEd or Dayton will ever rely on

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[84] Additionally, as noted above, Dayton objects to the Order on Remand's use of load-ratio share to allocate these benefits to the ComEd zone.

[85] Dayton Request for Rehearing at 37.

[86] *Id.* (citing *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 74 and n.130).

any of the new transmission lines being built to the East. Similarly, Dayton asserts that data on hourly power flows has been misinterpreted,[87] and states that this data shows only that power flows from one midwestern utility, AEP, to another midwestern utility, ComEd, during some hours.

60. Dayton asserts that the data on emergency events indicate a decreasing trend in Western PJM, contrary to the Order on Remand's claim. Moreover, Dayton notes that none of those notices of emergency events exceed Transmission Load Relief (TLR) Level 3,[88] which is a notice that curtailments of non-firm transmission are necessary. According to Dayton, the fact that entities that contracted for interruptible service may be interrupted is not a "potential reliability problem." Similarly, the Illinois Commission states that the list of emergency events cannot be used to identify potential reliability problems, as these events may be reasonably addressed through operational or market actions. The Illinois Commission further states that the list of emergency events is not part of PJM's transmission expansion planning process.

61. Dayton objects to the Order on Remand's statement that "the integration of ComEd, AEP, and Dayton into the PJM power market led to production cost savings of approximately $70 million in 2004."[89] Dayton asserts that this statement implies that the ComEd, AEP, and Dayton zones received $70 million in benefits; however, Dayton states that these benefits were created by ComEd, AEP, and Dayton for PJM as a whole. Dayton explains that, prior to integration, transmission costs for power that was flowing into PJM from or through the ComEd, AEP, and Dayton zones would be charged for transmission by these utilities, and then PJM transmission charges would be added for power sinking in the PJM zone of delivery. Dayton states that integration eliminated these "pancaked transmission rates," allowing the pre-existing PJM utilities to enjoy lower delivered prices for power moving west to east.

62. Dayton argues that the Order on Remand misinterprets the Joint U.S. and Canadian Task Force Report on the 2003 blackout (Joint Task Force Report). Dayton notes that the Joint Task Force Report includes forty-six recommendations, but not one of these recommendations is to build new high-voltage transmission lines. Dayton also

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[87] *Id.* at 38 (citing *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 38 and n.48, PP 74, 94, 96, and 107).

[88] TLR procedures are used to prevent or manage potential or actual System Operating Limit or Interconnection Reliability Operating Limit violations.

[89] *Id.* at 40 (citing *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 108 and n.210).

states that, according to the Joint Task Force Report, the primary reason that the cascading blackout stopped was because the current and voltage swings were attenuated by distance.

63. The Illinois Commission questions the Order on Remand's discussion of queued interconnection requests for wind generation in the western portion of PJM, particularly Northern Illinois. According to the Illinois Commission, the Order on Remand is suggesting that load in Northern Illinois will benefit from the construction of transmission to deliver this energy. The Illinois Commission states that, while wind generation developers may benefit, load will not. The Illinois Commission notes that Illinois generators are not owned within the utility structure; rather, they are owned by Exelon subsidiaries and independent power producers. Thus, according to the Illinois Commission, any profits due to the new transmission facilities will go to the generators and will not flow through to load in the form of retail rate offsets. The Illinois Commission further contends that the new transmission lines that operate at or above 500 kV will result in increased capacity and energy costs to customers primarily located in Illinois and Ohio.

64. The Ohio Commission asserts that the Order on Remand conflicts with Order No. 1000 because the postage-stamp methodology does not comply with the transmission cost allocation principles established in that proceeding.[90] The Ohio Commission requests that the Order on Remand be clarified to reflect that it is not intended to be applied for the cost recovery of new 500 kV or above transmission expansion.

65. Finally, the Illinois Commission states that the Order on Remand erred by failing to consider alternative cost allocation approaches presented in the record. For example, the Illinois Commission states that a hybrid approach, developed under a settlement judge, would have been a more reasonable method. Alternatively, Dayton suggests that the Commission should consider a mechanism that would allocate costs by load-ratio share on a sub-regional basis.

b. <u>Commission Determination</u>

66. We deny the requests for rehearing of Dayton, the Illinois Commission, the Ohio Commission, and FirstEnergy. We affirm the Order on Remand's finding that allocating the costs of new transmission facilities that operate at or above 500 kV to utility zones

[90] Ohio Commission Rehearing Request at 12.

using a postage-stamp allocation methodology is a just, reasonable and not unduly discriminatory method of allocating costs of such new facilities.[91]

67. As the Commission found in the Order on Remand, new 500 kV and above transmission facilities provide a broad range of benefits, including reduced congestion, reduced outages, reduced operating reserve requirements, and reduced losses.[92] These benefits radiate from the upgraded facility, and thus are spread throughout the PJM region. Moreover, these benefits are available throughout the service-life of the transmission facility, which may be forty years or more for higher voltage lines. Against this backdrop, we continue to find that the postage-stamp methodology, which allocates costs to all parties within the PJM region and allows for these allocations to be updated over time, appropriately matches costs to beneficiaries. Specifically, as determined in the Order on Remand, and as affirmed below, the benefits associated with the new 500 kV and above facilities at issue compare favorably with the estimated $516 million annual cost of the new 500 kV and above facilities at issue.[93]

68. The parties requesting rehearing suggest that, in determining the appropriate cost allocation methodology, the Commission should have focused primarily on two benefits associated with new 500 kV and above facilities: the initial resolution of reliability constraints and initial changes in LMPs. However, allocating costs based solely on these two limited measures would ignore the broader benefits mentioned elsewhere in this order. As stated in the Order on Remand, in order to provide a fair allocation of costs among parties, "all of the broad benefits of these high voltage facilities must be considered in determining the appropriate cost allocation methodology,"[94] including those that are difficult to quantify. Contrary to the parties' arguments, the courts do not limit the benefits that the Commission can consider in evaluating cost causation.

69. In particular, the Order on Remand recognized that the majority of new 500 kV and above facilities approved through RTEP were intended to address the most severe

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[91] As previously noted, the costs to be allocated under the methodology approved in the Order on Remand has been significantly reduced by the cancellation of several 500 kV transmission upgrades, including both the PATH and MAPP projects.

[92] Order on Remand, *L.L.C.*, 138 FERC ¶ 61,230 at P 98.

[93] The $516 million figure is equal to the $2.7 billion in estimated costs times PJM's annual carry charge rate of 19.1 percent.

[94] Order on Remand, *L.L.C.*, 138 FERC ¶ 61,230 at P 111.

reliability violations in the East.[95] In an integrated system, however, the benefits of new transmission facilities are not limited by geographic area. Rather, as the new transmission facilities are integrated into the existing system, they will improve overall reliability, allowing the resulting benefits to extend to a greater number of parties. The parties requesting rehearing suggest that the Commission's reference to "reach" demonstrates that benefits are contained within a radius of approximately 50 miles for a 345 kV line, 200 miles for a 500 kV line, and 600 miles for a 765 kV line. When the Commission discussed reach, it referred to the ability for a single line to transfer a given amount of power, and it simply intended to demonstrate the differences among lines of different voltages. Thus, reach is not a measure of how far benefits are expected to radiate from the terminals of a line. If geographic distance from new transmission facilities were the key, even the static DFAX methodology, which the parties requesting rehearing favor, would be flawed, since in certain instances, it shows that the benefits of 345 kV or lower voltage lines are expected to reach far greater distances than 50 miles.[96]

70. Dayton and the Illinois Commission take issue with the Order on Remand's definition of the midwestern utilities that are located in Western PJM. While these parties may disagree with this definition of Western PJM, PJM has, for planning purposes, chosen to designate the Allegheny Power zone, which includes portions of West Virginia, Virginia, Maryland, and Pennsylvania as the Western PJM Sub-Region for planning purposes. That is, PJM, not the Commission, has defined the PJM regions for planning purposes. Moreover, by referencing the purely geographical nature of the PJM footprint, Dayton and the Illinois Commission discount the broader benefits of new transmission facilities that operate at or above 500 kV.

71. Additionally, the record does not provide a method for accurately separating the benefits of addressing the single worst reliability violation that supported the immediate need for the upgrade from the additional, broader benefits associated with the new transmission facility. While the static DFAX methodology has been suggested, the static DFAX methodology cannot sufficiently identify the benefits of new 500 kV and above facilities. In fact, as noted, the static DFAX methodology does not quantify the long-term benefits, it identifies those that cause the need for the line and their proportional use of lines that cause constraints. Even in the near term, static DFAX does not fully account for all of the unquantifiable benefits associated with a new 500 kV or above facility. This

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[95] *Id.* P 87.

[96] For example, baseline upgrades b0831, b0834, b0835, and b0836 are all lower voltage lines located in northern New Jersey. Application of the static DFAX methodology resulted in a portion of costs being allocated to the Dayton and ComEd zones. *See* PJM's January 5, 2009 RTEP Filing in Docket No. ER09-497-000.

weakness of the static DFAX methodology becomes more pronounced over time, as changes in facility usage and flow direction occur. The Illinois Commission argues that costs allocated under the postage-stamp cost allocation methodology bear no relation to cost causation, but we have identified the inability of the static DFAX methodology to identify, let alone quantify, all the benefits of new transmission facilities that operate at or above 500 kV, and the evidence cited by the Illinois Commission, in light of these concerns, is insufficient.[97]

72. Regarding the suggestion that the Commission focus on changes in LMP for cost allocation purposes, we note that the Order on Remand considered that new 500 kV and above transmission facilities may cause LMPs to converge across the entire PJM region.[98] The Order on Remand correctly found that "converging prices signal that the grid is reliable and robust enough to support energy flows in any direction and that the benefits will accrue to the market as a whole."[99] Even though, at a particular point in time, LMPs in one zone may be higher than they would be without access to this reliable and robust grid, we cannot find that access to the grid is a disadvantage to such parties. Further, over time, as generation and power flows change, all parties will benefit from a system that supports energy flows in any direction.[100] Based on the evidence in this record, the postage-stamp methodology is the best methodology to reflect such benefits.

73. The parties requesting rehearing also contend that the broad benefits identified by the Order on Remand are benefits of RTO membership generally, or at the most, benefits of a high voltage system, and not benefits specifically related to the new 500 kV and above facilities at issue. We agree that, without the high voltage transmission system, parties would not have been able to achieve the level of benefits noted in the Order on Remand. In fact, as discussed below and in the Order on Remand,[101] without the high

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[97] The affidavits of Schnitzer and Naumann cited by the Illinois Commission do not address the limitations identified by the Commission.

