

119 FERC ¶ 61,063  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

OPINION NO. 494

PJM Interconnection, L.L.C.

Docket Nos. EL05-121-000  
EL05-121-002

OPINION AND ORDER ON INITIAL DECISION

(Issued April 19, 2007)

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FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.

Docket Nos. EL05-121-000  
EL05-121-002

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119 FERC ¶ 61,063  
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Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

PJM Interconnection, L.L.C.

Docket Nos. EL05-121-000  
EL05-121-002

OPINION NO. 494

ORDER ON INITIAL DECISION

(Issued April 19, 2007)

1. On July 13, 2006, the Presiding Administrative Law Judge issued an Initial Decision on rates for transmission service by PJM Interconnection, L.L.C. (PJM),<sup>1</sup> specifically how the costs of providing transmission service in the PJM region should be allocated among the region's utilities. Under PJM's current rate design (referred to as a license plate rate design), each utility pays for transmission service based on the costs of transmission facilities that are located in the same, sub-regional zone as the utility. A utility also contributes to the costs of new, centrally-planned transmission facilities that, regardless of location, benefit that zone.

2. The Initial Decision held that PJM's current rate design is unjust and unreasonable under sections 205 and 206 of the Federal Power Act (FPA), 16 U.S.C. §§ 824d, 824e (2000), insofar as, under that rate design, utilities pay different rates for access to the regional transmission grid. The Initial Decision reasoned that the region's utilities benefit from the regional transmission grid as a whole, through the opportunity to participate in regional electricity markets and through improved reliability, and so should share equally in the cost of the regional transmission grid. Therefore, with respect to the costs of existing transmission facilities, the Initial Decision found a postage stamp rate

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<sup>1</sup> *PJM Interconnection, L.L.C.*, 116 FERC ¶ 63,007 (2006) (Initial Decision).

design<sup>2</sup> to be the most appropriate methodology by which to allocate the costs of existing facilities. With respect to new, centrally-planned transmission facilities, the Initial Decision found that the current rate design appropriately allocates the costs of those facilities.<sup>3</sup>

3. We reverse the Initial Decision on the allocation of costs for existing facilities. We find that there is insufficient evidence to find that the existing license plate rate design is unjust and unreasonable. Although, as the Judge finds, the grid today is operated on an integrated basis, this fact alone does not support a reallocation of sunk transmission costs within PJM. The current license plate rate design remains just and reasonable because it reflects the prior investment decisions of the individual transmission owners and the fact that these facilities were built principally to support load within the individual transmission owners' zones, and continue to serve those loads. Moreover, replacing the current license plate rate design for existing facilities with any of the proposals found by the Initial Decision to be just and reasonable would cause large cost shifts that are not clearly associated with the actual use of these facilities. Such rate designs also could create adverse incentives among transmission owners with respect to decisions concerning joining or remaining in PJM.

4. With respect to the costs of new transmission facilities, we affirm the Initial Decision in part. We agree with PJM's general approach of allocating expansion costs to those zones that derive associated benefits, but find that the method for doing so is not just and reasonable in two respects. First, the current method for determining beneficiaries is not set forth in the PJM Tariff and is not sufficiently detailed, and is therefore subject to relitigation each time a new project is proposed. This deprives both investors and customers of any certainty regarding the allocation of the costs of new transmission facilities. We therefore issue a companion order today in Docket

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<sup>2</sup> Under the postage-stamp rate design proposed by the Commission's Trial Staff, the costs of all transmission facilities in the PJM region are rolled-in and allocated to all customers in PJM according to each customer's share of the region's load.

<sup>3</sup> See Initial Decision at P 267. To determine cost responsibility for a particular new facility, PJM conducts studies to determine which loads contribute to the reliability violation that caused the upgrade by examining power flows on the constrained facilities at the time of a reliability violation. The zones that are using the constrained facilities at the time of the violation are allocated the costs of the reliability upgrades because they are considered to be the ones that "cause" the violation and "benefit from" the addition of upgrades that eliminate the violation.

No. ER06-1271, *et al.*,<sup>4</sup> requiring that the parties develop a detailed "beneficiary pays" methodology for new facilities below 500 kV that would be set forth in the PJM Tariff and not subject to relitigation. The methodology may use different criteria for reliability versus economic projects, if justified on the record. Second, we accept PJM's proposal to allocate on a region-wide basis the costs of new, centrally-planned facilities that operate at or above 500 kV. We find, on the existing record, that the benefits of new facilities at or above 500 kV are sufficiently broad that a region-wide postage stamp rate is appropriate. Taken together, these modifications to the cost allocation method for new facilities will encourage the development of a robust transmission system in the region.

## I. Background

### A. PJM

5. PJM grew out of a contractual, power pooling arrangement among electric utilities in the Mid-Atlantic region. In 1997, PJM was incorporated as an independent entity, with membership that was opened to all market participants in several Mid-Atlantic states.<sup>5</sup> Also in 1997, the Commission approved PJM as an independent system operator (ISO) under Order No. 888.<sup>6</sup> As an ISO, PJM assumed control of its members' transmission facilities and, in April 1998, established a centralized, wholesale electricity market.

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<sup>4</sup> Docket Nos. ER06-1271-003, ER06-954-004, ER06-880-005, and ER06-456-008.

<sup>5</sup> *Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257 (1997), *order on clarification*, 82 FERC ¶ 61,068 (1998), *order on reh'g and clarification*, 92 FERC ¶ 61,282 (2000), *remanded on other grounds sub nom. Atlantic City Elec. Co. v. FERC*, 295 F.3d 1 (D.C. Cir. 2002).

<sup>6</sup> *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

6. In July 2001, the Commission approved PJM as a Regional Transmission Organization (RTO) under Order No. 2000.<sup>7</sup> As an RTO, PJM assumed responsibility to plan the regional transmission grid to meet the needs of the region as a whole, with emphasis on achieving reliable supply at the lowest reasonable cost. Since then, PJM's geographic scope has expanded significantly to the south and west as numerous utilities joined PJM.

### **B. The Regional Transmission Grid**

7. PJM currently controls transmission facilities throughout the following, contiguous areas: New Jersey, Delaware, Pennsylvania, Maryland, the District of Columbia, Virginia, West Virginia, most of Ohio, and parts of Indiana, Kentucky, Tennessee and North Carolina. PJM also controls transmission facilities in parts of Michigan and Illinois that are geographically separate from the foregoing areas but that are connected to those areas by high-voltage transmission lines that PJM controls. All of the transmission facilities that PJM controls operate on an integrated basis, and almost all were built by vertically-integrated utilities to meet the needs of the utilities' native load customers.<sup>8</sup>

8. PJM administers transmission service over the regional transmission grid under its Open Access Transmission Tariff.<sup>9</sup> All uses of the grid, including transmission owners' use of the grid to meet service obligations to native load retail or wholesale customers, are accomplished through purchases of transmission service under the Tariff. Transmission service customers may purchase two types of service under the Tariff: network service, which entitles the customer to use the network to serve load at designated locations in exchange for an access charge; and point-to-point service, which entitles the customer to move electricity from a designated point of receipt to a designated point of delivery.

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<sup>7</sup> *PJM Interconnection, L.L.C.*, 96 FERC ¶ 61,061(2001) (PJM RTO Order), *order on compliance filing*, 101 FERC ¶ 61,345 (2002), *order on reh'g*, 104 FERC ¶ 61,124 (2003); *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. ¶ 31,089 (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, Washington v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

<sup>8</sup> Ex. RPA-14 at 5; RPA-6 at 4; RPA-10 at 7; AEP-104 at 6.

<sup>9</sup> PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1 (PJM Tariff).



### **C. The Regional Wholesale Market**

9. PJM operates a centralized, wholesale electricity market that is open to all sellers that are members of PJM and to all wholesale electricity customers that arrange to receive transmission service from PJM. The market includes a day-ahead and a real-time market. The PJM market also includes a generation capacity mechanism to ensure long-term adequacy of supply and availability of generation to meet demand. Participants may also engage in bilateral transactions and/or rely on resources that the participant owns. PJM determines, for each period, whether transmission constraints would prevent the use of any available resource to meet any load. When there is no constraint, all sellers are compensated and all customers pay for service based on the marginal price for the system as a whole, *i.e.*, there is a uniform, market price for electricity throughout the region. When there is a constraint, PJM determines “locational marginal prices,” which are the prices at which load can be served at different locations within the region. Sellers are compensated and customers pay based on the applicable, locational marginal price. The difference between the system-wide marginal price and a higher, locational marginal price is reflected in a congestion charge.

### **D. Transmission Rate Design**

10. When the PJM power pool was restructured as an ISO in 1997, the Commission approved a rate proposal for non-pancaked charges for firm transmission in PJM, with a rate which varied based on the zone in which the subject load was located. Under this zonal or license plate rate design, the PJM's footprint is segregated into separate transmission pricing zones, typically based on the boundaries of individual transmission owners or groups of transmission owners. A customer's rate is based on the embedded costs of transmission facilities that are located within its zone. Under this rate design, customers thus are charged based on the facilities they have traditionally used, although all transmission facilities are ultimately shared so that any customer can source energy from anywhere within PJM. This zonal or license plate rate design helped to reduce the multiple transmission charges that had previously applied when a utility purchased electric energy from remote resources. By thus leveling the playing field between remote and local suppliers, a zonal rate design helped PJM move to a regional electricity market. A zonal, license plate rate design also avoided abrupt shifts in costs among transmission owners and thus encouraged those entities' participation in PJM. This zonal license plate rate design was accepted by the Commission subject to the supporting companies' commitment to propose a uniform, system-wide rate methodology on or before July 1, 2002, that would apply to transmission services throughout the PJM Control Area.<sup>10</sup>

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<sup>10</sup> *PJM Interconnection, L.L.C.*, 81 FERC ¶ 61,257 at 62,249.

11. Additionally, in approving PJM as an ISO, the Commission left in place Extra High-Voltage Agreements (EHV Agreements) that members of the predecessor power pool had executed from the 1960s to 1980s. These agreements provided for the joint development of certain extra high-voltage (500 kV or above) transmission facilities that were needed to integrate certain jointly-developed generation facilities. The agreements provided for each party to construct a portion of the transmission facilities, to contribute over time to other parties' construction costs, and to share in the resulting transmission capacity. The Commission left the agreements in place because termination of support payments thereunder would harm parties that had not yet been compensated for their construction costs.<sup>11</sup>

12. One of the conditions of the PJM RTO Order issued in 2001 was that PJM develop an effective regional transmission planning process. In compliance with this order, PJM developed the current Regional Transmission Expansion Plan (RTEP) protocol; new facility costs are allocated by PJM based on PJM's independent determination of which loads created the need for the new facilities, or, in the case of so-called economic transmission projects, which loads benefited from the new facilities. Under the "beneficiary pays" approach, new facilities that are built to maintain reliability and enhance competition may be located in one zone, but the costs of those facilities may be allocated to load in other zones. Thus, with the adoption of this new approach for allocating the costs of new transmission facilities,<sup>12</sup> PJM's zonal or license plate rate design became the current "modified zonal rate design" and now, by design, has different cost allocation approaches for existing facilities and for new, centrally planned facilities.

