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October 25, 2016

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: Northern Indiana Public Service Company v. Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C., Docket No. EL13-88-000 Supplement to Third Informational Filing on behalf of PJM and MISO

Dear Secretary Bose:

Pursuant to the directives contained in the April 21, 2016 Order on Complaint and Technical Conference¹ issued by the Federal Energy Regulatory Commission (“Commission” or “FERC”), PJM Interconnection, L.L.C. and the Midcontinent Independent System Operator, Inc. (“MISO”) (collectively referred to herein as “RTOs”) jointly submit this supplement to third informational filing² that reports their efforts to consider how MISO and PJM could conduct their respective MISO Transmission Expansion Plan (“MTEP”) and PJM Regional Transmission Expansion Plan (“RTEP”), and the MISO-PJM JOA³ transmission planning processes using a joint model and a single set of assumptions and criteria.⁴

I. BACKGROUND

On April 21, 2016, the Commission granted in part and denied in part a Complaint filed by Northern Indiana Public Service Company (“NIPSCO”) and directed the RTOs to make a number of compliance and informational filings in order to implement the findings of the April 21 Order.⁵ On June 20, 2016, PJM and MISO submitted under separate cover their first compliance filing (“June 20 Compliance Filing”) that included certain amendments to the MISO-

¹ *N. Ind. Pub. Serv. Co. v. Midcontinent Indep. Sys. Operator, Inc., et al.*, Order on Complaint and Technical Conference, Docket No. EL13-88-000 (Apr. 21, 2016) (“April 21 Order”).

² On October 18, 2016, the RTOs filed the Third Informational Report in the above-referenced docket, with the commitment to file a supplement with the information contained herein.

³ The formal name of the MISO-PJM JOA is the “Joint Operating Agreement Between Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C.” The JOA is a FERC-filed rate schedule of both PJM and MISO. The JOA is designated as PJM’s Rate Schedule No. 38 and is available on PJM’s website at <http://www.pjm.com/media/documents/merged-tariffs/miso-joa.pdf> and MISO’s Rate Schedule No. 5 and is available on MISO’s website at <https://www.misoenergy.org/Library/Pages?RateSchedules.aspx>.

⁴ April 21 Order at P 92.

⁵ *Id.* at P 2.

PJM JOA, consistent with the Commission's directives contained in the April 21 Order.⁶ On August 19, 2016, PJM and MISO submitted their informational report regarding their efforts to consider how the RTOs could conduct the MISO-PJM JOA transmission planning process and their respective regional planning processes using a single, common timeline with identical milestones and deadlines.⁷

With respect to this informational report, the April 21 Order denied NIPSCO's Complaint requesting that the Commission require the RTOs to develop and utilize a joint model for reliability and economic planning with the same criteria and modeling assumptions in each RTO's regional transmission planning processes.⁸ However, the April 21 Order required the RTOs "to explore the potential use of a joint model with the same assumptions and criteria"⁹ and directed the RTOs to submit an informational filing to the Commission within 180 days of the April 21 Order explaining how they could use a joint model with the same assumptions and criteria for reliability and economic planning related to interregional transmission issues.¹⁰ Accordingly, the RTOs pursued with stakeholders the prospect of using a joint model containing the same assumptions and criteria used by the RTOs under their regional processes and report the results of that effort in this informational report.

II. INFORMATIONAL REPORT

A. Use of a Joint Model With the Same Assumptions and Criteria in the RTOs' Regional Planning Processes

As directed by the April 21 Order, the RTOs have explored with their stakeholders the potential of using a joint model with the same assumptions and criteria for reliability and economic planning in their respective regional transmission planning processes.

While Order No. 1000 requires that regional data and models be harmonized, it does not require that they be identical.¹¹ In fact, the filings still pending before the Commission would go further and eliminate the requirement for joint economic models under the MISO-PJM JOA,

⁶ April 21 Order at PP 47, 131, 132, 133 and 185.

⁷ *N. Ind. Pub. Serv. Co. v. Midcontinent Indep. Sys. Operator, Inc., et al.*, Informational Filing, Docket No. EL13-88-000 (Aug. 19, 2016) ("August 19 Informational Filing").