[98] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 96.

[99] *Id.* at P 96 (citing *Gainesville Utilities Department v. Florida Power Corp.*, 402 U.S. 515, 527 (1971)).

[100] While the parties argue that the new transmission facilities that operate at or above 500 kV are being constructed to enhance west to east power flows, we note that the cancellation of the MAPP and PATH projects highlights that, over the long-term, west to east flows may not be predominate.

[101] *See infra* P 76.

voltage transmission system, ComEd may not have been able to join PJM. However, the fact that any particular new transmission line is interconnected with and its operation depends on the overall integrated transmission system is simply a reflection of the nature of an integrated transmission system; it does not mean that the new transmission facilities don't themselves have broader benefits. As noted in the Order on Remand, a transmission network is an integrated machine that, in light of changing system conditions over time, e.g. changes in load and flows, must be maintained and upgraded in order to keep the machine running reliably.[102] Without the addition of new transmission facilities that operate at or above 500 kV, the integrity of the transmission system would deteriorate, and the benefits of the integrated system would be reduced. Each of the new 500 kV and above facilities referenced in this proceeding play a significant role in supporting system reliability, reducing congestion, reducing operating reserve requirements, and reducing losses.

74. The parties requesting rehearing also question specific assumptions made in the Order on Remand in describing the benefits of new 500 kV and above transmission facilities. As an initial matter, we note that the Order on Remand made clear that the benefits presented were estimates.[103] Nevertheless, we believe that the benefits presented are reasonable benefits to anticipate from a reliable integrated system. These benefits include savings related to reserve sharing, reduced incidence of transmission facility outages, reduced line losses, and production cost savings. The Order on Remand, based on information from the 2011 ISO/RTO Metrics Report and other record information, estimated these savings to be approximately $2.2 billion.[104] While many of these benefits are not directly quantifiable, they are not possible without a reliable, integrated transmission system, and the reliability of the transmission system overtime is made possible by upgrades.[105]

75. We continue to find that the Order on Remand's finding that decreased service interruptions and power quality disturbances are a benefit of higher voltage facilities and is supported by the record. In calculating the $53.2 million in estimated system-wide

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[102] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 56.

[103] *Id.* P 109 ("we recognize that there is imprecision in valuing the benefits of new 500 kV and above facilities…").

[104] *Id.*

[105] As we have noted, even under the static DFAX methodology, some costs would be allocated to ComEd and Dayton. That ComEd and Dayton also receive unquantifiable benefits further support our position.

benefits, the Commission was not looking at simply the benefits that accrue to utilities or an RTO; rather, it was looking at the benefits that accrue to each sub-region as a whole, including transmission owners, generators, and consumers. This approach is a fair and equitable way to calculate whether the costs incurred by a zone are roughly commensurate with the benefits that accrue to that zone. Further, the Commission never intimated that the outage rate in Western PJM was "abnormally high." The Commission was simply noting that higher voltage lines have statistically been shown to be subject to fewer outages. Comparison of outage statistics by voltage is a useful metric to differentiate regional transmission facilities from local facilities. We noted that when the comparison is between 765 kV and 345 kV facilities, higher voltage facilities are subject to even fewer outages.[106]

76. Dayton argues that the Commission has misused information related to local area load deliverability. Specifically, Dayton contends that the Commission's use of Capacity Emergency Transfer Limit (CETL), in combination with its corresponding Capacity Emergency Transfer Objective (CETO) data, does not stand for the proposition that Commonwealth Edison (ComEd) and other western zones of PJM require imports from the rest of PJM to avoid loss of load. We disagree. The Order on Remand noted that western regions of PJM generally have sufficient generation, but that ComEd and other western zones still do require imports from the rest of PJM to avoid loss of load. As previously discussed, flows on the Dumont to Wilton Center 765 kV transmission facility, which is proximate to Chicago, are east to west approximately 30 percent of the time. Moreover, the Commission noted that ComEd relied on the reliability benefits provided by a strong transmission infrastructure as justifications for belonging to PJM. Specifically, ComEd stated:

> ComEd sought membership in PJM first of all because of the reliability benefits that membership would bring. ComEd's strongest transmission interconnections are with PJM through AEP, and the most likely source from which ComEd could import energy to prevent loss of load during system emergencies is PJM.[107]

77. In fact, the Commission noted that savings related to a reduction in reserve requirements are only available to ComEd because of PJM's interconnected high voltage transmission system and the associated deliverability to load, and thus can be considered

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[106] *Id.* P 100.

[107] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 93 (citing Exelon Corp., *et al.*, March 17, 2003 Motion for Expedited Decision, Docket No. ER03-262-000 at 22-23).

a direct benefit of that system. Specifically, the Commission noted when ComEd initially joined PJM, it could do so only because it had a 500 MW pathway connecting its service territory to PJM.[108] Where ComEd benefits from the reliability of the PJM transmission system, it must also benefit from the upgrades that maintain the reliability of that system.

78. We also maintain that a reliable, high voltage system can play a role in preventing system-wide blackouts. As the Order on Remand noted, the August 2003 blackout highlighted the interaction of thermal and voltage reliability criteria within interconnected network operation. The U.S. – Canada Power System Outage Task Force's Final Report on the August 23, 2003 Blackout in the U.S. and Canada: Causes and Recommendations (Final Report) concluded that "higher voltage lines and more densely networked lines, such as the 500 kV system in PJM and the 765 kV system in AEP, are better able to absorb voltage and current swings" and thus served as a barrier to the spread of the cascade.[109] While we agree that building additional high-voltage transmission is not the only solution to arresting wide-area outages, we continue to believe that a solid infrastructure can improve reliability, and this benefit should be considered when determining how costs are allocated.

79. Dayton suggests that the ComEd, AEP, and Dayton zones did not receive production cost savings of \$50-\$70 million as a result of their integration into PJM. However, Dayton admits that the Western PJM zones received some benefit from their integration into PJM.[110] The Order on Remand did not suggest that only the western zones benefited from the integration of ComEd, AEP, and Dayton. The Order on Remand noted that, on an annual basis, parties throughout the PJM region benefit from the reduction of seams, and that this reduction is one of the many benefits of an integrated system that relies on high voltage connections.

80. Dayton and the Illinois Commission also take issue with the Order on Remand's discussion of emergency events in Western PJM as well as its discussion of the large number of interconnection requests for wind generation in Western PJM. Regarding the emergency events experienced in Western PJM, Dayton correctly notes that emergency events have decreased in 2010 and 2011. Such a decrease is not unexpected as economic conditions reduced the level of demand in 2010 and 2011.

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[108] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 105 (citing *PJM Interconnection, L.L.C.*, 106 FERC ¶ 61,253 at PP 5, 25-29 (2004)).

[109] Final Report at 75.

[110] Dayton Request for Rehearing at 40 ("ComEd, AEP, and Dayton Power may realize some portion of those benefits…").

81. The Order on Remand further discussed the reliability benefits of reduced outage frequency and shortened restoration times for transmission facilities operating at 500 kV compared to transmission facilities operating at 345 kV.[111] Specifically, the Commission noted that the North American Electric Reliability Corp. (NERC) reports that 500 kV facilities operating in North America in 2009 had sustained outage frequency per 100 circuit miles per year of .4381, compared to 0.6938 for 345 kV facilities,[112] and that 500 kV lines suffer 36.8 percent fewer sustained outages than 345 kV lines.[113] Further, NERC reported that the duration of outages on 500 kV facilities is significantly lower than for outages on 345 kV facilities, the mean outage duration for 345 kV facilities is 50.2 hours, almost twice that of 500 kV facilities (28.1 hours).[114]

82. The Illinois Commission contends that the wind generation currently in the queue will not provide an initial benefit to customers in Western PJM. However, in discussing the possibility of increased emergency events and increased wind interconnections, the Commission's intention was not to quantify an immediate benefit to the western zones. The Commission illustrated the dynamic nature of the PJM transmission system. Over the forty year life of high voltage transmission facilities, as some portions of the grid experience decreased reliability, and other portions of the grid see an increase in generation, the direction of flows will change. And the dynamic nature of the transmission system supports the use of a postage-stamp methodology, a methodology that can be updated periodically, such as on a load-ratio basis.

83. The parties requesting rehearing object to the Order on Remand's allocation of certain benefits among zones based on load-ratio share. We continue to find that, for 500 kV and above projects, peak load is a reasonable basis to allocate costs that provide benefits to everyone. A conclusion that a party that uses more energy at peak times receives greater benefits than a party that uses less energy at peak times is not

[111] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 100.

[112] *Id.* (citing 2009 NERC Transmission Availability Data System Report at 16 June 14, 2010).

[113] The Commission noted that the NERC report is consistent with long-term data collected by the Mid-Continent Area Power Pool, who has tracked transmission outage data by voltage since 1991. Mid-Continent Area Power Pool statistics show that, from 1991-2000, 500 kV lines had a failure rate per 100 circuit miles per year of 0.85, compared to 2.15 for 345 kV lines. Similarly, the average duration of a 500 kV outage was 3.85 hours, compared to 52.45 hours for 345 kV.

[114] *Id.*

unreasonable. In its White Paper,[115] PJM notes that "higher peak-load consumers... value reliability especially at peak."[116] PJM also notes that consumers with higher peak usage enjoy greater benefit from reduced losses.[117] Additionally, transmission is generally planned to meet the system peak.[118] Using peak load as a measure of benefits is a common practice and, as noted in the Order on Remand, most RTOs in the United States allocate some or all transmission costs based upon some idea of peak load or generation.[119]

84. In sum, the benefits identified in the Order on Remand, and discussed above, will only continue to be available as a result of the new 500 kV and above facilities that will ensure a reliable, integrated transmission system. While the exact amount of benefits that the western parts of PJM receive is not quantifiable, our expectation that these zones, which are part of PJM's integrated transmission system, will receive some portion of benefits is reasonable. Using ComEd as representative of the western parts of PJM, the benefits available to the ComEd zone include approximately $95 million to $143 million per year in reduced outages and reduced losses, and approximately $225 to $325 million in annual estimated benefits associated with the estimated savings that would not have been available without PJM's reliable high voltage transmission system.[120] And these estimated annual savings to the ComEd zone, totaling approximately $320 million to $468 million, compare favorably to the approximately $76 million in annual costs allocated to the ComEd zone.[121]

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[115] As part of its April 13, 2010 Response, PJM also submitted a White Paper from March 10, 2010 entitled "A Survey of Transmission Cost Allocation Issues, Methods, and Practices" (PJM White Paper).

