

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
and Jon Wellinohoff.

Midwest Independent Transmission System Operator, Inc.	Docket No. ER05-6-044 Docket No. ER05-6-054 Docket No. ER05-6-055
Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.	Docket No. EL04-135-046 Docket No. EL04-135-056 Docket No. EL04-135-057
Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.	Docket No. EL02-111-064 Docket No. EL02-111-074 Docket No. EL02-111-075
Ameren Services Company	Docket No. EL03-212-060 Docket No. EL03-212-070 Docket No. EL03-212-071

ORDER ESTABLISHING TECHNICAL CONFERENCE

(Issued September 21, 2006)

1. On March 21, 2006 and again on April 20, 2006, Midwest Independent Transmission System Operator, Inc. (Midwest ISO) and PJM Interconnection, L.L.C. (PJM) submitted compliance filings proposing to allocate between them the cost responsibility for constructing facilities that benefit both regional transmission organizations (RTOs). In order to obtain additional information necessary to process these filings, we are directing Commission Staff to convene a technical conference to address the issues raised by the competing proposals filed in these proceedings. The purpose of the conference is to develop the technical information needed for the Commission to determine a just and reasonable methodology for allocating to the customers of Midwest ISO and PJM the cost of new facilities that are built in the footprint of one RTO but provide benefits to customers in the footprint of the other.

## **Background**

2. On November 18, 2004, the Commission addressed compliance filings by Midwest ISO and PJM that would eliminate regional through-and-out rates between the regions of these two adjacent RTOs.<sup>1</sup> The Commission recognized that the elimination of through-and-out rates could result in impeding the construction of new facilities that benefit remote load because local regulators with authority over the siting of such facilities may be reluctant to approve the facilities' construction if local load will bear the cost but not receive commensurate benefits. To address this potential problem, the Commission required Midwest ISO and PJM and their respective transmission owners to develop a proposal for allocating to the customers in each RTO the cost of new transmission facilities that are built in one RTO but provide benefits to customers in the other RTO, the so-called cross-border facilities.<sup>2</sup>

3. In compliance, the RTOs and their transmission owners filed, on May 17, 2005, proposed revisions to the JOA, to the Midwest ISO Open Access Transmission and Energy Markets Tariff (Midwest ISO Tariff), to the PJM Open Access Transmission Tariff (PJM Tariff), and to the Amended and Restated Operating Agreement of PJM (PJM Agreement) to address these cross-border facilities (May 2005 Filing).<sup>3</sup>

4. On November 21, 2005, the Commission conditionally accepted the May 2005 Filing but required further compliance.<sup>4</sup> The Commission found the proposed revisions imprecise. While schedules in the PJM Tariff and the Midwest ISO Tariff relied on the same flow-based model that allocates the cost between the RTOs, the Commission found that Midwest ISO and PJM had insufficiently described the joint RTO planning model

---

<sup>1</sup> *Midwest Independent Transmission System Operator, Inc.*, 109 FERC ¶ 61,168, *order granting clarification*, 109 FERC ¶ 61,243 (2004), *reh'g pending* (2004 Order).

<sup>2</sup> 2004 Order, 109 FERC ¶ 61,243 at P 60. The Commission noted that, in their Joint Operating Agreement (JOA), Midwest ISO and PJM had committed to develop just such a methodology for allocating the cost of certain facilities through their joint regional planning committee.

<sup>3</sup> The filing entities of May 17, 2005 were: Midwest ISO; the Midwest ISO Transmission Owners that had intervened in the proceeding (Midwest Transmission Owners); the Midwest StandAlone Transmission Companies that had intervened in the proceeding (Midwest Transmission Companies); PJM; and the PJM and West Transmission Owners Agreement Administrative Committees (PJM Transmission Owners Committees).

