

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

Potomac Economics, Ltd.,)	
Complainant)	
)	
v.)	Docket No. EL17-62-000
)	
PJM Interconnection, LLC,)	
Respondent)	

**NOTICE OF INTERVENTION AND COMMENTS OF THE
ORGANIZATION OF MISO STATES**

On April 6, 2017, Potomac Economics, Ltd., the Independent Market Monitor (“IMM” or “Complainant”) for the Midcontinent Independent System Operator (“MISO”) region, filed a Section 206 (18 C.F.R § 385.206) Complaint against PJM Interconnection, L.L.C. (“PJM”), stating that PJM’s pseudo-tie requirement was unjust, unreasonable, and unduly discriminatory. The Organization of MISO States (“OMS”) appreciates the Commission’s consideration of the viewpoints expressed herein.

I. Notice of Intervention

Pursuant to Rule 211 and 214(a)(2) of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”), 18 C.F.R. §385.211 and §385.214(a)(2), the OMS submits its Notice of Intervention. The OMS is a non-profit, self-governing organization comprised of representatives from the seventeen regulatory bodies with jurisdiction over entities participating in the MISO and serves as the regional state committee. The purpose of the OMS is to coordinate regulatory oversight among its members; make recommendations to the MISO, the MISO Board of Directors, the Commission, and other relevant government entities and state

commissions as appropriate; and intervene in proceedings before the Commission to express the positions of the OMS member agencies.

Service of pleadings, documents, and communications should be made on the following:

Tanya Paslawski
Executive Director
Organization of MISO States
100 Court Avenue, Suite 315
Des Moines, IA 50309
tanya@misostates.org

II. Request for Technical Conference

The OMS collectively¹ requests that a technical conference be held in this proceeding that would examine the impact of the PJM pseudo-tie requirement on MISO and whether and what remedies may be appropriate. The Indiana Utility Regulatory Commission, Iowa Utilities Board, Kentucky Public Service Commission, Michigan Public Service Commission, Minnesota Public Utilities Commission, Missouri Public Service Commission, North Dakota Public Service Commission, South Dakota Public Utilities Commission, Public Utility Commission of Texas, and Public Service Commission of Wisconsin ("Supporting Regulators") also endorse and support the additional comments that follow in sections III-IV below. The Arkansas Public Service Commission, Council of the City of New Orleans, Louisiana Public Service Commission, and Mississippi Public Service Commission endorse the request for a technical conference, but do not support and endorse the additional discussions that follow in sections III-IV below. The Illinois Commerce Commission abstains.

¹ The Manitoba Public Utilities Board and Montana Public Service Commission did not participate in the vote on this filing.

III. Background

Since the adoption of the Joint and Common Market (“JCM”) in 2005, the OMS has held the position that increases in the transfers of capacity and energy across the MISO/PJM seam may result in additional reliability and economic benefits for electric consumers in the MISO region.² At the same time, the OMS has recognized PJM’s responsibility to ensure that energy associated with capacity committed to its footprint is available to meet its loads when needed. In order for PJM to meet this responsibility, the OMS has recognized that barriers to participation in a neighbor’s capacity market may exist, but the paramount question is the appropriateness or reasonableness of those barriers.³

The current requirements to participate in the PJM capacity construct were established in 2014 with FERC’s acceptance of PJM’s Capacity Import Proposal.⁴ FERC subsequently affirmed its decision by denying a Request for Rehearing of its Order on January 22, 2015 and determined PJM’s pseudo-tie requirement to be reasonable.⁵ Furthermore, in joint OMS/Organization of PJM States, Inc. (“OPSI”) reply comments to FERC on June 15, 2015, OMS and OPSI underscored a continued sense of urgency and support of MISO and PJM’s work on capacity deliverability between the Regional Transmission Organizations (“RTO”).⁶

The number of generators located within MISO that are pseudo-tied to the PJM market has increased with FERC’s acceptance of the aforementioned requirements. The changes implemented by PJM effectively require an external unit requesting to participate as a PJM Capacity Resource in the PJM Base Residual Auction (“BRA”) to give dispatch control to PJM,

² Comments of the Organization of MISO States, at 1, Docket No. AD12-16 (August 18, 2012).

³ Comments of the Organization of MISO States, at 2, Docket No. AD12-16 (June 13, 2013).

⁴ *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 (2014).

⁵ *PJM Interconnection, L.L.C.*, 150 FERC ¶ 61,041 (2015).

⁶ Joint Comments of the Organization of MISO States and the Organization of PJM States, Inc., Docket No. AD14-3 (June 15, 2015).

creating the pseudo-tie requirement. A generator requesting a pseudo-tie needs only to acquire firm long-term transmission service from anywhere within MISO to a PJM border, thus allowing pseudo-tied units to be located deep within the MISO footprint.