[116] PJM White Paper at 33.

[117] *Id.*, Appendix A at 47-48.

[118] *Id.* at 32.

[119] Order on Remand, 138 FERC ¶ 61,230 at n.225 (citing PJM White Paper at 31-32).

[120] *Id.* P 120.

[121] The $76 million figure is equal to the total annual costs of the new 500 kV and above facilities, $516 million, as discussed above times ComEd's load-ratio share of 14.7 percent.

85. Substantial evidence thus supports using a postage-stamp cost allocation methodology as a just and reasonable and not unduly discriminatory mechanism for allocating the costs of new transmission facilities that operate at or above 500 kV. Substantial evidence turns not on how many discrete pieces of evidence the Commission relies on, but on whether the evidence supports its ultimate decision.[122] Here, the evidence is sufficient to support the Commission's decision. Specifically, the Commission noted that the record supported that upgrades to transmission facilities that operate at or above 500 kV provide benefits over a broad geographic area – reduced incidence of transmission facility outages, reduced line losses, and production cost savings.[123] In addition, the Commission has identified savings related to reduced operating reserve requirements.[124] We find that the quantifiable benefits plus the unquantifiable benefits are at least roughly commensurate with those utilities' share of the costs of those facilities allocated under a postage-stamp methodology.

86. In affirming use of a postage-stamp methodology, we dismiss suggestions that we should have adopted alternative cost allocation methods, such as a hybrid approach, or a mechanism that allocates costs by load-ratio share on a sub-regional basis. In the Order on Remand, the Commission did consider these approaches and found that, when fully developed, such approaches could be just and reasonable. However, these approaches were mere suggestions without any analysis in the record showing in this proceeding that they would better match costs and benefits.[125] And no sufficient basis has been presented for establishing further evidentiary or settlement procedures in this proceeding; the parties have not justified that such further procedures would be necessary or worthwhile

[122] *Florida Gas Transmission Company v. FERC*, 604 F.3d 636, 645 (D.C. Cir. (2010) (*Florida Gas*) (citing *Florida Mun. Power Agency v. FERC*, 315 F.3d 362, 368 (D.C. Cir. 2003) (applying court's deferential standard in reviewing the Commission's decision under substantial evidence standard)). *See Arkansas Elec. Energy Consumers v. FERC*, 290 F.3d 362, 367 (D.C. Cir. 2002). *Florida Gas* further explains, "the 'substantial evidence' standard requires more than a scintilla, but it can be satisfied by something less than a preponderance of the evidence."

[123] Order on Remand, 138 FERC ¶ 61,230 at PP 80-109.

[124] *Id.* PP 101-102.

[125] The Commission suggested that alternative approaches could be examined more thoroughly within the context of compliance with Order No. 1000. *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at n.70.

in this proceeding.[126] As noted earlier, the fact that there may be alternative just and reasonable approaches does not prevent the Commission from selecting a different just and reasonable methodology.[127] We have, in fact, selected the postage-stamp cost allocation methodology as such a just and reasonable alternative.

87. We also dismiss suggestions that the Commission should have evaluated the postage-stamp methodology for compliance with the six cost allocation principles established in Order No. 1000. In Order No. 1000, the Commission specifically stated that the principles adopted apply only to new facilities, defined as those facilities that are subject to evaluation, or revaluation, "after the effective date of the public utility transmission provider's filing adopting the relevant requirements of this Final Rule."[128] The Commission will evaluate the PJM cost allocation methodology for compliance with the Order No. 1000 cost allocation principles in the context of PJM's Order No. 1000 compliance filing.[129]

C. Record Evidence

1. Rehearing Requests

88. Several parties contend that the Commission erred by failing to make a reasoned decision in taking official notice of materials on which the Commission based the Order on Remand. Specifically, the Illinois Commission and Dayton contend that, by failing to provide notice of the evidence being relied on and opportunity to comment prior to the March 30, 2012 Order on Remand, the Commission did not provide adequate due

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[126] While the Commission established hearing procedures in response to the Seventh Circuit's remand, nothing prevented the parties from settling this issue. In fact, PJM transmission owners have submitted a hybrid cost allocation methodology in response to Order No. 1000, but did not propose use of such a mechanism for the projects at issue in this proceeding.

[127] *See supra,* P 28.

[128] Order No. 1000, 76 FR 49,842, FERC Stats. & Regs. ¶ 31,323 at P 65.

[129] As previously noted, on October 11, 2012, the PJM Transmission Owners submitted revisions to the PJM cost allocation method to comply with Order No. 1000 in Docket No. ER13-90-000.

process.[130] The Illinois Commission and Dayton further contend that the material on which the Commission relied was inappropriate for official notice, was not relevant or, to the extent relevant, was misapplied by the Commission.

2. Commission Determination

89. We find that the Commission properly relied on materials both submitted by the parties and in the record through official notice, and provided an adequate opportunity to rebut those materials,[131] thereby meeting due process requirements of the U.S. Constitution and section 556(e) of the Administrative Procedure Act. We therefore deny rehearing of the Order on Remand on this issue.

90. The Illinois Commission and Dayton contend that the Order on Remand violates due process requirements. Dayton argues that the Commission failed to meet the two prerequisites for use of official notice: (1) that the information noticed must be appropriate for official notice; and (2) that the Commission must follow proper procedures in using the information, disclosing it to the parties and affording them a suitable opportunity to "parry its effect."[132] In this regard, the Illinois Commission and Dayton argue that the Commission provided no opportunity for parties to respond to the material prior to issuing the Order on Remand and that any opportunity to respond in their requests for rehearing is inadequate.

91. In the Order on Remand, the Commission took official notice of certain material, including the 2011 ISO/RTO Metrics Report, pursuant to Rule 508(d) of the Commission's Rules of Practice and Procedure.[133] At the time that the Commission made this material part of the official record in Docket No. EL05-121-006, the Commission observed that this material was publicly available, specific to PJM, and

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[130] Illinois Commission Rehearing Request at 15, Dayton Rehearing Request at 30 (citing the 5th and 14th Amendments to the U.S. Constitution, and Section 556(e) of the Administrative Procedure Act).

[131] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 33.

[132] Dayton Rehearing Request at 30-31 (citing *Union Electric Co. v. FERC*, 890 F.2d 1193, 1202 (D.C. Cir. 1989) (*Union Electric*)), (citing *Ohio Bell Telephone Co. v. Public Utilities Commission of Ohio*, 301 U.S. 292 (1937)) (requiring an opportunity to dispute findings based on officially-noticed evidence)).

[133] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at PP 33, 63 (citing 18 C.F.R. § 385.508(d)).

available on the internet.[134] The Commission also invited the parties to address this officially-noticed material in their petitions for rehearing.[135]

92. As Dayton acknowledges, administrative agencies are permitted to take official notice of technical or scientific facts that are within the agency's area of expertise.[136] The Commission's Rules of Practice and Procedure also allow for official notice "of any matter about which the Commission, by reasons of its functions, is expert."[137] And that is what the Commission has done; nothing more. Dayton and the Illinois Commission also contend that the standard for official notice requires that the facts incorporated into the record must not be in dispute.[138] But this is not a reasonable restriction where parties have an opportunity to dispute the officially-noticed facts as they have in this proceeding.[139] The scope of official notice is expansive "since 'administrative agencies necessarily acquire special knowledges in their sphere of activity,' [and] certain highly technical facts 'may become … obvious and notorious'" to the agencies.[140] The Commission, in performing its functions under the Federal Power Act, has had reason to

[134] The Order on Remand adopting the material into the record issued on a Friday and, for the convenience of the parties, the Commission collected and collated all of officially-noticed materials and made them electronically available in this docket on the following Monday. The spreadsheet provided by the Commission of estimated savings related to decreased service interruptions is the Commission's computation based on publicly available information, and the underlying computations are included.

[135] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 at P 33; *see also Boston Edison Co. v. F.E.R.C.*, 885 F.2d 962, 967 (1st Cir. 1989) (Boston Edison had an opportunity to argue against the adjustment or any other factual matter in its request for rehearing).

[136] Dayton Rehearing Request at 33 (citing *McLeod v. INS*, 802 F.2d 89, at 93 n.4 (3rd Cir. 1986) (*McLeod*)).

[137] 18 C.F.R. § 385.508(d)(1) (2012).

[138] Illinois Commission Rehearing Request at 16; Dayton Rehearing Request at 33 citing *Mississippi Industries v. FERC*, 808 F.2d 1525, 1568 (D.C. Cir. 1987) (reversed on other grounds) (*Mississippi Industries*).

[139] *See Mississippi Industries*, 808 F.2d at 1568 (extraordinary circumstances necessary to compel reopening the record when extra-record evidence not subject to dispute).

[140] *Union Electric*, 890 F.2d at 1202.

acquire that special knowledge about the reliability and operations of PJM. Moreover, the agency is an expert about any of its own proceedings, including the proceeding to develop, implement, and review performance metrics for regional transmission organizations. Thus, we conclude that the material was of the type that was appropriate for official notice.

93. We further find that the Commission followed its own procedures in noticing the material, disclosing the material and how it was used to demonstrate benefits in the Order on Remand, and inviting parties to contest the data and its use in their requests for rehearing. We find the 30-day rehearing period is sufficient for parties to review the materials and the Commission's conclusions from PJM factual material upon which parties rely in the course of doing business with PJM, especially where this information has been at issue in proceedings before the Commission. This is particularly true of the 2011 ISO/RTO Metric Report, cited in the Order on Remand, which is both publicly available on the PJM web site, and has been submitted in another proceeding before the Commission.[141] In fact, Dayton and the Illinois Commission have availed themselves of the opportunity to rebut the use of this evidence and we address these arguments in this order. The courts have found similar opportunities sufficient to satisfy due process requirements.[142]

94. Dayton states that the 2011 ISO/RTO Metrics Report is devoid of any detailed analysis to explain how the benefits cited were developed. Dayton also contends that the 2011 ISO/RTO Metrics report is at least partially self-serving, as it was submitted in the context of proceedings in which each ISO and RTO was attempting to show the Commission how it adds value to the market. Of course, the same could be said of any evidence; Dayton's evidence in a proceeding in which Dayton was involved would likely be no less self-serving. Dayton, however, has failed to supply any basis for us to conclude that the factual data presented by PJM, on which we rely, is inaccurate. And where the Commission finds that a rate is unreasonable, as it has in this proceeding, we

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[141] *See* Docket No. AD10-5-000. The Ohio Commission and the Illinois Attorney General participated directly in this Commission proceeding, and the state commissions were further represented in the proceeding by the National Association of Regulatory Utility Commissioners. These parties were also served the 2011 ISO/RTO Metrics Report when it was filed by PJM on August 31, 2011.

