

162 FERC ¶ 61,085
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

EDF Renewable Energy, Inc.

Docket No. EL18-26-000

v.

Midcontinent Independent System Operator, Inc.,
Southwest Power Pool, Inc., and PJM Interconnection,
L.L.C.

ORDER ON COMPLAINT AND ESTABLISHING TECHNICAL CONFERENCE

(Issued February 2, 2018)

1. On October 30, 2017, EDF Renewable Energy, Inc. (EDF) filed a complaint pursuant to sections 206 and 306 of the Federal Power Act (FPA)¹ and Rule 206 of the Commission's Rules of Practice and Procedure² against Midcontinent Independent System Operator, Inc. (MISO), Southwest Power Pool, Inc. (SPP), and PJM Interconnection, L.L.C. (PJM) (Complaint). EDF requests that the Commission order MISO, SPP, and PJM to file revisions to their respective open access transmission tariffs and Joint Operating Agreements (JOA) in order to reform their interconnection coordination procedures with Affected Systems³ that are also regional transmission

¹ 16 U.S.C. §§ 824e, 825e (2012).

² 18 C.F.R. § 385.206 (2017).

³ An Affected System is an electric system other than the transmission provider's transmission system that may be affected by the proposed interconnection. See *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at P 29 n.32 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230 (2008).
(continued ...)

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organizations (RTOs). As discussed below, we will direct Commission staff to convene a technical conference to explore issues raised in the Complaint related to the Affected Systems coordination procedures contained in the MISO, SPP, and PJM tariffs, the MISO-PJM JOA, and the MISO-SPP JOA, as well as the Affected Systems coordination issues raised in the Notice of Proposed Rulemaking issued in Docket No. RM17-8-000.⁴ Further, we establish a refund effective date of October 30, 2017.

I. Background

A. Affected Systems Coordination

2. In Order No. 2003, the Commission required each public utility that owns, controls, or operates facilities used for transmitting electric energy in interstate commerce to amend its tariff to include interconnection procedures and an interconnection agreement for electric generating facilities having a capacity of more than 20 megawatts.⁵ Order No. 2003 requires the transmission provider to coordinate interconnection studies and planning meetings with Affected Systems.⁶ The Commission reasoned that

[w]hen a Transmission Provider adds its own new generation to its system, this may have a reliability effect on other systems, requiring coordination among systems. Such coordination must extend to new generation of any Interconnection Customer because... a Transmission Provider must offer all generators service that is comparable to the service that it provides to its own generation or that of its [a]ffiliates.⁷

The Commission found that, although the owner or operator of an Affected System is not bound by the provisions of the Large Generator Interconnection Procedures (LGIP) or Large Generator Interconnection Agreement (LGIA), the transmission provider must allow any Affected System to participate in the process when conducting the interconnection studies and incorporate the legitimate safety and reliability needs of the

⁴ *Reform of Generator Interconnection Procedures and Agreements*, 157 FERC ¶ 61,212 (2016) (Generator Interconnection NOPR).

⁵ Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 1.

⁶ *Id.* PP 36, 116, 122. The transmission provider is the entity with which an interconnection customer seeks to connect a generating facility. *Id.* n.3.

⁷ *Id.* P 122.

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Affected System.⁸ In Order No. 2003-A, the Commission further held that the results of any study of the effect of the interconnection on any Affected System be included in the interconnection study “if available,” which allows the interconnection process to proceed even in the face of delays or non-response by the Affected System.⁹

3. Section 3.5 (Coordination with Affected Systems) of the *pro forma* LGIP accepted in Order No. 2003-A states:

Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.¹⁰

4. MISO, SPP, and PJM are Commission-approved RTOs and transmission providers under Order No. 2003. Each RTO’s tariff identifies the requirement for the host RTO to coordinate with neighboring RTOs that are Affected Systems. SPP’s tariff provisions

⁸ *Id.* P 121.

⁹ Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at P 115.

¹⁰ Order No. 2003-A, Appendix B, Standard Large Generator Interconnection Procedures, § 3.5. The *pro forma* Large Generator Interconnection Agreement contains provisions on the repayment of amounts advanced to Affected System operators for network upgrades. *See* Order No. 2003-A, Appendix B, Standard Large Generator Interconnection Procedures, Appendix 6, Standard Large Generator Interconnection Agreement, §§ 11.4.1, 11.4.2.

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concerning Affected Systems are substantively similar to those in the *pro forma* LGIP.¹¹ SPP's business practice manuals contain no discussion of coordination with Affected Systems.

5. MISO's tariff contains more specific requirements than the *pro forma* LGIP. MISO's Generator Interconnection Procedures (GIP) state:

Interconnection Customer, Transmission Provider, Transmission Owner and Affected System Operator shall each coordinate and cooperate on studies required to determine the impact of the Interconnection Request on Affected Systems. Transmission Provider will include such Affected System Operators...in all meetings held with Interconnection Customer as required by the GIP. If the Affected System is not under the functional control of Transmission Provider, the Affected System Operator's procedures shall be applicable. Interconnection Customer will be separately responsible to adhere to the Affected System Operator's procedures and costs related to studies and modifications to the Affected System.

Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems.¹²

MISO's Business Practice Manual No. 15 (MISO BPM 15) provides some additional information on MISO's Affected System coordination procedures, such as a requirement that a preliminary system impact study and preliminary Affected System analysis, including estimated upgrades and costs, as applicable, will be performed in 90 calendar days.¹³ MISO BPM 15 further provides that the system impact study base case will include all queued projects on the Affected System and will be modeled per MISO and Affected System JOAs.¹⁴ Specifically, MISO BPM 15 states that the studies will be

¹¹ SPP Tariff, Attachment V, GIP § 3.5 (Coordination with Affected Systems) (3.0.0).

¹² MISO Tariff, Attachment X, GIP § 7.6 (Coordination with Affected Systems) (41.0.0).

¹³ MISO BPM 15, § 5.2.

¹⁴ *Id.* § 6.1.1.1.1.2.

