

130 FERC ¶ 61,052
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Marc Spitzer, Philip D. Moeller,
and John R. Norris.

PJM Interconnection, L.L.C.

Docket No. EL05-121-006

ORDER ESTABLISHING PAPER HEARING PROCEDURE

(Issued January 21, 2010)

1. This order establishes a paper hearing in response to the decision by the United States Court of Appeals for the Seventh Circuit (Seventh Circuit Court) remanding to the Commission the determination of the appropriate allocation method to be used by PJM Interconnection, L.L.C. (PJM) for new transmission capacity that will operate at or above 500 kV.¹

Background

2. On April 19, 2007, the Commission issued Opinion No. 494 - - an order on an initial decision concerning PJM's transmission rates.² In Opinion No. 494, the Commission retained the current license-plate methodology with respect to cost recovery for existing facilities.³ For recovery of the costs of investment in new facilities that operate below a 500 kV threshold, the Commission continued the use of PJM's DFAX analysis to identify the load that benefits from new facilities.⁴ For recovery of the cost of investment in new facilities that operate at or above 500 kV, however, the Commission

¹ *Illinois Commerce Commission 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).

³ Under a license-plate (or zonal) rate design, a customer pays the embedded cost of transmission facilities that are located in the same zone as the customer. A customer does not pay for other transmission facilities outside of the zone, even if the customer engages in transactions that rely on those zones.

⁴ PJM's DFAX methodology allocates the costs of new facilities to load based on a computer model that measures the flows across a constraint. PJM Tariff, Schedule 12 (b)(iii).

adopted a postage-stamp cost allocation methodology.⁵ Under this allocation methodology, the costs of all new facilities at or above 500 kV are allocated on a pro rata basis across all the transmission zones within PJM. The Commission reasoned that this postage-stamp cost allocation methodology would encourage development of backbone facilities benefiting the entire PJM region, would eliminate controversy over future cost allocations, and would be consistent with goals of the Energy Policy Act of 2005, which supports development of critical new transmission infrastructure.⁶

3. On August 6, 2009, the Seventh Circuit Court granted a petition for review regarding the use of a postage-stamp cost allocation methodology for new transmission facilities that operate at or above 500 kV. On October 20, 2009, the Seventh Circuit denied rehearing of its decision and, on October 28, 2009, remanded the case to the Commission for further proceedings.

4. In its August 6, 2009 order, the Seventh Circuit found that the Commission had not provided sufficient record evidence to justify its adoption of a postage-stamp cost allocation methodology for new transmission facilities that operate at or above 500 kV. The court concluded:

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. "[A]ll approved rates [must] reflect to some degree the costs actually caused by the customer who must pay them." [citations omitted]. Not surprisingly, we evaluate compliance with this unremarkable principle by comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.⁷

5. The Seventh Circuit stated that the Commission had not justified the allocation of these costs on the basis of the reliability provided to the PJM system. The court recognized that, in an interconnected grid, "a failure in one part of the region can affect the supply of electricity in other parts of the network. So utilities and their customers in the western part of the region could benefit from higher-voltage transmission lines in the

⁵ Under a 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.

⁶ 119 FERC ¶ 61,063 at P 80.

⁷ 576 F.3d 470 at 476.

east.”⁸ The court found, however, that “nothing in FERC's opinions in this case enables even the roughest of ballpark estimates of those benefits.”⁹

6. The court observed that the Commission did find that a 500 kV transmission line has twice the capacity of a 345 kV line and that the reliability of 500 kV and above circuits in terms of momentary and sustained interruptions is 70 percent more reliable than 138 kV circuits and 60 percent more reliable than 230 kV circuits on a per mile basis. The court found, however, that the Commission “did not compare the reliability of a 500 kV line to that of a 345 kV line (the predominant sized line used in the Midwest), even though network reliability is the benefit that the Commission thinks the midwestern utilities will obtain from new 500 kV lines in the East.”¹⁰

7. The court recognized that in comparing costs and benefits the Commission “does not have to calculate benefits to the last penny, or for that matter to the last million or ten million or perhaps hundred million dollars.”¹¹ The court concluded that:

If [the Commission] cannot quantify the benefits to the midwestern utilities from new 500 kV lines in the East, even though it does so for 345 kV lines, but it has an articulable and plausible reason to believe that the benefits are at least roughly commensurate with those utilities' share of total electricity sales in PJM's region, then fine; the Commission can approve PJM's proposed pricing scheme on that basis. For that matter it can presume that new transmission lines benefit the entire network by reducing the likelihood or severity of outages. But 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."¹²

Procedural Motions

8. Exelon Corporation (Exelon) submitted a motion to establish a procedural schedule for a paper hearing on remand of the Seventh Circuit's decision. Exelon

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 477.