[142] *BNSF Railway Co. v. Surface Transportation Board*, 453 F.3d 473 (D.C. Cir. 2006) (agency satisfied due process when it used a rate forecast not proffered by the parties in the proceeding because railway, in its application for rehearing, did not make a good showing that it could contest the evidence); *Union Electric*, 890 F.2d at 1203; *McLeod*, 802 F.2d at 93.

have an obligation to fix the just and reasonable rate under section 206 of the FPA.[143] Like any complainant, the Commission properly used the data available to it. And it used its expertise to evaluate that data.

95. Dayton contends that, because the atmosphere is prejudiced by the Order on Rehearing, it is too late to submit rebuttal evidence. We disagree. This argument, if true, would make the statutory provision for rehearing virtually meaningless since every request for rehearing, by definition, is a challenge to a Commission order ruling against the party seeking rehearing. It is not true, though. In fact, the Commission can and does grant rehearing – considering its earlier ruling. In fact, the Commission established the hearing procedures on remand in response to a motion by Exelon,[144] and granted rehearing of a request by Exelon to require PJM to provide additional factual information bearing upon the established hearing procedures.[145] The purpose of rehearing is to allow for reconsideration of the Commission's decision, and, here, we invited rebuttal evidence. No such evidence was submitted.

D. Treatment of Merchant Transmission Facilities

1. Rehearing Request

96. On rehearing, LIPA contends that the Commission's decision to dismiss LIPA's testimony and evidence was erroneous. LIPA asserts that the proceeding in Docket No. ER06-456, *et al.*, which is the proceeding that ultimately resulted in Opinion No. 503,[146] specifically excluded 500 kV and above facilities. LIPA refers to a partial settlement in Docket No. ER06-456, *et al.*, which reserved for hearing the treatment of merchant transmission facilities, but only with respect to cost-allocations for below 500 kV RTEP

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[143] *See Maryland PSC v. FERC*, 632 F.3d 1283, 1285 n.1 (D.C. Cir. 2011) ("[w]henever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate … [under its jurisdiction] is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate . . . to be thereafter observed and in force, and shall fix the same by order." 16 U.S.C. § 824e(a)).

[144] *PJM Interconnection, L.L.C.*, 130 FERC ¶ 61,052 (2010).

[145] *PJM Interconnection, L.L.C.*, 130 FERC ¶ 61,233 (2010).

[146] *PJM Interconnection, L.L.C.*, Opinion No. 503, 129 FERC ¶ 61,161 (2009), *order on reh'g*, Opinion No. 503-A, 139 FERC ¶ 61,234 (2012).

upgrades.[147] LIPA notes that, during the hearing proceedings, PJM's witness stated that the cost responsibility assignments for 500 kV and above facilities were not at issue.[148]

97. LIPA also states that the Commission's dismissal of LIPA's testimony and evidence is based on a misreading of a footnote in Opinion No. 503. LIPA notes that the complete footnote reads*:*

> *See infra*, section H (collection of RTEP costs when a Merchant Transmission Facility is late going into service). The Initial Decision also directed PJM to calculate a Merchant Transmission Facility's load-ratio share for 500 kV and above RTEP upgrades based on the Merchant Transmission Facility's actual peak load in any given hour of the applicable prior year, or for the Merchant Transmission Facility's first year of operation, the amount of Firm Transmission Withdrawal Rights actually awarded to the Merchant Transmission Facility by PJM. No party excepted to the Initial Decision's finding regarding at or above 500 kV upgrades, and we affirm the Initial Decision's determination on this issue. However, PJM's allocation method for at or above 500 kV facilities was recently remanded to the Commission. *See supra* n.23.

98. LIPA asserts that Opinion No. 503 did not address the broad issue of whether the allocation of RTEP costs to merchant transmission facilities for 500 kV and above facilities is just and reasonable. Rather, Opinion No. 503 addressed the limited issue of whether Firm Transmission Withdrawal Rights or actual peak demand should be used for allocating costs. Further, LIPA asserts that the next to last sentence of the footnote acknowledges that the substantive issue of cost allocation for 500 kV and above RTEP facilities will be addressed in a separate docket.

99. LIPA contends that the Commission's failure to address LIPA's evidence pertaining to cost allocation for 500 kV and above facilities was arbitrary and capricious. LIPA also states that the Commission's rejection contravened LIPA's due process rights by retroactively narrowing the scope of Docket No. EL05-121, *et al.* Thus, LIPA asserts that on rehearing, its arguments regarding whether the allocation of costs to merchant transmission facilities for 500 kV and above facilities is consistent with the "roughly commensurate" standard, must be revisited on the merits.

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[147] LIPA Request for Rehearing at 3 (citing *PJM Interconnection, L.L.C.*, 121 FERC ¶ 63,012 at P 36).

[148] LIPA Request for Rehearing at 7 (citing Exhibit No. PJM-1 at 12:12-14:3 (filed in Docket No. ER06-456, *et al.*)).

2. Commission Determination

100. We deny LIPA's request for rehearing. The assignment of RTEP costs to merchant transmission providers was addressed in Opinion No. 503, and no party excepted to the Initial Decision findings regarding the allocation to merchant transmission providers of the costs of 500 kV and above facilities.[149] Moreover, the assignment of costs to merchant transmission providers was not addressed in Opinion No. 494, presented to the Seventh Circuit on appeal, nor addressed in the Seventh Circuit Opinion. Thus, we affirm our finding that this issue is beyond the scope of this proceeding. Further, as discussed below, we find that LIPA has misinterpreted the prior Commission orders, as well as omitted discussion of other orders and documents which establish that the appropriate allocation of costs to merchant transmission providers for 500 kV and above facilities was instead at issue in Opinion No. 503.

101. LIPA is correct that, initially, the proceeding in Docket No. ER06-456, *et al.*, dealt with only below 500 kV transmission facilities. The Commission's April 19, 2007 order in that proceeding bifurcated the treatment of at or above 500 kV and below 500 kV transmission facilities, finding that the costs of at or above 500 kV facilities should be allocated regionally, while expanding the scope of the hearing in Docket No. ER06-456, *et al.*, to include the appropriate cost allocation methodology for below 500 kV facilities.[150] In accordance with the Commission's directives, the partial settlement reached in Docket No. ER06-456, *et al.*, and filed on September 14, 2007, established the methodology by which PJM would assign the costs of RTEP upgrades that are planned to operate below 500 kV.[151] The partial settlement reserved one issue for hearing, the assignment of cost responsibility to merchant transmission facilities, but only with respect to below 500 kV facilities.[152]

102. However, on January 31, 2008, in Docket No. EL05-121, *et al.*, the Commission reserved the issue of how PJM is to allocate RTEP costs for 500 kV and above upgrades to merchant transmission facilities for the hearing proceeding in Docket No. ER06-456, *et al.* In reserving the issue, the Commission was specifically responding to a request from LIPA and Linden VFT, L.L.C. The Commission agreed that no party had provided

[149] Order on Remand, 138 FERC ¶ 61,230 at P 34.

[150] *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,063 at PP 2-3.

[151] Settlement Agreement and Offer of Partial Settlement, filed on September 14, 2007 in Docket No. ER06-456, *et al.*

[152] *Id.* P 10.

a reason to allocate RTEP charges to merchant transmission facilities differently for facilities that operate at or above 500 kV and those below 500 kV.[153]

103. While LIPA cites testimony from a PJM witness, which indicates that 500 kV and above facilities were not at issue in Docket No. ER06-456, *et al.*, this testimony was filed on November 30, 2007, several months prior to the order expanding the scope of the hearing. Following the expansion of the scope of the hearing, the statement of issues included the following question: "should [merchant transmission facilities] be allocated the costs of RTEP reliability projects that are 500 kV and above?"[154] While certain parties may have been confused over the hearing issue,[155] the parties did address the broad issue of whether merchant transmission facilities should be allocated costs for 500 kV and above transmission facilities. For example, in their initial post-hearing brief, LIPA and East Coast Power, L.L.C. noted that while the socialization of the costs of 500 kV and above projects to all system users is not at issue in Docket No. ER06-456, *et al.*, "the Commission has made the socialization of such costs to merchant transmission facilities subject to the outcome of this hearing."[156]

104. LIPA would now interpret Opinion No. 503 as not addressing whether it is just and reasonable for merchant transmission facilities to be allocated RTEP costs associated with 500 kV and above facilities. However, the Commission's finding in Opinion No. 503 makes clear that this was not the case; that issue was addressed. Specifically, the Commission noted that PJM, in its initial brief, proposed to allocate the costs of 500 kV and above transmission facilities across the entire PJM region on an annual load ratio share basis.[157] The Commission further noted that the administrative law judge (ALJ) generally upheld PJM's proposal, although for 500 kV and above facilities, the ALJ required the use of actual peak load to calculate the costs assigned to merchant

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[153] *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,082 at P 92.

[154] Updated Joint Narrative Statement of Issues, issued on April 30, 2008 in Docket No. ER06-456, *et al.*, Issue # 2.b. The statement of issues also asked whether merchant transmission facilities should be allocated the costs of RTEP economic upgrade projects, in general, without distinguishing between at or above 500 kV and below 500 kV transmission facilities.

[155] *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,082 at P 92.

[156] Initial Post-hearing Brief of East Coast Power, L.L.C. Long Island Power Authority and LIPA, Docket No. ER06-456, *et al.*, submitted June 16, 2008 at 11.

[157] *PJM Interconnection, L.L.C.*, 129 FERC ¶ 61,161 at P 14.

transmission facilities, when available.[158] After reviewing PJM's proposal, as modified by the ALJ, the Commission found it to be just and reasonable.[159] The fact that Opinion No. 503 did not discuss 500 kV and above facilities at greater length is unremarkable, given that parties primarily focused on below 500 kV facilities in their briefs on exceptions.

105. Further, LIPA's assertion that footnote 27 of Opinion No. 503 reserved the allocation of RTEP costs associated with 500 kV and above projects to another docket is incorrect. Footnote 27 states that: "No party excepted to the Initial Decision's finding regarding at or above 500 kV upgrades, and we affirm the Initial Decision's determination on this issue." The reference to the remand order simply pointed out that, if the Commission were to change the methodology for allocating 500 kV and above facilities, that change would affect merchant transmission providers as well. But, it did not reserve this issue for re-litigation in the remand proceeding.

The Commission orders:

Rehearing of the Order on Remand is hereby denied, as discussed in the body of this order.