⁸ April 21 Order at P 88.

⁹ *Id.* at P 88.

¹⁰ *Id.* at Ordering Paragraph (D).

¹¹ *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000 at P 437, 76 Fed. Reg. 49,842 (Aug. 11, 2011). FERC Stats. & Regs. ¶ 31,323 (2011) at P 622 ("Order No. 1000"), *order on reh'g*; Order No. 1000-A at P 510, 77 Fed. Reg. 32,184 (May 31, 2012), 139 FERC ¶ 61,132 (2012), *order on reh'g*; Order No. 1000-B, 77 Fed. Reg. 64,890 (Oct. 24, 2012), 141 FERC ¶ 61,044 (2012), *review denied sub nom. S. Carolina Pub. Serv. Auth. v. FERC*, 762 F. 3d 41 (D.C. Cir. 2014), *reh'g en banc denied*, No. 12-1232 (D.C. Cir. Oct. 17, 2014) ("Order No. 1000"); *see also PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,250 at P 95 (2014).

consistent with the Commission's Order No. 1000 interregional requirements. This approach conforms to the Commission-accepted coordination arrangements between the RTOs and their other interregional interfaces. Also, consistent with the currently effective language under the MISO-PJM JOA, the Coordinated System Plan process already requires PJM and MISO to use a joint model that is consistent with the models and assumptions used for the MTEP and RTEP cycles most recently completed or under development in each region. And, the RTOs use the most recent available model of the neighboring system in their respective regional transmission planning processes. Additionally, under the Order No. 1000 compliance filings, the RTOs have committed to exchange reliability and economic models on an annual basis for updating external footprints in regional models and developing joint models for interregional transmission studies, when appropriate. The RTOs have also proposed JOA revisions that known updates will be factored into study models that will be available for stakeholder review. Finally, the RTOs have assured stakeholders that they are open to potential improvements in the consistency of the analysis and modeling performed pursuant to the MISO-PJM JOA. While the Commission's latest Order issued on April 5, 2016 on the RTOs' Order No. 1000 interregional compliance filings conditionally accepted the RTOs' second compliance filings, subject to further compliance filings, no final order has been issued on the RTOs revisions to the MISO-PJM JOA to comply the Order No. 1000 interregional planning requirements.¹² Furthermore, the RTOs have not had an opportunity to fully implement their new processes accepted by the Commission as recently as April of this year.

Nonetheless, consistent with the Commission's directive in the April 21 Order, PJM and MISO have explored with stakeholders the potential of using a joint model with the same assumptions and criteria. In fact, the RTOs sought written feedback from stakeholders through both the MISO Planning Subcommittee and the MISO-PJM Interregional Planning Stakeholder Advisory Committee ("IPSAC"). Through that feedback, the RTOs heard that generally, most stakeholders agree with the RTOs' position that requiring the RTOs to adopt the same assumptions and criteria when conducting regional transmission planning would create significant challenges, including substantial revisions to each RTO's robust regional planning processes and cost allocation methodologies; further, they agree that such changes do not appear warranted at this time. However, several commenters urged the RTOs to consider other improvements to the process, which the RTOs have committed to continue to explore. The key challenge to adopting the same assumptions and criteria at each RTO's regional transmission planning level is that the regional processes are so fundamentally different that attempting to make them the same would destabilize the current robust regional processes and likely result in significant unintended consequences that would create bigger challenges than using a single model could ever address.

For example, PJM's regional process first completes the reliability analysis of its system in order to establish a clean baseline powerflow case (i.e. a powerflow case that is fully compliant with all reliability criteria). PJM then uses that clean baseline to conduct studies for its interconnection queue in order to determine who should pay for what upgrades, e.g., baseline upgrades are paid for by load and "but for" upgrades are paid for by the appropriate

¹² *PJM Interconnection, L.L.C., et al.*, 155 FERC ¶ 61,008 (Apr. 5, 2016).

interconnection customer based on the queue priority of the interconnection customer causing the violations driving the need for the upgrade. PJM's criteria, assumptions and procedures related to how PJM performs the RTEP analysis supports the requirement to identify the party(ies) driving the need for an upgrade. PJM's market efficiency analysis follows that same logic. Specifically, the models used for market efficiency analysis utilize the transmission topology and generation modeled in PJM's baseline reliability case. Thus, PJM's process first determines mandatory reliability needs and interconnection driven upgrades to establish the appropriate cost responsibility. Lastly, the PJM regional planning process considers if economic upgrades may further enhance the efficiency or cost effectiveness of its system.