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coordinated in accordance with the JOAs, and the timing shall be based on the current MISO, SPP, and PJM study cycles and will be adjusted if there are changes to the study cycle timelines in the future.¹⁵

6. PJM is required to coordinate with Affected System operators regarding the conduct of any studies required to determine the impact of a new service request on any Affected System and to include those results in its new service studies, if possible, within the time frames specified in the PJM tariff.¹⁶ Further, PJM is required to invite Affected System operators to participate in all meetings held with the interconnection customer. Under the PJM tariff, a provider of transmission service on a system that may be an Affected System will cooperate with PJM in all matters related to the conduct of studies and the determination of modifications to Affected Systems related to new service requests. PJM is further required to use reasonable efforts to coordinate the study with any Affected Systems that may be affected by the types of interconnection service that are being studied.¹⁷

7. PJM's Business Practice Manual 14A (PJM Manual 14A) includes further information regarding the conduct of PJM's Affected System study coordination with MISO. Section 1.17.1 requires PJM to monitor the MISO transmission system and provide draft results of the potential impacts to MISO, such that the potential impacts are included in PJM's respective system impact study, along with information from MISO and the MISO transmission owners regarding the validity of these impacts and possible mitigation. With respect to study deadlines, PJM must forward to MISO, at a minimum of twice per year (April 15 and October 15), information necessary for MISO and the MISO transmission owners to study the impact of PJM interconnection requests on MISO's system. MISO and the MISO transmission owners then study the impact of the PJM interconnection request on the MISO transmission system and provide PJM with draft results by March and September each year. If PJM identifies that further studies are needed, MISO must endeavor to study these requests at the earliest time feasible, but not later than the bi-annual dates in April and October. Cost allocation for required network upgrades on the MISO transmission system due to a PJM interconnection request are governed by and subject to MISO's tariff and BPMs.

8. The RTOs have also entered into JOAs that outline the coordination and exchange of data and information between the RTOs. The MISO-PJM JOA and the MISO-SPP

¹⁵ *Id.* §§ 6.3, 6.4.

¹⁶ PJM Tariff, § 202 (Coordination with Affected Systems) (0.0.0).

¹⁷ *Id.* § 209.2 (Scope of Optional Interconnection Study) (0.0.0).

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JOA state that “each [p]arty will coordinate with the other the conduct of any studies required in determining the impact of a request for generator or merchant transmission interconnection” and further require the RTOs to “coordinate and mutually agree on [the] nature of studies to be performed to test the impacts of the interconnection on the potentially impacted [p]arty.”¹⁸ The MISO-PJM JOA reflects the Affected System coordination requirements contained in PJM Manual 14A. The MISO-SPP JOA requires SPP to provide MISO with Affected System results by December 15 and June 1 of each year.

B. Generator Interconnection NOPR, Docket No. RM17-8-000

9. On December 15, 2016, in Docket No. RM17-8-000, the Commission issued a Notice of Proposed Rulemaking proposing to revise its regulations, the *pro forma* LGIP, and the *pro forma* LGIA in order to ensure that the generator interconnection process is just and reasonable and not unduly discriminatory or preferential.¹⁹ The Commission noted that Affected Systems are not bound by the terms of the LGIP or LGIA of a particular interconnection request; thus, the transmission operator of the Affected System may choose not to abide by the time limits established for the various interconnection studies.²⁰ The Commission stated that transmission providers may not provide sufficient information on the guidelines and timelines they will use to coordinate with Affected Systems during the interconnection process and that providing these guidelines and timelines could improve the information available to the interconnection customer and could help avoid late-stage withdrawals due to unforeseen costly network upgrades on Affected Systems.²¹ The Commission sought comment on whether it should prescribe guidelines for and potentially standardize Affected Systems analyses and coordination or if it should impose study requirements and associated timelines on Affected Systems.²² The Commission also asked commenters to consider whether there are additional steps it

¹⁸ See Midcontinent Indep. Sys. Operator, Inc., Rate Schedule 5, MISO-PJM Joint Operating Agreement, § 9.3.3 (31.0.0) (MISO-PJM JOA); Southwest Power Pool, Inc., Rate Schedule FERC No. 9, MISO-SPP Joint Operating Agreement, § 9.4 (1.0.0) (MISO-SPP JOA).

¹⁹ Generator Interconnection NOPR, 157 FERC ¶ 61,212 at P 1.

²⁰ *Id.* P 152.

²¹ *Id.* P 158.

²² *Id.* P 159.

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could take to facilitate improved coordination between Affected Systems during the interconnection process.

II. Complaint

10. EDF states that it is engaged in the development, ownership, and operation of large scale wind, biomass, solar, and biogas generation and distributed energy and energy storage systems.²³ EDF states that it has proposed generation pending in the interconnection queues of MISO, SPP, PJM, and other RTOs.

A. Problems with Affected System Information

11. EDF contends that there is a lack of detail in the MISO, SPP, and PJM tariffs, MISO-SPP JOA, and MISO-PJM JOA regarding: (1) the timing for RTOs to complete Affected Systems analyses; (2) the standard the Affected System applies to determine impacts from proposed generation interconnecting in the host RTO; and (3) how network upgrade costs are assigned between proposed generation connecting in the host RTO versus the Affected System RTO.²⁴ EDF argues that this lack of clarity impedes the ability of a proposed generation developer to assess the commercial viability of its project, which EDF contends is contrary to the Commission's requirement that a transmission provider apply transparent open access interconnection service and the Commission's purpose for establishing *pro forma* generation interconnection processes.²⁵

12. EDF explains that MISO conducts a three-phase interconnection study process where it performs a system impact study at each phase for a group of interconnection customers in a defined geographical location within MISO; this study includes Affected System information. EDF explains that MISO will not provide the study to interconnection customers until MISO has received Affected Systems information.²⁶

²³ Complaint at 4.

²⁴ *Id.* at 1-2.

²⁵ *Id.* at 2 (citing *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, at PP 461, 471, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009)).

²⁶ *Id.* at 5. EDF states that SPP and PJM do not have a similar requirement to include Affected Systems information with each study reiteration.

