122 FERC ¶ 61,082
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

PJM Interconnection, L.L.C. Docket Nos. EL05-121-003
EL05-121-004

OPINION NO. 494-A

ORDER ON REHEARING AND COMPLIANCE FILING

(Issued January 31, 2008)

1. On April 19, 2007, the Commission issued an order on an initial decision concerning transmission rate design for the PJM Interconnection, L.L.C., (PJM).[1] In Opinion No. 494, the Commission retained the current license-plate rate design methodology with respect to cost recovery for existing facilities.[2] The Commission found that the rate design for existing facilities had not become unjust and unreasonable. The Commission reasoned that the sunk costs of investment in existing facilities should continue to be recovered from customers for whom these costs were originally incurred, and that a reallocation would produce unacceptable cost shifts. For recovery of the costs of investment in new facilities that operate below a 500 kV threshold, the Commission endorsed the continued use of a beneficiary pays approach.[3] For recovery of the cost of investment in new facilities that operate at or above 500 kV, the Commission established a regional rate design based on a postage-stamp allocation methodology.[4] The

[1] *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007).

[2] 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.

[3] Under a beneficiary pays approach, the costs of new facilities are allocated to load based on a computer modeling methodology, not zonal proximity.

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

Commission reasoned that a postage-stamp allocation methodology best supports new investment that will strengthen the electric system, improve reliability and support regional markets.

2. On May 21, 2007, as supplemented on May 29, 2007, PJM submitted a compliance filing amending Schedule 12 of its FERC Electric Tariff, Sixth Revised Volume No. 1, pursuant to Opinion No. 494 (compliance filing).[5]

3. Rehearing has been timely requested of Opinion No. 494. This order denies the requests for rehearing and/or clarification of Opinion No. 494, and as discussed in the body of this order, accepts the compliance filing of PJM.

I. Background

4. The background of this proceeding is set out in detail in the Commission's prior orders in this proceeding.

5. On January 31, 2005, certain PJM transmission owners submitted a filing in which they proposed to continue the existing rate design until: (1) a future filing pursuant to section 205 of the Federal Power Act (FPA) to change rate design;[6] or (2) a filing proposing to change rate design as of February 1, 2008, following an evaluation to be conducted in conjunction with Midwest Independent Transmission System Operator's (Midwest ISO) evaluation of the intra-Midwest ISO rate design.[7] On March 7, 2005, a protest was filed by American Electric Power Service Corporation (AEP) challenging continuation of the existing rate design.

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[5] Notice of PJM's filing was published in the *Federal Register*, 72 Fed. Reg. 31,308 (2007), with interventions and protests due on or before June 11, 2007.

[6] 16 U.S.C. § 825d (2000).

[7] With respect to inter-regional rate design, on November 18, 2004, the Commission conditionally accepted a proposal to retain the existing zonal rate design but required PJM and Midwest ISO to develop a proposal for allocating the costs of new facilities that are built in one Regional Transmission Organization (RTO) but address reliability or congestion in the other RTO. *Midwest Independent Transmission System Operator, Inc*., 109 FERC ¶ 61,168 (November 2004 Order), *clarified*, 109 FERC ¶ 61,243 (2004). Further, the transmission owners in both RTOs were required to make a filing, by August 1, 2007, evaluating the rate design between PJM and Midwest ISO, to become effective on February 1, 2008. *See* Docket Nos. ER05-6 and EL07-101. An order in those proceedings is being issued concurrently with this order.

6. On May 31, 2005, the Commission accepted, suspended subject to refund,[8] and pursuant to section 206 of the FPA,[9] established hearing procedures to address the justness and reasonableness of continuing PJM's zonal rate design. On July 13, 2006, the Administrative Law Judge issued an initial decision finding that PJM's current zonal rate design for existing transmission facilities is unjust and unreasonable, because PJM transmission service customers benefit from all of the transmission facilities in the PJM region.[10]

7. In Opinion No. 494, the Commission found that there was insufficient evidence to determine that the license-plate rate design had become unjust and unreasonable for existing facilities.[11] The Commission considered a number of facts in reaching this conclusion: (1) these facilities were constructed for the benefit of the customers of the individual transmission systems and were not part of a system-wide planning process; (2) each of the proposed alternative rate designs found to be just and reasonable in the Initial Decision presented unacceptable cost shifts; and (3) substantial shifts in cost responsibility could destabilize a Regional Transmission Organization (RTO).[12] Accordingly, in Opinion No. 494, the Commission found that the evidentiary record did not establish that the existing rate design was unjust and unreasonable and that the record did not present just and reasonable alternatives.

8. With regard to the principles of cost causation for existing facilities, the Commission noted that these transmission facilities were developed by the individual companies to benefit their own systems and their own customers, and that this was consistent with the principles of cost causation.[13] Therefore, the Commission reasoned that it was appropriate to continue to allocate the cost of the investment in these facilities to the customers for whom the facilities were constructed and who continue to take service. The Commission also recognized the effect of re-allocating the costs of the investment in existing transmission facilities. The record showed that replacing the

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[8] *Allegheny Power System Operating Companies*, 111 FERC ¶ 61,308 (2005) (Hearing Order), *order on reh'g and clarification*, 115 FERC ¶ 61,156 (2006).

[9] 16 U.S.C. § 825e (2000 & Supp. V 2005).

[10] *PJM Interconnection, L.L.C.*, 116 FERC ¶ 63,007 (2006) (Initial Decision).

[11] Opinion No. 494, 119 FERC ¶ 61,063 at P 41.

[12] *Id.* P 48.

[13] *Id.* P 51.

license-plate rate design for existing facilities with any of the approaches advanced at the hearing would result in large and unacceptable cost shifts among the transmission owners.[14]

9. With respect to the rate design for recovery of the cost of investment in new facilities, the Commission found that because the beneficiary pays methodology was not set forth in PJM's tariff and was not sufficiently detailed, the existing method was not just and reasonable.[15] Because the methodology does not provide sufficient detail, cost assignments were subject to litigation each time a new project or upgrade was proposed. The Commission found that this did not support new investment and was administratively inefficient. Accordingly, the Commission established two approaches, based on a voltage threshold. For facilities operated below 500 kV, the Commission retained a beneficiary pays approach, and expanded the scope of Docket Nos. ER06-456, *et al.*[16] to enable the parties to develop a cost allocation methodology to be included in PJM's tariff that would be applied to the determination of the beneficiaries of specific projects.[17] The Commission also found that the benefits of new facilities that operate at or above 500 kV are sufficiently broad that a region-wide postage-stamp rate is appropriate.[18]

10. Because the Commission retained the current rate design for existing transmission facilities, and only changed the rate design for new facilities, the Commission found that the new rate design should be effective as of August 13, 2005, the refund effective date established by the Commission in the Hearing Order.

11. Finally, the Commission addressed a request to consider the rate design for the combined PJM-Midwest ISO region in this proceeding. The Commission noted that the

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[14] *Id.* P 55

[15] *Id.* P 72.

[16] Docket Nos. ER06-456, ER06-954, ER06-1271, ER06-880 have been consolidated (Docket No. ER06-456, *et al.*). The Commission also established a section 206 investigation regarding PJM's cost allocation methodology for economic upgrades (Docket No. EL07-57-000). Docket No. EL07-57-000 was consolidated with the proceeding in Docket No. ER06-456, *et al.* Additionally, the Commission consolidated the hearing set in Docket No. ER07-424-000 with the ongoing hearing procedures established in Docket No. ER06-456, *et al.*

[17] Opinion No. 494, 119 FERC ¶ 61,063 at P 72.

[18] *Id.* P 81.

two matters were at separate stages of development, involved different parties, and presented distinct issues. The Commission found that combining these matters would be unwieldy and cause substantial delay in resolving important intra-PJM issues.

II. Procedural Issues

12. The Kentucky Public Service Commission (KPSC), the Office of the Ohio Consumer Council (OCC), and the Indiana and Michigan Municipal Distributors Association (IMMDA) submitted late-filed motions to intervene in this proceeding.[19] When late intervention is sought after the issuance of a dispositive order, the prejudice to other parties and the burden upon the Commission of granting the late intervention may be substantial. Thus, movants bear a higher burden to demonstrate good cause for granting such late intervention. These are requests filed after the issuance of a dispositive order. KPSC, OCC, and IMMDA have not met the higher burden of justifying their late interventions.[20] Accordingly, we deny the motions to intervene, without prejudice to subsequent motions in any sub-docket in this proceeding.