By the Commission. Commissioners LaFleur and Clark are dissenting with a separate statement attached.

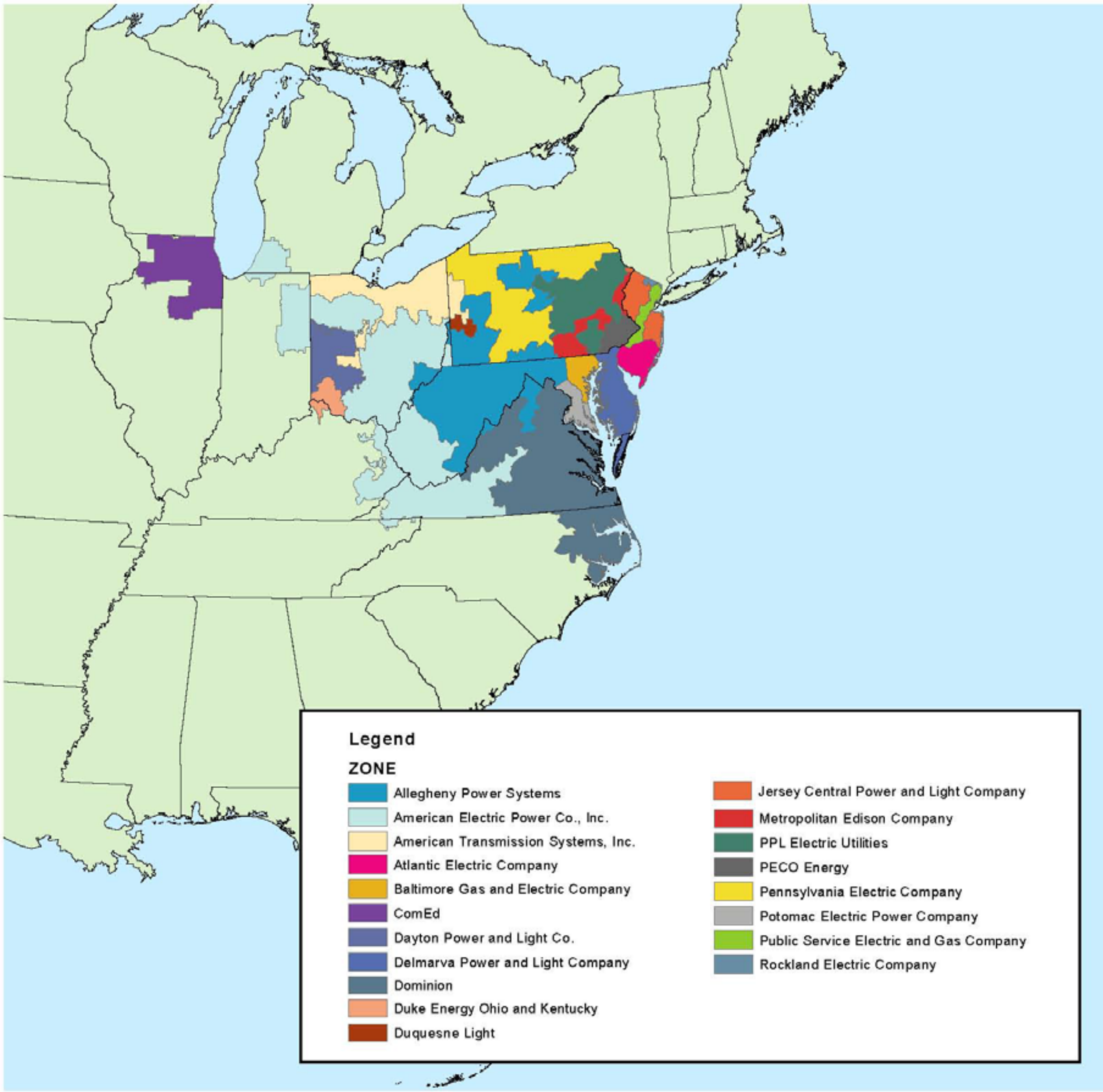
(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

[158] *Id.* PP 15, 19.

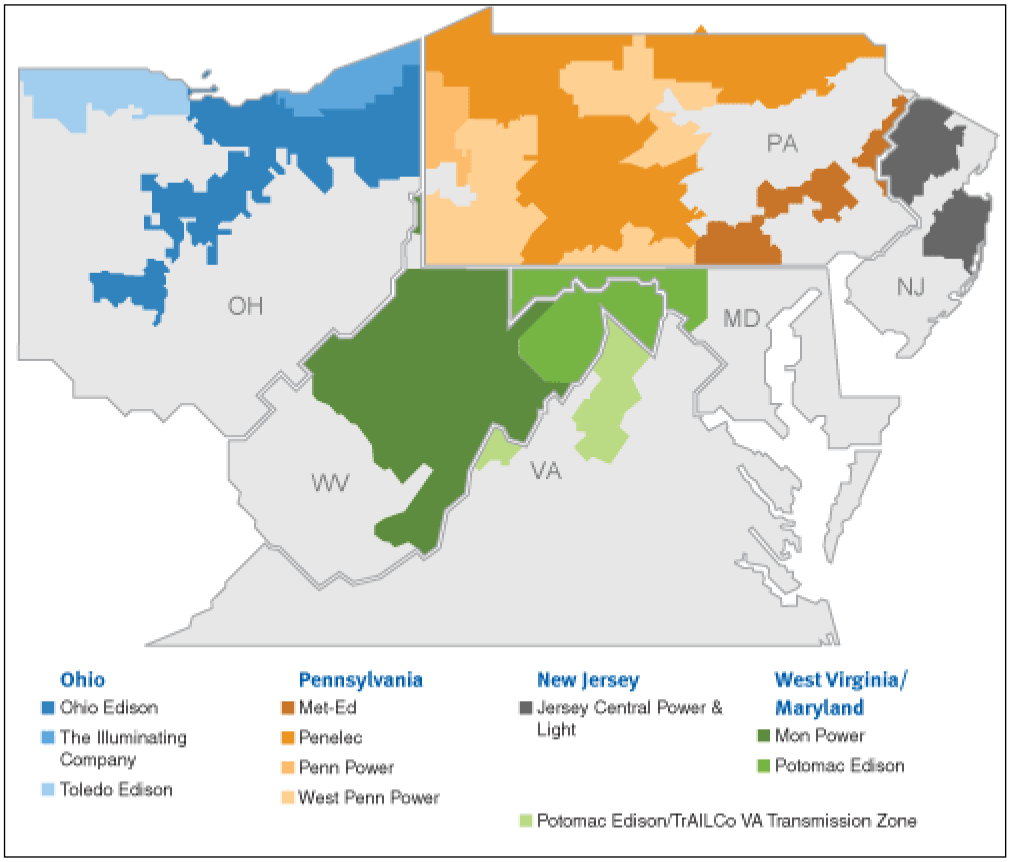
[159] *Id.* P 21.

ATTACHMENT A: PJM Transmission Pricing Zones



Source: http://www.pjm.com/~/media/about-pjm/pjm-zones.ashx

ATTACHMENT B
FirstEnergy Regulated Distribution Companies



UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C. Docket No. EL05-121-008

(Issued March 22, 2013)

LaFLEUR, Commissioner, *dissenting*:

For the reasons stated in my dissent on the Order on Remand,[1] I respectfully dissent from today's order. I write further to emphasize the following points.

The majority's decision to mandate RTO-wide postage stamp cost allocation is an overbroad remedy for the shortcomings of the violations-based DFAX methodology. Therefore, it is not a just and reasonable method of allocating costs for the transmission lines at issue in this case.

The majority persuasively demonstrates that violations-based DFAX is unjust and unreasonable as a stand-alone cost allocation methodology because it identifies only immediate beneficiaries and cannot identify beneficiaries that develop over the useful life of a line. As the majority explains, these limitations result in an unjustified subsidy because immediate beneficiaries exclusively bear costs that should be shared by hypothetical future beneficiaries.[2]

But while violations-based DFAX under-identifies beneficiaries, the postage stamp approach imposed by the majority is unjust and unreasonable for the opposite reason: it overstates and overemphasizes the benefits that accrue to hypothetical long-term beneficiaries, to the point that it takes no account of the immediate reliability violations that caused the lines in the first place. Under the majority's approach, there is no recognition that the lines at issue in this proceeding are "but for" lines, designed to benefit specific eastern customers by remedying specific eastern reliability violations. Because there is no attempt to distinguish among beneficiaries based on the degree to which they benefit, the majority's approach results in substantial cost shifts from immediate beneficiaries to hypothetical future beneficiaries, including those in geographically remote areas. But an unjustified subsidy is no less unjustified because it is partial rather than complete. And under the majority's approach, immediate beneficiaries receive a substantial and unjustified subsidy from hypothetical future beneficiaries.

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[1] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 (2012) (Order on Remand)(LaFleur, Comm'r, dissenting).

[2] Order at P 51 ("While the allocation of costs under the different methodologies will produce different results, the limitations of the DFAX methodology would also result in unjustified subsidies of some ratepayers by other ratepayers, in that, under the static DFAX analysis, there are no costs allocated to those who receive the broader benefits discussed herein.").

Further, as petitioners on rehearing point out, many of the potential future benefits the majority relies on to justify postage stamp cost allocation are in fact generic benefits of RTO membership, not benefits in any way resulting from the lines at issue in this proceeding. In effect, the majority reads the court as requiring the Commission to demonstrate that western utilities benefit from membership in PJM, not that they benefit from the lines in the record. I believe this approach is at odds with the task set out by the court, which did not fault the Commission for failing to establish the benefits of a regional transmission grid,[3] but required an explanation of why the regional benefits associated with the eastern transmission lines at issue in this proceeding are at least "roughly commensurate" with the substantial costs shifted to western utilities under the postage stamp approach.

In my dissent on the Order on Remand, I called for a hybrid approach that would account for both the immediate benefits that accrue to those "but-for" beneficiaries who caused the lines at issue, and the hypothetical future benefits that may accrue over time. A hybrid methodology provides a structural basis for believing that costs are allocated in a manner that is "at least roughly commensurate" with benefits because, by definition, it recognizes that transmission lines have immediate, system-wide, and hypothetical future benefits, and there must be some mechanism to allocate costs, even if imperfectly, across these beneficiaries.[4] Therefore, consistent

[3] *Illinois Commerce Comm'n* v. *FERC*, 576 F.3d 470, 476 (7th Cir. 2009) (*ICC*) (explaining that a claim of "generalized system benefits" is insufficient to support an unjustified subsidy), 477 (finding that the lines in the record will have some regional benefits "just because the network *is* a network," but that the Commission failed to show that there is "enough of a benefit to justify the costs [it] wants shifted," and that while the Commission "can presume that new transmission lines benefit the entire network. . . . it cannot use the presumption to avoid the duty of 'comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.'")(emphasis original).