13. On July 31, 2002, the Commission conditionally accepted a compliance filing by the former Alliance Companies in which each proposed to join either PJM or Midwest Independent Transmission System Operator (Midwest ISO).<sup>13</sup> The Commission set for hearing the question of whether regional through-and-out rates (RTORs) within the Combined PJM-Midwest ISO Region were just and reasonable and encouraged stakeholders in the Combined Region to develop a long-term rate design for the

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<sup>11</sup> *Id.* at 62,280.

<sup>12</sup> PJM Interconnection, L.L.C., Third Revised Rate Schedule FERC No. 24, Operating Agreement (Operating Agreement), Schedule 6, §§ 1.5.6(g) and 1.6; PJM Tariff, Schedule 12-Appendix.

<sup>13</sup> *Alliance Cos.*, 100 FERC ¶ 61,137 (2002), *order on reh'g*, 103 FERC ¶ 61,274 (2003).

Combined Region.<sup>14</sup> In a series of subsequent orders, the Commission required the elimination of RTORs for the Combined Region because the resulting multiple transmission charges distorted competition between local and remote suppliers and therefore impaired the development of electricity markets.<sup>15</sup> To avoid sudden shifts in costs, the Commission approved a short-term transitional mechanism (sometimes referred to as a Seams Elimination Cost Adjustment or SECA charge) through March 31, 2006.<sup>16</sup>

14. In response to the Commission's encouragement of stakeholders to develop a long-term rate design for the Combined Region, stakeholders in the Combined Region engaged in extensive discussions to develop a Combined Region rate design. These discussions resulted in the submission on October 1, 2004 of two competing rate design proposals for the Combined Region. One proposal called for retention of PJM's existing modified zonal rate design, while offering transition payments to certain new PJM entrants to mitigate alleged adverse impacts from conversion to that rate design. The other proposal suggested a new rate design which involved both voltage-based and flow-based allocators. In a November 18, 2004 order, the Commission conditionally accepted the proposal to retain the existing modified 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 RTO but address reliability or congestion in the other RTO.<sup>17</sup> As to PJM, the Commission noted the PJM Transmission Owners' prior agreement to file, by January 31, 2005, proposals as to whether to continue or discontinue the modified zonal rate design beyond May 31, 2005. 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.

15. On January 31, 2005, certain PJM Transmission Owners submitted a filing in this docket in which they proposed to continue the existing rate design until (a) a future filing pursuant to section 205 of the FPA to change rate design; or (b) a filing proposing to

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<sup>14</sup> *Id.* at P 50-52.

<sup>15</sup> See, e.g., *Midwest Independent Transmission System Operator, Inc.*, 104 FERC ¶ 61,105, *order on reh'g*, 105 FERC ¶ 61,212 (2003); *Midwest Independent Transmission System Operator, Inc.*, 106 FERC ¶ 61,262 (2004).

<sup>16</sup> *Midwest Independent Transmission System Operator*, 105 FERC at P 75.

<sup>17</sup> See *Midwest Independent Transmission System Operator, Inc.*, 109 FERC ¶ 61,168 at P 62 (2004), *order on clarification*, 109 FERC ¶ 61,243, *order on reh'g*, 111 FERC ¶ 61,057 (2005).

change rate design as of February 1, 2008, following an evaluation to be conducted in conjunction with Midwest ISO's evaluation of the intra-Midwest ISO rate design. On March 7, 2005, a protest was filed by American Electric Power Service Corporation (AEP) challenging continuation of the existing rate design..

16. By order issued on May 31, 2005,<sup>18</sup> the Commission set PJM's modified zonal, license plate rate design for hearing and required PJM to address the justness and reasonableness of its zonal rate design. On July 13, 2006, an Initial Decision was issued.

## **E. The Initial Decision**

### **1. Existing Facilities**

17. The Initial Decision held that PJM's current modified zonal, license plate rate design for existing transmission facilities is unjust and unreasonable. The Initial Decision started from the premise that customers should bear transmission costs according to the benefits that customers derive from the associated investment.<sup>19</sup> The Initial Decision found that PJM's transmission service customers benefit evenly from all of the transmission facilities in the PJM region. The facilities collectively enable load to be served from multiple resources, thereby supporting a regional electricity market. In addition, the facilities collectively enhance the reliability of electricity supply to each customer. The Initial Decision concluded that, because zonal rate design requires customers to bear the costs of only local facilities, zonal rate design does not reflect the benefits that customers derive from the regional grid as a whole and therefore produces unjust and unreasonable rates.<sup>20</sup>

18. Employing the aforementioned reasoning, the Initial Decision found a postage stamp rate design for existing facilities to be just and reasonable. Under a postage stamp

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<sup>18</sup> See *Allegheny Power System Operating Cos.*, 111 FERC ¶ 61,308 (2005) (Hearing Order), *order on reh'g and clarification*, 115 FERC ¶ 61,156 (2006).

<sup>19</sup> Initial Decision at P 239-40 (citing *Public Service Co. of New Hampshire v. FERC*, 600 F.2d 944, 959 (D.C. Cir. 1979); *Alabama Electric Cooperative Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982); *Pennsylvania Electric Co v. FERC*, 11 F.3d 207, 211 (D.C. Cir. 1993), *Town of Norwood v FERC*, 962 F.2d 20, 25 (D.C. Cir. 1992); *Union Elec. Co. v FERC*, 890 F.2d 1193, 1198 (D.C. Cir. 1989); *City of New Orleans v. FERC*, 875 F.2d 903, 905 (D.C. Cir. 1989)).

<sup>20</sup> Initial Decision at P 240.

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. The Initial Decision found that a postage stamp rate design is appropriate for PJM's existing transmission facilities because the facilities collectively benefit all customers by enabling customers to participate in regional markets and by enhancing reliability. According to the Initial Decision, no customer could realize those benefits without other customers' facilities. The Initial Decision, concluded that customers should therefore share evenly in the costs of all existing transmission facilities in the region.<sup>21</sup>

19. In addition, the Judge also found two so-called highway/byway proposals<sup>22</sup> to be just and reasonable. With respect to one highway/byway proposal, that of AEP and Allegheny Power (Allegheny), which would allocate costs for higher-voltage facilities (over 345 kV) on a regional basis and lower-voltage facilities (below 345 kV) on a local basis, the Judge said that it may be "sub-optimal" in some respects, but is, nevertheless, just and reasonable. The Judge also found that another highway/byway proposal, advocated by Baltimore Gas and Electric and Old Dominion Electric Cooperative, who together call themselves Transmission Owner Proponents (TOP), was also just and reasonable. However, in the Judge's opinion, the voltage cutoff of 230 kV that TOP advocates was not as well supported as the cutoff of 345 kV advocated by AEP and Allegheny. The Initial Decision found, however, that only a postage stamp rate design properly recognizes that all facilities can be said to contribute to the benefits of the network that is PJM.<sup>23</sup> The Judge found the third highway/byway proposal, that of PPP,<sup>24</sup> to be unjust and unreasonable. PPP advocated a three tiered approach which would place the dividing line as to which high-voltage facilities would be regionalized at 230 kV, 345 kV, or 500 kV (only costs of facilities that are rated 500 kV and up to be allocated to the entire footprint). The Judge noted that PPP's proposal is "unduly

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<sup>21</sup> *Id.* at P 314.

<sup>22</sup> The highway/byway approach allocates costs for higher-voltage or highway (above a certain threshold) facilities on a regional basis and lower-voltage or byway (below such threshold) facilities on a local basis.

<sup>23</sup> Initial Decision at P 320.

<sup>24</sup> 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.

complex and has little justification for the novel and untested idea of creating a middle tier of transmission facilities whose costs would be allocated on the basis of vintage.”<sup>25</sup>

20. The Initial Decision recommended an effective date of April 1, 2006 (the date on which SECA expires) for any rate design change, with a phasing-in of the resulting shifts in costs.<sup>26</sup> Also, the Initial Decision found that transitioning to a postage stamp rate design did not require a reallocation of Financial Transmission Rights (FTRs) and Auction Revenue Rights (ARRs), reasoning that rate design and awards of FTRs/ARRs are not linked and that issues concerning awards of FTRs/ARRs are better addressed in other proceedings if necessary.<sup>27</sup> Last, the Initial Decision found that moving to a postage stamp rate design did not require termination of the EHV Agreements, reasoning that the Commission may terminate contracts only under a high, public interest standard and that proponents of termination had not met that standard.<sup>28</sup>

## **2. New Facilities**

21. With respect to new, PJM-planned transmission facilities, the Initial Decision recommended retaining PJM’s current approach of assigning the associated costs based on the principle of beneficiary pays. The Initial Decision found no basis for changing that approach because the approach is relatively new and because, according to the Initial Decision, the approach reasonably attempts to link cost responsibility to benefits as well as providing proper price incentives.<sup>29</sup>

### **F. Exceptions**

#### **1. Proponents of Zonal Rate Design**

22. Responsible Pricing Alliance (RPA).<sup>30</sup> The RPA supports the Initial Decision’s findings on the rate design for new facilities, but disagrees with the findings on existing

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<sup>25</sup> *Id.* at 302.

<sup>26</sup> *Id.* at P 318, 326.

<sup>27</sup> *Id.* at P 272.

<sup>28</sup> *Id.* at P 322-323.

<sup>29</sup> *Id.* at P 267.

<sup>30</sup> RPA is an unincorporated association of the following transmission owners in PJM: Virginia Electric and Power Company; Exelon Corporation (as agent for

facilities. RPA states that neither the postage stamp rate design nor any of the alternatives proposed in this proceeding have been shown to be just and reasonable as they are unsupported, arbitrary, and would require PJM members to subsidize Midwest ISO customers. Further, RPA argues that reallocating sunk costs raises fairness issues without producing any new transmission investment. RPA states that although there may be some general and unquantifiable benefits to PJM from some facilities, the license plate rate design remains fundamentally fair and is by far the most common and most favored rate design used in RTOs. According to the RPA, it is (1) consistent with historic expectations and the principle of cost incurrence; (2) protects customers in the large and diverse RTO from burdensome cost shifts; (3) is supported by the vast majority of transmission owners in the region; and (4) avoids unjust discrimination and disparities among transmission customers in the combined PJM/Midwest ISO region. RPA also states that there are significant pragmatic reasons for continuing the license plate rate design, at least until February 1, 2008 when the long-term rate design for the combined PJM/Midwest ISO region will be evaluated.<sup>31</sup>

23. Joint Consumer Advocates (JCA).<sup>32</sup> JCA states that the Commission did not make a decision that PJM's current rate design is unjust and unreasonable, and the proponents of alternative rate designs bear the burden under Section 206 of first showing that the current rate design is unjust and unreasonable, then showing that their proposal is just and reasonable. JCA claims that the record does not support a finding that the current rate design is unjust and unreasonable. JCA argues that the current design is just and reasonable because (1) it results in an efficient power procurement market because transmission rates do not alter based on the location of generation; (2) the physical operations of the electric grid have not changed; and (3) adopting one of the proposed alternatives would result in undue cost shifts. JCA believes the Initial Decision's primary recommendation is not supported by the weight of the record evidence and contains

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Commonwealth Edison Company, Commonwealth Edison Company of Indiana, Inc., and PECO Energy Company); Dayton Power and Light Company; Pepco Holdings, Inc. (including Potomac Electric Power Company, Delmarva Power & Light Company, and Atlantic City Electric Company); PPL Electric Utilities Corporation; Public Service Electric and Gas Company; Rockland Electric Company; UGI Utilities, Inc.; and First Energy Companies (as agent for Jersey Central Power & Light Company, Metropolitan Edison Company, and Pennsylvania Electric Company).