In contrast, MISO's regional analyses are performed in parallel. Reliability, economic, and public policy analyses can be performed at the same time in an MTEP cycle. The studies will coordinate areas of overlap between different project drivers and all resulting projects are aggregated into that cycle's MTEP report. MISO's regional process uses a project hierarchy to determine the classification of projects with multiple drivers. In the hierarchy, Multi-Value Projects may be driven by public policy, economic, or reliability needs. Market Efficiency Projects may address economic and reliability issues. MISO's project hierarchy has cost allocation implications different than PJM, as reliability needs may be grouped in with a Multi-Value Project or Market Efficiency Project and cost allocated as such. Similarly, economic needs may be addressed by a Multi-Value Project and cost allocated differently than a Market Efficiency Project.

Though both RTOs are addressing all reliability criteria and public policy needs while also looking for economic opportunities, major differences exist between the regions on how the processes address differing project drivers resulting in fundamentally different cost responsibility obligations.

Additionally, suggesting changes to just the assumptions and criteria alone would do little to align the two very different regional planning processes. Even if the RTOs used a joint model with identical criteria and assumptions, PJM and MISO apply the criteria differently in determining the need for and timing of specific upgrades, which produces very different results. Specifically, the RTOs study and cost allocate reliability and economic upgrades in differing orders. PJM begins with reliability upgrades and MISO begins with economic as well as public policy considerations. Utilizing the same models and criteria would mean that one or both RTOs' cost allocation rules would be disjointed with the current agreed-upon regional practices.

Thus, while the RTOs believe there may be opportunities for PJM and MISO to explore ways to improve the development of joint models when they are needed under the JOA process without changing the fundamental underpinnings of each regional process, such fundamental differences are not easily untangled. Nor does a wholesale revamping of one or both of the regional processes seem appropriate at this juncture.

Importantly, PJM and MISO have demonstrated that joint models, using different or compromised regional assumptions and criteria, can be created when needed for specific joint studies. This approach to developing joint models ensures that the RTOs' regional processes,

that were designed to reflect variations in preferences and assumptions about resources specific to each RTO and its stakeholders, remain intact while PJM and MISO continue to explore with stakeholders opportunities as they begin to implement their Order No. 1000 interregional process under the JOA.

III. CORRESPONDENCE AND COMMUNICATIONS

Correspondence and communications with respect to this filing should be sent to, and the parties request the Secretary to include on the official service list, the following:

For PJM:

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IV. NOTICE AND SERVICE

For PJM:

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,¹³ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory

¹³ See 18C.F.R §§ 35.2(e) and 385.2010(f)(3) (2016).

commissions in the PJM Region¹⁴ alerting them that this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

For MISO:

MISO has served a copy of this filing electronically, including attachments, upon each person designated on the official list compiled by the Secretary in the consolidated proceedings in Docket No. EL13-88, as well as on all Tariff Customers under the Tariff, MISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, the MISO Advisory Committee participants, including state commissions within the Region. The filing has been posted electronically on MISO's website at <https://www.misoenergy.org/Library/FERCFilingsOrders/Pages/FERCFilings.aspx> for other interested parties in this matter.

¹⁴ PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.


V. CONCLUSION

PJM and MISO respectfully request that the Commission accept this Supplement to Third Informational Filing in compliance with the requirements of the April 21 Order.

Respectfully submitted,

For PJM:

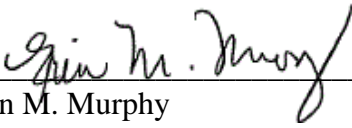
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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day caused to be served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Audubon, PA, this 25th day of October, 2016.

By:



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