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EDF states that MISO's system impact studies for its February 2016 West, February 2016 East, and August 2016 Central interconnection study groups have all been delayed due to difficulties in receiving timely Affected Systems information.²⁷ EDF contends that it has been unable to obtain information from MISO about what caused these delays, what each RTO's responsibility is in terms of providing MISO with Affected Systems results, and whether MISO has solved the problem.

13. EDF provides examples mainly from its experience with MISO and SPP to illustrate the deficiencies common among MISO, SPP, and PJM.²⁸ EDF states that there are similar examples from recent MISO and PJM studies; specifically, EDF asserts that some interconnection customers have encountered problems because of MISO Affected System data that were provided late to generation being studied in the PJM queue.²⁹ EDF states that Affected Systems information sent to MISO from SPP erroneously included a \$38 million Affected System network upgrade to be assessed to generation projects in the MISO February 2016 West study group, even though the line SPP had listed was a transmission project that SPP had already designated as part of its Integrated Transmission Plan.³⁰ EDF argues that, although the line was removed when the issue was brought to MISO's attention, the system impact study would have included this \$38 million cost had EDF not been provided with an advance opportunity to review the Affected Systems information. Further, EDF states that it is unclear whether MISO and SPP are using the same base case models for their respective studies. EDF argues that the Affected System RTO and the host RTO should be obligated to use a consistent and up-to-date base case model and should further allow for interconnection customer involvement at an early stage.³¹

²⁷ *Id.* at 5-6.

²⁸ *Id.* at 4-5.

²⁹ *Id.* at 4 n.5 (citing *Northern Indiana Pub. Serv. Co. v. Midcontinent Indep. Sys. Op., Inc. and PJM Interconnection, L.L.C.*, Comments In Support of Complaint of E.ON Climate & Renewables North America LLC, Docket No. EL13-88-000, Oct. 31, 2013, at 9-10).

³⁰ *Id.* at 7.

³¹ *Id.* at 9.

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B. The Standard to Allocate Costs between RTOs

14. EDF states that there is no clear process by which MISO, SPP, and PJM assign network upgrade costs for interconnection projects located near the RTO seams. For example, EDF states that, as part of the recent MISO February 2016 West study process, EDF reviewed a recent SPP study for new generation to be located on the SPP system near the seam with MISO, referred to as SPP DISIS 2016-1, which identified network upgrades that are geographically near and impact the Cooper South constraint in SPP.³² EDF explains that SPP's study was completed in January 2016, along with a restudy in February 2016, well before the MISO February 2016 West studies commenced. Therefore, generation in the MISO study group did not expect any of the facilities from the SPP study to show up as Affected System SPP costs in the MISO February 2016 West system impact study – but they did. EDF states that the MISO system impact study included SPP Affected Systems costs of \$311 million for a new high-voltage transmission line to upgrade the Cooper South constraint. EDF argues that the RTOs inappropriately shifted costs for upgrades identified in SPP DISIS 2016-1 from generation locating within SPP to generation locating within MISO.³³

15. EDF states that it asked MISO about the SPP costs at an in-person meeting and was advised that MISO and SPP apply a “higher-queued” principle for Affected System analyses.³⁴ Specifically, EDF states that MISO explained that projects that are lower-queued (later in time) and located in MISO will not be assigned network upgrade costs for impacts on the SPP system that already are attributed to higher-queued (earlier in time) projects located in SPP, and vice versa. MISO also explained that it applies this standard with PJM, in a slightly different manner; MISO and PJM review when each individual interconnection request enters the queue to apply the higher-queued standard, while MISO and SPP apply a “when the cluster window closes” approach.³⁵ EDF notes that there is no discussion of this “higher-queued” standard in the MISO, SPP, or PJM tariffs, BPMs, or JOAs; thus, EDF asserts, the RTOs have not demonstrated before the

³² *Id.* at 10.

³³ *Id.* at 11. EDF states that this cost shift is equally troubling for interconnection customers within SPP, who may have dropped out of the SPP queue due to the high cost of network upgrades to the Cooper South constraint without knowing that they might be relieved of this cost.

³⁴ *Id.*

³⁵ *Id.* at 12.

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Commission that the use of such a standard is just and reasonable.³⁶ EDF also points out that, even under MISO's explanation of the higher-queued standard, it is not clear that the generation projects in MISO's February 2016 West study group are higher-queued compared to the projects identified in the SPP DISIS 2016-1 study; in fact, EDF claims, MISO and SPP disagreed about this fact in an October 10, 2017 meeting.³⁷

16. EDF also argues that MISO, SPP, and PJM should have a tariff obligation to provide interconnection customers with the Affected Systems model at the time the applicable study with the Affected System results is provided.³⁸ EDF states that this information is necessary because interconnection customers must agree within a certain number of days to move on to the next phase of the queue or be dropped from the queue. For example, EDF notes that MISO requires an interconnection customer to decide, within 15 business days after the system impact study for each phase is provided, whether it will drop from the queue or proceed into the next phase and risk forfeiture of its previous financial milestone payment. EDF asserts that MISO did not provide the SPP Affected System data until six days before the financial milestone for the next phase was due, which is not enough time for the interconnection customer to scrutinize the data and determine whether to proceed through the interconnection queue.

C. The Modeling Standard to Determine Affected System Impacts

17. EDF argues that the MISO, SPP, and PJM tariffs, BPMs, and JOAs do not disclose the modeling standard the RTOs use to determine Affected System impacts and that each RTO apparently uses a different standard. EDF contends that none of the standards have been shown to be just and reasonable and not unduly discriminatory and preferential.³⁹

18. EDF explains that, when MISO, SPP, and PJM evaluate proposed generation locating on their own systems, they study a proposed project under a stricter standard if the project is seeking Network Resource Interconnection Service (NRIS),⁴⁰ rather than

³⁶ *Id.* at 13.

³⁷ *Id.* at 14-15.

³⁸ *Id.* at 15-16.

³⁹ *Id.* at 21.