¹¹ *Id.*

¹² *Id.* (citations omitted).

suggests that the Commission enter an order setting a schedule for submission by the parties of (1) verified statements including any proposals for a cost allocation methodology; (2) verified answering statements; and (3) rebuttal comments.¹³ The Indicated PJM Transmission Owners filed an answer to the motion.¹⁴ The Indicated PJM Transmission Owners request that the Commission determine that no further hearing procedures are necessary in this case because the Commission has sufficient record evidence, supplemented by administrative notice of actions in other Commission dockets, to issue an order on remand addressing the concerns raised by the Seventh Circuit.¹⁵ Alternatively, should the Commission decide that supplementation of the record is necessary on any particular point, Indicated PJM Transmission Owners suggest that the Commission can issue a more targeted order than that being sought by Exelon. The Illinois Commerce Commission (Illinois Commission), Public Utilities Commission of Ohio (Ohio Commission), and Exelon filed comments in response supporting paper hearing procedures.¹⁶ The Illinois Commission, Ohio Commission, and Exelon requested discovery procedures, but did not indicate any specific information sought.

Discussion

9. We will establish paper hearing procedures to allow parties to supplement the record in this proceeding. We will first provide a 30-day period for PJM to provide certain information as discussed below to provide all parties with a framework on which to submit responses. Parties, including PJM, will then be given 45 days from the date of

¹³ Exelon suggests that the Commission should encourage informal discovery directed to PJM with appropriate procedures to make the information available to all parties.

¹⁴ The Indicated PJM Transmission Owners include: Baltimore Gas and Electric Company (BGE); Old Dominion Electric Cooperative (Old Dominion); Pepco Holdings, Inc. on behalf of itself and its affiliates Potomac Electric Power Company, Delmarva Power & Light Company and Atlantic City Electric Company (Pepco); PPL Electric Utilities Corporation (PPL); Public Service Electric and Gas Company (PSEG); and Virginia Electric and Power Company.

¹⁵ On November 25, 2009, BGE, Old Dominion, Pepco, PPL, PSEG and Southern Maryland Electric Cooperative (Supporting Companies) submitted a motion with a detailed discussion of supporting record evidence, asking that the Commission issue an order on remand based upon the existing record. The Illinois Commission, Exelon, and Dayton Power and Light Company filed comments in response, and the Supporting Companies answered.

¹⁶ The Illinois Commission and Ohio Commission also support a formal discovery process.

PJM's filing to address the appropriate cost allocation methodology to allocate the cost of new transmission facilities that operate at or above 500 kV. Reply comments will then be due within 30 days. PJM and the parties are encouraged to provide studies, methodologies or other evidence to support their positions regarding the allocation of costs.

10. PJM should provide the following information:

A. The total costs that have been approved through PJM's Regional Transmission Expansion Plan (RTEP) process for facilities that operate at or above 500 kV (and necessary lower voltage facilities), and whose costs are assigned pursuant to Opinion No. 494. For these projects, calculate the total costs that have been assigned to each PJM zone, and estimate the total costs that would be assigned to each zone using PJM's DFAX methodology.

B. PJM manuals require that, in planning projects, it seek to optimize projects in order to reduce the cost of addressing individual reliability criteria. Describe how the optimization process is performed. Also, explain how PJM determines the relative priorities of resolving numerous reliability issues with one project. For 500 kV and above facilities, explain whether PJM could accurately determine the beneficiaries of a project that resolves numerous reliability issues using its DFAX methodology.

C. PJM's most recent RTEP report (2008), at P 5 states that:

Baseline thermal and voltage analysis encompasses an exhaustive analysis of all Bulk Electric System (BES) facilities for compliance with NERC Category A (TPL-001), Category B (TPL-002) and Category C (TPL-003) events. In addition, consistent with NERC standards TPL-004, a number of extreme events including those judged to be critical from an operational perspective as well as those defined in Table I of TPL-004 were evaluated for risk and consequence to the system.

Describe the types of anticipated reliability requirements addressed by the PJM RTEP (i.e., voltage, thermal, stability). Explain whether and how the DFAX analysis applies to the NERC reliability analyses listed above and any other reliability requirements. Explain whether the RTEP upgrades designed to address these reliability requirements also will address other reliability concerns. In particular, explain whether the geographic location or voltage level of an RTEP upgrade makes that upgrade more likely to address broader reliability concerns. Provide any relevant studies.