13. OCC and IMMDA submitted requests for rehearing.[21] Because the Commission denies the late motions to intervene of OCC, and IMMDA, we will dismiss the requests for rehearing. Because OCC and IMMDA are not parties to this proceeding, they lack standing to seek rehearing of Opinion No. 494 under the FPA and the Commission's regulations.[22]

14. Timely requests for rehearing were submitted by the Illinois Commerce Commission (ICC), the Public Utilities Commission of Ohio (PUCO) (with KPSC

[19] The Public Service Commission West Virginia (PSCWV) also submitted a late-filed motion to intervene. PSCWV intervened in the original proceeding; a subsequent motion is unnecessary where the movant has intervened in the original docket or a previous sub-docket.

[20] *See, e.g., Midwest Indep. Transmission Sys. Operator, Inc.*, 102 FERC ¶ 61,250, at P 7 (2003).

[21] KPSC joined the request for rehearing of PUCO, and IMMDA adopted the statement of issues of AEP.

[22] *See* 16 U.S.C. § 825(a) (2000); 18 C.F.R. § 385.713(b) (2007); and *Southern Company Services, Inc*., 92 FERC ¶ 61,167 (2000).

joining), PSCWV, Dayton Power and Light Company (Dayton), AEP, Exelon Corporation (Exelon), Duquesne Light Company (Duquesne), and Old Dominion Electric Cooperative (Old Dominion) (alternatively, requesting clarification).[23]

15. Indicated Transmission Owners (ITO) and Virginia Electric and Power Company (VEPCO) filed motions for leave to file answer and answers to the requests for rehearing.[24] Exelon submitted a response in opposition to the motion for clarification of Old Dominion. AEP filed a motion to respond to the answers of ITO and VEPCO. Exelon filed a motion to respond to the answer of ITO. Dayton filed a motion for leave to respond to the answer of Exelon.

16. Rule 713(d)(1) of the Commission's Rules of Practice and Procedure prohibits answers to a request for rehearing.[25] Accordingly, the motions for leave to answer, and the subsequent responsive pleadings are denied. AEP submits that Rule 713(d)(2) provides for oral argument in connection with a request for rehearing, and that oral argument in this proceeding may assist the Commission.[26] The issues in this proceeding are sufficiently discussed in the requests for rehearing; accordingly, the request for oral argument is denied.

III. Discussion

17. Rate design "is less a science than it is an art,"[27] and the Commission needs to balance a variety of factors in exercising its discretion to determine both whether an existing rate design has been rendered unjust and unreasonable and whether a particular or alternative rate design is just and reasonable. In addressing transmission rate design for PJM in Opinion No. 494, the Commission sought to craft a reasonable balance reflecting a number of interrelated factors, including the original basis for constructing

[23] ICC and Exelon also submitted a request for rehearing in Docket Nos. ER06-456, *et al*.

[24] ITO group is comprised of: Pepco Holdings, Inc. and its affiliates; Atlantic City Electric Company, Delmarva Power & Light Company, and Potomac Electric Power Company; Jersey Central Power & Light Company, Metropolitan Edison Company and Pennsylvania Electric Company (FirstEnergy Companies); PPL Electric Utilities Corporation; and Public Service Electric and Gas Company.

[25] 18 C.F.R. § 385.713(d)(1) (2007).

[26] 18 C.F.R. § 385.713(d)(2) (2007)

[27] *Cities of Bethany v. FERC*, 727 F.2d 1131, 1138 (D.C. Cir. 1984); *Ala. Elec. Coop., Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982).

facilities, the effect of the PJM planning process on a decision to construct, the nature of the agreements by transmission owners to form PJM, the cost impacts of the various rate designs, the uses of the transmission system, and the need for new infrastructure within PJM. In balancing these myriad concerns, the Commission maintained the current differences in rate design between existing and new facilities.

18. We found that, despite the integrated system dispatch of PJM, the existing facilities, which pre-date RTO formation, were designed to serve native load, a function that they still serve today. Moreover, we concluded that the costs shifts involved in changing rate design for the existing facilities would be extreme and not directly related to benefits provided. In contrast, new facilities in PJM are now established through an extensive PJM planning process that ensures such facilities are needed to meet the reliability and economic needs of the PJM system. We further found that the existing beneficiary pays approach to allocating the costs of investment in new facilities did not provide certainty in results and suffered from inordinate litigation delays based on contentions about the analytic framework used to identify beneficiaries of projects. We concluded that we should maintain the beneficiary pays rate design for new centrally-planned facilities operating below 500 kV (but established a hearing in an effort to make the beneficiary pays analysis more objective and less subject to delay). We also determined that due to the need for backbone infrastructure in PJM, and the need for certainty, the recovery of the cost of investment in new facilities operating at 500 kV or higher should be allocated across all of PJM.

19. The requests for rehearing raise concerns with maintaining the distinction between existing and new facilities as well as with the analysis justifying the Commission's rate design determinations. We first address the concerns regarding existing facilities and then regarding new facilities.

A. Existing Facilities

20. With respect to allocation of the sunk cost of the existing facilities, the rehearing requests raise three issues: the benefits provided by existing facilities, the loss of through and out revenues, and the relationship between the rate designs for existing and new facilities.

1. Benefits of Existing Facilities

a. Rehearing Requests

21. AEP and PUCO argue that the Commission placed undue weight on the original use of PJM transmission facilities, while failing to appropriately consider the present use and regional benefits incurred from those facilities. AEP states that the Commission erred by concentrating on the original purpose for which its facilities were built, ignoring evidence of benefits conferred on certain customers resulting from the current use of its

facilities. In support, AEP argues that in Opinion No. 494, the Commission disregarded evidence showing that its facilities provide specific and substantial benefits across PJM. AEP contends that customers in PJM's eastern zones benefit disproportionately from PJM's western expansion. Further, AEP states that these non-native load customers, who as a result of Opinion No. 494 do not pay to access low-cost energy throughout PJM, have historically been allocated costs through point-to-point charges.

22. PUCO claims that AEP originally planned its facilities using regional considerations, constructing its system to create substantial interconnections to support regional reliability. AEP argues that its facilities have reliability implications in that they improve regional reliability and serve as a foundation on which new Regional Transmission Expansion Plan (RTEP) facilities are planned. Specifically, AEP claims that the overlay of its high-voltage transmission facilities on the low-voltage facilities increases the ability of the network to absorb power swings.

23. PSCWV contends that the relevant rate design question is not whether the existing AEP facilities were built to serve its native load twenty to thirty years ago, but how the facilities are being used today and who is receiving the benefits.

b. Commission Determination

24. The rehearing requests maintain that the Commission erred in considering the original use of the facilities and in ignoring the benefits that these facilities bring to the rest of PJM. They maintain that extensive precedent supports the conclusion that cost allocation should not be based on the original basis for building facilities and instead should reflect the current usage of the facilities.

25. Under section 206, those seeking to change an existing rate design have the burden of establishing that the existing rate design is unjust and unreasonable. As described above, the Commission balanced a variety of factors in determining that the existing rate design has not been rendered unjust and unreasonable. In Opinion No. 494, the Commission did not rely solely on the original basis upon which the facilities were built, but relied on this fact along with a variety of other factors, such as cost impacts, the use of the existing transmission system, and the agreements of transmission owners to share facilities, to find that the existing rate design had not been shown to be unjust and unreasonable.

26. Within the context of RTOs, we find that examining the original basis for making an investment is a reasonable component of a rate design analysis. In Order No. 2000, the Commission recognized that rate design for RTOs may need to be different than the traditional rate designs used for single transmission owner systems. The Commission

recognized that even though the very nature of RTOs is to create integrated systems with benefits to all participants, license-plate rate[28] designs may still be necessary because separate transmission owners are agreeing to pool their resources:

> The Commission will permit RTO proposals to use license plate rates, as defined above, for several reasons. First, commenters overwhelmingly support the use of license-plate rates, and demonstrated convincingly that problems associated with cost-shifting are not easily resolved by means other than the use of license-plate rates. Second, the Commission is concerned that the potential for cost-shifting could act as an impediment to RTO formation, thereby denying all stakeholders the benefits that come from RTO membership.[29]

27. While the Commission required RTOs to justify the continued use of license-plate rates for existing facilities, it did not require that the RTOs abandon license-plate rates. The Commission found that the determination as to whether license-plate rates for existing facilities should be continued could depend on factors such as the geographic makeup of the RTO or the transmission cost differences in various sub-regions of the RTO.