<sup>31</sup> RPA Brief on Exceptions at 15-98.

<sup>32</sup> JCA is an unincorporated association of consumers in the District of Columbia, Maryland, and Virginia.

internal inconsistencies. JCA states that the Commission should not rely on the reasoning of the Initial Decision to adopt a postage stamp rate as an alternative.<sup>33</sup>

24. North Carolina Electric Membership Corporation (North Carolina EMC). North Carolina EMC supports arguments submitted by RPA that the record evidence does not justify movement away from PJM's existing rate design. North Carolina EMC states that despite purported regional use and benefits gained from an integrated market, significant local usage of facilities continues. This is evidenced by significant congestion in certain regions, including the western interface with AEP's system—which was not built to accommodate delivery of all generation throughout the PJM footprint to all load in every zone. Also, any rate design change should be synchronized with the February, 2008 rate design re-evaluation for Midwest ISO to reflect the significant usage of AEP's facilities by Midwest ISO customers.

25. If the Commission affirms the Judge's recommendation, North Carolina EMC states that Trial Staff's postage stamp rate design should not be adopted. That rate design fails to reflect the continued significant local usage of the grid, is inconsistent with PJM's energy market design, and imposes the largest cost shifts and rate impacts of any proposed alternative.<sup>34</sup>

## **2. Proponents of Postage Stamp Rate Design**

26. Commission Trial Staff (Trial Staff). Trial Staff argues that a postage stamp rate design for existing transmission facilities is just and reasonable, and if the Commission agrees that the license plate rate design is unjust and unreasonable, then the Commission need only find that the postage stamp rate design is just and reasonable, as opposed to a finding that the postage stamp rate design is perfect. Trial Staff states that the PJM rate design for existing transmission facilities is unjust and unreasonable and that the Commission should affirm the following findings of the Initial Decision: (1) the current rate design allocates the costs of existing facilities only to local transmission owners; (2) existing transmission facilities yield regional benefits; (3) the rate-making principle of cost causation can and should be met by allocating costs to beneficiaries; and (4) because the license plate rate design fails to allocate any costs to beneficiaries located outside the zone where a transmission facility is located, it fails to adhere to the principle of cost causation and is, therefore, unjust and unreasonable.

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<sup>33</sup> JCA Brief on Exceptions at 4-12.

<sup>34</sup> North Carolina EMC Brief on Exceptions at 8-22.



27. Furthermore, Trial Staff argues that its proposal allocates costs to beneficiaries due to (1) the fact that benefits provided by existing transmission facilities are widespread, falling outside of the zone of their location; (2) the fact that such benefits, which include the widespread reliability benefits and benefits of facilitating PJM's advanced generation markets, are conferred by high and low voltage facilities alike; (3) the fact that the benefits associated with any particular piece of transmission equipment or zone cannot be partitioned; and (4) the fact that the transmission network under PJM's control is operated as a single unit. Trial Staff adds that the postage stamp rate design is the only alternative rate design proposal that does not rely upon an arbitrary voltage cut-off and is not discriminatory.<sup>35</sup>

28. Ormet Primary Aluminum Company (Ormet). Ormet states that the Initial Decision correctly found that the proposed license-plate rates are unjust and unreasonable, and Trial Staff's postage-stamp proposal is the most just and reasonable. Ormet also agrees that both AEP's and TOP's Regional Rate Proposals are just and reasonable, but due to controversial voltage cut-offs they are less so than Trial Staff's. Ormet states that the Initial Decision was correct in not adopting PJM's 500 kV bright-line test for new facilities. In addition, Ormet urges the Commission to dismiss arguments related to ARR/FTR allocation or pricing among RTOs in the Combined Region, which were not set for hearing. Ormet states that any arguments related to general RTO policies are irrelevant, as the Commission has long recognized regional differences in setting transmission prices in an RTO context.<sup>36</sup>

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<sup>35</sup> Staff Brief Opposing Exceptions at 17-81.

<sup>36</sup> Ormet Brief Opposing Exceptions at 18-71.

### 3. Proponents of Voltage-Based Rate Design<sup>37</sup>

29. AEP and Allegheny. AEP and Allegheny agree with the Initial Decision that the current zonal rate design as applied to existing transmission facilities is unjust and unreasonable. They argue that the existing design fails to properly align the costs and benefits of existing facilities. AEP and Allegheny state that their proposal for existing PJM facilities provides a fully-supported regional rate design with more moderate rate impacts than Trial Staff's proposal, and is preferable to TOP's proposal. AEP and Allegheny admit that Trial Staff's proposal could result in just and reasonable rates; however, they argue that Trial Staff's postage stamp rate design may provide the opportunity for other parties to inject thorny implementation issues resulting in negative outcomes. Finally, AEP and Allegheny state that if the Commission adopts Trial Staff's proposal, regional facilities should be limited to transmission facilities that are defined by PJM for purposes of calculating the regional rates.<sup>38</sup>

30. Participants for Purposeful Pricing (PPP). PPP states that the Judge correctly found the existing modified license plate rate structure is unjust and unreasonable; however, the grounds cited by the Initial Decision for rejecting the PPP sponsored rate design are insufficient. PPP argues that (1) the Initial Decision correctly found that straight license plate rates would not be just and reasonable; (2) straight license plate rates would not yield an allocation that justly and reasonably reflects forward-looking use and benefits; (3) widespread transitional use of partially license plate rates does not make

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<sup>37</sup> Two state commissions, which are not parties to this proceeding, filed letters to the Commission in this docket. The Public Utilities Commission of Ohio (Ohio Commission) supports AEP and Allegheny's proposal. According to the Ohio Commission, a postage stamp rate design does not reflect the use of or benefits associated with existing transmission facilities. The Ohio Commission suggests that, if the Commission approves postage stamp rate design, the Commission should do so without setting precedent for other regions. Finally, the Ohio Commission suggests that AEP and Allegheny's proposal would be enhanced by analyzing load flows and the distance capability of various transmission lines to determine which customers use and benefit from particular facilities. The Public Service Commission of West Virginia (West Virginia Commission) supports AEP and Allegheny's proposed rate design, describing that proposal as a first step in developing an equitable rate design. The West Virginia Commission reasons that high-voltage transmission facilities benefit remote customers and therefore, those facilities should be allocated on a region-wide basis.

<sup>38</sup> AEP and Allegheny Brief on Exceptions at 16-34.

straight license plate rates reasonable for permanent use in PJM; and (4) the Commission should not continue PJM license plate rates out of fear of chilling new RTO formation.

31. In addition, PPP recognizes that the Judge's recommendation leaves open the possibility that cost recovery for similar facilities that provide a similar function in PJM could be quite different depending on whether the facilities are new or existing. PPP recommends that the Commission mandate a stakeholder process to refine PJM's Schedule 12 methodology and possibly adopt a presumption to regionalize certain high-voltage facilities, *e.g.* 500 kV and above.<sup>39</sup>

32. Transmission Owner Proponents (TOP). TOP states that the Commission should: (1) uphold the ruling that license plate rates need to be replaced; (2) reject postage stamp rates as a suitable replacement; (3) reject the unjust and unreasonable and unduly discriminatory AEP/Allegheny highway/byway proposal; and (4) approve the TOP highway/byway proposal. TOP disagrees with the Judge's approval of the Trial Staff's proposal because it ignores the predominate function of low voltage facilities as distribution, and would cause subsidies due to transmission owner's independent assessments as to what facilities to classify as transmission. Further, it argues that AEP and Allegheny's proposal is unjust and unreasonable because it would regionalize 345 kV facilities and above, but 345 kV facilities in the west perform the same function as 230 kV facilities in the east. TOP favors the existing rate design for new facilities with the modification that a broadly defined "regional benefits" term be identified through a three month stakeholder process.

33. Finally, TOP states that the Commission should require rate design changes to take effect on April 1, 2006, and, except for AEP and other PJM West zones from which exports to Midwest ISO were conducted, not reallocate to PJM zones any of the costs previously collected within Midwest ISO zones under RTORs, until the February 1, 2008 effective date of a long-term transmission rate design applicable throughout the Combined Region.<sup>40</sup>

#### 4. Other

34. Delaware Municipal Electric Corporation (Delaware Municipal). Delaware Municipal asserts that, to avoid disruption and ease implementation, a change in rate design for PJM should be coordinated with a change in rate design for the combined

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<sup>39</sup> PPP Brief on Exceptions at 12-34.

<sup>40</sup> *Id.* at 12-34.

PJM-Midwest ISO region. Delaware Municipal also asserts that, to prevent double recovery of costs, implementation of a postage stamp rate design for PJM should be coordinated with evaluation of individual transmission owners' costs of service.<sup>41</sup>

35. Illinois Commerce Commission (Illinois Commission). The Illinois Commission asserts that it is premature to move to a postage stamp rate design. According to the Illinois Commission, PJM's current rate design should continue until consideration of rate design for the Combined PJM-Midwest ISO Region. The Illinois Commission reasons that the issue of how to allocate costs for interregional transfers is interwoven with the issue of how to allocate costs within PJM and that considering the issues together would minimize administrative burdens and costs. The Illinois Commission suggests that the states should advise the Commission on whether to move to postage stamp rate design. Finally, the Illinois Commission asserts that, if the Commission changes PJM's rate design at this time, the Commission should adopt AEP and Allegheny's voltage-based, highway/byway proposal.<sup>42</sup>

36. PJM. PJM does not take a position on the rate treatment of existing transmission investment. However, PJM believes that changes to the zonal rate design need to be synchronized with an appropriate change to the methodology for allocating ARR and FTRs to ensure fundamental symmetry between ARR/FTR allocations and underlying revenue responsibility for transmission service. PJM further states that the retroactive effective date of proposed changes to the rate design fail to allow a corresponding change to the ARR/FTR allocation method. Additionally, PJM states that if the Commission adopts the recommended postage stamp rate design, it should consider extending that treatment to new facilities. If, however, the Commission does not adopt this methodology, then PJM urges the Commission to consider socializing through a postage stamp rate design the costs of newly constructed facilities above 500 kV.<sup>43</sup>

37. PJM Industrial Customer Coalition (Industrial Customers).<sup>44</sup> They assert that it would be administratively inefficient to change PJM's rate design shortly before

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<sup>41</sup> Delaware Municipal Brief on Exceptions at 6-10.