<sup>4</sup> *Midwest Independent Transmission System Operator, Inc.*, 113 FERC ¶ 61,194 (2005) (2005 Order).

referenced in the schedules. The Commission stated that as this model would be used to determine beneficiaries of any cross-border project, it was of critical importance to understand how this model will be used, including what type of inputs and assumptions it requires, how often it will be updated, and who will have access to the model. Thus, the Commission directed Midwest ISO and PJM to explain, in a compliance filing, the joint RTO planning model and to make the details of its use transparent to the stakeholders and the Commission. The Commission also directed Midwest ISO and PJM to clarify when they will identify and address projects that may qualify as cross-border facilities in the middle of their three-year planning cycles, so as not to slow down development of a required project,<sup>5</sup> and to address a discontinuity between the JOA, which addresses both thermal and non-thermal constraints, and the Midwest ISO Tariff, which appears not to address non-thermal constraints.<sup>6</sup>

5. Midwest ISO and PJM complied in two stages. On March 21, 2006, the two RTOs submitted a joint filing (March 21 Proposal) that addressed all the issues raised in the 2005 Order except how the two RTOs would conduct further analysis to identify the cross-border facilities cost responsibility of individual loads based on their relative contribution to loading.<sup>7</sup>

6. On April 20, 2006, Midwest ISO and PJM submitted their efforts on the remaining issues, but could not agree on a single filing of proposed revisions to the JOA. Midwest ISO, Midwest ISO Transmission Owners and Midwest Transmission Companies (together, Midwest ISO Filers) jointly submitted their proposed JOA revisions (Midwest ISO Proposal),<sup>8</sup> while PJM and the PJM Transmission Owners Committees (together, PJM Filers) jointly submitted their proposed JOA revisions (PJM Proposal).<sup>9</sup>

---

<sup>5</sup> *Id.* P 39.

<sup>6</sup> *Id.* P 16, P 19.

<sup>7</sup> The joint filers of March 21, 2006, in Docket Nos. ER05-6-044, EL04-135-046, EL02-111-064, and EL03-212-060, are: Midwest ISO; Midwest Transmission Owners; Midwest Transmission Companies; PJM; and PJM Transmission Owners Committees.

<sup>8</sup> Docket Nos. ER05-6-055, EL04-135-057, EL02-111-075, and EL03-212-071.

<sup>9</sup> Docket Nos. ER05-6-054, EL04-135-056, EL02-111-074, and EL03-212-070.

## **The Proposals**

### **The March 21 Proposal**

7. To clarify how the RTOs will identify projects as cross-border facilities in the middle of their three-year planning cycle, Midwest ISO and PJM propose to revise section 9.4.3.4 of the JOA, “Determination of Cross-Border Allocation Share Outside of Coordinated System Plan.” This section provides for either RTO to request that a project be tested against the cross-border cost allocation criteria, based on the best available joint model, as determined by the Joint RTO Planning Committee. Midwest ISO and PJM’s proposed revision will require the RTOs to conduct reviews between the formal cycles on at least an annual basis, and re-names the joint model as the Joint Planning Model, which it describes immediately thereafter.
8. Midwest ISO and PJM propose revising section 9.3.5.2 of the JOA, which describes the steps for coordinating the studies required to develop the RTOs’ Coordinated System Plan. The RTOs’ proposed revision will require the Joint RTO Planning Committee, at least annually, to evaluate and test against the cross-border cost allocation criteria those projects that either RTO has identified, at any time during the three-year planning cycle, as needed to resolve transmission problems. Transmission plans to resolve these transmission problems will be identified and included in the respective plans of each RTO. Critical upgrades for which the need to begin development is urgent will be presented for approval to the respective RTO Board as soon as possible after identification through the coordinated planning process. Other projects will be presented to the RTO Boards in the normal regional planning cycle as long as this cycle does not delay implementation of a necessary upgrade. Each RTO may identify required transmission upgrades to its Board for approval at any time.
9. Midwest ISO and PJM address the noted discontinuity concerning non-thermal constraints by proposing revision of Schedule 25 of the Midwest ISO Tariff, “Cross-Border Allocation Tariff Provisions,” to add the appropriate reference regarding non-thermal constraints.
10. Midwest ISO and PJM propose allocating the cost of cross-border facilities in section 9.4.3.2 of the JOA, which assigns cost based on the relative contribution of a particular Load to loading on the constrained facility requiring the need for the cross-border project. The RTOs propose to determine the loading contribution by use of a Joint Planning Model that forms the base case from which reliability needs on the combined systems will be determined. The Joint Planning Model, adjusted for conditions driving

the upgrades needs, will be used to calculate the transfer distribution factors (DFAX)<sup>10</sup> for cost allocation purposes. In the newly-added second paragraph of section 9.4.3.4 of the JOA, the RTOs provide details on their Joint Planning Model.