28. We have considered these factors in making our determination here. We recognize, as the rehearing requests point out, that all the facilities included in an RTO are integrated into the grid. An RTO is a network in which the transmission owners voluntarily agree to share their transmission facilities, as well as the generation and load within their areas, in order to achieve a more efficient and economic dispatch of generation.[30]

29. Here, each transmission owner determined that joining the PJM RTO provided benefits to its system either because its loads had better access to generators or its generators had better access to loads. Thus, as Drs. Schmalensee and Evans testified,

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[28] The use of license-plate rates is essentially the same as allocating existing system costs to the parties for whom the investment was originally made.

[29] *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. ¶ 31,089, at 31,177 (1999), *order on reh'g*, Order No. 2000-A, FERC Stats. & Regs. ¶ 31,092 (2000), *aff'd sub nom. Pub. Util. Dist. No. 1 of Snohomish County, Wash. v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

[30] *See* Ex. RPA-20 at 9.

"there is no economic basis for the owner of the transmission line connected to the generator [or load] to claim that it should receive more of the benefits created by the system (or bear less of the cost) because it is a valuable asset."[31]

30. Simply because the RTO transmission system is operated by PJM on an integrated basis does not mean that the costs of that system necessarily must be distributed uniformly across all participants. In establishing an RTO, the transmission owners engaged in a joint enterprise and each contributed its assets to that enterprise. We, therefore, cannot find unjust and unreasonable the existing rate design, under which each transmission owner's contribution of its existing facilities is deemed of equal value to those of other transmission owners without reallocation of costs among the transmission owners. This is particularly true for existing facilities which were not built as part of the RTO or as a result of its joint planning.

31. Even though facilities may be part of an integrated transmission system, that finding alone has not been found sufficient to find an existing rate design unjust and unreasonable.[32] AEP relies on conclusory statements from the Initial Decision about the integrated and general benefits to the system from the integration of the western generators.[33] However, as we found in Opinion No. 494, although the PJM system is operated on an integrated basis, it still is subject to significant transmission constraints during peak periods that in practice limit the ability of customers to access equally all portions of the system. As we stated in Opinion No. 494:

> the record shows that, in fact, transmission facilities in individual zones do not serve all customers equally. The PJM system is subject to significant transmission constraints, and the record shows that these constraints result in congestion costs of $ 2 billion annually. The existence of significant congestion costs indicates that transmission facilities in each zone do not have equal value to all PJM load. This does not mean that these facilities do not provide regional benefits. However, as RPA [Responsible Pricing Alliance] points out,

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[31] *Id*. at 14.

[32] *See Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305, 1315 (D.C. Cir. 1991) (*Algonquin*). With respect to natural gas pipeline expansions, the Commission has found that rolled-in pricing is not justified simply because the existing customers receive "some benefit from the construction of the new facilities," or because "shippers receive some positive benefit." *Certification of New Interstate, Natural Gas Pipeline Facilities*, 90 FERC ¶ 61,128 at 61,394, order on clarification, 92 FERC ¶ 61,094 (2000).

[33] AEP Rehearing at 29.

> "the mere existence of such general benefits does not warrant the conclusion that the license plate rate design misaligns costs and benefits to such an extent that it is unjust and unreasonable."[34]

32. In fact, PJM itself has recognized that the transmission facilities do not permit all customers to rely on generation throughout the system. In filing its reliability pricing model (RPM), PJM maintained, and the Commission found, that PJM's existing capacity model which treated all generation throughout PJM as eligible to satisfy localities' capacity requirements did not reflect the transmission constraints of the system.[35]

33. Moreover, continuation of the existing license-plate rate design for its existing facilities is more consistent with other aspects of PJM's rate design. Auction Revenue Rights (ARRs), which insulate customers from the congestion costs associated with constrained transmission, are currently allocated to customers based on their historic uses of the system.[36] Thus, the local customers in a zone (paying for the costs of that zone under license-plate rates) have the first call on obtaining valuable financial transmission rights that shield them from congestion costs. If the license-plate rate design were replaced with a rolled-in design, such that other customers would now be paying the costs for these zonal facilities, the existing method of ARR allocations may need to change as well.

34. AEP also relies on general findings about substantial energy savings from the integration of the western systems into PJM. We certainly agree that the expansion of PJM did provide for more efficient dispatch and overall reduced energy costs as a result. But, as discussed above, this does not establish that the use of license plate rates in PJM is unjust and unreasonable. As previously noted, all of the assets contributed to the RTO are part of the integrated grid, and the contribution of each transmission owner is

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[34] Opinion No. 494, 119 FERC ¶ 61,063 at P 52. *See* Ex. RPA-1 at 18; RPA-6 at 11-12. PJM bills transmission costs on a single coincident peak basis (1-CP) in which costs are assigned to load based on their use of facilities at the coincident peak. PJM Tariff, § 34.

[35] *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079 (2006), *reh'g denied*, 117 FERC ¶ 61,331 (2006) (capacity is not always universally deliverable throughout PJM).

[36] Ex. RPA-26 at 12. The PJM Tariff, section 7.4.2, states that in the first stage of the allocation process for ARRs, "each Network Service User may request Auction Revenue Rights for a term covering ten consecutive PJM Planning Periods … from a subset of the historical generation resources that were designated to be delivered to load based on the historical reference year for the Zone."

necessary to produce the benefits. As Dr. Shanker testified, the studies on which AEP relies show that AEP's integration into PJM was a "was a win/win proposition in the energy markets; prices were reduced for some customers in some regions of PJM, while AEP was able to increase energy sales and sales margins."[37] He concludes that "AEP seems to erroneously view non-AEP, PJM load as the sole or primary beneficiary of AEP's transmission capacity and forget the reciprocal nature inherent in the operations of an integrated market."[38]

35. We also cannot find that the benefits brought about by the integration of facilities justify the significant cost shifts that would be imposed if we were to discontinue the existing license-plate rate design for existing facilities.[39] As we found in Order No. 494, such cost shifts can amount to 70 percent in some cases depending on the resulting rate design chosen.[40] For example, RPA observes that under Trial Staff's postage stamp proposal, Virginia Electric and Power Company would experience a cost increase of more than $113 million, a 73.2 percent increase.[41] Similarly, for Commonwealth Edison (ComEd), Trial Staff's proposal would cause the company to experience a $37 million cost increase, AEP/Allegheny's proposal would cause a $26 million decrease, and Transmission Owners Proponents'[42] (TOP) proposal a $25.69 million increase.[43] Alternatively, under AEP/Allegheny's proposal, Virginia Electric and Power Company

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[37] Exhibit RPA-1 at 12. He points out that according to AEP's witness, the expected magnitude of these increased sales margins is on the order of $13 million per year in excess of integration costs and that recent studies by PJM suggest these numbers may be far greater.

[38] Exhibit RPA-1 at 12. As Drs. Evans and Schmalensee point out, if two banks issue credit cards and one has higher costs than the other by providing additional facilities, such as a terminal and switch to the merchant, that fact does not establish that the bank providing the facilities has provided greater value than the other bank. Ex. RPA-20 at 12. Because the value is created by the contribution of both, the bank providing the facilities is not necessarily entitled to bear less of the cost or derive more of the benefit because it brought more "valuable" assets to the endeavor.

[39] *See Algonquin*, 948 F.2d at 1315 (emphasizing the need to consider cost shifts in determining whether to change rate designs).

[40] Opinion No. 494, 119 FERC ¶ 61,063 at P 59.

[41] RPA Post Hearing Brief at 92.

[42] Baltimore Gas and Electric together with Old Dominion.