<sup>42</sup> Illinois Commission Brief on Exceptions at 4-14. We grant the Illinois Commission's motion for leave to file its Brief on Exceptions out of time.

<sup>43</sup> PJM Brief on Exception at 6-14.

<sup>44</sup> Industrial Customers is an *ad hoc* coalition of large commercial and industrial electricity customers in the PJM region.

changing the rate design for the combined PJM-Midwest ISO region. Additionally, the Industrial Customers oppose a postage stamp rate design due to the resulting cost shifts.<sup>45</sup>

## II. Discussion

38. As the Supreme Court has found, "allocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science."<sup>46</sup> The Commission recently articulated the same principles in Order No. 890:

Our decisions regarding transmission cost allocation reflect the premise that allocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science. We therefore allow regional flexibility in cost allocation and, when considering a dispute over cost allocation, exercise our judgment by weighing several factors. First, we consider whether a cost allocation proposal fairly assigns costs among participants, including those who cause them to be incurred and those who otherwise benefit from them. Second, we consider whether a cost allocation proposal provides adequate incentives to construct new transmission. Third, we consider whether the proposal is generally supported by state authorities and participants across the region.<sup>47</sup>

39. In application of these principles, the Commission has permitted different just and reasonable rate designs reflective of particular system characteristics and stakeholder input. In this regard, we have stated our deference to regional preferences a number of times, for instance in Order No. 2000, and in *PJM Interconnection L.L.C.*, 96 FERC

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<sup>45</sup> Industrial Customers Brief on Exceptions at 5-9.

<sup>46</sup> *Colorado Interstate Co. v. FPC*, 324 U.S. 581, 589 (1945).

<sup>47</sup> *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, [72 Fed. Reg. 12,266 at P 559](#), 118 FERC ¶ 61,119 ([Mar. 15, 2007](#)).

¶ 61,060 at 61,220 (2001), as well as in our approval of rate designs for different regional markets.<sup>48</sup>

40. While rate design principles may be easy to articulate in the abstract, applying them to a particular case and a point in time is not as easy without regional consensus.<sup>49</sup> In this case, the PJM stakeholders have been unable to reach agreement on an appropriate rate design for existing and new facilities, and it appears that no such consensus is likely either at the present time or in the near future. There is simply no consensus among stakeholder groups or even within stakeholder groups. Nevertheless, we find adequate evidence in the record to support the holding in this opinion.

41. With respect to the allocation of existing or sunk costs, on the record developed here, we conclude that, while other cost allocation methodologies may also be just and reasonable, we cannot find that the continued use of the existing zonal or license plate rate design is unjust and unreasonable. Under section 206, the proponents of the rate design change have the burden to show that the existing rate design is unjust and unreasonable.<sup>50</sup> As the courts have found, on the same set of facts there can be “multiple just and reasonable rate designs” and the resolution may depend on whether the

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<sup>48</sup> See *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at 61,397 (2004); *Southwest Power Pool, Inc.*, 111 FERC ¶ 61,118 at 61,653 (2005); *California Independent System Operator*, 109 FERC ¶ 61,301 (2004), *reh'g denied*, [111 FERC ¶ 61,337 \(2005\)](#); *New England Power Pool and ISO New England, Inc.*, 109 FERC ¶ 61,252 (2004), *order on clarification*, 110 FERC ¶ 61,003 (2005).

<sup>49</sup> As the D.C. Circuit has stated: “there is no neutral or inherently fair allocation of fixed costs, as the history of rate design amply demonstrates.” *United Distribution Cos. v. FERC*, 88 F.3d 1105, 1171 (D.C. Cir. 1996).

<sup>50</sup> *Consolidated Edison Co. of New York, Inc. v. FERC*, 165 F.3d 992, (D.C. Cir. 1999) (citing *Tennessee Gas Pipeline Co.*, [80 FERC ¶ 61,389 \(1997\)](#)) (analyzing the comparable provisions sections 4 and 5 of the Natural Gas Act (NGA)).

proceeding is initiated under section 206.<sup>51</sup> There is no identifiable threshold at which a particular rate design becomes unjust and unreasonable.<sup>52</sup>

42. Based on this record, we cannot find that the sunk costs of the transmission system must be shared equally among all customers in order to produce just and reasonable rates. The existing facilities of these transmission systems were not developed under common ownership and planning, and were not designed to benefit the entire footprint of PJM. These transmission facilities were developed by the individual companies to benefit their own systems and their own customers. It is therefore consistent with principles of cost causation to continue to allocate the costs of these facilities to the customers for whom they were constructed and whom they continue to serve to date.

43. We also must recognize the unintended consequences of re-allocating costs of existing transmission facilities. The Commission must be cognizant of the effect that changing rates will have on expectations and future decisions about RTO participation.<sup>53</sup> The record here shows that replacing the existing license plate rate design for existing facilities (using any of the approaches advocated at the hearing) would result in large cost shifts among the transmission owners, thereby causing adversely affected transmission owners to second guess their participation in PJM.<sup>54</sup> In this regard, in our Policy Statement on Transmission Pricing, we stated that "[t]he major purpose of transmission

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<sup>51</sup> *Id.* at 1003 (holding that the determination of rolled-in rates may be different depending on whether the proposal is by the utility or is a NGA section 5 (or, here, FPA section 206) inquiry).

<sup>52</sup> "There is not a single magic point on the continuum between incremental and rolled-in rates such that at that single point an incremental rate becomes unjust and unreasonable while a rolled-in rate simultaneously becomes just and reasonable." *Tennessee III*, 80 FERC at 61,224.

<sup>53</sup> *Atlantic City Electric Co. v. FERC*, 295 F.3d at 11-14 (addressing RTO participants' rights to depart RTOs).

<sup>54</sup> Ex. AEP-203, AEP-207, RPA-64, S-4, TOP-6. *See also United Distribution Cos. v. FERC*, 88 F.3d 1105, 1171 (D.C. Cir. 1996) (affirming the Commission's adoption of measures to mitigate the effect of cost shifts resulting from adoption of a new rate design).

pricing reform should be to provide more efficient price signals, particularly for new transmission uses, and not simply to reallocate sunk costs."<sup>55</sup>

44. Rather than modifying the allocation of sunk costs, we find that in the present case the better approach to achieving a just and reasonable rate design is to focus on the methods for allocating the costs of new investments. Such investments are required to go through the PJM RTEP planning process which, in contrast to the investments in existing facilities, helps to ensure that such projects are necessary to meet the reliability and economic needs of the PJM system as a whole.

45. With respect to these new facilities, we affirm the Judge's determination that, in general, who benefits from the facilities should be the appropriate measure for determining cost allocation. However, we recognize that to date there have been disputes within PJM about how to conduct a "beneficiary pays" analysis, and that we have set those issues for hearing in Docket Nos. ER06-1271 *et al.* regarding reliability projects. Recurring litigation over the specifics of cost allocation does not provide the necessary cost certainty to support new investment, nor is it administratively efficient. Therefore, as to costs of lower voltage (below 500 kV) transmission facilities that are approved through the PJM RTEP process, in a further order in Docket Nos. ER06-1271 *et al.*, we will expand the scope of those proceedings to enable the parties to develop a cost allocation methodology to be included in PJM's tariff that will establish the methodology to be applied in the future to determine the beneficiaries of projects below 500 kV. In the same order, we also initiate a section 206 proceeding and set for hearing the methodology for economic projects to ensure that the methodology is likewise set forth in the Tariff and not subject to relitigation each time a new project is approved by PJM.

46. Moreover, as to the costs of high voltage (500 kV and above) transmission facilities that are approved through the PJM RTEP process, we will accept PJM's proposal to adopt a postage stamp rate to recover those costs. We find, as explained below, that there is significant support in the record for rolling in the cost of such new high voltage or "highway" facilities and that PJM's proposal is the most reasonable under the circumstances.

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<sup>55</sup> *Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act: Policy Statement*, FERC Stats. & Regs., Regulations Preambles January 1991-June 1996 ¶ 31,005, 59 Fed. Reg. 55,031 at 55,035 (1994), *order on reconsideration*, [71 FERC ¶ 61,195 \(1995\)](#) (Transmission Pricing Policy Statement).



47. We add that, in the future, PJM's continued use of a zonal rate design to allocate the costs of existing transmission facilities will be of declining significance. Under PJM's market rules, as PJM pursues region-wide transmission planning and as more centrally-planned transmission facilities are built, utilities will pay for new transmission increasingly in proportion to benefits they realize from new transmission. As new facilities are added, and as existing facilities depreciate, such an allocation will move cost allocation increasingly towards a sharing of costs based on benefits received.<sup>56</sup>

**A. Existing Facilities**

48. As stated previously, we reverse the Initial Decision's determination that PJM's use of a zonal or license plate rate design is unjust and unreasonable for existing facilities in PJM. The Judge finds that a license plate rate design is inequitable, because it allocates the costs of existing transmission facilities on a zonal basis when those facilities provide general benefits, such as increased access to generation and reliability benefits, to all PJM zones. The Initial Decision notes that "[w]ith all of the costs of the existing transmission facilities being recovered from local native load, the beneficiaries of the regional usage of the existing transmission rate base are receiving a free ride at the expense of the native load customers."<sup>57</sup> Further, the Judge bases his decision to replace the current rate design largely on a claim that, because PJM's footprint has expanded, license plate rates "fail to allocate any of the costs to beneficiaries of the transmission facilities that might be located in other zones."<sup>58</sup> In addition, the Initial Decision makes the general policy argument that "all transmission facilities in PJM provide access to all generation in PJM, which provides generation market benefits and enhanced reliability to all PJM transmission zones."<sup>59</sup>

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<sup>56</sup> Separately, we note that PJM uses a zonal rate design to allocate the costs of new transmission facilities that are planned by individual utilities for local purposes and that do not directly advance PJM's objectives as an RTO, *i.e.*, that do not enable utilities in other zones to avoid a potential violation of reliability standards or realize a reduction in locational marginal price. This methodology has not been contested and we find it to be just and reasonable.

<sup>57</sup> Initial Decision at P 246.

<sup>58</sup> Initial Decision at P 244.

<sup>59</sup> *Id.*

49. In making our determination for existing facilities, we do not dispute that PJM now operates the grid on an integrated basis or that some existing facilities provide benefits outside of their local zone. However, we do not find that the record as a whole supports a finding that the zonal rates are now unjust and unreasonable, because: (1) the facilities were constructed to serve the needs of individual transmission systems and were not part of a system-wide planning process;<sup>60</sup> and (2) each of the proposed alternative rate designs found to be just and reasonable in the initial decision presents unacceptable cost shifts.