[4] The majority suggests that there is a lack of evidence, "substantial or otherwise," to support a hybrid approach. Order at P 3. However, in explaining why violations-based DFAX is unjust and unreasonable as a stand-alone cost allocation mechanism, the majority concedes that the nature of transmission as a long-lived asset renders the hybrid approach reasonable in principle. ("In the case of investments that will last upwards of forty years, it is reasonable for the Commission to balance both short-run causes and benefits and long-run benefits.") *Id*. P 28. Moreover, the majority incorrectly suggests that the Commission can adopt a hybrid approach only if it can determine the appropriate split between regionally and locally allocated costs with exacting precision. In contrast to the majority, the Supreme Court has recognized that cost allocation "is not a matter for the slide-rule" and "has no claim to an exact science." *Colo. Interstate Gas Co. v. Fed. Power Comm'n*, 324 U.S. 581, 589 (1945). Consistent with this precedent, the Seventh Circuit made clear that the Commission does not need to "to calculate benefits to the last penny" to show that a cost allocation methodology is just and reasonable. *ICC*, 576 F.3d 470, 477. Therefore, I believe that the Commission has some flexibility in determining an acceptable split between regional and local cost allocation in a hybrid methodology, provided it has some basis to believe that the split is reasonable. *See FPC v.*

(continued…)

with the general principle that the Commission has broad authority to choose a rate from a range of just and reasonable rates,[5] and mindful that cost allocation "is not a matter for the slide-rule" and has "no claim to an exact science," I suggested that the Commission send the case to a settlement judge with instructions to work with stakeholders to develop the appropriate ratio of regional and local costs.

I note that in the Order No. 1000 compliance filing on which the Commission acts today, PJM stakeholders have come forward with a hybrid approach for defined categories of high-voltage transmission lines that they believe offer benefits across the PJM footprint. I am pleased that today the Commission is approving that cost allocation proposal for use going forward.

Having resolved PJM's cost allocation going forward, it becomes even clearer that what is at stake here is cost allocation for a circumscribed set of transmission lines proposed and approved in past regional transmission plans. As I stated in my initial dissent, I would remand this case to PJM stakeholders and a settlement judge to develop a hybrid methodology that reflects both the specific reliability benefits that caused the lines in the first place and the system-wide benefits that may accrue over time.[6]

Accordingly, I respectfully dissent.

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Cheryl A. LaFleur
Commissioner

Conway Corp., 426 U.S. 271, 278 (1976) (*Conway*) (finding "there is no single cost-recovering rate, but a zone of reasonableness").

[5] *See Montana-Dakota Util. Co. v. Northwestern Pub. Serv. Co.*, 341 U.S. 246, 251 (1951)("Statutory reasonableness is an abstract quality represented by an area rather than a pinpoint. It allows a substantial spread between what is unreasonable because too low and what is unreasonable because too high."); *Conway*, 426 U.S. 271, 278.

[6] The majority indicates that finality and avoiding further proceedings is an important reason for denying rehearing and adhering to its postage-stamp approach. Order at P 4. While I agree that finality is generally important, it is not a reason for sticking with an unjust and unreasonable cost allocation methodology. Additionally, the majority has not explained why it would be particularly difficult for the parties to develop a hybrid methodology before a settlement judge, especially when the stakeholders developed one on Order No. 1000 compliance. In this respect, the majority relies on an administrative convenience rationale very similar to the one the court has already rejected as unsupported. *See ICC*, 576 F.3d 470, 475 ("The second reason the Commission gave for approving PJM's pricing scheme-the difficulty of measuring benefits and the resulting likelihood of litigation over them-fails because of the absence of any indication that the difficulty exceeds that of measuring the benefits to particular utilities of a smaller-capacity transmission line.").

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C. Docket No. EL05-121-008

(Issued March 22, 2013)

CLARK, Commissioner, *dissenting*:

Today, a majority of the Commission reconfirms its decision to uphold a 100% postage stamp cost allocation methodology for high-voltage transmission facilities in the PJM region. Given the record before us, I cannot support this order.

The benefits used to justify the postage stamp methodology neither drove the development of the new high-voltage transmission facilities nor resulted directly from the new facilities themselves. The order imposes costs across PJM for projects built to resolve Eastern reliability issues on the theoretical basis of potential shifts in power flows and the claim of general system benefits. While these lines do provide secondary benefits, such as congestion savings, the predominantly west-to-east power flows in PJM make it highly likely that these benefits will accrue to Eastern load centers, not Midwestern. Also, while the entire PJM region benefits from region-wide planning and system operations, as recognized in today's order, these are generic benefits that are a product of PJM membership. The benefits cited are not specifically the product of the projects at issue here. Given the fact pattern in this proceeding, I would have established an evidentiary hearing procedure to determine a just and reasonable and not unduly burdensome cost allocation methodology to replace PJM's static flow-based methodology, as discussed below.

<u>Procedural History</u>

In 2009, the United States Court of Appeals for the Seventh Circuit granted[1] the petition for review of the Commission's decision in Opinion No. 494[2] to adopt a postage stamp methodology for allocating the cost of new transmission facilities operating at 500 kV and above. After remand from the Seventh Circuit, the Commission issued the Order on Remand upholding a 100% postage stamp cost allocation methodology. Today, the Order on Rehearing focuses on opposing parties' responses to the Commission's decision in the Order on Remand. The instant order marks the first time I have participated in this proceeding.

[1] *Illinois Commerce Comm'n v. FERC*, 576 F.3d 470 (7th Cir. 2009).

[2] *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007), *order on reh'g*, Opinion No. 494-A, 122 FERC ¶ 61,082 (2008).

The court provides us with a straightforward task: make a reasoned decision based upon substantial evidence.[3] The Seventh Circuit stated that "FERC is not authorized to approve a pricing scheme that requires a group of utilities to pay for facilities from which its members derive no benefits, or benefits that are trivial in relation to the costs sought to be shifted to its members."[4] The court required us to compare the "costs assessed against a party to the burdens imposed or benefits drawn by that party."[5] However, even if we could not quantify the benefits to the Midwestern utilities from new 500 kV lines in the East, but had a plausible reason to believe that the benefits are at least roughly commensurate with those utilities' share of total electricity sales in PJM's region, the Seventh Circuit gave the Commission latitude to approve the proposed pricing scheme on that basis.[6]

Even given this latitude, I do not believe there is sufficient evidence or reasoning in the record to find that benefits for utilities in the Midwest are even roughly commensurate to the costs incurred under the postage stamp methodology. Inasmuch as this is the case, I believe the Commission's decision has largely ignored the court's clear directive.

Postage Stamp Transmission Facilities

Let us first consider PJM's planning process and the above 500 kV facilities at issue in this proceeding. PJM's 100% postage stamp cost allocation methodology was in effect from June 20, 2006[7] to February 1, 2013.[8] Within that time, several high-voltage facilities and necessary lower-voltage facilities were approved through PJM's Reliability Transmission Expansion Plan (RTEP) process.

PJM's RTEP ensures system reliability and adherence to North American Electric Reliability Corporation (NERC) standards.[9] In its RTEP, PJM analyzes grid system dynamics on a region-wide basis to ensure that the integrated grid is in compliance with NERC standards over a five-year near-term horizon and 15-year long-term horizon.[10] The two largest projects to come out of

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[3] *Illinois Commerce Comm'n*, 576 F.3d at 478, *citing Town of Norwood v. FERC*, 962 F.2d 20, 22 (D.C. Cir. 1992).

[4] *Id.* at 476.

[5] *Id.* at 477, *citing Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004).

[6] *Id.*

[7] Opinion No. 494-A, 122 FERC ¶ 61,082 at P 92.

[8] *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,074, at P 1 (2013); *PJM Interconnection, L.L.C., et al.*, 142 FERC ¶ 61,214, at P 1 (2013).

[9] PJM's Operating Agreement provides that the "Regional Transmission Expansion Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals." *See* PJM Operating Agreement, Schedule 6 (Regional Transmission Expansion Planning Protocol), section 1.2(d).

[10] PJM Interconnection, L.L.C., *PJM 2012 RTEP in Review*, Book 1, at 2 *available at* http://www.pjm.com/~/media/documents/reports/2012-rtep/2012-rtep-book-1.ashx.

the RTEP process in recent years are the Susquehanna-Roseland 500 kV line and the 502 Junction – Loudoun [Trans-Allegheny Interstate Line (TrAIL)].[11] According to PJM's April 13, 2010 response[12] to the Commission's January 21, 2010 Order[13] establishing paper hearing procedures, the Susquehanna-Roseland and TrAIL lines cost approximately $1,161 million and $1,117 million, respectively.

The Susquehanna-Roseland 500 kV line has an expected in-service date of June 1, 2015.[14] As approved in PJM's 2007 RTEP, the Susquehanna-Roseland line would extend from northeastern Pennsylvania to Roseland, New Jersey.[15] PJM approved the addition of the Susquehanna – Roseland 500 kV line because it "reduces northern New Jersey overloads to a point that future overloads are not expected until at least 2016."[16] According to PJM's estimate in this proceeding, Commonwealth Edison (ComEd), an Illinois utility, would only have been responsible for 0.28%, or $3.25 million of the total cost of the Susquehanna-Roseland line under the flow-based DFAX methodology.[17] Under the 100% postage stamp methodology, however, the costs allocated to ComEd increase fiftyfold, saddling ComEd customers with over $168 million in costs for Susquehanna-Roseland, a transmission facility built for the sole purpose of alleviating transmission constraints in an area more than 500 miles away from Illinois.[18]

The 500 kV TrAIL transmission facility was placed in service on May 23, 2011.[19] According to PJM's 2011 RTEP, TrAIL improves reliability into such congested areas as Washington, D.C., Baltimore and northern Virginia. It was built in three segments, connecting substations in southwestern Pennsylvania, northern West Virginia and northern Virginia. According to the

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[11] PJM Interconnection, L.L.C., *PJM 2011 RTEP in Review*, Book 1, at 14-15 *available at* http://www.pjm.com/~/media/documents/reports/2011-rtep/2011-rtep-book-1.ashx.

[12] PJM Interconnection, L.L.C. April 13, 2010 Response to Information Requests, Docket No. EL05-121-006, at 9-10 *available at* http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=12320778.