[43] Ex. S-4 at 1, AEP-203 at 1, TOP-5.

would experience a $48.67 million transmission rate increase, and a $35.95 million increase under TOP's proposal.[44] As the courts have found, it is not the "theory of a rate order, but its impact that determines its legality."[45]

36. AEP argues that the Commission erred in requiring that the proponents of cost reallocation establish that the existing allocation is inefficient, contending that rate design is based on fairness, not efficiency. But we did not require a showing that the existing rate design was inefficient. The Commission responded only to the Administrative Law Judge's finding that one of the bases for allocating costs is efficiency, and pointed out that allocation of sunk costs will not affect efficiency.[46] For the reasons discussed above, we cannot find that those advocating some form of rolled-in rates have shown that imposing significant cost shifts is somehow fairer to everyone than continuing the existing license-plate rate design under which each utility contributes its facilities to the joint effort, where no attempt is made to impose different valuations on such contributions.

37. AEP argues that the Commission's reliance on the fact that PJM is made up of 15 individual transmission systems is irrelevant, although without specifying why this fact is not relevant. It further argues that the Commission should not have relied on the "majority rules" principle in determining the just and reasonable rate design. It maintains that such reliance is inappropriate where a small number of entities own the backbone transmission facilities in PJM.

38. Although these facts were only one aspect of our analysis, and not uniquely critical to the decision, we do find that the positions of regional participants are indeed relevant. Unlike holding companies and other individually-owned utilities, where allocation of sunk costs has little or no efficiency effects, RTOs are voluntary agreements of transmission owners, and cost allocations may have significant effects on transmission owner decisions to join or remain in the RTO. Because of the ongoing incentive effects of cost reallocation, we cannot find that the transmission owners' agreement for joint management of their facilities automatically renders the pre-existing basis upon which transmission owners joined the RTO unjust and unreasonable, particularly (but not solely) given the opposition of the majority of the transmission owners.[47] Joint dispatch,

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[44] Ex. AEP-203 at 1, TOP-5.

[45] *Algonquin*, 948 F.2d at 1315.

[46] Opinion No. 494, 119 FERC ¶ 61,063 at P 53.

[47] *See Fort Pierce Utils. Auth. v. FERC*, 730 F.2d 778 (D.C. Cir. 1984) (affirming determination not to require single-system transmission rates for two independent utilities).

while significantly improving the efficiency of PJM's dispatch, does not mean that existing facilities provide equal benefits to all members of the RTO, sufficient to warrant the cost shifts created by rolling-in the sunk cost of those existing facilities. In this case, the transmission owners that voluntarily agreed to establish and join PJM, and did so with the existing rate design. We do not find that the evidence put forward by the minority seeking such change is sufficient to undo the existing rate design.

39. AEP cites a number of cases for the proposition that customers who derive benefits from services should be charged the costs of providing those services. We do not dispute the validity of this general principle, but as with all such general principles, it needs to be applied in the circumstances of each case. As we have discussed above, when all the facts and circumstances of the PJM system are considered, including the joint nature of the undertaking among transmission owners, we cannot find that the benefits provided by the integration of individual transmission owner's systems justify the significant cost shifts that a change in rate design would produce. The cases cited by AEP did not involve cost allocation for pre-existing transmission facilities when utilities joined an RTO, and therefore, our determination to permit the continuation of license plate rate design for rate-based transmission costs is not inconsistent with these decisions. In *California Power Exchange*,[48] the costs involved were legal expenses incurred in seeking recovery of a performance bond, and the Commission provided that recovery of these costs reasonably could be imposed on the defaulting party which had a legal obligation to pay for legal expenses. *California Independent System Operator Corporation*[49] and *Midwest ISO Transmission Owners v. FERC*[50] involved the allocation of the ISO and RTO's ongoing management costs, which are designed to recover the operating costs of the ISO or RTO; the ISOs and RTOs must allocate such management costs to participants, and, therefore, a determination that such management costs should be shared does not establish that the same result must necessarily apply to the rate-based pre-existing transmission facilities built by transmission owners prior to their entry into the RTO and both previously and still used by those transmission owners. *Midwest Independent Transmission System Operator*,[51] involved the allocation of uplift generator costs that exceeded the market clearing price to market participants that are scheduled to purchase energy in the day-ahead market. Again, these uplift costs are ongoing costs incurred by the RTO that need to be allocated to market participants, but are not similar to the allocation of previously-incurred rate-based transmission facility costs.

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[48] 106 FERC ¶ 61,196, at P 17 (2004).

[49] 103 FERC ¶ 61,114 (2003), *aff'd*, 106 FERC ¶ 61,032 (2004).

[50] 373 F.3d 1361, 1368 (D.C. Cir. 2004).

[51] 108 FERC ¶ 61,163 at P 587 (2004).

40. In summary, balancing a variety of conclusions, including that the existing transmission system was built to serve local needs, that the transmission system (although integrated) is not equally available or valuable to all users of the system, the extensive impact of changing rate design on customers, and the potential effects of such a change on RTO membership, we affirm our finding that the existing license-plate rate design for existing transmission facilities has not shown to be unjust and unreasonable.

2. Loss of Through-and-Out Revenue

41. AEP argues that, by not adopting a long-term rate design to reflect the regional usage of AEP's existing transmission facilities, the Commission failed to follow rate design precedent in PJM. AEP explains that when the Commission eliminated through-and-out rates for intra-PJM transactions and transactions between PJM and Midwest ISO, the Commission recognized the harm caused by lost revenues and provided temporary relief. AEP contends that the Commission made clear that the parties need to find a permanent solution to address the impact of the elimination of through-and-out rates. AEP states that in the order initiating this proceeding, the Commission stated that it could not simply adopt a license-plate rate that did not address cost shifts resulting from the elimination of through-and-out rates.

42. We find that the prior Commission orders did not establish that license-plate rates were unjust and unreasonable or that, with the elimination of through-and-out rates, the Commission had committed to replacing the existing license-plate rate design.

43. In Order No. 2000, the Commission addressed the appropriateness of continued use of license-plate rates.[52] The Commission concluded that it would provide RTOs with flexibility with respect to the allocation of fixed transmission costs. As previously discussed, the Commission permitted continued use of license-plate rates for several reasons. The use of license-plate rates was broadly supported. Cost-shifting could act as an impediment to RTO formation, thereby denying all stakeholders the benefits that come from RTO membership. Problems associated with cost-shifting are not easily resolved by means other than the use of license-plate rates.

44. Order No. 2000 did not mandate the elimination of license-plate rates; rather, it provided that, before the completion of a transitional period, the RTO must reevaluate its fixed cost recovery policies. The Commission emphasized that it was not requiring the RTO to continue or abandon the use of license-plate rates at that time, but rather it was requiring the RTO to justify its choice either to continue or to discontinue using license-plate rates, or otherwise change the method for fixed cost recovery. PJM's initial fixed-term for use of license-plate rates extended through May 31, 2005. In accepting the initial fixed term for the continued use of license-plate rates in PJM, the Commission

[52] Order No. 2000, FERC Stats. & Regs. ¶ 31,089 at 31,177.

expressly stated that it was not deciding whether the use of license-plate rates should continue within PJM, or whether PJM should instead adopt postage-stamp rates or some other rate design for service within PJM after May 31, 2005.[53] Moreover, contrary to AEP's contention that the Commission made a *prima facie* determination that a postage-stamp rate design was unjust and unreasonable, the Commission found only that the issue raised was sufficient to set this matter for hearing.[54]

45. Thus, when AEP joined PJM, AEP took the system as it found it, and had no guarantee that license-plate rates would be changed or that the Commission would find such rates unjust and unreasonable. All the Commission had found was that it would consider whether to change the system, which it has done in this proceeding.

46. AEP also maintains that, because the Commission eliminated through-and-out rates upon its joining, continued maintenance of license-plate rates is unjust and unreasonable. AEP argues that the Commission's cost shift analysis fails to include the cost shifts imposed on it by not taking into account the through-and-out revenues it has lost. It further argues that while changing rate design may encourage some transmission owners to leave, license-plate rates will discourage transmission owners with large through-and-out revenues or significant investment in existing transmission facilities from joining an RTO in the first place.

47. But the Commission made clear in Order No. 2000 that the basis upon which a utility joins an RTO is the elimination of through-and-out or pancaked rates.[55] The continued collection of such rates is antithetical to the efficient dispatch of the system, because they raise barriers to region-wide dispatch.

