

**From:** Kent Feliks  
**Sent:** Friday, June 26, 2015 3:23 PM  
**To:** Jeanna Furnish; david.anders@pjm.com  
**Subject:** May 27th JCM Feedback (AEPSC)

Hello Jeanna and David:

In response to the May 27<sup>th</sup> JCM request for feedback, AEP provides the following comments.

In general, we have provided comments on these, or similar, topics in multiple venues over the last several years, so we encourage you to review these comments. However, for your convenience I have attached a copy of our August 10<sup>th</sup>, 2012 filing in docket AD12-16, which provides many of our positions and comment regarding capacity deliverability.

Specific to the questions below:

- 1.) AEP believes the current process **is appropriate**, and needed to ensure reliability. Firm P-t-P service on the external system is needed to ensure that there is sufficient transfer capability of energy to the external system in real time. Any study of the generation fleet in aggregate (e.g. cross border network service) would have to assume the ability of MISO to commit (not just dispatch) additional PJM capacity to ensure delivery of energy, and those provisions do not currently exist. To that extent, the External Network Resource Interconnection Service proposal (slide 6 of the May 27<sup>th</sup> JCM presentation) may be feasible assuming that the external resource still needs to acquire Firm P-t-P transmission service to the MISO border. However, any support would be predicated on a full and detailed proposal.
- 2.) A product similar to PJM's Network External Designated Service product could potentially be utilized for external generators seeking to offer into MISO capacity auctions. This would better reflect serving load in aggregate, versus identifying, and modeling, a specific sink on the P-t-P transmission service. Again, any support would be predicated on a full and detailed proposal.
- 3.) AEP does not feel that there are any **"artificial barriers"** to transferring capacity between RTO's, in either direction, as witnessed with the large amount of capacity, that has transferred, and is currently being transferred between RTO's. However, we also want to stress that there are **"legitimate and necessary barriers"** to capacity transfers that do, and should, exist to ensure reliability of the interconnected system. See attached for further justifications.

Let me know if you have any questions.

Kent Feliks  
American Electric Power  
RTO and Regulatory Policy



**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Capacity Deliverability Across the Midwest                    )  
Independent Transmission System Operator,                    )       Docket No. AD12-16-000  
Inc./PJM Interconnection, L.L.C. Seam                         )

**COMMENTS OF  
AMERICAN ELECTRIC POWER SERVICE CORPORATION**

Pursuant to Federal Energy Regulatory Commission’s (“Commission” or “FERC”) June 11, 2012 Notice of Request for Comments in the above-captioned docket (“Notice”), American Electric Power Service Corporation, on behalf of the operating companies of the American Electric Power System<sup>1</sup> (collectively “AEP”), provides the following comments regarding capacity deliverability across the Midwest Independent Transmission System Operator, Inc. (“MISO”)/PJM Interconnection, L.L.C (“PJM”) seam.

**I. INTRODUCTION AND BACKGROUND**

AEP is a public utility holding company providing wholesale and retail electric service to customers. AEP procures and supplies capacity to its customers in both the MISO and PJM regional transmission organizations (“RTO”). Because of this experience, AEP believes that it can contribute meaningfully to the Commission’s questions regarding whether existing rules on transfer capability act as barriers to the delivery of generation capacity between the markets administered by MISO and PJM, and to the extent that such barriers exist, whether those rules should be modified to mitigate such barriers. Accordingly, AEP responds to each of the specific questions set forth in the Notice, which address the following: (1) whether there are provisions

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<sup>1</sup> AEP Texas North Company, AEP Texas Central Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Public Service Company of Oklahoma, Southwestern Electric Power Company and Wheeling Power Company.

in the current market rules and operating protocols concerning transfer capability that restrict generation capacity deliverability between the markets maintained by MISO and PJM; (2) what revisions are necessary to eliminate or mitigate any such provisions; (3) if barriers to interregional capacity deliverability exist, absent such barriers, what volume of capacity imported from MISO could potentially clear in PJM's capacity auction and vice versa; and (4) if there are barriers that should be mitigated, what mechanism should be used to address these concerns.