[13] *PJM Interconnection, L.L.C.*, 130 FERC ¶ 61,052 (2010) (January 21, 2010 Order).

[14] PJM Interconnection, L.L.C., *PJM 2012 RTEP in Review*, Book 1, at 7 *available at* http://www.pjm.com/~/media/documents/reports/2012-rtep/2012-rtep-book-1.ashx.

[15] PJM Interconnection, L.L.C., *PJM 2007 RTEP*, Section 3 at 57-60 *available at* http://www.pjm.com/~/media/documents/reports/2007-rtep/2007-section3a.ashx.

[16] *Id*. at 60. *See* Map 1 in the Appendix for a map demonstrating the drivers of the Susquehanna-Roseland line.

[17] PJM Interconnection, L.L.C. April 13, 2010 Response to Information Requests, Docket No. EL05-121-006, at 9 *available at* http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=12320778. PJM's distribution factor (DFAX) methodology at issue in this proceeding calculates the contribution of load in each zone to flows on the facility that creates the need for the transmission enhancement.

[18] The $168 million total for ComEd is based a conservative load ratio share of 14.5 % for ComEd multiplied by the $1,161 million in total costs for the Susquehanna-Roseland project. Information on cost allocation percentages is on PJM's website *available at* http://www.pjm.com/planning/rtep-upgrades-status/cost-allocation-view.aspx.

[19] PJM Interconnection, L.L.C., *PJM 2011 RTEP in Review*, Book 1, at 14 *available at* http://www.pjm.com/~/media/documents/reports/2011-rtep/2011-rtep-book-1.ashx.

2006 RTEP, TrAIL relieves expected overloads on 500 kV circuits in West Virginia, Virginia, and Maryland.[20] In its decision to approve the TrAIL facility, PJM stated that "[g]rowing west-to east power transfers to serve eastern load centers have been identified as a major driver of the generator deliverability-based overloads now observed on these circuits."[21] Not surprisingly, if ComEd's costs would have been allocated according to the flow-based DFAX methodology, ComEd would not be responsible for *any* of the costs associated with the TrAIL enhancement.[22] In comparison, a 100% postage stamp cost allocation forces ComEd to pay an estimated $162 million for a line that has been built to resolve anticipated reliability violations caused by power demands in the East.[23]

Susquehanna-Roseland and TrAIL are just two examples of the many Eastern-driven projects that will be paid for by consumers who appear to share little of the benefits. These backbone transmission facilities were approved to resolve specific anticipated reliability violations in the East, not to increase the general system-wide benefits discussed in the Order on Remand or the Order on Rehearing.

System-wide Benefits

Upon review, I conclude that even a roughly commensurate standard cannot be satisfied by the system-wide benefits described in this proceeding. The Order on Remand used PJM's estimates from a generic 2011 ISO/RTO Metric Report to conclude that planning and operating a reliable transmission system produces as much as $2.2 billion in annual savings for the region.[24] The order claimed the "benefits" created by planning and operating a reliable transmission system include: (1) using redispatch procedures to maintain reliability rather than power sales curtailments; (2) planning for future reliability needs on a region-wide rather than a utility-by-utility or state-by-state basis; (3) reducing reserve requirements and increasing demand response; and (4) reducing production costs, operating reserve costs and ancillary services costs. The Order on Remand characterized these annual savings as benefits in order to conclude that ComEd benefited from the transmission facilities by $225 million to $325 million.[25]

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[20] PJM Interconnection, L.L.C., *PJM 2006 RTEP*, Section 3 at 92-93 *available at* http://www.pjm.com/~/media/documents/reports/rtep/2006/20070301-section-03b.ashx. *See also* Map 2 in the Appendix for a map demonstrating the drivers of the TrAIL enhancement.

[21] *Id.*

[22] Response of PJM Interconnection, L.L.C. to Information Requests, April 13, 2010, Docket No. EL05-121-006, at page 10, *available at* http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=12320778.

[23] The $162 million total for ComEd is based on the same conservative load ratio share of 14.5% used for the Susquehanna-Roseland calculation above, multiplied by the $1,117 million in total costs for the TrAIL project.

[24] *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230, at P 78 (2012), *citing* the six ISOs and RTOs' submittal of the 2011 ISO/RTO Metrics Report, submitted on August 31, 2011 in Docket No. AD10-5-000, at 317-318.

[25] *See id.* at PP 79, 97.

While I agree with the Order on Rehearing that each of the transmission facilities that operate at or above 500 kV is part of an interconnected transmission network, I disagree that planning and operating on a regional basis can be used to justify a 100% postage stamp cost allocation. The benefits comprising the $2.2 billion in the preceding paragraph are not actually benefits provided by the high voltage facilities at issue in this proceeding; they are the benefits utilities receive by virtue of their membership in the PJM RTO.

For instance, the Order on Remand states that planning for future reliability needs on a region-wide basis results in an estimated $390 million in annual savings. The analysis in the Order on Remand then characterizes this $390 million as benefits to the region and applies them, in part, to ComEd. However, PJM's region-wide planning through the RTEP resulted in the development of high-voltage backbone facilities in the East, not projects in the Midwest. I am unable to see how this results in a roughly commensurate benefit to the Midwest. Similarly, while I agree that operating the transmission system on a regional basis provides system-wide benefits, these benefits did not lead to the development of projects like TrAIL and Susquehanna-Roseland, nor do these projects directly lead to greater operational efficiency for utilities hundreds of miles to the west. Put simply, using membership in an RTO as a basis for allocating the costs of high voltage transmission on a pro-rata basis does not fit the circumstances at play here. Effectively, this rationale ignores the court's mandate to engage in some weighing of the benefits and burdens of the actual projects.

The Order on Remand also recognizes that the development of backbone projects results in expected congestion savings, reduced outages, reduced operating reserve requirements, and reduced losses. However, the direct beneficiaries in these instances are the entities closest to the transmission projects, not those located hundreds of miles away. That is, avoiding overloads in northern New Jersey reduces outages first and foremost for those living in New Jersey. Along these same lines, congestion savings from projects like TrAIL are most beneficial to utilities in Maryland, Virginia, and New Jersey.[26]

The Order on Rehearing makes the point that, without the addition of new transmission facilities that operate at or above 500 kV, the integrity of the transmission system would deteriorate, and the benefits of the integrated system would be reduced. I agree. A comprehensive planning process such as PJM's RTEP provides the region with protection against future reliability violations and maintains the integrity of the transmission system. However, this would be the case regardless of the cost allocation mechanism. As PJM explains in its most recent RTEP, "[i]f violations of NERC Reliability Standards are identified, PJM is obligated to develop and

[26] The same conclusion can be reached for contingency reserve requirements. Constrained deliverability within the PJM region has led to the establishment of an Eastern subzone (the Mid-Atlantic Dominion sub-zone), which has additional restrictions on reserve requirements relative to the rest of the RTO. It is this Eastern sub-zone, and not the rest of PJM, that generally relies on the market to procure sufficient reserves. *See* Monitoring Analytics (Independent Market Monitor for PJM), *2012 State of the Market Report for PJM*, section 9 (Ancillary Services) at 279 *available at* http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2012/2012-som-pjm-volume2-sec9.pdf.

implement solutions to mitigate them."[27] In addition, PJM recognizes that it is a federally-approved RTO "charged with ensuring the safety, reliability and security of the bulk electric power system." [28] Thus, with expected reliability violations on the horizon, PJM is obligated to develop solutions to prevent or mitigate these system concerns. 100% postage stamp cost allocation is not necessary for these facilities to be built. What is necessary, however, is for the Commission to offer some valid justification for how costs and benefits are allocated in a roughly commensurate manner to the users of the system, and that is where the order's analysis falls short.

In many instances, the order's justification for a postage stamp cost allocation methodology turns to a claim that flows on transmission facilities operating at or above 500 kV can change over time. This reasoning supposes that theoretically power flows could shift and become predominantly east-to-west, thereby benefiting utilities like ComEd in a manner roughly commensurate with the hundreds of millions they will pay under the postage stamp methodology. The record, however, shows no concrete evidence that power flows are going to shift west or that the new transmission facilities would provide direct benefits to the Midwest under such circumstances. I see no basis for saddling ComEd's (or any other Midwestern utility's) customers with costs for transmission projects meant to resolve potential reliability violations hundreds of miles to the East, and for which the Midwestern utilities will see only trivial benefits, on a theory of potentially shifting power flows. Costs need to be allocated in a manner roughly commensurate with actual, not theoretical, benefits.

A Just and Reasonable Cost Allocation Methodology

When acting under section 206 of the Federal Power Act, in order to change an existing cost allocation methodology, the Commission must show that the existing cost allocation of a utility is unjust and unreasonable and then must establish a new just and reasonable cost allocation as a replacement.

To meet the first prong of its section 206 burden, the Commission concluded that PJM's use of a static, flow-based model for allocating the costs of new transmission facilities that operate at or above 500 kV was unjust and unreasonable and unduly discriminatory. I generally agree with this conclusion and find that PJM's static DFAX methodology did not adequately recognize changes in the system throughout time. Nonetheless, the static DFAX methodology did have one advantage over the postage stamp methodology upheld in today's order—it provided PJM with an objective and quantifiable basis for attributing costs to utilities that caused anticipated reliability violations. In doing so, PJM's static DFAX methodology established a direct link between who pays for a facility and who causes the need for that facility.

While the Commission has adequately demonstrated that the existing DFAX methodology is unjust and unreasonable, today's order fails to establish a just and reasonable replacement for the static DFAX model and thus does not meet its burden under the second prong of section 206 of

[27] PJM Interconnection, L.L.C., *PJM 2012 RTEP in Review*, Book 1, at 3 *available at* http://www.pjm.com/~/media/documents/reports/2012-rtep/2012-rtep-book-1.ashx.

[28] *Id.*

the FPA. After applying the Seventh Circuit's evaluation criteria by comparing the costs assessed against the parties in this proceeding to the *burdens imposed or benefits drawn* by these parties, I conclude that a 100% postage stamp cost allocation methodology has not been shown to be just and reasonable for all utilities in the PJM region.

First, a 100% postage stamp methodology does not account for the burdens imposed by the parties on the transmission grid. The Midwestern utilities are not the parties burdening the grid with anticipated reliability violations and are not driving the need for the transmission facilities at issue in this proceeding. Despite this fact, the postage stamp cost allocation methodology in PJM applies costs on a pro-rata basis, even though some utilities in PJM are far-removed from the reliability drivers in the East. Moreover, the predominantly west-to-east power flows in PJM make it highly unlikely that Midwestern utilities will rely on power from the new facilities in an amount equal to their load ratio share.