48. As discussed above, an RTO is a network of interrelated generation, transmission, distribution, and load, and in joining an RTO each transmission owner must balance all these interests. As we stated in Opinion No. 494:

> In deciding whether to join an RTO (which by definition entails the elimination of through-and-out rates), a vertically integrated utility has to evaluate the benefits of joining the RTO against the possible loss of transmission revenue from

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[53] November 2004 Order, 109 FERC ¶ 61,168 at P 62, n.42.

[54] Hearing Order, 111 FERC ¶ 61,308 at P 41 (2005), *order on reh'g and clarification*, 115 FERC ¶ 61,156, at P 15 (2006).

[55] "The elimination of rate pancaking for large regions is a central goal of the Commission's RTO policy, and has been a feature of all five ISOs the Commission had approved." Order No. 2000, FERC Stats. & Regs. ¶ 31,089 at 31,173.

> the elimination of through and out rates. For example, joining an RTO will permit it to more efficiently sell its power across a much larger geographic area thereby generating greater revenues from power sales.[56]

In joining PJM, AEP received both quantifiable and non-quantifiable benefits, such as annual production cost savings, and increased system sales profits, as well as improved system reliability, and construction incentives.[57] Significant cost shifts through a change in rate design is not something that existing transmission owners could have expected at the time they joined PJM.[58] While the Commission did provide some interim recovery of lost through-and-out revenue as AEP points out,[59] the Commission did not state that such revenue losses would be permanently recoverable nor that rate design would change to provide for such recovery.

49. In any event, as we found in Opinion No. 494, the rate designs proposed in this proceeding are not related to the recovery of lost through-and-out revenue.[60] The proposals to roll in costs were not designed to, and would not, approximate the charges imposed by through-and-out rates.[61] The point of this proceeding was to evaluate the justifications for a possible change in rate design, not compensation for lost through-and-out revenues.

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[56] Opinion No. 494, 119 FERC ¶ 61,063 at P 60.

[57] *New PJM Cos.*, Opinion No. 472, 107 FERC ¶ 61,271, at P 45 (2004), *order on reh'g*, 110 FERC ¶ 61,009 (2005).

[58] In *Algonquin*, the court found that in evaluating whether an existing just and reasonable rate design has become unjust and unreasonable, the Commission needs to examine the cost shifts to the customers who will pay the higher rates upon the change, not those who will benefit if the existing rate is changed. 948 F.2d at 1315.

[59] We established proceedings specifically to consider transitional cost recovery for lost through-and-out revenues. *See* November 2004 Order, 109 FERC ¶ 61,168 at P61. The Commission adopted a transitional rate mechanism to address cost shifts resulting from the elimination of through-and-out rates between PJM and Midwest ISO. *See also Midwest Indep. Transmission Sys. Operator, Inc.*, 105 FERC ¶ 61,212 (2003).

[60] Opinion No. 494, 119 FERC ¶ 61,063 at P 60.

[61] Ex. AEP-207. For example, the rate design proposals would result in a cost increase to Dayton of 200 percent compared to its position under SECA with respect to through-and-out revenues. While not as extreme, other cost shifts can be observed.

3. Distinction between existing and new facilities

a. Rehearing Requests

50. PUCO contends that the rate design for new facilities should not be different than the rate design for the existing facilities. PUCO states that both types of facilities are interconnected and provide regional benefits, and to treat them differently, based on the era in which they were constructed, would be unjust and unreasonable. PUCO contends that major portions of the transmission system were built not just to meet an individual utility's load, but to support high voltage interconnections with other systems, economic wholesale transactions and regional reliability. The PSCWV adds that the Commission should adopt a cost allocation methodology that is similar for both new and existing transmission facilities.

51. Similarly, AEP states that existing regional facilities are essential to the current and future use of the system and that the Commission did not adequately explain why the beneficiary pays principle should not apply to existing facilities. AEP maintains that the same rationale that supports the Commission's decision to roll-in costs recovery of the investment in new 500 kV lines also should apply to its existing lines. AEP contends that Opinion No. 494 is inconsistent with Commission precedent finding that AEP's higher voltage facilities are highly integrated with PJM's transmission system and therefore integral to the development of a regional market. AEP contends that the Commission had recognized the value of its system when ComEd integrated into the PJM system. AEP states that when the Commission made this finding, no concern was raised as to whether AEP's transmission facilities were part of a regional planning process. AEP also contends that the new facilities now being planned by PJM on a regional basis will build on the foundation provided by the existing high-voltage transmission system, and that these new facilities would have little value without the underlying network of the existing transmission facilities. AEP states that the Commission failed to consider how much higher PJM's transmission costs would be today if AEP and others had not previously built the existing transmission system.

b. Commission determination

52. We find that significant differences between new and existing transmission facilities warrant different rate design treatment. First, the construction of new facilities are based on PJM's independent RTEP planning process which establishes that such facilities are needed for reliability, while the existing facilities were not part of such a region-wide planning process. In fact, 500 kV or any other facilities that are not approved by PJM in the PJM RTEP planning process must be funded locally and do not qualify for cost reallocation. Thus, as we found in Opinion No. 494, the planning process "helps to ensure that such [new] projects are necessary to meet the reliability and

economic needs of the PJM system as a whole."[62] In Order No. 890, the Commission similarly found that a new test for determining transmission credits should not apply to existing facilities because these were not subject to the increased planning and coordination requirements of the Order.[63]

53. AEP suggests that the same beneficiary pays approach used for new facilities should be applied to existing facilities. But Drs. Evans and Schmalensee point out that while estimating the incremental value of a proposed new line is possible for the purposes of cost allocation, this incremental analysis does not apply to an existing network, because one cannot determine the order in which the facilities should be deemed as incremental and because the incremental analysis "does not correspond to any real decisions on the part of the transmission owner."[64] In fact, the distinction between rate design for old and new facilities existed prior to this proceeding. The existing rate design allocated the recovery of the investment in existing facilities based on a license plate rate methodology and recovery of the investment in new facilities based on a beneficiary pays method.[65] Moreover, the transmission owners themselves have recognized distinctions in rate design for new as opposed to existing facilities. For example, the transmission owners agreed to share the recovery of the investment in new construction of high-

[62] Opinion No. 494, 119 FERC ¶ 61,063 at P 44.

[63] *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12,266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241 at P 758, *order on reh'g*, Order 890-A, FERC Stats. & Regs. ¶ 31,261 (2007).

[64] Ex. RPA-20, at 15-16 (incremental analysis cannot be done because one cannot establish the order of the facilities). *See* Ex. TOP-3, at 20 ("for existing facilities, an incremental analysis cannot be done to determine which facilities have regional benefits").

[65] *See* AEP and Allegheny Brief on Exceptions, at n.8 and August 11, 2006, Letter from PUCO to the Commission. AEP and Allegheny specifically stated that "AEP and AP do not take issue with the Initial Decision's holdings regarding the appropriate rate design for "new" facilities, that is, facilities subject to cost allocation and recovery pursuant to PJM's Regional Transmission Expansion Plan and PJM Open Access Transmission Tariff (OATT) Schedules 6 and 12."

voltage (over 500 kV) facilities (EHV agreements), and the western members of PJM initially agreed to share the recovery of the investment in new 500 kV and above facilities.[66]

54. Second, unlike existing facilities, the rate design for new facilities does have direct efficiency implications.[67] As we found in Order No. 890, rate design for new facilities is important because it provides incentives for construction, and adopting the correct rate design needs to provide sufficient certainty, without litigation delays, so that developers can obtain financing and the projects can be constructed.[68] The Commission is obligated under the recently enacted section 219 of the FPA to "promote reliable and economically efficient transmission and generation of electricity by promoting capital investment in the enlargement, improvement, maintenance, and operation of all facilities for the transmission of electric energy in interstate commerce." [69]

55. These goals are particularly important in this proceeding because PJM needs additional infrastructure to maintain reliability. PJM has experienced steady load growth, at the same time that many generators have retired.[70] As a result, without new transmission investment, PJM anticipates degraded reliability in Eastern PJM, particularly in New Jersey, the Delmarva Peninsula and the Baltimore-Washington area. A stronger transmission grid will increase electric system reliability and promote competitive wholesale markets. As recent RTEP filings indicate,[71] PJM needs over $9 billion of transmission infrastructure investment to address identified reliability concerns.