1. **The Facilities Were Constructed To Serve the Needs of Individual Transmission Systems and Were Not Part of a System-Wide Planning Process**

50. The costs associated with transmission facilities that were built before PJM began region-wide transmission planning comprise the vast majority of PJM's costs of providing transmission service.<sup>61</sup> As no party disputes, these facilities were traditionally constructed primarily by individual transmission owners to serve their own loads, and costs were received from the transmission owners' load. That is, the existing facilities represent sunk costs that were built primarily by individual utilities to serve their own internal needs and were financed by those utilities. This fact supports continued reliance on a zonal or license plate rate design to recover the costs of these existing transmission facilities. For example, Allegheny Power built its higher voltage lines because "an overlay of the existing 138 kV and 230 kV systems was required to ensure reliable system operation."<sup>62</sup> "The decision to overlay the system with a 500 kV network was made to tie the power system together so that large generating capacity provided by the plants could be made available to serve any system load."<sup>63</sup> Similarly, for AEP, the addition of these lines was mainly to serve its own system needs: "The most significant conclusion emerging from these detailed studies was the finding that further development in the 345 kV and above transmission system would be required to meet the needs of the AEP system by 1990."<sup>64</sup>

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<sup>60</sup> Ex. RPA-14 at 5; RPA-6 at 4; RPA-10 at 7; AEP-104 at 6.

<sup>61</sup> Ex. RPA-1 at 6.

<sup>62</sup> Ex. AP-900 at 5.

<sup>63</sup> *Id.*

<sup>64</sup> Ex. AEP-300 at 9.

51. The Judge found that a license plate rate design “fails to account for new uses and fails to consider fairness and conformance of the rate design to cost causation/benefit allocation principles.”<sup>65</sup> We do not agree. The current zonal rate design is consistent with cost causation principles because it allocates costs to the customers for whom those facilities were constructed. As explained above, the transmission owners in PJM built their existing infrastructure primarily to accommodate the needs of their own customers. The fact that the transmission system is used today in ways that differ from when the facilities were first constructed does not, standing alone, provide a basis for finding that a license plate rate design is no longer just and reasonable.

52. In addition, 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.<sup>66</sup> 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 points out, “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.”<sup>67</sup>

53. Although the Judge states that one of the goals in allocating costs is to promote economic efficiency, reallocation of the sunk costs of already built facilities will not affect future investment decisions. That is, the allocation of the sunk costs of existing transmission facilities has no significant impact on investment decisions associated with new transmission facilities.<sup>68</sup> A reallocation of costs for existing facilities will not affect a transmission owner’s future decision about whether and where to build new transmission facilities. Rather, it is the cost allocation method for new transmission facilities that influences the incentive to invest.

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<sup>65</sup> Initial Decision at P 248.

<sup>66</sup> North Carolina EMC Brief on Exceptions at 11.

<sup>67</sup> RPA Brief on Exceptions at 33.

<sup>68</sup> *See* Ex. No. RPA-20 at 7 (“It has been well known in economics for at least a century that the allocation of sunk costs cannot affect the efficient use of resources.”); S-2 at 16 (“The incentive to invest depends on the treatment of new investment, not existing investment (since that is sunk).”). *See also* Transcript at 454 (Schmalensee).

54. Because the existing, sunk transmission costs in question were not planned and constructed to maximize benefits on a region-wide basis, we do not find continued use of a license plate rate design unjust and unreasonable. Further, while we have required a rolled-in cost approach to be applied to an off-system third-party sale when there is a commonly-owned system of operating companies which operate in a coordinated manner,<sup>69</sup> that case did not result in substantial shifts in cost responsibility among customers. In contrast, PJM is an amalgam of 15 individual transmission systems, covering 13 states and the District of Columbia serving 51 million people, and extending as far east as the suburbs of New York City and as far west as Chicago. As discussed above, the record does not show that existing transmission facilities built and designed for the benefit of each of these individual systems are now so extensively shared that we can find that a license plate rate design for existing facilities is unjust and unreasonable.

55. We also do not find that a voltage-based highway/byway rate design is so superior to the license plate structure that we must find that a license plate rate design is unjust and unreasonable. Varying concentrations of high voltage transmission exist among the different zones of PJM. The parties' highway-byway proposals do not reflect a clear, principled basis for their chosen voltage cutoffs and generally merely advance their own interests by regionalizing the costs of their respective highway facilities.<sup>70</sup> The offered arguments appear to reflect no more than the relative rate impact of any revised rate methodology rather than the suitability of a methodology itself. As RPA witness Shanker concludes, "AEP/Allegheny and [TOP] have each selected voltage cut-offs for their respective proposals that garner more money for them."<sup>71</sup> In this context, we cannot find that one particular highway-byway rate design as being more just and reasonable than the existing license plate rate design for the reallocation of sunk costs. These proposals have the same infirmities as the Judge's decision to adopt a postage stamp rate for all of PJM: they reallocate sunk costs, thereby producing large cost shifts and ignoring the fact that the existing facilities were built primarily for the benefit of local customers within a particular zone.

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<sup>69</sup> See, e.g., *Alabama Power Co. v. FERC*, 993 F.2d 1557 (D.C. Cir. 1993).

<sup>70</sup> AEP seeks to regionalize the costs of facilities greater than or equal to 345 kV, while TOP seeks to regionalize the costs of facilities greater than or equal to 230 kV.

<sup>71</sup> *Id.* at 17.

56. Finally, the Commission has previously emphasized that RTOs like PJM are formed voluntarily and should have the ability to implement regional preferences.<sup>72</sup> Here, to the extent that there is any consensus at all, the majority of transmission owners in PJM, represented by RPA, favor the continuation of a license plate rate design for existing facilities. While we recognize that RPA's position does not represent complete stakeholder consensus, we nonetheless do not find the position of the majority of the transmission owning members of PJM to be of so little value that it can be ignored. As RPA notes, regional or stakeholder consensus is an important factor to consider in reviewing the justness and reasonableness of a rate design.<sup>73</sup>

2. **Each of the proposed alternative rate designs found to be just and reasonable in the Initial Decision presents unacceptable cost shifts.**

57. An abrupt shift away from license plate rates would, as suggested by the discussion above, result in inequities within PJM. Moreover, as stated in Order No. 2000, the Commission expressly recognized that a zonal rate design may be appropriate for an RTO to reflect the geographic makeup of the RTO or the transmission cost differences in various subregions of the RTO.<sup>74</sup> As also stated in Order No. 2000, the introduction of RTOs was not intended to abandon basic cost-of-service principles.<sup>75</sup> Shifting cost responsibility for existing transmission facilities also would do nothing to promote economic efficiency – a primary goal of our transmission pricing policy.<sup>76</sup>

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<sup>72</sup> *California Independent System Operator Corp.*, Opinion No. 478, 109 FERC ¶ 61,301 at P 73 (2004), *reh'g denied*, [111 FERC ¶ 61,337 \(2005\)](#); *Northeast Utilities Service Co.*, 117 FERC ¶ 61,337 at P 20 (2006).

<sup>73</sup> See RPA Brief on Exceptions at 61 (citing 109 FERC at P 73 and *New England Power Pool*, 105 FERC ¶ 61,300 at P 22-23 (2003), *reh'g denied*, 109 FERC ¶ 61,252 (2004)).

<sup>74</sup> Order No. 2000, FERC Stats and Regs ¶ 31,089 at 31,177.

<sup>75</sup> *Id.* at 914 (“[We are not] abandoning the fundamental underpinnings of our traditional transmission pricing policies, *i.e.*, that transmission prices must reflect the costs of providing the service.”).

<sup>76</sup> See Transmission Pricing Policy Statement, FERC Stats. & Regs. ¶ 31,005 at 31,144.

58. RTOs are not like traditional vertically-integrated utilities. While the Commission finds that RTOs provide efficiency benefits to the grid, the decision by a utility to join or to leave an RTO is voluntary. In designing transmission rates for RTOs, therefore, we cannot ignore the effects that cost shifts can have on RTO participation. Substantial shifts in cost responsibility could encourage a utility with below-average transmission costs to remain independent of or leave an RTO and, as a result, might destabilize an RTO. Due to the importance of and benefits from RTOs and the potential risk to RTO membership if we were to impose substantial shifts in cost responsibility, we find that continuation of PJM's zonal rate design is just and reasonable even aside from the considerations that are discussed above because it minimizes cost shifts.<sup>77</sup> We add that the effect of transmission pricing on participation in RTOs, including the effect of cost shifts, has been among the Commission's central concerns since introducing RTOs:

[W]e believe transmission pricing disincentives to joining an RTO should be eliminated so that transmission-owning utilities will find RTO participation to be a dynamic business opportunity. . . . At the same time, we wish to make clear that the Commission is very concerned about potential impacts of market restructuring on the customers in "low-cost" states, and the Commission therefore intends to monitor the effects of RTO formation on such customers, specifically the potential for cost-shifting effects of RTO pricing proposals.<sup>78</sup>

59. We find that the rationale adopted in the Initial Decision to declare the rate proposals developed by AEP/Allegheny, TOP, and Trial Staff as just and reasonable failed to adequately consider the resulting cost shifts. The Initial Decision states that "while cost shifts will be created with the implementation of any new rate design, a new rate design is necessary to create the proper price signals and economic efficiency."<sup>79</sup> But significant cost shifts would occur under any of the proposals, with some zones experiencing increases to their transmission cost responsibility in excess of 70%.<sup>80</sup> For

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<sup>77</sup> The Commission may consider a wide variety of factors in determining whether rates meet the just and reasonable standard under the FPA. *See Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581, 589 (1945).

<sup>78</sup> Order No. 2000, FERC Stats and Regs ¶ 31,089 at 31,177.

<sup>79</sup> Initial Decision at P 254.

<sup>80</sup> Ex. AEP-203, AEP-207, RPA-64, S-4, TOP-6.

example, RPA observes that under Trial Staff's postage stamp proposal, VEPCO would experience a cost increase of more than \$113 million, a 73.2% increase.<sup>81</sup> Similarly, Trial Staff's proposal would cause ComEd to experience a \$37 million cost increase, AEP/Allegheny's proposal would cause a \$26 million decrease, and TOP's proposal a \$25.69 million increase.<sup>82</sup> Alternatively, under AEP/Allegheny's proposal, VEPCO would experience a \$48.67 million transmission rate increase, and a \$35.95 million increase under TOP's proposal.<sup>83</sup> We find that cost shifts of this magnitude, and the range of parties that would be affected by the shifts, support our rejection of a move away from license plate rates for PJM's existing transmission facilities.

60. Finally, we note that, in its Brief on Exceptions, AEP argued that "cushioning the blow to Dominion's customers necessarily lands corresponding blows on the chins of other transmission customers throughout PJM. For example, ... the current PJM rates without a through and out rate or SECA component result in [a loss of] \$157.7 million per year in transmission revenues."<sup>84</sup> We find this argument unconvincing – the lost revenues of one company do not dictate a reallocation of the sunk costs of *all* PJM transmission owners, which would, in turn, result in massive cost shifts. The cost allocations proposed in this proceeding are not narrowly tailored to recover only lost through and out revenue. We also note that this issue has already been addressed in other proceedings. 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 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. The Commission also has established proceedings specifically to consider transitional cost recovery for lost through and out revenue.<sup>85</sup> We,

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<sup>81</sup> RPA Post Hearing Brief at 92.