Second, it is clear that the benefits drawn by Midwestern utilities are trivial compared to the costs they are allocated under a 100% postage stamp methodology. As demonstrated above, the system-wide "benefits" used as evidence in the order are either not directly provided to Midwestern utilities or are not directly applicable to the new high voltage facilities in this proceeding. Thus, these purported benefits do not provide a sufficient foundation to meet the roughly commensurate standard.

However, this is not to say that a 100% postage stamp methodology is necessarily unjust and unreasonable in all circumstances. The Midwest Independent Transmission System Operator, Inc. (MISO) applies such a methodology to its Multi-Value Projects. MISO's Tariff, however, explicitly provides that a Multi-Value Project must be evaluated as part of a portfolio of projects whose benefits are spread broadly across the footprint.[29] In contrast, PJM did not approve the instant projects through such a process and thus did not ensure regional benefits. Additionally, PJM's RTEP plans from 2006 to date[30] did not include any backbone transmission facilities in the Midwest that would balance out the disparity of having Midwestern utilities pay for projects built to resolve potential reliability issues in the East.

While I understand the need to bring this proceeding to a close and establish finality for participants, I must balance this need with the Commission's obligation to ensure just and reasonable rates. I cannot rationalize why Midwestern utilities should be responsible for hundreds of millions of dollars in costs for facilities built to resolve potential reliability violations caused by other utilities.[31] The Commission's position seems to be: a high voltage line

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[29] *See* MISO, FERC Electric Tariff, Attachment FF, section II.C.1 (8.0.0).

[30] *Regional Transmission Expansion Plan Documents available at* http://www.pjm.com/documents/reports/rtep-documents.aspx.

[31] One does not need to be an electrical engineer to understand why the Commission continues to have such difficulty in trying to get the 100% postage stamp model to fit this case. A quick look at the PJM high voltage transmission map clarifies the issue. PJM is physically large. Not only is it large, the Midwestern utilities and the Eastern utilities have limited connectivity, *i.e.* the transfer capability is quite limited. As such, it is little wonder a project needed for reliability in the East would show little benefit in the Midwest or vice versa.

built anywhere in PJM is necessarily an equal benefit to every consumer everywhere in PJM. Given the overwhelming weight of evidence to the contrary, I cannot support this conclusion.

The Commission should have taken a different direction supported by a record. The static DFAX model may not be ideal, but it should not be replaced by another unjust and unreasonable methodology. The Commission should have established hearing and settlement judge procedures to allow parties an opportunity to build a record by which they could determine a suitable alternative to the static DFAX.[32] One alternative could have been a Solution-Based DFAX.[33] A Solution-Based DFAX is updated annually and would eliminate the Commission's major concern about the static DFAX model. Another approach could have been a hybrid methodology, which the Commission has approved as the cost allocation methodology going forward.[34] Either of these approaches would have been preferable to the imposition of a 100% postage stamp cost allocation on consumers that may never directly benefit from the projects they are now forced to fund.

For these reasons, I respectfully dissent from this order.

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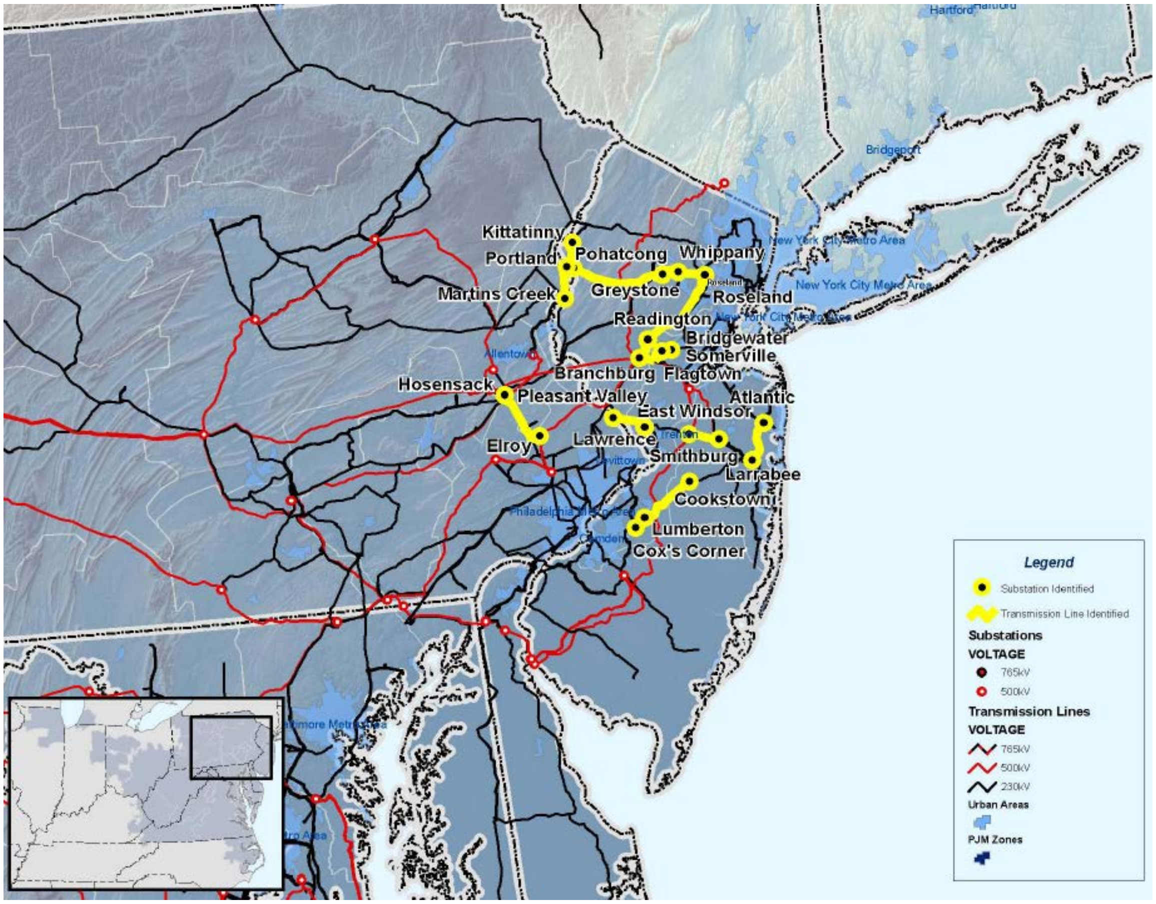
Tony Clark
Commissioner

[32] *See* Illinois Commerce Comm'n April 27, 2012 Request for Rehearing at 34-36 *available at* http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12967811

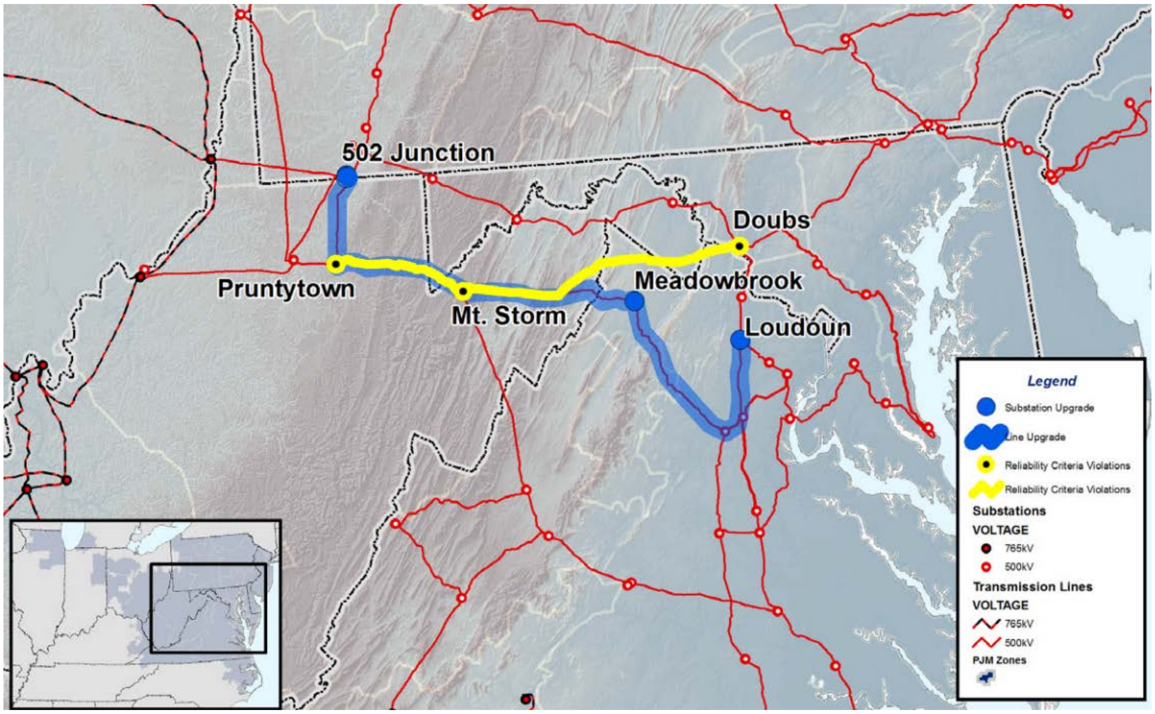
[33] PJM's "Solution-Based DFAX" method will calculate the relative use of a new facility from load in each zone and withdrawals by merchant transmission facilities. This analysis will account for uses of the new facility in both directions, and will be updated annually to account for changes in use due to modifications of the grid. *See PJM Interconnection, L.L.C, et al.*, 142 FERC ¶ 61,214, at P 345 (2013).

[34] Briefly, PJM's "50/50 hybrid" cost allocation method allocates one-half of a Regional or Necessary Lower Voltage Facility's costs based on the postage-stamp method, and one-half based on the "Solution-Based" DFAX method. *See PJM Interconnection, L.L.C, et al.*, 142 FERC ¶ 61,214, at P 345 (2013).

APPENDIX



Map 1: *Reliability Criteria Violations Driving Need for the Susquehanna – Roseland Line*. *See* PJM 2007 RTEP, Section 3 at 59, *available at* http://www.pjm.com/~/media/documents/reports/2007-rtep/2007-section3a.ashx.



Map 2: *Reliability Criteria Violations Driving Need for TrAIL*. *See* PJM 2008 RTEP, Section 3 at 53, *available at* http://www.pjm.com/~/media/documents/reports/2008-rtep/2008-section3.ashx.