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[66] Ex. PPP-11 (Rate Schedule No. 33 of the PJM OATT). Although this tariff provision has since been superseded, it shows that transmission owners did consider that 500 kV and higher facilities provide broad enough reliability benefits to justify cost sharing for these facilities.

[67] A primary goal of our transmission pricing policy for new facilities is to promote economic efficiency. *See Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act: Policy Statement*, FERC Stats. & Regs., ¶ 31,005, at 31,143 (1994), *order on reconsideration*, 71 FERC ¶ 61,195 (1995).

[68] Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 559-61.

[69] 16 U.S.C. § 824s (2000 & Supp. V 2005).

[70] *See PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at 11, *reh'g denied*, 117 FERC ¶ 61,331 (2006). PJM states that, as a result of these supply problems, it anticipates degraded reliability in eastern PJM.

[71] Docket Nos. ER06-456, *et al.*; Docket No. ER07-1186 (not consolidated).

The promotion of a reliable and economically efficient transmission system, and capital investment in the enlargement, improvement, maintenance, and operation of facilities for the transmission of electric energy in interstate commerce, is an express goal of Congress, as implemented by the Commission, and therefore justifies different treatment of new facilities.[72]

56. AEP contends that the Commission erred when it stated that PJM's continued use of a zonal rate design to allocate the costs of existing transmission facilities will be of declining significance, because, as new facilities are added and as existing facilities depreciate, a regional allocation of new facilities will move cost allocation increasingly towards a sharing of costs based on benefits received. In support of its contention, AEP states that there is no evidence to support the proposition, nor is it a legal basis to sanction an otherwise unjust and unreasonable rate design because future investment may cause existing cost allocation to become just and reasonable.

57. It is axiomatic that, as existing facilities depreciate and new facilities are added based on the beneficiary pays approach, the rate impacts of the allocation of the costs of existing facilities will diminish. However, this was not the critical basis for our determination that AEP had failed to show that the existing rate design is unjust and unreasonable. That determination, as described above, was based on a variety of factors, including the fact that the existing transmission system was built to serve local needs and was not the product of a regional planning process; that the transmission system, although integrated, is not equally available or valuable to all users of the system; the extensive impact of changing rate design on customers; and the potential effects of such a change on RTO membership.

B. Rate Design for New Facilities

58. In order to establish just and reasonable rates for new transmission facilities, the Commission established two approaches for the identification of beneficiaries for the purposes of cost allocation for new facilities. For facilities operated below 500 kV, the Commission continued the existing beneficiary pays analysis, but found that the beneficiary analysis was not sufficiently detailed in PJM's Tariff, which has led to extensive litigation. For this reason, the Commission established a hearing under section 206 to provide for a more fully-developed beneficiary pays analysis. Further, due to the uncertainty created by the existing beneficiary pays approach, the Commission found that a new rate design for facilities of 500 kV and above was needed in order to ensure that needed reliability and economic projects of 500 kV and above were built in PJM; as

[72] *See United Distribution Cos. v. FERC*, 88 F.3d 1105, 1168 (D.C. Cir. 1996) (permitting Commission to change rate design to further legitimate goal expressed by Congress).

discussed previously, a rolled-in rate design for the 500 kV and above facilities applies to facilities identified by the PJM's planning process as being needed for reliability or economics. The Commission found that the record in this proceeding provided support for this approach and this voltage threshold.[73] The rehearing requests focus only on the choice of the 500 kV threshold as opposed to another threshold for rolling-in facilities.

1. Postage Stamp Allocation for 500 kV Facilities

a. Rehearing Requests

59. ICC contends that a postage-stamp rate design is a departure from the policy of beneficiary pays and results in a rate design that is unjust and unreasonable. ICC argues that facilities operated at 500 kV and above are constructed for the benefit of the congested eastern states, and socializing these costs under a postage-stamp allocation punishes those who have properly planned for energy infrastructure. PUCO contends that the Commission should also have allowed an allocation based on beneficiary pays for facilities operated at 500 kV and above, noting that to the extent that PJM transmission projects permit additional low-cost generation from the Ohio River valley to become available to PJM zones with higher generation prices, wholesale energy and ancillary service prices in Ohio and Kentucky also will tend to increase. Similarly, PSCWV contends that the Commission should have adopted a beneficiary pays approach for all users of the transmission system. Dayton contends that a postage-stamp allocation inappropriately assigns recovery of costs for transmission investment without benefit and that a beneficiary pays approach should be applied to facilities above 500 kV as well. Duquesne supports a beneficiary pays mechanism for all new facilities. Old Dominion contends that the costs of transformers that operate with a high-side voltage of 500 kV should be allocated through a postage-stamp methodology.[74]

60. Duquesne and Exelon oppose a postage-stamp methodology. However, they contend that if the Commission implements a postage-stamp methodology, a voltage threshold for determining facilities in the postage-stamp rate should be 345 kV, not the 500 kV threshold established by the Commission in Opinion No. 494.

61. Dayton also states that any transmission owner that will be constructing a 500 kV project is also likely to be constructing many other unrelated transmission projects that operate at lower voltages and that the incentives to assign internal costs aggressively to the socialized project are patently obvious. Similarly, Duquesne states that the

[73] Opinion No. 494, 119 FERC ¶ 61,063 at P 78.

[74] We address the issues raised in the motion for clarification of Old Dominion in the compliance filing section of this order; accordingly the motion for clarification is denied.

Commission erred in its decision to change the rate methodology for new facilities because its socialization method both hinders the construction of new facilities and in fact can lead to voltage bias where facilities will be constructed at a certain voltage to take advantage of socialization. PUCO adds that some projects may be upgraded needlessly, due to the cost sharing on 500 kV and above lines when a lower voltage would be sufficient.

62. ICC requests that, if the Commission retains its decision to allocate the costs of all 500 kV and above projects on a postage-stamp basis, the Commission consider replacing the load-ratio share aspect of its decision with either some measure of energy imports or some approach that reflects the incremental capacity deliverability resulting from upgrading transmission.

b. Commission Determination

63. We reaffirm our decision to adopt a 500 kV threshold for rolling-in facilities. While we do not disagree with the rehearing requesters that, in theory, costs should be allocated to those who benefit from the construction of facilities, we continue to find that, in practice, the beneficiary pays modeling is not as appropriate as a rolled-in methodology for the construction of the critically needed new high voltage facilities in PJM. As we discussed in Opinion No. 494, the modeling methodologies have limitations in accurately identifying beneficiaries, particularly in the case of high voltage transmission lines that provide significantly greater region-wide benefits than lower voltage transmission lines.[75] Rolled-in pricing also is best designed to create incentives for the construction of such backbone facilities because it would eliminate controversy over future cost allocations, and would be consistent with the goals of the EPAct 2005,[76] which support development of critical new transmission infrastructure.[77] In addition, we found that the existing PJM beneficiary pays approach results in extensive litigation over each project and does not provide the ex ante certainty that is required to obtain financing and to initiate construction.[78] While we did continue to use the beneficiary pays approach for lower voltage transmission lines (although seeking to improve that approach), we did so because these lines do not provide the region-wide reliability of high voltage lines. But for high voltage lines that do support region-wide reliability, the rolled-in approach is justified because the benefits of such facilities are sufficiently broad that they support a postage-stamp allocation. In summary, we continue to find that a

[75] Opinion No. 494, 119 FERC ¶ 61,063 at P 82.

[76] 16 U.S.C. § 824s (2000 & Supp. V 2005).

[77] Opinion No. 494, 119 FERC ¶ 61,063 at P 80.

[78] *Id.* P 72.

rolled-in rate design is appropriate for the high voltage facilities, because such a design best addresses the region wide nature of the reliability benefits from those lines and encourages the development of the backbone infrastructure PJM critically needs.