<sup>82</sup> Ex. S-4 at 1, AEP-203 at 1, TOP-5.

<sup>83</sup> Ex. AEP-203 at 1, TOP-5.

<sup>84</sup> AEP Brief on Exceptions at 23.

<sup>85</sup> For example, the Commission approved a method to recover through and out revenues for a transitional period, which expired on April 1, 2006. *Order on Transmission Rate Proposals*, 109 FERC ¶ 61,168 (2004). The Commission set for hearing AEP transmission rate issues, including compensation for reduced through and out revenues. *American Electric Power Service Corp.*, 103 FERC ¶ 61,009 (2003).

therefore, do not find that the potential loss of through and out revenue justifies a significant change in rate design for sunk facilities within PJM. We do, however, believe that substantial shifts in cost responsibility as a result of a move away from zonal prices have the potential to affect RTO membership.

**B. New, Centrally-Planned Facilities**

61. In Order No. 890, we emphasized three principal factors relevant to regional cost allocation. First, we stated that we will consider "whether a cost allocation proposal fairly assigns costs among participants, including those who cause them to be incurred and those who otherwise benefit from them."<sup>86</sup> We also emphasized that "a proposal that allocates costs fairly to participants who benefit from them is more likely to support new investment than one that does not. Adequate financial support for major new transmission projects may not be obtained unless costs are assigned fairly to those who benefit from the project."<sup>87</sup>

62. Second, we stated that we will consider whether a "proposal is generally supported by state authorities and participants across the region" and acknowledged that different regional approaches can be just and reasonable:

In the past, different regions have attempted to address such issues in a variety of ways, such as by assigning transmission rights only to those who financially support a project or spreading a portion of the cost of certain high-voltage projects more broadly than the immediate beneficiary/supporters of the project. We believe that a range of solutions to this problem are available. We therefore continue to believe that regional solutions that garner the support of stakeholders, including affected state authorities, are preferable.<sup>88</sup>

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<sup>86</sup>Order No. 890 at P 559.

<sup>87</sup> *Id.* at 559-60. See also *Midwest Independent Transmission System Operator, Inc.*, 118 FERC ¶ 61,209 at P 24 (2007).

<sup>88</sup> *Midwest Independent Transmission System Operator*, 118 FERC ¶ 61,209 at P 25 (citing Order No. 890 at P 561).



63. Third, we emphasized the importance of "a cost allocation proposal provid[ing] adequate incentives to construct new transmission."<sup>89</sup> In this regard, we stated that cost allocation methodologies should be known in advance, not subject to constant litigation:

Moreover, it is important that each region address these issues up front, at least in principle, rather than having them relitigated each time a project is proposed. Participants seeking to support new transmission investment need some degree of certainty regarding cost allocation to pursue such investments.<sup>90</sup>

64. These principles are each relevant to our decision in this case. First, we find that the beneficiaries of new transmission projects in PJM should pay for the costs of those projects. This principle does not appear to be seriously in dispute in this case. Second, the Commission has stated it will defer, where possible, to regional consensus. In this case, however, there is no such consensus and PJM has strongly urged us to act on the basis of the existing record, rather than delaying a resolution of the issues for further consideration by stakeholders.<sup>91</sup> We agree and so act in this Opinion.

65. Third, we find that the existing methodology for allocating the costs of new facilities within PJM is no longer just and reasonable because, although it seeks to allocate costs to beneficiaries, it does so without providing any *ex ante* certainty. The methodology is not set forth in the tariff and, because of that, the assumptions and criteria for cost allocation are relitigated each time a new project is approved by PJM. This deprives entities seeking to build new infrastructure from any certainty as to who will pay for such infrastructure. As PJM recently stated, "the continuous cycle of litigation challenging each RTEP determination . . . must be stopped in order to further the efficiency and certainty required to see that needed transmission is in fact developed."<sup>92</sup> PJM also noted that "[t]his litigation similarly polarizes the parties and impedes consensual resolution" of cost allocation issues.<sup>93</sup> Finally, we find that continued

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<sup>89</sup> Order No. 890 at P 559.

<sup>90</sup> *Id.* at P 561.

<sup>91</sup> PJM Brief Opposing Exceptions at 6.

<sup>92</sup> PJM 90-Day Status Report in Docket No. ER06-1474-0000 at 3, dated February 20, 2007 (PJM Status Report).

<sup>93</sup> *Id.* at 2.

relitigation of the methodology for allocating the cost of new facilities is a waste of resources.

66. We therefore find that PJM must have a “beneficiary pays” methodology that is set forth in its tariff and is applied consistently (and without relitigation) each time a new project is approved. There are two principal means by which PJM and other RTOs can satisfy this objective. First, an RTO can allocate costs using a well-defined modeling approach that identifies beneficiaries based on specific criteria or metrics (*e.g.*, the alleviation of reliability violations or reductions in production costs or locational marginal prices). For such a method to provide *ex ante* certainty, the key criteria, metrics and assumptions must be set forth in the tariff with sufficient specificity that they are not relitigated each time a new project is approved by the RTO. Alternatively, an RTO can provide *ex ante* certainty by allocating costs using a fixed, postage-stamp allocation of certain high voltage facilities. An RTO can also use a combination of these approaches.

67. Thus, Midwest ISO region, for instance, uses a combination of these approaches in allocating transmission costs within their regions. It uses (i) a fixed, postage-stamp cost allocation of a portion of high voltage facilities at or above 345 kV and (ii) a modeling approach to allocate the remaining costs of those facilities to the beneficiaries of each project. This region did not reach complete consensus on all elements of these methodologies; however, the states in this region achieved general consensus on the appropriate voltage cut-off for the postage stamp allocation (345 kV) and the appropriate level of that allocation (*i.e.*, 20% socialization). Southwest Power Pool, Inc. (SPP), similarly, received state support for its methodology, which allocates 33% of the cost of projects in its base plan across the SPP footprint and 67% to the zones that benefit from the project as measured by SPP’s MW-mile method.

68. In this case, however, there is no consensus to which to defer, but rather only an endless cycle of litigation. PJM urges us to “resolve the impasse” and emphasizes that “[r]esolving the cost allocation issues as soon as possible is of particular importance given the immediate need for major new transmission investment and the number of proposed projects and associated cost allocations that will be considered by the PJM Board of Managers this June.”<sup>94</sup> We agree. The evidence indicates that there is no reasonable possibility for regional consensus on cost allocation within PJM in the near future. We also agree that the matter is of sufficient importance that we must act now to provide enough cost certainty to support new investment in the transmission grid. We therefore decide this case on the basis of the evidentiary record before us. We explain

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<sup>94</sup> *Id.* at 2-3.

our findings regarding cost allocation for new facilities (both below 500 kV and at or above 500 kV) more fully below

**1. Facilities below 500 kV**

69. With respect to the costs of new, PJM-planned transmission facilities, we affirm the Initial Decision in part, but will require some modifications to the existing cost allocation methodology. We continue to support PJM’s “beneficiary pays” approach of allocating the costs of new, PJM-planned transmission facilities. Under this “beneficiary pays” approach, direct beneficiaries of a particular transmission upgrade are identified and directly allocated the costs of that upgrade. We find that, by allocating costs according to these benefits – benefits that flow from these investment decisions – we promote the development of optimal electricity infrastructure.<sup>95</sup>

70. Schedule 6 of PJM’s Operating Agreement sets forth PJM’s RTEP protocol and Schedule 12 of the Tariff addresses the assignment of cost responsibility for transmission system expansions and upgrades for the PJM region. For each transmission system expansion and upgrade, PJM must designate the transmission owner (or owners and other entities) responsible for constructing, owning and/or financing each transmission upgrade included in the RTEP. PJM must also designate the PJM market participants responsible for bearing the costs of the facility or upgrade. The assessment PJM conducts in accordance with Schedule 6, section 1.5.6(g) is essentially a “but-for” cost causation analysis. Baseline reliability upgrades are added to the RTEP when PJM determines that relying on the pre-existing transmission system will, in future years, cause PJM to violate applicable reliability planning criteria, including all North American Electric Reliability Corporation (NERC), PJM, and local criteria. Cost allocation for baseline reliability upgrades is, therefore, based on identifying the loads that contribute to the reliability criteria violation requiring the construction of the upgrade.<sup>96</sup>

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<sup>95</sup> With respect to new, locally-planned transmission facilities, we support PJM’s approach of allocating the costs only to the local zone, and of spreading the costs of those facilities to other zones only if, in relevant part, utilities in other zones avoid a potential violation of reliability standards. By allocating expansion costs based on specific reliability benefits rather than the generalized reliability benefits that all transmission facilities provide, this approach helps rationalize purchasing and investment decisions and thus helps promote economic efficiency.

<sup>96</sup> Docket No. ER06-456-006, Ex. PJM-1 at 14 (Herling).

71. In 2006, issues relating to such allocations were set for hearing in Docket Nos. ER06-1271 *et al.*<sup>97</sup> Besides protesting the results of the modeling performed by PJM to identify beneficiaries of approximately \$1.8 billion in investment, some parties also disputed the DFAX methodology used by PJM for identifying project beneficiaries.<sup>98</sup> In particular, the parties disputed PJM's methodology that considers net counterflows within a transmission zone, known as "zonal netting," the snapshot nature of hypothetical energy flows that does not reflect economic dispatch or changes in flow patterns that emerge over time, the impact of Phase Angle Regulators (PARs) adjustments in its zonal cost allocation, and other factors. Some parties also contended that the proceedings should be expanded to consider alternatives to the DFAX methodology.

72. As discussed above, we find this approach is no longer just and reasonable because it provides no *ex ante* certainty with respect to cost allocation and is otherwise a waste of resources. The primary problem is that the PJM Tariff does not provide the details of how the "beneficiary pays" analysis is to be performed, leading to disputes over methodological issues. Therefore, we are issuing today a companion order in Docket Nos. ER06-1271 *et al.* that grants the rehearing requests to expand the scope of the hearing to permit the parties to litigate in the consolidated proceeding the methodology for determining the beneficiaries of reliability projects. As part of the expanded proceeding, we expect the parties to develop a complete methodology for performing the "beneficiary pays" analysis to be included in full in the PJM Tariff. Placing the full methodology, criteria and assumptions in the Tariff will eliminate protracted future proceedings and expedite the construction of new or expanded transmission facilities.<sup>99</sup>

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<sup>97</sup> See *PJM Interconnection, LLC*, 115 FERC ¶ 61,261 (2006); *PJM Interconnection, LLC*, 116 FERC ¶ 61,118 (2006); *PJM Interconnection, LLC*, 117 FERC ¶ 61,058 (2006).