## **II. CORRESPONDENCE AND COMMUNICATIONS**

Communications on this matter should be sent to the following individuals:

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## **III. COMMENTS**

AEP supports the development of effective and efficient market designs. However, as further supported by the responses provided below, market development should be produced

through the open stakeholder forums that already exist within both RTOs. These forums historically have allowed stakeholders to approve designs that allow for regional differences evident in each individual region, while at the same time allowing for the most appropriate market designs in response to the regulatory environments that overlay each market.

A. *Are there provisions in the current market rules and operating protocols concerning transfer capability that restrict generation capacity deliverability between the markets maintained by MISO and PJM? If so, what are those barriers?*

Response:

No. As evidenced by the most recent PJM Base Residual Auction (“BRA”) for the 2015/16 Planning Year, over 4,300MW<sup>2</sup> of capacity external to PJM’s footprint was committed to serving capacity requirements within PJM. This was an 8% increase over the previous auction, and most of it came from entities to the west of PJM. As PJM explained, “This increased level of imports was clearly driven by the price differentials between the two RTOs and demonstrate the lack of some institutional barrier to MISO generation participation in the PJM capacity auction.”<sup>3</sup>

While this robust movement of capacity verifies that there are not artificial barriers to the deliverability of capacity from one RTO to the next, it is not to say there is a limitless ability to transfer capacity. There are physical restrictions to the movement of capacity from one RTO to the other. These limitations are dictated by the actual physical limits of the transmission grid and are strictly observed, to ensure reliability. Capacity is procured to ensure the reliability of the grid during its peak, and typically most stressed, operating conditions. As such, it is rational to

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<sup>2</sup> PJM Response to MISO Capacity Deliverability Whitepaper, July 10, 2012, at 3, available at: <http://www.pjm.com/~media/committees-groups/stakeholder-meetings/pjm-miso-joint-common/20120716/20120716-pjm-response-to-miso-capacity-deliverability-whitepaper.ashx>

<sup>3</sup> *Id.*

maintain the commitment of capacity from neighboring RTOs at a level that will ensure the corresponding reliable transfer of energy from those resources across the seam during those times when the transmission system is the most strained.

AEP disagrees with the characterization by Potomac Economics, the independent market monitoring unit for MISO, of PJM's use of the Capacity Benefit Margin ("CBM") as "adversely affect[ing] both the capacity market and reliability."<sup>4</sup> While the Notice solicits comments identifying any perceived barriers to capacity delivery across the PJM/MISO seam, it is important to point out that PJM's use of the CBM is designed to determine PJM's target reserve margin, with the goal of limiting the frequency of major loss of load events to less than once in every ten years. One cannot assume a reduction of the CBM will result in a one-to-one increase to the amount of transmission capacity that could be freed up on the PJM/MISO seam to support the movement of capacity from one RTO to the other. A reduction in the CBM of several hundred megawatts may in fact make no difference to the import capability from MISO because the CBM is based on an expected level of overall imports from multiple regions during emergency conditions. Further, Potomac Economics did not characterize this application of CBM as a "barrier to entry."

CBMs are a standard practice applied by most Balancing Authorities to allow for the probability that, on any given peak or emergency condition, assistance will come from other surrounding regions. The very act of scheduling firm deliveries across all of these contingency paths would eliminate the potential for assistance that may be needed from other regions when an emergency happens. If all of these paths were used up by granting additional firm