64. While, as we recognized in Opinion No. 494, facilities that operate at or above 500 kV will not necessarily provide equal benefits to all load,[79] we chose 500 kV as a cut-off that will identify those new facilities that have the greatest impact on the reliability of all of PJM. As we stated:

> PJM observes "that a bright line demarcation at 500 kV and above for regional allocation of the cost of EHV facilities would be consistent with the PJM market design," because "[s]uch facilities ... are properly characterized as backbone facilities that benefit the entire region." Adoption of this approach 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 (EPAct 2005), which support development of critical new transmission infrastructure.[80]

65. In choosing a 500 kV threshold, we looked at record evidence that showed that such facilities do provide for greater reliability: "the maximum transfer capability at 500 kV and above is approximately 6 times greater than a similar transmission line operated at 230 kV and more than twice that at 345 kV (as measured by reactance, power transfer, and surge impedance loading). 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 than 230 kV circuits on a per mile basis."[81] The selection of 500 kV as the appropriate cut-off is further supported by practice within PJM. The PJM transmission owners shared the cost of investment in new EHV transmission facilities of 500 kV or more. Similarly, as previously noted, the western members of PJM initially agreed to share the costs of facilities at and above 500 kV. Moreover, PJM maintains that

[79] *Id.* P 81.

[80] *Id.* P 80.

[81] *Id.* P 78.

the regional benefits of 345 kV transmission and below are ambiguous, and that its own experience is that facilities at 345 kV and below are often required to support local as opposed to regional needs.[82]

66. While AEP and TOP advocated a 345 kV voltage cutoff, they did not contest the inclusion of 500 kV and above facilities within the postage-stamp parameters. Facilities that operate at 500 kV and above were included in all proposals to adopt a regional cost allocation methodology. For example, TOP referred to the 500 kV system as the "back bone" of the network of integrated transmission facilities.[83] Allegheny claimed that 500 kV transmission lines have superior transfer capability compared to other lesser voltage lines.[84] The voltage cutoff of 500 kV was proposed by the Participants for Purposeful Pricing (PPP).[85] PPP stated that wherever the cut-off line is drawn, the "highest voltage facilities" must be included.[86]

67. Duquesne and Exelon maintain that a voltage cutoff at 345 kV is more supported in the record than the 500 kV cut off. However, Duquesne and Exelon do not contend that the 500 kV cut off is unjust and unreasonable, and the Commission is only obligated to choose a just and reasonable result.[87] We continue to find that a voltage threshold of 500 kV represents facilities that have the greatest benefit to the system as a whole and is a more conservative threshold than a lower-voltage cutoff. Last, as we noted in Opinion

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[82] PJM Brief on Exceptions, citing Ex. PPP-1.

[83] Ex. TOP-1 at 12.

[84] Ex. AP-900 at 8-10.

[85] PPP is an unincorporated association of Blue Ridge Power Authority; Central Virginia Electric Cooperative; Craig-Botetourt Electric Cooperative; City of Dowagiac, Michigan; Indiana Municipal Power Agency; Harrison Rural Electric Association; and Virginia Municipal Electric Association No. 1.

[86] Ex. PPP-1 at 21.

[87] *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 703 (D.C. Cir. 2007) (Commission is not required to choose the best solution, only a reasonable one); *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 Commission approved does not mean that Commission erred in concluding the latter was just and reasonable); *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 955 (D.C. Cir. 2007) (Commission need not adopt the best possible policy as long as the agency has acted within the scope of its discretion and reasonably explained its actions).

No. 494, a postage-stamp rate design for these regional facilities will provide administrative efficiency, as recurring litigation over the specifics of cost allocation does not provide the necessary cost certainty to support new investment.

68. Those seeking rehearing contend that adoption of a postage-stamp rate design for 500 kV and above projects will lead transmission owners to propose larger transmission projects than are necessary. Under Schedule 6 of PJM's Operating Agreement and Schedule 12 of the Tariff, PJM has the responsibility to ensure that the facilities needed to address reliability concerns are of the appropriate voltage and configuration and are the least-cost approach to solving the reliability problems. In Opinion No. 494, we noted that these built-in checks and balances would prevent gaming. Here, we reiterate that PJM's Tariff already contains protective provisions to prevent any potential gaming; customers that are impacted by such projects have the incentive to bring inconsistencies to the attention of PJM.

69. ICC requests that the Commission consider replacing the load-ratio share methodology with either some measure of energy imports or incremental capacity deliverability resulting from transmission upgrades. ICC did not except to the Initial Decision's adoption of a load ratio share approach for allocating rolled-in costs.[88] And, in its rehearing request, ICC merely references these alternatives in a single paragraph without a description of the details of these alternatives, explanation of how these alternatives could be implemented, evidence of the cost impact of such alternatives, or discussion of why they would be superior to a load ratio share.[89] The load-ratio share methodology was supported by participants and the ALJ, and ICC has not shown that this methodology is unjust and unreasonable.

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[88] *See* Rule 711(d)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.711(d)(2) (2007). Failure to take exception to a part of an initial decision results in a waiver of an objection to that part.

[89] *See Constellation Energy Commodities Group, Inc. v. FERC*, 457 F.3d 14, 22 (D.C. Cir. 2006) (finding that merely presenting an argument in a footnote in a rehearing petition does not preserve the argument); *Intermountain Municipal Gas Agency v. FERC*, 326 F.3d 1281, 1284 (D.C. Cir. 2003); (a general and vague statement does not satisfy the section 19(b) requirement that an objection must be specifically urged); *California Dep't of Water Resources v. FERC*, 341 F.3d 906, 911 (9th Cir. 2003) (issue not preserved for review where petitioner raised the issue in a single sentence without citing authority);. *See also Consolidated Edison Company v. FERC*, No. 06-1025, slip op. at 11; U.S. App. LEXIS 29213, at 15 (D.C. Cir. 2007) (addressing a challenge not fully developed on brief, the court noted that it is not enough to mention a possible argument in a skeletal way).

2. Record Evidence for the 500 kV Cut-Off

70. ICC, Dayton, Duquesne and Exelon contend that a proposal for a postage stamp rate design for facilities operated at 500 kV and above is untimely and not supported by the record. ICC, Dayton, Duquesne, Exelon and AEP also contend that there is not sufficient record evidence to establish a 500 kV threshold in adopting a postage-stamp rate. Duquesne states that PJM did not present direct or answering testimony supporting its proposal, or otherwise lead parties to conclude that it would make such a proposal. Hence the parties contend that they were deprived of the opportunity: (1) to discuss PJM's proposal, (2) cross examine its witnesses, or (3) submit evidence on alternatives or adjustments to PJM' s proposal that could be accepted as just and reasonable.

71. As discussed above, the Commission relied on the record when it adopted a postage stamp rate design for facilities operated at 500 kV and above. Testimony supported a 500 kV threshold as being superior to other voltage levels, and the record showed that 500 kV was previously used in PJM for cost sharing. The record contains several proposals to change the rate design for new transmission facilities, and one specifically referenced a 500 kV cut off; the PPP advanced a proposal that would allocate costs for new transmission facilities based on a tiered voltage delineation.[90] For transmission facilities that operate at 500 kV and above, the PPP would allocate costs across the PJM region, through a postage-stamp methodology. Others put in evidence supporting different voltage cut-offs. The AEP proposal advanced a postage-stamp methodology for all facilities, whether existing or new, that operate at 345 kV or above. TOP advanced a highway/byway proposal that allocated a portion of the costs for existing facilities to both native load and regional customers and the costs of new facilities based on the identification of beneficiaries.[91] The Commission relied on evidence submitted on behalf of many of these entities to reach its conclusion.

IV. Filing in Compliance with Order on Initial Decision

A. PJM Proposal

72. In its compliance filing, PJM proposes to fully allocate, on a region-wide basis, the costs of investment in all new transmission facilities included in the RTEP that operate at or above 500 kV (regional facilities). Additionally, facilities included in the RTEP that operate below 500 kV that need to be constructed or strengthened to support regional facilities (necessary lower-voltage facilities), would be rolled-in to the 500 kV and above postage-stamp rate. PJM's determination as to whether it is necessary to construct or strengthen a lower-voltage facility to support a regional facility will be based on the

[90] Ex. PPP-1.

[91] Ex. TOP-3.

planning criteria used in developing the applicable RTEP. PJM also states that the proposed changes were unanimously approved by the Transmission Owner Agreement – Administrative Committee (TOA-AC).

73. Under PJM's proposal, only recovery of the costs of those lower-voltage facilities that are an integral part of a regional facility will be allocated regionally. For example, PJM explains that integral transformers, operating in parallel rather than in series with a regional facility, do not deliver energy to load, rather they facilitate the connection of a regional facility. By contrast, transformers with low-side windings that operate below 500 kV are viewed as delivering energy to load and thus recovery of the costs of those transformers will not be allocated regionally. The costs of transformers that are an integral part of a regional facility, i.e., transformers that are required to connect the components of a dynamic reactive device to the 500 kV transmission system, will be allocated regionally.