MISO and the IMM predicted many complications associated with the increased number, and location, of pseudo-tie resources that resulted from this requirement. These concerns led MISO and its stakeholders to establish the Pseudo-Issue Task Team in September 2015. Many of the predicted issues, including a large increase in the number of Market-to-Market (M2M) Constraints, have come to fruition, leading PJM to propose additional tariff modifications to the pseudo-tie requirements.⁷ In this complaint proceeding, the IMM points out that PJM concedes widespread pseudo-tying has led to a number of problems. The IMM asserts that the current PJM pseudo-tie requirement is unjust and unreasonable and identifies “substantial dispatch inefficiencies and operational concerns.”

There are currently 12 pseudo-tied units from MISO to PJM, representing approximately 2 GW. This has resulted in the need to manage 114 new M2M flowgates.⁸ An additional 100 M2M flowgates will likely be established with the expected group of generators set to pseudo-tie in June 2017. The complaint illustrates the harm that these M2M flowgates cause. Specifically, the IMM cites the inherently less efficient dispatch of M2M flowgates as compared to the fully-optimized dispatch of generators located within an RTO, which is the foundation of Locational Marginal Price (“LMP”)-based energy markets. This implies that leaving the current set of requirements in place will likely perpetuate the current situation and possibly create additional issues.

⁷ *PJM Interconnection, L.L.C.*, External Capacity Enhancements, Docket No. ER17-1138 (March, 2017).

⁸ *Id.* at 14.

IV. Comments

The Supporting Regulators find merit in the Complainant's contention that the current PJM requirements⁹ are not just and reasonable. Specifically, the Supporting Regulators believe the current requirements have led to decreased market efficiency and reliability within MISO. In addition, the Supporting Regulators believe the current pseudo-tie requirements have negative impacts on the MISO resource adequacy construct, interfering with the locational signals produced by the MISO Planning Resource Auction ("PRA"). The Supporting Regulators suggest that the Commission require MISO and PJM to demonstrate that assumptions on deliverability are accurate (based on expectations of deliverability during system peak).

The issues with the current set of requirements have been clearly identified by a broad group, including PJM¹⁰, the MISO IMM, the PJM IMM¹¹, MISO, and MISO stakeholders.¹² While solutions to fix these issues have been offered by PJM and the MISO IMM, the Supporting Regulators have no position on either of these proposed solutions at this time. The Supporting Regulators believe that the Commission should order a technical conference to determine the best path forward.

A. MISO's energy market has become less efficient

The Supporting Regulators support PJM developing a resource adequacy construct that meets its needs, but in doing so, the efficient and reliable operation of neighboring markets should not be jeopardized. It is clear that losing the forward visibility and the ability to fully-

⁹ Complaint of Potomac Economics, at 9-29, Docket No. ER17-63 (Apr. 5, 2017).

¹⁰ *PJM Interconnection, L.L.C.*, External Capacity Enhancements, at 3-4, 6-11, Docket No. ER17-1138 (March, 2017).

¹¹ Comments of the Independent Market Monitor for PJM, Docket No. ER17-11 38 (Mar. 31, 2017)

¹² *Pseudo-Tied Generation that Lacks Local Visibility: Implications for reliability, costs, unit commitment/decommitment processes, congestion management and other operational function in the MISO footprint*, presented at the March 3, 2016 MISO Pseudo-ties Issues Task Team meeting, available at: <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/PITT/2016/20160316/20160316%20PITT%20Item%20XX%20Final%20Pseudo-Tie%20Issues%20Paper.pdf>.

optimize dispatch of internal generators leads to inherently less efficient market operation. The Complainant correctly points out that pseudo-ties decrease “one of the primary benefits of locational marginal pricing (“LMP”) in energy markets.”¹³ The important role of LMPs in reliable system operation must also be stressed. Unnecessary reliability concerns related to pseudo-ties, including sending inaccurate LMP information, should be avoided.

Although M2M procedures are able to direct a portion of the increased costs associated with the congestion caused by pseudo-tied units, they are unable to make up the opportunity cost of losing the truly optimal market solution. The Supporting Regulators support the claim that under M2M “neither RTO can optimize the commitment and dispatch of their units prospectively,”¹⁴ which is a clear loss to the entire bulk electric system. The Supporting Regulators share the concern that the reliance of M2M coordination “make it impossible for the RTOs to achieve truly efficient and optimal real-time market outcomes.”¹⁵

B. Seams Issues have been exacerbated.

Although MISO and PJM have been able to address some of the new seams issues that have developed related to pseudo-ties, the Supporting Regulators are not convinced these workarounds and ad-hoc solutions are the best way to address the problems. Issues occurred in real-time, requiring MISO market operations to develop solutions outside of the MISO stakeholder process. For example, as pointed out by the IMM, “for at least 10 days in 2016, MISO operators had to take multiple extraordinary actions...because it lacked the visibility...of pseudo-tied resources now controlled by PJM.”¹⁶

¹³ Complaint of Potomac Economics, at 15, Docket No. ER17-63 (April 5, 2017).

¹⁴ *Id.* at 19.

¹⁵ *Id.* at 22.

¹⁶ *Id.* at 29.