D. In this proceeding, PJM recommended the adoption of a postage-stamp rate design for new 500 kV and above facilities.

1. Describe the benefits generated by such facilities that are not captured in the DFAX methodology used by PJM to allocate costs for lower voltage facilities. Indicate whether such lines provide reliability or economic benefits to the areas producing electricity.

2. Provide engineering or other studies showing any differences in regional benefits between 500 kV and lower voltage facilities (e.g., 345 kV and 230 kV).

E. Provide any existing engineering or other studies that indicate whether the modeling assumptions used in the RTEP analysis, such as the direction of flow, remain consistent or vary over time.

11. The following are some issues the Commission requests the parties, including PJM, to address in their comments.

A. What are the relevant types of benefits that transmission expansions that operate at or above 500 kV provide to various categories of market participants in PJM? What methodologies and system conditions should be assumed in assessing regional benefits for these reliability and economic projects and how should these benefits be measured? Describe the types of benefits that would be received, provide any studies or other analyses that quantify the magnitude of the benefits received by the various categories of entities, and explain the methodologies used in these studies or other analyses.

B. Explain whether the costs of transmission expansions operating at or above 500 kV and that are assigned pursuant to the methodology approved in Opinion No. 494 are expected to be roughly commensurate with the benefits received. If so, how should that calculation be performed? If not, how should the Commission address this issue?

C. Explain whether and how the DFAX methodology includes the NERC reliability requirements in the model used to determine the zones or areas that cause the need for, or benefit from, a particular project, including the NERC events, in particular TPL-004. Does the DFAX methodology capture all the benefits that are associated with addressing the NERC reliability requirements? If not, explain which events are not fully reflected in the analysis and why, and quantify any additional benefits.

D. Describe whether the PJM DFAX methodology would remain relevant over the useful life of facilities that operate at or above 500 kV.

1. Explain whether another methodology or assumption may better capture the reliability and economic benefits from these high voltage facilities over the useful life of the facilities.
 2. Explain whether there is an engineering or other basis for developing cost allocation methods that distinguish between 500 kV or higher and lower voltage facilities.
- E. Discuss whether, and if so, how strengthening a portion of the network by the addition of new transmission facilities that operate at or above 500 kV reduces risks posed to those other portions of the system that do not show up in the DFAX methodology? Include any supporting studies or other analyses.
- F. For 500 kV or higher transmission projects, describe benefits, if any, that go beyond the specific reliability benefits or economic analyses that are included as part of the PJM RTEP study process. Provide any studies or analyses of the extent of such benefits, including geographic dispersion beyond what is included in the RTEP modeling. Describe how these benefits may change over the useful life of transmission infrastructure.
- G. Are the reliability, economic, or other benefits of transmission expansions greater for customers located in areas that import electricity than for customers located in areas that export electricity?
1. Does the answer depend on the voltage level of the transmission expansion? Historically, how has the magnitude of the benefits of various categories of high-voltage transmission (e.g., 345 kV, 500 kV, and 765 kV) received by customers in areas that import electricity compared with that received by customers in areas that export electricity? What is the correlation between voltage level and regional benefits of transmission facilities?
 2. Should the benefits of enhanced trade between import and export areas be measured solely in terms of lower electric prices or increased reliability, or does such trade provide other benefits? Should any such benefits go to both the areas generating electricity and those receiving it?
- H. Examine whether the benefits associated with new 500 kV or higher transmission facilities would change if a change occurred to the historical flow pattern of electricity.

1. Have areas that have historically imported or exported electrical energy remained importing or exporting areas over time, or have they changed from being one during some periods to the other during other periods?

2. Discuss whether changes over time in the relative fuel prices used for generation in different PJM regions affect the dispatch of generation and the patterns of flow within PJM. Explain whether such changes in flow affect the benefits derived from such higher voltage projects.

I. Since the adoption of Financial Transmission Rights (FTR) and Auction Revenue Rights (ARR) in PJM, how have the benefits of 500 kV or higher transmission upgrades been reflected in the value of the FTRs and ARRs associated with the upgrades and captured by the market participants that hold them? Provide any quantitative studies or analyses that support your answer, and describe the methodology used in such studies or analyses.

12. Parties are free to file comments and analyses not specifically requested above that are relevant to the Commission's obligation under the Seventh Circuit Court's decision.

The Commission orders:

A paper hearing procedure is established as discussed in the body of this order. PJM is to file its comments within 30 days of the date of this order. Parties' comments are due 45 days from the date of PJM's filing and reply comments are due 30 days thereafter.

By the Commission. Commissioner Norris voting present.

(S E A L)

Kimberly D. Bose,
Secretary.