⁴⁰ NRIS provides the interconnection customer with an interconnection of sufficient quality to allow the generating facility to qualify as a designated network resource on the transmission provider's system without additional network upgrades. This means that NRIS entitles the generating facility to be treated in the same manner as (*continued ...*)

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Energy Resource Interconnection Service (ERIS).⁴¹ For instance, SPP evaluates projects that have requested NRIS under a three percent transmission element impact (i.e., network upgrades will be needed if the project impacts any transmission element more than three percent), while projects requesting ERIS are evaluated under a 19.5 percent transmission element impact.⁴² EDF states that SPP unreasonably applied its stricter NRIS standard to all proposed generating projects in the MISO February 2016 West study group; thus, if flows from the proposed generation in that MISO group reached three percent impact on an SPP transmission element, SPP identified the need for an Affected System upgrade. EDF asserts that this treatment is unjust and unreasonable because none of the projects in the MISO February 2016 West group will be delivering power with a sink in SPP and thus will not cause impacts equivalent to NRIS delivery on SPP's system.⁴³ EDF argues that SPP grid users will benefit from the artificially high network upgrade costs SPP identifies as Affected System impacts. EDF states that any power flows from the MISO projects to SPP will be inadvertent and that the appropriate standard to apply for Affected System impacts is the less strict ERIS standard.

19. EDF states that MISO (appropriately) applies the ERIS standard for its Affected System analysis of proposed generation sinking in an Affected System RTO; EDF notes that it is unclear what standard PJM uses.⁴⁴ Thus, EDF argues that proposed generation projects locating on different sides of an RTO seam are subjected to different Affected System standards to determine network upgrade costs. EDF contends that this different treatment has a direct impact on whether generation developers seek to dedicate capital in

the transmission provider's own resources for purposes of assessing whether aggregate supply is sufficient to meet aggregate load within the transmission provider's control area, or other area customarily used for generation capacity planning. *See* Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 768.

⁴¹ Complaint at 16. ERIS allows the interconnection customer to connect its generating facility to the transmission system and be eligible to deliver its output using the existing firm or non-firm capacity of the transmission system on an "as available" basis. *See* Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 753.

⁴² Complaint at 16.

⁴³ *Id.* at 17-18.

⁴⁴ *Id.* at 19.

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one RTO or the other – for instance, a developer may choose to develop in SPP to benefit from lower Affected System costs due to MISO’s use of the less strict ERIS standard.⁴⁵

D. Tariff and JOA Deficiencies

20. EDF states that it advised MISO of its concern that the MISO tariff, BPM, MISO-SPP JOA, and MISO-PJM JOA do not provide any concrete explanation of how MISO coordinates with the other RTOs for Affected System needs.⁴⁶ EDF noted that, for instance, section 9.4 of the MISO-SPP JOA provides that the parties “will coordinate and mutually agree with respect to the nature of the studies to be performed to test the impacts of the interconnection on the potentially impacted [p]arty” and asked MISO about the nature of studies it agreed upon with SPP for the February 2016 West study group. EDF also noted that section 6.4.2 of MISO’s BPM 15 requires MISO to “monitor the SPP transmission system and provide the draft results of potential impacts to SPP” during MISO’s interconnection studies and that EDF asked MISO how it conducts such monitoring. EDF explains that MISO’s answer merely pointed back to the same sections in the BPM and the MISO-SPP JOA upon which EDF had sought further clarity.⁴⁷

21. EDF contends that the *ad hoc* coordination between the RTOs has not been vetted before the Commission.⁴⁸ EDF argues that the coordination deficiencies are demonstrated in the timing mismatch between MISO’s three-phased interconnection study process and the semi-annual dates in the MISO-SPP JOA and MISO-PJM JOA at which Affected System study results are provided to MISO.⁴⁹ EDF notes that SPP must provide MISO with Affected System results by December 15 and June 1 of each year, while PJM is required to provide Affected System results by March 31 and September 29 of each year. Yet, EDF notes that MISO’s tariff requires four to five system impact studies to be delivered each year, per sub-region, with Affected System results. EDF argues that there needs to be a detailed schedule of when MISO will deliver project

⁴⁵ *Id.* at 20.

⁴⁶ *Id.* at 27.

⁴⁷ *Id.* at 28. EDF notes that it asked for this information before the end of the first decision point in the first phase of MISO’s February 2016 West study group, but it did not receive an answer from MISO until it had already proceeded to the second phase of the interconnection study process and put up an at-risk milestone payment.

⁴⁸ *Id.* at 28-29.

⁴⁹ *Id.* at 30.

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information to SPP and PJM and when SPP and PJM will respond with Affected System study results, for each study cycle and for each phase within each cycle.

E. Requested Relief

22. EDF requests that the Commission find that the MISO, SPP, and PJM tariffs, the MISO-SPP JOA, and the MISO-PJM JOA are unjust, unreasonable, unduly discriminatory and preferential and order MISO, SPP, and PJM to file tariff and JOA revisions that include: (1) the timing for Affected Systems RTO studies to be completed in time for the host RTO to meet the study delivery timing requirements in its tariff; (2) an affirmative obligation for the Affected System RTO to deliver Affected System studies in the time needed for the host RTO to meet the study delivery timing requirements in its tariff; (3) an affirmative requirement for SPP and PJM to include Affected System RTO information with their own study results; (4) an obligation for the host RTO, Affected System RTO, and applicable interconnection customers to be apprised of the base model that the Affected System RTO will use for its analysis and an opportunity to comment before Affected System analysis begins; (5) an obligation for the Affected System RTO to provide the Affected System model (on which its Affected System results are based) to the host RTO at the time the Affected System results are provided; (6) the Affected System study standard that will be applied (i.e., ERIS or NRIS); and (7) how costs will be allocated between proposed generation projects locating on different sides of the seam (such as a “higher-queued” standard) and how that standard is defined.⁵⁰

23. EDF argues that the issues raised in the Complaint are not pending in an existing Commission proceeding.⁵¹ EDF notes that, in the Generator Interconnection NOPR, the Commission asked generally whether it should look more intently at transmission provider Affected System practices; however, EDF argues that the inquiry has no impact here. First, EDF asserts that the Generator Interconnection NOPR does not propose any rule for Affected Systems and only seeks information on whether there is a need. Second, EDF contends that its Complaint illustrates an existing problem with the MISO,

⁵⁰ *Id.* at 3, 36. EDF also asks that the Commission apply its fast track process under 18 C.F.R. § 385.206(h) (2017). EDF argues that fast track processing is needed in order to provide certainty to market participants for the MISO, SPP, and PJM current and near-term interconnection study queue process. EDF notes that MISO has listed Affected Systems as the cause of delay for its interconnection study groups in the West and Central regions and that these delays have real cost and resource adequacy implications. *See id.* at 32.