11. In the March 21 Proposal, Midwest ISO and PJM stated that due to divergent views among their membership, they needed more time to agree upon how to conduct further analysis to identify the cost responsibility of individual loads based on relative contribution to loading, and requested an extension of time, until April 20, 2006, to complete their filing. The request was granted by notice of March 22, 2006.

### **The Competing Midwest ISO and PJM Proposals**

12. Because the Midwest ISO Filers and the PJM Filers were unable to reach consensus on how to apply the DFAX calculations to determine the impact of flows in one RTO on a constraint in the other RTO, each group filed its own proposal.

13. Midwest ISO Filers propose an RTO-wide contribution approach to measure the net effect of flows within one RTO on constraints in the other RTO. Midwest ISO Filers propose to calculate the flow within each RTO that aggravates a constraint (*i.e.*, flow in the direction of a constraint or a positive flow) and flow that eases a constraint (*i.e.*, counter-flow), and use the net as the basis for cross-border cost allocation. In addition, Midwest ISO Filers propose to look at the impact on a constraint of each RTO as a whole, rather than considering zones or individual buses.

14. Midwest ISO Filers contend that their proposed methodology is preferable because: (1) it is representative of and consistent with the transmission planning process; (2) it appears to be not unduly discriminatory to either party; (3) it is consistent with other methods used to determine loading shares on flowgates; and (4) it is consistent with the language that the parties originally agreed to include in the JOA.

15. PJM Filers propose a zonal contribution approach that measures only positive flow on a constraint. PJM Filers propose to calculate, on a zonal basis, the flow within each RTO that aggravates a constraint, but would ignore counter-flow. PJM Filers would sum the impacts in all the zones within each RTO that aggravate a constraint and use the total as the basis for cross-border cost allocation.

16. PJM Filers contend that the finer level of granularity in their proposal will reduce the potential for ignoring contributions to reliability criteria violations and, therefore,

---

<sup>10</sup> For a given power transfer between two areas, the DFAX for a transmission line is the percentage of the power transfer that flows over that line. For example, if a 100 megawatt transfer from area A to area B results in a 5 megawatt increase in the flow on a particular transmission line, the DFAX for the line is 5 percent.

produce the most accurate cost allocation contribution determination. PJM Filers explain that a finer level of granularity may be appropriate, so as to consider impacts on a bus-by-bus basis rather than by zone.

### **Notices and Responsive Filings**

17. Notice of the March 21 Proposal was published in the *Federal Register*, 71 Fed. Reg. 18,311 (2006), with protests or interventions due on or before April 11, 2006. None were filed.

18. Notices of the Midwest ISO and the PJM Proposals were published in the *Federal Register*, 71 Fed. Reg. 26,949 (2006), with protests or interventions due on or before May 11, 2006. Filing motions to intervene in the PJM Proposal proceeding were: Old Dominion Electric Cooperative (Old Dominion);<sup>11</sup> the Illinois Municipal Electric Agency; and, jointly, the Coalition of Midwest Transmission Customers (Midwest Coalition) and the PJM Industrial Customer Coalition (PJM Coalition).<sup>12</sup> Old Dominion and Wisconsin Electric Power Company filed protests; and WPS Resources Corporation and its operating companies, Wisconsin Public Service Corporation and Upper Peninsula Power Company (WPS Resources) filed comments. Filing motions to intervene in the Midwest ISO Proposal proceeding were Old Dominion, which also filed a protest, and WPS Resources, which also filed comments. On May 26, 2006, Midwest ISO filed an answer to Old Dominion's protest concerning the Midwest ISO Proposal (Midwest ISO's Answer).

### **Discussion**

#### **Procedural Matters**

19. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(c) (2006), the timely, unopposed motions to intervene serve to make the entities that filed them parties to these proceeding. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. ¶ 385.213(a)(2) (2006), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We are not persuaded to accept Midwest ISO's Answer and will, therefore, reject it.

---

<sup>11</sup> Old Dominion, although a PJM Transmission Owner, did not join as a filer of the PJM Proposal.

<sup>12</sup> Midwest Coalition is an *ad hoc* group of large industrial companies in the Midwest that take service from at least one of the transmission owners encompassed by Midwest ISO. Similarly, PJM Coalition is an *ad hoc* group of large commercial, institutional and industrial companies that operate facilities within the PJM footprint.