74. Consistent with the billing determinants currently used for network customers, PJM proposes to allocate the costs of regional facilities and necessary lower-voltage facilities to customers based on a load-ratio share using the applicable zonal loads at the time of each zone's annual peak load from the 12-month peak ending in October of the year preceding the year for which cost responsibility allocation is to be determined.

75. PJM proposes to allocate costs to owners of merchant transmission facilities based on the existing and planned firm withdrawals of power from the PJM system through their merchant transmission facilities. Finally, PJM proposes to designate the proposed cost responsibility allocations in its compliance filing consistent with current practices.

76. PJM requests an effective date of June 20, 2006, rather than the August 13, 2005 effective date directed in Opinion No. 494. PJM states that the tariff sheets included in its compliance filing contain language that does not establish an effective date of August 13, 2005.

B. Procedural Issues

1. Interventions

77. A notice of intervention was filed by the New Jersey Board of Public Utilities. Timely motions to intervene were filed by Neptune Regional Transmission System (Neptune), Hudson Transmission Partners, Long Island Power Authority (LIPA), FirstEnergy Companies, PJM Industrial Customer Coalition, Exelon and Old Dominion.

78. Late-filed motions to intervene were filed by ICC, New York Power Authority (NYPA), AEP, and Linden VFT, L.L.C (Linden).

2. Protests

79. Protests of the compliance filing were submitted by Exelon, ICC, Neptune, Old Dominion, LIPA, Linden, and the NYPA.

80. Old Dominion objects to the exclusion from a regional cost allocation, transformers that have a high-side winding at or above 500 kV but a low-side winding below 500 kV. Old Dominion argues that the majority of the costs and capital investment of such facilities are associated with the 500 kV and above winding, and these facilities are required to integrate 500 kV transmission lines with aggregate areas of the PJM footprint.

81. Exelon argues that PJM's proposed treatment of necessary lower-voltage facilities would regionalize the costs of facilities that do not provide regional benefits, which would ultimately result in project-by-project litigation.

82. Additionally, Exelon contends that PJM should be required to separate descriptions for RTEP projects that include both regional and low-voltage facilities, and accommodate the separation in its cost allocations. Exelon also contends that PJM should indicate in its tariff that the cost allocations for regional and necessary lower-voltage facilities will be calculated to two decimal points, in order to avoid potential future disputes.

83. LIPA, ICC, and Old Dominion also contend that PJM's proposal contains ambiguities. LIPA and the ICC argue that PJM's proposed use of "planning criteria" to identify necessary lower-voltage facilities is vague. ICC and Old Dominion argue that PJM's explanation as to how it will classify "integral" facilities is vague, not set forth in the tariff, and ultimately, will result in contentious litigation. LIPA further submits that PJM's compliance filing must include a sufficient explanation to stakeholders and the Commission as to how it will categorize facilities as necessary lower-voltage facilities. ICC states that PJM must provide explanation as to how it will calculate the cost reallocations of its RTEP projects. Further, ICC contends that the Commission should not establish a retroactive effective date for PJM's proposal.

84. Neptune, Linden, and NYPA argue that PJM's proposal will result in incomparable treatment between merchant transmission facilities and other customers. The protestors argue that network transmission customers will be allocated RTEP charges pursuant to a load ratio share based on actual, historical usage, while merchant transmission facilities will be allocated costs based on planned usage. The protestors further argue that allocating costs based on future usage may result in an allocation to merchant transmission facilities that have yet to become operational. Neptune claims that it is unduly discriminatory to annually update the cost allocation to non-merchant transmission facilities, while merchant transmission facilities will receive a one-time cost

allocation, especially considering that the load for merchant transmission facilities cannot increase above the amount of its Firm Transmission Withdrawal Rights, while all other zones in the PJM system will experience load growth over time.

85. Neptune requests that PJM not assign RTEP costs to merchant transmission facilities until after they have entered the interconnection queue. Neptune explains that under the Commission's pricing policy, new transmission facilities take the transmission system as is, but pay for the incremental costs that would not have been incurred, "but for" the addition of the new project.

86. LIPA and Linden note that the issue of how to allocate RTEP charges to merchant facilities has been set for hearing in Docket No. ER06-456, *et al*. Accordingly, they request that the issue of cost allocation to merchant facilities in PJM's compliance filing be consolidated with the ongoing hearing in the aforementioned proceeding. Linden requests that unless and until the Commission acts on the issue of cost allocation for RTEP projects, allocation for merchant transmission facilities be subject to refund. Additionally, NYPA requests that the Commission consolidate PJM's proposal with Docket No. ER07-1186, which regards a protest raised by Linden concerning cost allocation to merchant transmission facilities based on firm transmission withdrawal rights.

C. Commission Determination

87. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2007), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.[92] Given the early stage of the proceeding, their interests, and the absence of undue prejudice or delay, we will grant the motions to intervene of NYPA, Linden, and AEP.

88. We accept PJM's proposal to regionalize the cost of all facilities that are integral to the associated project. The purpose of adopting a 500 kV and above roll-in approach was to avoid the seemingly endless litigation attendant to the beneficiary pays approach for lower voltage facilities and to avoid the uncertainty and disincentive to build that results, as well as to adopt an approach for the needed backbone facilities that is simple for PJM to apply. Under PJM's allocation, all of the facilities that are necessary for a 500 kV project will be included as part of the project, with the exception of certain clearly defined facilities that serve local needs.

89. According to the provisions in the tariff, PJM has the authority and the obligation to develop the regional transmission expansion plan and conduct the studies on which the

[92] ICC, AEP and Exelon intervened previously in this proceeding.

plan is based.[93] PJM determines all the facilities that are necessary for each project based on the engineering necessities of that project.[94] Including all facilities required under an engineering analysis should be clear to all parties and should avoid litigation over whether facilities are appropriately classified as belonging to the 500 kV side or the low voltage side of a project. So long as PJM determines that facilities are necessary for the construction of a 500 kV and above project, we find it reasonable to include these facilities as part of the project. We will require during the planning process that PJM identify all of these required facilities, however, so there can be no question about which facilities are included.

90. We also accept PJM's proposed exclusion from the project of certain discrete facilities, such as facilities that deliver energy from a regional facility to load. PJM in its compliance filing explained that transformers with low side windings below 500 kV are viewed as delivering energy from the regional facility to load, i.e., they are in series with the regional facility rather than in parallel, the general characteristic of a necessary lower voltage facility. Integral transformers, on the other hand, do not deliver energy to load, rather they facilitate the connection of a regional facility. An example of such an integral transformer is a transformer that is required to connect the components of a dynamic reactive device to the 500 kV transmission system. Because of the functionality of such integral transformers, they are in essence a part of the regional facility and thus the costs of such transformers should be allocated on the same basis as regional facilities. We will therefore reject Old Dominion's protest. Similarly, we agree with PJM's proposal not to allocate on a regional basis the cost of transmission facilities that operate below 500 kV and deliver energy from a regional facility to load. As PJM explains, their function is to deliver energy beyond the terminal of a regional facility to load at lower voltages. Thus, these facilities are not required to support or strengthen the regional facilities, but rather to meet the needs of local load.

91. With regard to Exelon's request to calculate the allocations for regional and necessary lower-voltage facilities to two decimal points, we note that in its most RTEP filing, PJM has already started doing calculations to two decimal points and therefore this issue is now moot.[95]

92. Regarding merchant facilities, we agree with LIPA and Linden that the issue of how to allocate RTEP charges to merchant facilities has been set for hearing in Docket No. ER06-456, *et al.* Since neither PJM nor any other party has provided any reasons to

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[93] PJM Operating Agreement, Schedule 6, § 1.5.6 (a).

[94] PJM is charged with similar obligations in the process of developing a list of facilities necessary to accommodate requests for interconnection. *See* PJM Tariff, § 207.

[95] *See* Docket No. ER08-229.

treat this issue differently for facilities that operate at or above 500 kV and those below 500 kV, we will accept PJM's filing, to be effective June 20, 2006, subject to the outcome of the ongoing hearing in the aforementioned proceeding.

The Commission orders:

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

(B) PJM's compliance filing is hereby accepted, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.