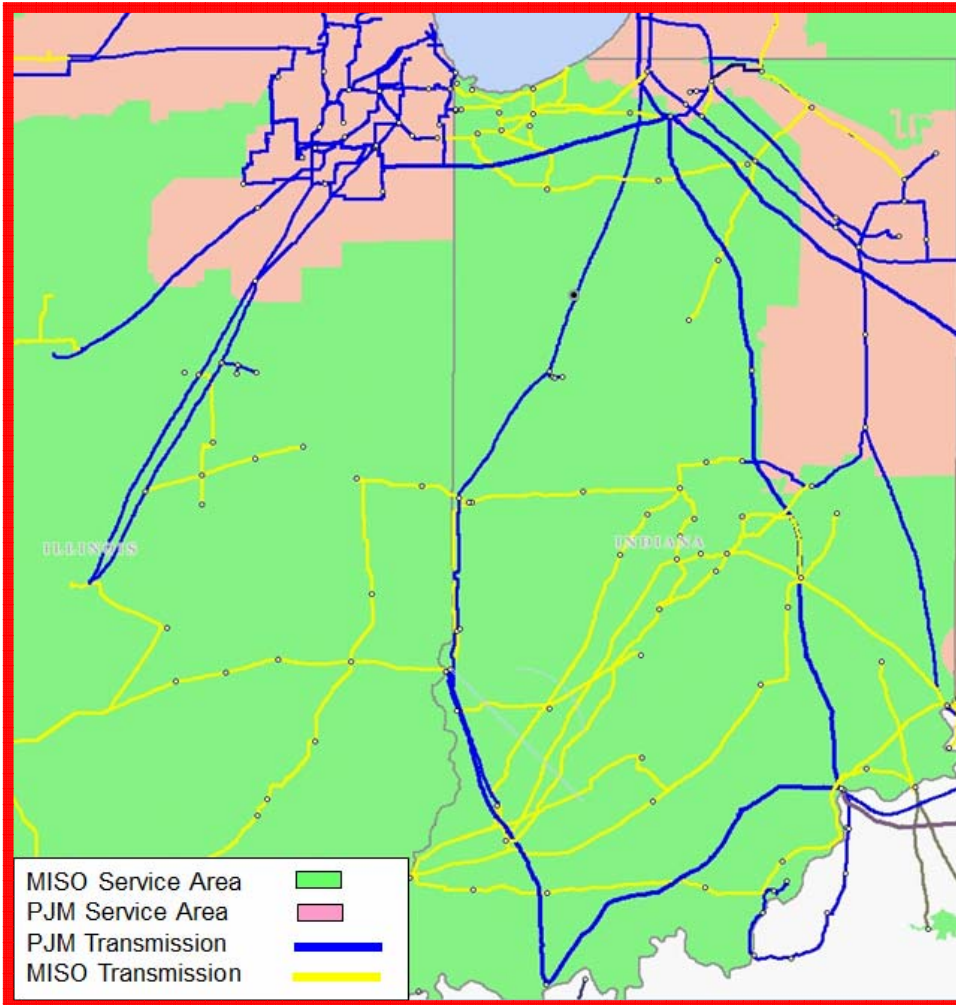
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4 See *Midwest Indep. Transmission Sys. Operator, Inc.*, Docket No. ER11-4081, "Motion for Request for Leave to Answer and Answer of the MISO Independent Market Monitor," at 6 (Jan. 26, 2012) ("MISO Market Monitor Answer").

transmission reservations, this would require PJM (or any other Balancing Authority in a similar situation) to actually raise its reserve margin target to recognize that no assistance will be coming from any other region during any future emergencies. Ultimately, in PJM's case, this would likely mean more capacity would be cleared in the Reliability Pricing Model ("RPM") capacity auction and result in higher capacity prices for Load Serving Entities.

It is also important to consider the common use of CBM by other Balancing Authorities external to PJM. The reduction/elimination of PJM's CBM could place the systems of both an external Balancing Authority and PJM in peril, as that external Balancing Authority, which utilizes CBM, could be relying on imports flowing across the PJM footprint. For example, if a generation resource is lost on the Tennessee Valley Authority ("TVA") system, TVA will rely on the CBM of not only its own transmission system, but also the CBM of all of the transmission systems in the Eastern Interconnection, to supply TVA's load until TVA is able to supply additional resources to balance its supply and demand. If PJM's CBM were eliminated, the above contingency could result in PJM's transmission facilities being overloaded. Under such a scenario, PJM would have little ability to mitigate the impact to its system.