### **Need for Technical Conference**

20. After studying the competing Midwest ISO and PJM Proposals, we find that they both lack a sufficient level of detail and also that they are unclear. Additionally, each Proposal has certain aspects that we think merit consideration for inclusion in an eventually adopted methodology. We are inclined to agree with Midwest ISO Filers' approach that considers counter-flows because counter-flows can reduce congestion and thus the need for transmission upgrades. We also are inclined to prefer PJM Filers' more granular zonal approach because such an approach is likely to provide a more accurate estimate of the effects of alternative transactions on the flows on a constrained facility. We are interested in the feasibility of increasing the level of granularity further by using a nodal approach.

21. In addition, we are concerned that both Proposals are only snapshots of today's market demand. Long-term expansion plans are based on forecasted demand and generation, but both Proposals' approaches omit this factor. Because flows that cause congestion may change, we are interested in obtaining information on whether the proper approach to assigning the cost for cross-border facilities should be to measure the impact on constraints by netting the positive flow and the counter-flow of each RTO, as Midwest ISO Filers recommend, and then weighting that net impact, based on forecasted increases, by individual load bus, a further refinement of PJM Filers' zonal approach.

22. Thus, we agree with Old Dominion, which asks us to establish a technical conference to develop a more complete record on how to structure a just and reasonable cross-border cost allocation methodology. We conclude that, in order to address our concerns with the submitted Proposals and to obtain more information on the specific details of each Proposal, it would benefit us, the parties, and affected entities for Commission Staff to convene a technical conference to obtain more information about the Proposals and possible alternatives. We therefore will direct Commission Staff to convene a technical conference to obtain information needed to establish just and reasonable terms and conditions that allocate the cost of cross-border facilities between Midwest ISO and PJM. We will further direct Commission Staff to report to the Commission on the information developed at this technical conference within 150 days of the date of issuance of this order.

23. At the conference, each RTO should be prepared to address the concerns raised by the commentors and intervenors in these proceedings and, if necessary, to provide technical, engineering, and operational support for its recommendations. Among the issues to be considered at the technical conference are:

(A) What are the advantages and disadvantages of the Midwest ISO Proposal and the PJM Proposal? How is each Proposal similar to or different from other processes already in place in each RTO (*e.g.*, internal RTO cost allocation and the congestion

management process under the JOA)? Participants at the technical conference should be prepared to discuss specific details and provide explanations regarding the Proposals. Please also provide examples to illustrate the Proposals.

(B) What are the advantages and disadvantages of using a nodal methodology, rather than a zonal methodology, to evaluate the effects of loads on the need for transmission upgrades? Is a nodal approach feasible? Is it feasible to evaluate the need for transmission upgrades using a nodal approach that accounts for the netting of flows, *i.e.*, the effects of positive flows and counter-flows?

(C) What are the advantages and disadvantages of evaluating the need for transmission upgrades, and assigning the cost of transmission upgrades based on the incremental effects of forecasted changes in load and generation rather than based on the existing flows created by existing load and generation?

(D) How, specifically, do Midwest ISO Filers propose to calculate the DFAX for purposes of allocating Project Cost? How would counter-flows and positive flows be taken into consideration in determining the DFAX? Please provide an example to illustrate the calculation.

(E) What are the advantages and disadvantages of adopting an approach for cost allocation of cross-border facilities related to the congestion management process in the JOA? For example, could a process be created to match (i) the proportional allocation of the cost of the new cross-border facilities with (ii) the division of shares of additional capability (or Firm Flow Limits and Firm Generation-to-Load Limits) that is created by the new construction and used for congestion management on Reciprocal Coordinated Flowgates, as specified in the JOA? Should new cross-border facilities be sized to accommodate the shares of additional capability for congestion management desired by the RTO whose customers will benefit from the new facilities to be located in the other RTO only to the extent that the former is willing to pay for the associated share of the new facilities' cost? Are there other processes already in place in either RTO that could be adapted to apply also to cost allocation of cross-border facilities? Participants at the technical conference should be prepared to discuss these possible alternative mechanisms for cross-border facilities cost allocation.



The Commission orders:

The Commission Staff is hereby directed to convene a technical conference, as discussed in the body of this order, and to report the results of the conference to the Commission within 150 days of the date of issuance of this order.

By the Commission. Commissioner Moeller not participating.

( S E A L )

Magalie R. Salas,  
Secretary.