⁵¹ *Id.* at 33-34.

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SPP, and PJM tariffs, the MISO-SPP JOA, and the MISO-PJM JOA that has resulted in cost impacts to interconnection customers and a lack of information available to current interconnection customers with projects in the queue, which impacts their decision-making about remaining in the queue.

III. Notice of Filing and Responsive Pleadings

24. Notice of the Complaint was published in the *Federal Register*, 82 Fed. Reg. 51,623 (2017), with answers, interventions, and protests due on or before November 20, 2017.

25. On November 13, 2017, MISO, SPP, and PJM filed a motion for an extension of time to submit an answer to the Complaint until December 4, 2017. They also requested a shortened comment period of two days for answers to their motion. On November 14, 2017, the Commission shortened the comment period for answers to the motion to and including November 16, 2017.⁵² On November 17, 2017, the Commission extended the deadline for answers to the Complaint to and including December 4, 2017.⁵³

26. Timely motions to intervene were filed by: the Independent Market Monitor for PJM; Invenergy Wind Development North America LLC, Invenergy Solar Development North America LLC, Invenergy Thermal Development LLC, and Invenergy Storage Development LLC; Apex Clean Energy Management, LLC; Arkansas Electric Cooperative Corporation; Dominion Energy Services, Inc.; FirstEnergy Service Company; Ameren Services Company; East Kentucky Power Cooperative, Inc.; American Municipal Power, Inc.; Sunflower Electric Power Corporation; Minnkota Power Cooperative, Inc.; Exelon Corporation; Mid-Kansas Electric Company, Inc.; the National Rural Electric Cooperative Association; American Electric Power Service Corporation; Southern Power Company; Otter Tail Power Company; the North Carolina Electric Membership Corporation; American Public Power Association; Wisconsin Electric Power Company and Wisconsin Public Service Corporation.

27. The Organization of MISO States and the Public Utility Commission of Texas filed notices of intervention.

⁵² *EDF Renewable Energy, Inc. v. Midcontinent Indep. Sys. Operator, Inc., Sw. Power Pool, Inc., and PJM Interconnection, L.L.C.*, Notice Shortening Answer Period (Nov. 14, 2017).

⁵³ *EDF Renewable Energy, Inc. v. Midcontinent Indep. Sys. Operator, Inc., Sw. Power Pool, Inc., and PJM Interconnection, L.L.C.*, Notice of Extension of Time (Nov. 17, 2017).

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28. Timely motions to intervene and comments on the Complaint were filed by: E.ON Climate & Renewables North America, LLC (E.ON); the MISO Transmission Owners;⁵⁴ MidAmerican Energy Company (MidAmerican); Alliant Energy Corporate Services, Inc. (Alliant Energy); TradeWind Energy, Inc. (Tradewind); and Renewable Energy Systems Americas, Inc. (RES).

29. NextEra Energy Resources, LLC (NextEra) filed an out-of-time motion to intervene and comments on the Complaint.

30. On November 28, 2017, PJM filed a motion to dismiss the Complaint as patently deficient. Answers to the motion to dismiss were filed by EDF, E.ON, and MISO.

31. On December 4, 2017, MISO, SPP, and PJM filed answers to the Complaint. On December 22, 2017, EDF filed an answer to the MISO, SPP, and PJM answers.

A. Motion to Dismiss

32. PJM argues that the Complaint fails to identify any applicable statute, rule, order, or other law that has been violated by PJM, except to cite to the transparency requirement

⁵⁴ The MISO Transmission Owners for this filing consist of: Ameren Services Company, as agent for Union Electric Company d/b/a Ameren Missouri, Ameren Illinois Company d/b/a Ameren Illinois, and Ameren Transmission Company of Illinois; American Transmission Company LLC; Arkansas Electric Cooperative Corporation; Big Rivers Electric Corporation; Central Minnesota Municipal Power Agency; City Water, Light & Power (Springfield, IL); Cleco Power LLC; Cooperative Energy; Dairyland Power Cooperative; Duke Energy Business Services, LLC for Duke Energy Indiana, LLC; East Texas Electric Cooperative; Entergy Arkansas, Inc.; Entergy Louisiana, LLC; Entergy Mississippi, Inc.; Entergy New Orleans, Inc.; Entergy Texas, Inc.; Great River Energy; Hoosier Energy Rural Electric Cooperative, Inc.; Indiana Municipal Power Agency; Indianapolis Power & Light Company; International Transmission Company d/b/a *ITCTransmission*; ITC Midwest LLC; Michigan Electric Transmission Company, LLC; MidAmerican Energy Company; Minnesota Power (and its subsidiary Superior Water, L&P); Missouri River Energy Services; Montana-Dakota Utilities Co.; Northern Indiana Public Service Company; Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation, subsidiaries of Xcel Energy Inc.; Northwestern Wisconsin Electric Company; Prairie Power Inc.; Southern Illinois Power Cooperative; Southern Indiana Gas & Electric Company (d/b/a Vectren Energy Delivery of Indiana); Southern Minnesota Municipal Power Agency; Wabash Valley Power Association, Inc.; and Wolverine Power Supply Cooperative, Inc.