Further, AEP stresses that the PJM/MISO interface is a complex seam. It is not a uniform clear dividing line between two regions. The seam is made up of multiple transmission lines that cross paths and overlap the regions in a manner that makes it even more challenging to coordinate planning and operations. The picture below shows this complex seam graphically.



Finally, if there were significant artificial barriers to entry, AEP believes that such barriers would have already been identified to FERC in another proceeding, such as through a complaint under Section 206 of the Federal Power Act.

B. *If such provisions exist and act as a barrier, what revisions are necessary to eliminate or mitigate them without adversely affecting reliability or the operation of RTO energy and capacity markets?*

Response:

AEP does not believe that capacity deliverability addresses any of the true barriers between MISO and PJM. The concerns that MISO has expressed appear to focus on the capacity market. However, any perceived barriers associated with the two capacity markets are most

likely the result of the lack of a robust, market-oriented capacity market in MISO. And although PJM's RPM capacity market may have shortcomings, it has generated a more forward-looking pricing signal for future construction activities than the MISO voluntary capacity auction, which only marginally supplements the heavily regulated type of capacity planning mechanism existing in the MISO footprint.

AEP has several suggestions on revisions that are necessary to mitigate barriers between the two RTOs but do not directly involve capacity deliverability. These include:

- coordination of generation construction queues;
- communication and coordination of deliverability assumptions used in planning analyses;
- communication and joint planning of inter-regional transmission facilities;
- communication and enhancements around dispatch operations on units impacting flowgates at the seams; and
- development of cost allocation methods for new systems that encourage cooperation among the parties.



- C. *In Docket No. ER11-4081-000, the Total Transfer Capability from MISO to PJM was estimated to range from 5,300 MW to 6,300 MW and the cumulative import capability from MISO to PJM was estimated to be 6,000 MW. Also in that proceeding, it was noted that the Available Transfer Capability posted by PJM was zero for the 2013-2014 Planning Year, while firm transmission capacity on the MISO-PJM interface held by market participants was listed as 1,173 MW. If barriers to interregional capacity deliverability exist, absent such barriers, what volume of capacity imported from MISO could potentially clear in PJM's capacity auction? What volume of capacity imported from PJM could potentially clear in MISO's capacity auction? What is the differential between the amount of capacity historically offered and cleared, for the MISO and PJM capacity markets respectively?*

Response:

While AEP does not believe that barriers exist in the capacity market, the value of capacity and energy that could feasibly be transferred from one RTO to the next should be a common value utilized by both RTOs. The lack of full coordination of network modeling and transmission planning assumptions results in dissimilar results. In regard to the transfer energy or capacity, the same physical assets are being studied, so it would seem appropriate that both RTOs use common values for transmission availability.

Each RTO relies mostly on internal resources to meet the forecasted peak. As such, the reliability planning is not geared to expand transmission facilities to meet market efficiency objectives. The market efficiency assessments for each RTO region are conducted independently, and inconsistencies between the methodologies could create market barriers at the seam as the assumptions for the seam areas used by each RTO vary. AEP believes that if the reliability and economic assessments are conducted utilizing coordinated assumptions then future transmission expansion at the seam will mirror the transmission development in the core regions of each RTO, which may serve to increase the capability of capacity to move from one market to the next.

Additionally, AEP does not believe a correlation can be drawn between the cleared

versus offered capacity volumes as proof of a perceived barrier to participation in either RTO's respective capacity constructs. The difference in cleared volumes is instead a better indication of the volume of surplus capacity within the RTO.