<sup>98</sup> DFAX represents the percentage of the power flowing from a generator to a load that flows over a particular transmission facility. The DFAX model uses sources and sinks along with other assumptions to model system-wide power flows and determines where an entity's flow will impact. It is used as a cost causation tool to allocate the cost of transmission upgrades.

<sup>99</sup> We note that PJM's existing methodology for performing the "beneficiary pays" analysis is found in its manuals, not in its Tariff. Certain elements of the load flow analysis (*e.g.*, zonal netting) are found in neither the manuals nor the Tariff.

73. We also find that the current approach to allocating costs for "economic" projects suffers some of the same flaws. In *PJM Interconnection LLC*,<sup>100</sup> we approved a revised methodology for the planning of economic upgrades. That new planning methodology sought, among other things, to expand the types of benefits that could be considered and, in addition, better integrate the planning of reliability and economic projects. Several parties raised concerns over the cost allocation methodology for economic projects. We declined to address the issue, however, choosing instead to allow the matter to be vetted through the stakeholder process:

As PJM has stated in its transmittal letter, there is an existing policy for allocating the costs of economic upgrades in its Operating Agreement that is based on the principle that beneficiaries shall be allocated the costs of economic upgrades. In accepting this allocation method, we have concluded that it is just and reasonable, although we may conclude in the future that other cost allocation methods may provide a better measure of the beneficiaries of economic upgrades and, thus, will also be just and reasonable. Accordingly, we see no reason to delay a decision in the instant docket to await a proposal to revise the existing cost allocation methodology since PJM has in place an existing just and reasonable method for allocating the costs of economic upgrades. Nevertheless, we will require PJM to submit status reports every 90 days, beginning 90 days after the date of this order, on the progress of any stakeholder discussions on cost allocation, since cost allocation may affect which economic projects are included in PJM's RTEP.<sup>101</sup>

74. It has since become apparent that the stakeholders are not likely to reach consensus on this issue. As PJM stated in its February 20, 2007 status report in that case, "it appears unlikely that consensus or compromise on all issues will be reached" and that there is "no evidence of consensus among the state commissions."<sup>102</sup> We therefore can

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<sup>100</sup> 117 FERC ¶ 61,218 (2006).

<sup>101</sup> 117 FERC ¶ 61,218 at P 31.

<sup>102</sup> PJM Status Report at 1-2.

no longer defer to that process to address cost allocation issues relating to economic projects.

75. Having reviewed the existing "beneficiary pays" approach for economic projects, we find that it suffers many of the same flaws as the approach for allocating reliability projects. Most importantly, the methodology is not set forth in the PJM Tariff and thus may be subject to relitigation each time a new project is approved. Although economic project-related litigation has yet to proliferate as reliability project-related litigation has, this is likely due to the fact that very few economic projects were approved to date and, thus, the opportunity for controversy did not arise with the same frequency. Given the contentiousness of cost allocation, however, we see no reason why economic projects will not become bogged down in continuing litigation, just as has been the case with reliability projects. We are therefore instituting a section 206 investigation of PJM's cost allocation methodology for economic projects and consolidate that hearing with the hearing in Docket Nos. ER06-1271 *et al.* regarding reliability projects. We do not suggest that there be one methodology for both economic and reliability projects, but only that such methodology (whether one or two) be justified on the record and detailed and set forth in the PJM Tariff to ensure that it is not subject to relitigation each time a new project is proposed.

## 2. Facilities 500 kV and above

76. In addition, we accept PJM's proposal to fully allocate, on a region-wide basis, the costs of new, centrally-planned facilities that operate at or above 500 kV.<sup>103</sup> Under this rate design, the transmission costs of high voltage lines capable of transmitting large power flows across zones would be allocated to the PJM-wide highway charge while the cost allocation for facilities below 500 kV, as just discussed, would be assigned to load based on a more detailed "beneficiary pays" modeling methodology that will be developed in the hearing discussed above.<sup>104</sup>

77. We are adopting a postage-stamp rate for PJM centrally planned facilities 500 kV and above for several reasons. First, the record provides significant support for a postage stamp allocation of high voltage (500 kV and above) highway facilities. As indicated above, a broad range of parties argue that highway facilities costs should be allocated on

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<sup>103</sup> We note that, as proposed by PJM, lower voltage facilities that are necessary to construct a particular new project at 500 kV and above would also be rolled in to the 500 kV and above postage stamp rate.

<sup>104</sup> Ex. TOP-1 at 15.

a postage-stamp basis throughout the region because of their broad regional benefits. TOP advocated a postage stamp rate for facilities 230 kV and above; AEP advocated a postage stamp rate for facilities 345 kV and above; PPP advocated allocating the costs of facilities that are rated 500 kV and up to the entire footprint. PJM advocated a postage stamp rate for new facilities 500 kV and above. The TOP, AEP and PPP proposals were opposed by many parties, but that was primarily due to the fact that they applied to *existing* facilities.

78. We find that the record provides the greatest support for a voltage cut-off at 500 kV and above. For example, according to Allegheny, 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% more reliable than 138 kV circuits and 60% more than 230 kV circuits on a per mile basis.<sup>105</sup> Allegheny also notes that 500 kV lines have a transmission capability of nearly 17 times that of 138 kV lines; it would take seventeen 138 kV lines or seven 230 kV lines to achieve the same capacity.<sup>106</sup> Furthermore, PJM notes, and we agree, that the regional benefits of 345 kV and below transmission lines are ambiguous in the PJM context (although these benefits may be more pronounced in the Midwest ISO), and that its own experience is that 345 kV and below transmission are often required to support local as opposed to regional needs, and thus it would not be appropriate to characterize all such facilities as regional backbone investments.<sup>107</sup>

79. A 500 kV and above cutoff is also consistent with the historic sharing of backbone 500 kV investment among the “Classic PJM” transmission owners under the EHV Agreements that they entered into in 1967; the Commission referenced that longstanding arrangement in the order setting this case for hearing. The pooling of 500 kV and above facilities among the Classic PJM members indicates that facilities rated at that voltage and above results in broad regional benefits that make it appropriate to regionalize their costs.<sup>108</sup> In further support of this breakpoint, Rate Schedule No. 33 of the PJM Tariff, states that RTEP-approved transmission facilities 500 kV and above in Western PJM

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<sup>105</sup> Ex. AP-902 at 8-15.

<sup>106</sup> *Id.* at 11.

<sup>107</sup> PJM Brief on Exceptions at 14.

<sup>108</sup> Ex. PPP-1 at 21.

shall be constructed by the native Transmission Owner, but financed by all Western Zones.<sup>109</sup>

80. Using rolled-in pricing for new facilities at 500 kV and above will help to encourage the development of needed backbone infrastructure within the PJM market. As the Initial Decision states, 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.”<sup>110</sup> 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 (EPAAct 2005), which support development of critical new transmission infrastructure.<sup>111</sup>

81. In adopting a postage stamp allocation for new facilities at 500 kV and above, we do not suggest that every 500 kV project will benefit every load in PJM in equal measure. Nor are we required to find that every customer will benefit equally from every project.<sup>112</sup> Rather, we need to find and we do find only that the benefits of such facilities are, as described above, sufficiently broad that they support a postage stamp allocation.

82. We also recognize that it would be possible to allocate the cost of 500 kV and above facilities through a more discrete modeling methodology, such as the one that we have set for hearing for facilities below 500 kV. Although such modeling methodologies provide greater specificity in identifying particular beneficiaries, they have certain limitations. For example, it is not possible for a computer model to capture all economic, reliability, and environmental benefits that may be produced over the useful life of a given transmission project. There are many reasons for this limitation, including the difficulty of identifying the range of benefits that accrue from a project over time and quantifying those that are identified. For example, benefits calculations require projections of future fuel prices, load growth, generator retirements and entry, etc. These projections are not only imperfect by definition, but increase in difficulty over time. Moreover, these projections must have a defined time horizon (*e.g.*, 5-15 years), despite

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<sup>109</sup> See Ex. PPP-10 at 22, PPP-11.

<sup>110</sup> Initial Decision at P 228.

<sup>111</sup> *Id.* at P 225.

<sup>112</sup> Order No. 890 at P 559.



the fact that the useful life of new transmission investments can be 40 years or longer. Given these inherent limitations, we believe it reasonable, under appropriate circumstances, to adopt a postage stamp allocation of some or all of the costs of the highest voltage facilities that provide the broadest regional benefits.

83. Therefore, we find that, although modeling methodologies are useful tools, they are not the only approach that is just and reasonable for allocating transmission costs. Recognizing these limitations, several regions have developed some form of postage-stamp rate for high voltage facilities. In Midwest ISO, for instance, a portion of 345 kV and above facilities is rolled in on a postage-stamp basis. In ISO New England, all of the costs of "pool transmission facilities" are rolled into regional rates. In California ISO, the Commission accepted a proposal to transition over 10 years from a license plate to a highway/byway rate design, which uses 200 kV as the demarcation between the highway (which would ultimately be recovered with a postage stamp design) and the byway (which would continue to be recovered through a license plate design). The demarcations adopted in these regions were principally the result of consensus among state commissions. In this case, however, there is no such consensus and we find that, on the current record, it is reasonable to allocate the cost of facilities 500 kV and above on a postage stamp basis. We will therefore require PJM to submit a compliance filing, within 30 days of the date of this Opinion, implementing the necessary revisions to PJM's Tariff and Operating Agreement.

84. It is important to distinguish this finding regarding new 500 kV and above facilities from our decision not to adopt postage stamp pricing for *existing* transmission facilities. As we explained above, cost allocations for existing facilities raise different issues than cost allocations for new facilities. First, a reallocation of the cost of existing facilities can produce large cost shifts, creating inequities and interfering with voluntarily decisions to join an RTO and providing incentives to exit an RTO. Second, unlike new facilities, most of the existing facilities within PJM were planned primarily for the benefit of the customers of the transmission owner that constructed the facilities, not for their regional benefits. By contrast, the new 500 kV and above facilities that are eligible for postage-stamp treatment will be planned on a regional basis by a central grid operator, PJM, which considers the reliability and economic interests of PJM as a whole.