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in Order No. 890.⁵⁵ PJM contends that, while transparency is one of the transmission planning principles detailed in Order No. 890, it is specific to transmission planning and not generator interconnection.⁵⁶ PJM argues that the only facts provided in the Complaint regard specific circumstances between MISO and SPP, noting that EDF only states in a footnote that it could provide examples from recent MISO and PJM studies, although it does not.⁵⁷ PJM notes that the “recent” event mentioned by EDF occurred in 2013, before MISO’s recent GIP reform went into effect, and that the incident referred to by EDF was resolved by the Commission in the form of revisions to the MISO-PJM JOA.⁵⁸ PJM states that the Complaint notes delays in MISO’s interconnection study process due to Affected System information issues but does not show that PJM is the cause for the delays.⁵⁹

33. PJM asserts that the Complaint fails to set forth any provision of Order No. 2003 or any Commission order relative to the coordination of Affected System studies to support its allegations, nor does the Complaint explain how PJM’s actions or inactions caused a violation of the *pro forma* LGIP or LGIA.⁶⁰

34. PJM argues that many of the issues raised in the Complaint are currently under consideration in other proceedings.⁶¹ PJM notes that, in the Generator Interconnection NOPR proceeding in Docket No. RM17-8-000, EDF filed comments alleging that guidelines for Affected System analysis and coordination, as well as study requirements and associated timelines, are not currently required but are needed.⁶² PJM states that,

⁵⁵ PJM Motion to Dismiss at 3.

⁵⁶ *Id.* n.8.

⁵⁷ *Id.* at 5 (citing Complaint at 4 n.5).

⁵⁸ *Id.* at 6 (citing *Northern Indiana Pub. Serv. Co. v. Midcontinent Indep. Sys. Operator, Inc., et al.*, 155 FERC ¶ 61,058, at PP 184, 185 (2016)).

⁵⁹ *Id.* at 6-7.

⁶⁰ *Id.* at 8.

⁶¹ *Id.* at 9.

⁶² *Id.* (citing *Reform of Generator Interconnection Procedures and Agreements*, Comments of EDF Renewable Energy, Inc., E.ON Climate & Renewables North America, LLC, and Enel Green Power North America, Inc., Docket No. RM17-8-000, at 36-40 (filed Apr. 13, 2017)).

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until the Commission issues a final rule in Docket No. RM17-8-000 containing specific requirements on Affected System coordination, the Complaint is not ripe for review.⁶³

B. Answers to Motion to Dismiss

35. EDF argues that the Complaint has met the burden under FPA section 206 to show that the PJM tariff and MISO-PJM JOA are no longer just and reasonable by explaining that the documents lack important information and obligations with respect to Affected Systems study processes.⁶⁴ EDF argues that the Complaint identifies that PJM is not abiding by its existing JOA obligation to provide timely Affected System studies to allow MISO to timely perform its obligations under its tariff; rather, MISO has been identifying PJM as the cause of delays in its system impact study delivery times for reasons unknown.⁶⁵ EDF states that the Complaint points out specific delays in MISO's August 2016 Central study group and February 2016 East study group due to delays in Affected System information. EDF states that MISO updated its study delivery schedule in mid-November 2017, and EDF alleges that PJM continues its failure to timely deliver Affected System information.⁶⁶ EDF argues that the lack of detail as to the cause of the delays does not render the Complaint deficient, as MISO and PJM have not made that information public. EDF states that the only documents and information available to it are: (1) the tariff and JOA provisions that govern generator interconnection and list the requirement to provide Affected System studies; and (2) MISO's representations about why it is unable to comply with its tariff and provide timely study results.⁶⁷ EDF further argues that the motion to dismiss ignores significant allegations in the Complaint, such as: (1) PJM is determining Affected System costs through standards that have not been vetted before the Commission and established as just and reasonable; and (2) PJM has not

⁶³ *Id.* at 10. PJM also argues that some issues outlined in the Complaint are pending on rehearing of MISO's interconnection queue reform in Docket No. ER17-156-000. The Commission issued a final order in that proceeding after the Complaint and the motion to dismiss were filed, and the order does not address the issues raised in the Complaint. *See Midcontinent Indep. Sys. Operator, Inc.*, 161 FERC ¶ 61,137 (2017) (Queue Reform Rehearing Order).

⁶⁴ EDF Answer to PJM Motion to Dismiss at 2-3.

⁶⁵ *Id.* at 3-4.

⁶⁶ *Id.* at 5-6.

⁶⁷ *Id.* at 6-7.

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established how it determines the impact on its system from generation projects locating in MISO, which leads to Affected System costs.⁶⁸

36. EDF asserts that the Complaint properly explains why the relief sought in the Complaint must proceed outside of the Generator Interconnection NOPR docket.⁶⁹ EDF argues that the Commission in that docket has not proposed any rule to revise Affected System coordination, and it is not known whether the Commission will issue a proposed rule that addresses Affected Systems; in the meantime, there are specific PJM Affected System practices that are directly impacting the rates, terms, and conditions for generator interconnection service and thus must be addressed now.⁷⁰ EDF notes that the Commission has denied motions to dismiss a complaint even where there is a related rulemaking.⁷¹

37. E.ON provides several examples of how it has encountered problems with the Affected System process between MISO and PJM and argues that these encounters show why PJM's motion to dismiss the Complaint should be rejected.⁷²

38. MISO agrees with PJM that the Complaint should be dismissed but argues that the Commission should not dismiss any individual respondent from this proceeding in the event that the Complaint remains pending against others.⁷³

C. MISO, SPP, and PJM Answers to the Complaint

1. The Complaint Should Be Dismissed

39. SPP and MISO argue that the Commission should dismiss the Complaint because it has failed to show how an action or inaction violates applicable statutory standards,

⁶⁸ *Id.* at 8-9.

⁶⁹ *Id.* at 10.

⁷⁰ *Id.* at 10-11.

⁷¹ *Id.* at 11 (citing *Northern Indiana Pub. Serv. Co. v. Midcontinent Indep. Sys. Operator, Inc. and PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,058).

⁷² E.ON Comments in Support of the Complaint and Response to Motion to Dismiss at 5-8 (E.ON Comments).