This impact on price of additional resources is why AEP is in support of effective Minimum Offer Price Rules ("MOPR"). The need for effective MOPR is exacerbated in regulated states where the decision to build new resources is based on factors beyond the price per megawatt of capacity. These factors include considerations for economic development, preference for certain fuel types or technologies, or the risk tolerance of an individual state commission. As such, the MISO independent market monitor's comment, "Additional imports of capacity into the [PJM] market would lower the inflated clearing prices that [PJM] generators currently enjoy,"<sup>5</sup> which suggests that PJM's prices are artificially high may be misinterpreting the fact that MISO's voluntary capacity auction prices are held artificially low by the regulatory environment in the majority of MISO states. The impact of the regulatory environment in MISO does not result in an auction clearing price indicative of the future need of capacity on the MISO system, which is in stark contrast to the intent and purpose of PJM's RPM. MISO could make several revisions to its resource adequacy construct to provide incentives for the development of resources which would subsequently lead to pricing signals in both markets that could more reasonably be compared to each other. Some of these changes include:

- significantly increase the planning horizon to at least three years out, or any other term deemed sufficient to plan, site, and construct new resources;
- implement effective MOPR to eliminate the possibility of a subsidized resource being built in one footprint with the intent of gaming the market in the

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<sup>5</sup> MISO Market Monitor Answer at 15.

neighboring RTO;

- to help reduce volatility, and aid in effective long term planning, require resources to commit to either RTO for a minimum period, perhaps five years, prior to accessing other markets; and
- align the penalties for non-compliance in both markets.

These revisions will further align the two markets and result in products that are more comparable in commitment and compliance requirements, which should allow for the movement of capacity between the two markets without giving undue preference to resources in one RTO over the other.

Further, it is not meaningful to speculate on how many megawatts of capacity from PJM could clear in the MISO market. As pointed out above, the MISO market structure is significantly different from the PJM capacity market structure. And with the current prices in PJM higher than the MISO capacity prices, there is no incentive for PJM suppliers to sell into MISO. However, this may not be the case in the long run as markets and supply factors change.

- D. *If there are barriers that should be mitigated, what mechanism should be used to address these concerns? For example, is it appropriate to address the issue in the Joint Operating Agreement between MISO and PJM? If so, how?*

Response:

AEP is adamant that changes to the market should be fully vetted and approved in the stakeholder process. It may be useful for a joint RTO committee, such as the Joint and Common Market (“JCM”) initiative currently underway, to help reach consensus across the RTO borders. However, any proposal resulting from JCM discussions should be subsequently vetted and approved by the appropriate stakeholder committees at the individual RTOs.

Despite the fact that the concept of capacity deliverability was introduced by MISO well over a year ago, stakeholder consensus and approval from its own market participants is still missing. MISO has not sought to gain approval from the MISO stakeholder body via a vote at any of its stakeholder committees. MISO’s inaction in this regard goes against logic, which suggests that MISO should have sought this approval prior to expending significant resources on developing capacity deliverability.

**IV. CONCLUSION**

AEP does not believe that there are artificial barriers to the transfer of capacity from MISO to PJM or vice versa. Capacity can, and is, transferred between the RTOs on a regular basis, and any perceived barrier in capacity deliverability is more likely a result of the significantly different constructs and regulatory environments that exist in each RTO, and not because of artificial barriers to entry put up by PJM. In fact, during the JCM meetings that have already taken place, all of the stakeholders at both PJM and MISO seem to agree that there are multiple other seams issues that should take precedence before determining if capacity deliverability must be addressed. When dealing with disparate regulatory and market frameworks, it is critical that any perceived issues be appropriately assigned to their root causes.

Erroneous cause-and-effect assessments lead to the development of incorrect “fixes” that simply make matters worse. Accordingly, AEP urges the Commission to allow the existing processes within each RTO to evolve and develop recommendations most suited to addressing the major seams concerns.

Respectfully submitted,

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