85. Finally, we are mindful of attempts to increase the voltage level of some proposed projects so as to be eligible for regional cost sharing. We believe that, while this is a possibility, there are built in checks and balances that would prevent this from occurring. The RTEP process is designed 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. Also, regional cost sharing involves many stakeholders, who are well situated to ensure that any projects are consistent with RTEP

guidelines and, if necessary, bring any inconsistencies to the attention of PJM and the Commission.<sup>113</sup>

### 3. Reliability versus Economic Projects

86. The Commission's findings in this Order apply equally to "reliability" and "economic" projects. There are several reasons for this. First, PJM has reformed its RTEP over time to recognize that a clear distinction often does not exist between reliability and economic projects. A single project can provide economic benefits in the near term but be necessary for reliability in the longer term, or vice versa. Second, PJM uses a "beneficiary pays" cost allocation approach for both reliability and economic projects. The metrics for identifying the beneficiaries may differ and, indeed, we are not requiring that those metrics be the same. However, the fact remains that the fundamental cost allocation principle is the same. Third, both types of projects require *ex ante* certainty to support new investment and avoid a waste of resources. As noted above, the allocation methodology for neither reliability nor economic projects is set forth in the PJM Tariff, thereby encouraging a "continuous cycle of litigation challenging each RTEP determination."<sup>114</sup> Fourth, with respect to 500 kV and above facilities, PJM advocates a postage stamp rate that includes "all new 500 kV and above facilities."<sup>115</sup> Further, PJM's February 20 letter urges us to resolve all issues, with respect to both economic and reliability projects, in this docket.<sup>116</sup>

87. We do not suggest that the PJM region cannot adopt different approaches in the future regarding economic and reliability projects. Indeed, as we stated above, for purposes of modeling the beneficiaries of projects below 500 kV, we recognize that PJM today uses different methodologies and do not suggest that such an approach would be inappropriate. Indeed, as we stated in a recent Midwest ISO order:

We agree that economic and reliability projects share certain characteristics, and that the benefits associated with each may

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<sup>113</sup> Ex. PPP-10 at 27.

<sup>114</sup> PJM Status Report at 3.

<sup>115</sup> PJM Brief on Exceptions at 12.

<sup>116</sup> PJM Status Report at 3 ("The rate design proceeding currently pending before the Commission in Docket No. EL05-121-000 provides an opportunity for the Commission" to "resolve the impasse" over cost allocation within PJM).

not be completely distinguishable. However, acknowledging these areas of overlap does not mean that any cost allocation policy that draws distinctions between economic and reliability projects must be unjust and unreasonable. For example, reliability projects are planned to satisfy minimum NERC reliability criteria, whereas economic projects are planned to lower the cost of serving customers. The fact that many projects, once constructed, will produce both benefits - *i.e.*, reliability projects can produce economic benefits and economic projects can enhance reliability - does not mean the two types of projects are indistinguishable. Moreover, the Midwest ISO was directed to file a cost allocation policy for economic projects and, as stated herein, we believe that it complied with that directive reasonably. Finally, we note that, although the RECB I and RECB II Filings may differ in many respects, each uses an overall 20 percent/80 percent methodology for allocating costs on a region-wide versus sub-regional basis.<sup>117</sup>

88. However, in this case there is no regional consensus on an overall cost allocation method for either reliability or economic projects. Moreover, given the state of the current record, we have no basis to conclude that fundamentally different approaches to reliability versus economic projects should be adopted. We therefore require that, for both types of projects, a “beneficiary pays” methodology or methodologies be developed, with specificity, and set forth in the PJM Tariff. The methodologies may differ, if justified on the record. Furthermore, for both types of projects, the cost of new facilities 500 kV and above shall be rolled in to a postage stamp rate unless and until an alternative consensus proposal that is just, reasonable and not unduly discriminatory is submitted.

### C. FTRs/ARRs

89. PJM asserts that any change in rate design for PJM’s existing transmission facilities would require a change in the current allocations of FTRs/ARRs. PJM reasons that FTRs/ARRs are allocated to those who pay for transmission capacity and that a change in rate design changes who pays for transmission capacity.<sup>118</sup> PJM suggests that

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<sup>117</sup> *Midwest Independent Transmission System Operator*, 118 FERC ¶ 61,209 at P 181.

<sup>118</sup> PJM Brief on Exceptions at 6-11.

the Commission direct stakeholder meetings to develop a new methodology that conforms to any newly ordered rate design. RPA and North Carolina EMC (which oppose any change to PJM's current rate design) agree, suggesting that a change in rate design would therefore cause native load customers to lose congestion-free access to historical resources.<sup>119</sup>

90. AEP/Allegheny, Ormet, PPP, TOP and Trial Staff disagree. They suggest that FTRs/ARRs are awarded in connection with historical resources, not to reflect payment for transmission capacity, but to reflect expectations concerning the cost of energy. They further suggest that, even if allocations of FTRs/ARRs corresponded to payment for transmission capacity, a change in rate design would merely change the methodology for determining a customer's payments; customers would continue to pay for transmission capacity to reach their historical resources and therefore would continue to be entitled to associated FTRs/ARRs. Finally, they note that, before elimination of pancaked transmission rates, the transmission costs that were born by native load customers were partially offset by wheeling revenues. They suggest that customers may therefore receive FTRs/ARRs notwithstanding any third-party contributions that would result from elimination of zonal rate design.<sup>120</sup>

91. Because we are retaining the existing rate design for existing transmission facilities and preserving any existing link between the payment of embedded transmission costs and the ARR/FTR allocation, we need not address whether a change in rate design for existing transmission facilities would require reallocations of FTRs/ARRs.

#### **D. EHV Agreements**

92. The FirstEnergy Companies (Jersey Central Power & Light Company, Metropolitan Edison Company and Pennsylvania Electric Company (FirstEnergy Companies) are parties to the EHV Agreements. They assert in their Brief on Exceptions that a change in rate design for PJM requires a change to the cost allocation provisions of the EHV Agreements. They suggest that, if the Commission adopts a postage stamp rate design, costs under the EHV Agreements should be reallocated to all customers in the region rather than to only parties to the agreements. They reason that the EHV facilities provide the same function as other, similar facilities in PJM, and that it would be unduly discriminatory to allocate the associated costs under a different standard. The FirstEnergy Companies suggest that, because they seek a reallocation of costs without

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<sup>119</sup> RPA Brief on Exceptions at 18-19.

<sup>120</sup> AEP/Allegheny Brief Opposing Exceptions at 30-49.

eliminating the constructing parties' right to recover costs, their proposal would not result in any stranded cost.<sup>121</sup>

93. Other parties to the EHV Agreements, the EHV Participants, including Exelon Corporation, Potomac Electric Power Company, Delmarva Power & Light Company and Atlantic City Electric Company, PPL Electric Utilities Corporation, Public Service Electric and Gas Company and UGI Utilities, Inc. oppose FirstEnergy Companies' proposal to change support payments under the agreements. They assert in their Brief Opposing Exceptions that the agreements may not be modified except in extraordinary circumstances. They further assert that a change in rate design does not affect the reasonableness of the support payments; the support payments are reflected in a payer's transmission revenue requirement and therefore are allocated among PJM's transmission service customers according to whatever rate design is in effect. They assert that, because some parties under-recovered their costs in the early years, reducing current support payments would expose those parties to larger, unanticipated costs.<sup>122</sup>

94. Because we are retaining the existing rate design for existing transmission facilities, we need not address whether a change in rate design for existing facilities would require a reallocation of support payments under the EHV Agreements.

#### **E. Effective Date**

95. The Initial Decision recommended an effective date of April 1, 2006 (the date on which SECA expires) for any rate design change with a phasing-in of the resulting shifts in costs.<sup>123</sup> Since we are retaining the existing rate design for existing transmission facilities, and only changing the rate design for new facilities, we find that the effective date of this new rate design should coincide with the August 13, 2005<sup>124</sup> refund effective date established by the Commission in the Hearing Order.

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<sup>121</sup> FirstEnergy Brief on Exceptions at 15-18.

<sup>122</sup> EHV Participants Brief Opposing Exceptions at 5-8, 14, 17-18.

<sup>123</sup> Initial Decision at P 318, 326.

<sup>124</sup> *Order Accepting Filing, Requiring Compliance Filing, Accepting and Suspending Proposed Tariff Sheets, and Establishing Hearing Procedures*, 70 Fed. Reg. 34,458 (June 14, 2005).

## F. Rehearing Request

96. On June 7, 2006, in Docket Nos. EL05-121-002 and EL04-135-070, TOP filed a rehearing request of the Commission's decision<sup>125</sup> not to consolidate the hearing on PJM's rate design with the ongoing proceedings considering the appropriate rate design for the combined PJM-Midwest ISO region. TOP argued that as of April 1, 2006, the rates for service between PJM and Midwest ISO have become unjust and unreasonable.<sup>126</sup> TOP asked the Commission to expand the scope of the hearing in Docket No. EL05-121-000, so that the administrative law judge "and the Commission can include in their review of the record the testimony [of multiple parties, including TOP] concerning the . . . cost shifting that will result if costs formerly collected within Midwest ISO are all collected within PJM [in rates to be in force until] February 1, 2008."<sup>127</sup> TOP stated that, unless the Commission grants its request to expand the scope of the hearing in Docket No. EL05-121 (involving the rate design for PJM) to include the subject of Docket No. EL04-135 (the rate design for Midwest ISO), it will be impossible to develop an earlier implementation date for a single rate design for the combined PJM/Midwest ISO region. Therefore, TOP argues, any rate design (including retention of license plate rates) made fully effective in this docket before February 1, 2008 will unjustly impact some or all PJM load, because either (1) PJM as a whole subsidizes Midwest ISO load for revenue requirements associated with AEP facilities that perform inter-RTO functions, or (2) AEP load alone subsidizes Midwest ISO load for revenue requirements associated with AEP facilities that perform inter-RTO functions.

97. Contrary to TOP's request, we need not consider rate design for the combined PJM-Midwest ISO region in this proceeding. The two matters are at separate stages of

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<sup>125</sup> *Allegheny Power System Operating Cos.*, 115 FERC ¶ 61,156 (2006) (Hearing Order).

<sup>126</sup> TOP argues that, since April 1, 2006, there is no RTOR and no SECA. Therefore, there is no credit against AEP's native load zonal rate for the 40% of AEP revenue requirements previously collected under the Combined Region RTOR and SECA. TOP adds that this matter will not be rectified until February 1, 2008, the date that the Commission has specified that a PJM/Midwest ISO Combined Region rate design is to take effect.

<sup>127</sup> TOP Request for Rehearing at 5.

development, involve different parties, and present distinct issues. Combining the matters would be unwieldy and cause substantial delay in resolving important issues.<sup>128</sup>

The Commission orders:

(A) The Initial Decision is hereby reversed in part and affirmed in part as discussed in the body of this Opinion.

(B) Exceptions to the Initial Decision are hereby granted or denied, consistent with this Opinion.

(C) PJM is hereby ordered to submit, within 30 days of the date of this Opinion, revisions to PJM's rate schedules that implement this Opinion.

(D) TOP's request for rehearing in Docket No. EL05-121-002 and motion to consolidate Docket Nos. EL05-121-000 and EL05-135-070 are hereby denied.

By the Commission.

( S E A L )

Philis J. Posey,  
Deputy Secretary.

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<sup>128</sup> It is well established that the Commission has broad discretion in deciding how best to organize and manage its proceedings. *See Blumenthal v. ISO New England, Inc.*, 118 FERC ¶ 61,205 at P 17, n.31 (2007) (citing *Domtar Me. Corp. v. FERC*, 347 F.3d 304, 314 (D.C. Cir. 2003); *Michigan Public Power Agency v. FERC*, 963 F.2d 1574, 1579 (D.C. Cir. 1992)).