⁷³ MISO Answer to PJM Motion to Dismiss at 4.

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regulatory requirements, or applicable Commission policies.⁷⁴ SPP asserts that the Complaint fails to explain how SPP has violated the SPP tariff or MISO-SPP JOA, how the SPP tariff or the MISO-SPP JOA are inconsistent with Commission policy, or what provision of Order No. 2003 requires the detail the Complaint seeks with respect to Affected Systems coordination. SPP contends that the Complaint does not provide evidentiary support for its claims and instead relies on vague allegations of delays in MISO's interconnection studies.⁷⁵ SPP states that the Complaint alleges no dollar amount of financial impact from SPP's alleged actions or inactions.⁷⁶ Finally, SPP and PJM argue that the Complaint has not met the requirement to state whether informal dispute resolution procedures were used, as EDF met only with MISO but did not meet with SPP or PJM regarding the issues set forth in the Complaint.⁷⁷

2. The Complaint Should Be Denied Because It Fails to Identify Any Action or Inaction that Violates Applicable Statutory Standards or Regulatory Requirements

40. If the Commission does not dismiss the Complaint, MISO, SPP, and PJM request that the Commission deny the Complaint on its merits given the lack of evidence of any statutory or regulatory violation by the RTOs.⁷⁸ SPP and MISO state that Order No. 2003 does not require Affected Systems to participate in the process when conducting interconnection studies, nor does it impose any liability on the transmission provider resulting from delays by the Affected System.⁷⁹ PJM and MISO note that the Commission in Order No. 2003 recognized that an Affected System may choose not to abide by the time limits established for interconnection studies, as the Affected System is

⁷⁴ SPP Answer to the Complaint at 4; MISO Answer to the Complaint at 3 (both citing 18 C.F.R. § 385.206(b)(1)-(2) (2017)).

⁷⁵ SPP Answer to the Complaint at 6-7 (citing 18 C.F.R. § 385.206(b)(8) (2017)).

⁷⁶ *Id.* at 7-8 (citing 18 C.F.R. § 385.206(b)(4) (2017)).

⁷⁷ *Id.* at 9; PJM Answer to the Complaint at 29 (both citing 18 C.F.R. § 385.206(b)(9)(i) (2017)).

⁷⁸ SPP Answer to the Complaint at 10; PJM Answer to the Complaint at 16; MISO Answer to the Complaint at 3, 14.

⁷⁹ SPP Answer to the Complaint at 11; MISO Answer to the Complaint at 14 (both citing Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 121).

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not bound by the terms of the LGIP.⁸⁰ PJM and MISO further assert that Order No. 2003 specifically provided that transmission providers are not required to include Affected System analysis alongside system impact and facilities studies.⁸¹

41. The RTOs argue that their tariffs and JOAs are consistent with, and in fact are superior to, the requirements of Order No. 2003.⁸² SPP states that section 9.4 of the MISO-SPP JOA contains detailed requirements for the coordination of studies and upgrades, including: (1) steps for determining whether an interconnection request on the host RTO's transmission system will impact another RTO's system; (2) a requirement to notify the other RTO if any potential reliability concerns on the other RTO's system are identified; and (3) procedures allowing the potentially impacted RTO to participate in coordinated studies.⁸³ PJM points to PJM Manual 14A, noting that section 1.17 explains the transmission reinforcement and study criteria used by each RTO, imposes obligations on the host RTO to monitor the potentially Affected System, contains additional detail regarding study time frames, and provides that cost allocation for the upgrades is governed by the Affected System tariff.⁸⁴

42. PJM and MISO also point to section 9.3.3 of the MISO-PJM JOA, which they argue complies with the Commission's requirement that the RTOs: (1) monitor the other's system for potential impact and include any such impact in each RTO's system impact study report; (2) forward to the other RTO at a minimum of twice per year information necessary to study the impact of interconnection requests on its transmission system; and (3) study the impact of interconnection requests on their systems and provide drafts to each other by specific dates.⁸⁵

⁸⁰ PJM Answer to the Complaint at 17; MISO Answer to the Complaint at 15 (both citing Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 121).

⁸¹ PJM Answer to the Complaint at 17; MISO Answer to the Complaint at 15 (both citing Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 121).

⁸² SPP Answer to the Complaint at 13; PJM Answer to the Complaint at 8; MISO Answer to the Complaint at 7-8.

⁸³ SPP Answer to the Complaint at 14.

⁸⁴ PJM Answer to the Complaint at 10.

⁸⁵ *Id.* at 18-19; MISO Answer to the Complaint at 9, 16-17.

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43. MISO notes that MISO BPM 15 contains specific procedures applicable to study coordination with PJM and SPP, which include: (1) protocols for studying PJM and SPP interconnection request impacts on MISO transmission; (2) protocols for studying MISO interconnection request impacts on PJM and SPP transmission; (3) coordination of projects with provisional/conditional GIAs; and (4) certain limitations on one RTO party's generators with impacts on the other RTO party's system.⁸⁶

3. The Complaint Should Be Denied because It Does Not Provide Evidentiary Support for Its Claims

44. MISO, SPP, and PJM argue that EDF fails to meet its section 206 burden to proffer specific evidentiary support for the claims in the Complaint.⁸⁷ SPP and PJM state that EDF makes vague claims about delays in study timelines due to MISO waiting on Affected System study results but makes no showing that SPP or PJM were responsible for any delay nor that any delay violates any statutory, regulatory, or tariff provisions.⁸⁸ PJM asserts that the Commission has said that delays in receiving Affected System information are to be expected, contending that these delays do not justify finding that the tariffs or MISO-PJM JOA are unjust and unreasonable.⁸⁹ MISO does not dispute that there are some delays but argues that they are not caused solely by deficiencies in the existing Affected System coordination procedures (for instance, MISO states that voltage collapse, queue backlogs, and missing modeling information caused some delays).⁹⁰ MISO contends that EDF is potentially using Affected System coordination as a pretext to continue its fight against MISO's new three-phased interconnection queue study

⁸⁶ MISO Answer to the Complaint at 8 (citing MISO Tariff, Attachment X, GIP § 7.3).