C. MISO's resource adequacy construct has been negatively affected.

Resource adequacy within the MISO footprint is provided for by states directly exercising their jurisdiction. The MISO resource adequacy construct provides a means for demonstrating adequate resources have been procured for the prompt planning year in each of MISO's Local Resource Zones ("LRZ" or "Zone"). To do this, MISO establishes locational parameters that are used to run its annual PRA. These parameters provide locational signals, including that Local Clearing Requirements and capacity import and export limits for each of MISO's LRZs.¹⁷ When a resource is pseudo-tied out of MISO, it receives no recognition for existing locally within a MISO LRZ, but it does impact that zone's Capacity Import Limit and Capacity Export Limit. This results in a blurring of the locational signals that are required by the Commission.¹⁸ MISO stakeholders have identified this issue and plan to investigate solutions through MISO's Resources Adequacy Subcommittee.

The impact of pseudo-tied resources on the locational parameters can be seen in section 69A.6 of Module E-1 of MISO's tariff, where the Local Clearing Requirement for any LRZ is calculated as follows:

$$LCR = LRR^{19} - \text{Capacity Import Limit} - \text{non-pseudo tied exports}$$

An important feature of the MISO PRA is that it allows for the efficient sharing of resources through a balancing auction. The efficient sharing of resources can be disrupted when these locational parameters represent anything other than the physical reality of the transmission system.

¹⁷ MISO Tariff, Module E-1, Establishment of CIL and CEL Limits, Section 68A.4.

¹⁸ Order on Resource Adequacy Proposal, 139 FERC ¶ 61,199, at PP 71-73 (2012).

¹⁹ Local Resource Requirement (LRR).

Pseudo-ties can also affect the locational parameters used to represent MISO's two Sub-Regional Resource Zones.²⁰ Similar to the Capacity Import and Export Limits that govern capacity imports and exports between LRZs, Sub-Regional limits are calculated and enforced in the PRA. In the 2016/2017 PRA, the Sub-Regional Import Constraint ("SRIC") between the two MISO Sub-Regions bound, causing a price separation of \$72.00/MW-day in MISO North and \$2.99/MW-day in MISO South.²¹ The value of SRIC was decreased to 876 MW due to the presence of a pseudo-tied unit, which caused the constraint to bind.²²

D. The Commission should order a review of the MISO and PJM assumptions of import capability for purposes of calculating Planning Reserve Margins.

The differences between the two RTOs capacity constructs may lead to changing amounts of capacity trading between the two regions without any modifications to the physical connections. For that reason, the Commission should direct both RTOs to review the quantity of capacity that each RTO assumes can be counted on to be reliably delivered during their respective region's peak, regardless of commitment through a capacity construct. The method for determining this quantity should be clearly defined in each RTOs tariff. Doing so would help ensure that benefits are realized from being part of an expansive, highly-interconnected region.

E. The Commission should order a technical conference to develop an appropriate solution.

Lastly, while the Supporting Regulators concur that the Complainant raised some interesting assertions that merit further investigation, the Supporting Regulators take no position

²⁰ MISO Tariff Module E-1, Establishment of SRRZs, SRECs, and SRICs, Section 68A.3.1, states "The Transmission Provider will then subtract the sum of Firm Transmission Service Reservations on the MISO OASIS that utilize the contract path between SRRZs and are exporting from or wheeling through the Transmission Provider's Balancing Authority for the applicable Planning Year."

²¹ Presentation at the May 4, 2016 meeting of the MISO Resource Adequacy Sub Committee, available at: https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/RASC/2016/20160504/20160504%20RASC%20Item%2003a%202016-17_PRA_Summary.pdf.

²² Presentation at the Feb. 4, 2016 meeting of the MISO Supply Adequacy Working Group, available at https://www.misoenergy.org/_layouts/MISO/ECM/Redirect.aspx?ID=217346.

on the Complainant's suggested alternative²³ at this time. The complexity of the issue, coupled with the uncertainty surrounding PJM's proposed tariff changes, lends itself to the more robust and holistic solution development process that a technical conference would provide.

V. Conclusion

The OMS collectively requests the Commission establish a technical conference to examine the impact of the PJM pseudo-tie requirement on MISO and whether and what remedies may be appropriate. The Indiana Utility Regulatory Commission, Iowa Utilities Board, Kentucky Public Service Commission, Michigan Public Service Commission, Minnesota Public Utilities Commission, Missouri Public Service Commission, North Dakota Public Service Commission, South Dakota Public Utilities Commission, Public Utility Commission of Texas, and Public Service Commission of Wisconsin also endorse and support the additional comments contained sections III-IV above. The Arkansas Public Service Commission, the Council of the City of New Orleans, the Louisiana Public Service Commission, and the Mississippi Public Service Commission endorse the request for a technical conference, but do not support and endorse the additional discussions contained in sections III-IV above. The Illinois Commerce Commission abstains. The Manitoba Utilities Board and Montana Public Service Commission did not vote on this matter.

²³ Complaint of Potomac Economics, Section II.D at 35-46, Docket No. ER17-63 (April 5, 2017).

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated on this 8th day of May, 2017.

Tanya Paslawski