⁸⁷ *Id.* at 3-4, 18-19; SPP Answer to the Complaint at 16 (citing *Californians for Renewable Energy, Inc., v. Pac. Gas and Elec. Co.*, 142 FERC ¶ 61,143, at P 18 (2013)); PJM Answer to the Complaint at 22; *See* 18 C.F.R. § 385.206(b)(8) (2017) (complaint must include all documents that support the facts in the complaint that are in possession of or attainable by the complainant, including but not limited to contracts and affidavits.).

⁸⁸ SPP Answer to the Complaint at 16-17; PJM Answer to the Complaint at 28.

⁸⁹ PJM Answer to the Complaint at 22-23 (citing Queue Reform Rehearing Order, 161 FERC ¶ 61,137 at P 52 (finding that acceptance of MISO's reformed three-phase interconnection study process was not predicated on any showing from MISO that delays would never occur under the new process)).

⁹⁰ MISO Answer to the Complaint at 4, 20-22.

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process and notes that the Commission has twice rejected claims that MISO's Affected System coordination procedures should be revised to conform to the three-phase process.⁹¹

45. MISO refutes EDF's contention that the MISO tariff, BPM, MISO-SPP JOA, and MISO-PJM JOA do not provide any concrete explanation of how MISO coordinates with the other RTOs for Affected System needs.⁹² MISO states that the relevant guidelines are contained in MISO's tariff, section 6 of MISO BPM 15, and section 9.4 of the MISO-SPP JOA. MISO states that section 9.4(b) of the MISO-SPP JOA provides for the parties to coordinate and mutually agree with respect to the nature of studies to be performed to test the impacts of the interconnection. MISO clarifies that the studies are similar to studies SPP performs for its own generator interconnection queue, including steady state thermal and voltage analysis for different system conditions.⁹³ MISO notes that section 6.4.2 of MISO BPM 15 provides that "[d]uring the course of MISO interconnection studies, MISO shall monitor the SPP transmission system and provide the draft results of potential impacts to SPP."

46. SPP and MISO refute EDF's claims that the Affected System coordination procedures between SPP and MISO are unjust and unreasonable because SPP and MISO do not use the same base case in evaluating Affected System impacts.⁹⁴ They note that nothing in the Commission's Affected System policy requires RTOs to use the same base case and that allowing each RTO to use its own base case and models makes sense from a reliability perspective.⁹⁵ SPP also refutes EDF's claim that SPP used "off-the-shelf" historical models that did not include up-to-date power flows in its Affected System analysis conducted as part of MISO's February 2016 West study group coordination.⁹⁶

⁹¹ *Id.* at 5 (citing *Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,003, at PP 88-89 (2017); Queue Reform Rehearing Order, 161 FERC ¶ 61,137 at PP 17, 52).

⁹² *Id.* at 29.

⁹³ *Id.* at 30.

⁹⁴ *Id.* at 24; SPP Answer to the Complaint at 17.

⁹⁵ SPP Answer to the Complaint at 18-19; MISO Answer to the Complaint at 24.

⁹⁶ SPP Answer to the Complaint at 19-20 (citing Complaint at 8).

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a. The Standard to Allocate Costs between RTOs

47. SPP states that EDF is correct that SPP uses a “higher-queued” principle for assigning Affected System costs, whereby network upgrade costs are assigned to higher-queued projects (earlier in time) rather than to lower-queued projects (later in time).⁹⁷ SPP states that cost allocations are based on cluster queue priority because both MISO and SPP study interconnection requests on a cluster basis, in which requests submitted during a defined period of time are studied together. SPP states that, in the example referenced by the Complaint, the MISO February 2016 West cluster window closed in February 2016, and the open window for SPP’s DISIS 2016-001 cluster ended March 31, 2016; therefore, SPP explains, the MISO February 2016 West cluster is higher-queued.⁹⁸

48. SPP refutes EDF’s argument that MISO and SPP inappropriately included \$311 million in SPP Affected System costs to MISO customers as part of the MISO February 2016 West system impact study for network upgrades near the Cooper South constraint, as, EDF argues, SPP identified the need for these network upgrades in the SPP DISIS 2016-001 study completed before the MISO February 2016 West studies commenced.⁹⁹ SPP explains that the upgrades included in the SPP DISIS 2016-001 study are at a minimum 150 miles away from the Cooper South constraint and have only a limited electrical impact on the constraint; therefore, SPP contends, they are unrelated to any costs of upgrades required to address that constraint. Moreover, SPP argues that the \$311 million for a new high-voltage transmission line is not only necessary to address the Cooper South constraint but also mitigates two additional thermal overloads and several additional steady state voltage constraints caused by the generation being interconnected in MISO. Further, SPP contends that the new high-voltage transmission line is necessary to ensure reliability with the interconnection of five gigawatts of additional generation being proposed in the MISO February 2016 West study group.¹⁰⁰ In any event, SPP states that the MISO February 2016 West group is higher-queued, and higher-queued requests are responsible for mitigating impacts.

49. PJM and MISO refute the contention that they apply a hidden “higher-queued” standard that should be included in their tariffs or MISO-PJM JOA.¹⁰¹ PJM states that

⁹⁷ *Id.* at 22.

⁹⁸ *Id.* at 23.

⁹⁹ *Id.* at 25.

¹⁰⁰ *Id.* at 25-26, Purdy Aff. at ¶¶ 17, 19.

¹⁰¹ PJM Answer to the Complaint at 23; MISO Answer to the Complaint at 26-27.

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PJM Manual 14A and the MISO-PJM JOA provide that each RTO shall maintain its own generator interconnection queue and that PJM applies the same queue standards that it applies in its regional process, which is that queue positions of each interconnection request are assigned on a first-come, first-served basis. MISO asserts that the relative positions of projects in the host RTO's and Affected System's queues may affect their cost responsibility for upgrades, and the cost responsibility for upgrades on the Affected System may depend on the queue priority that the Affected System RTO assigns under its tariff to the host RTO's generation.

b. The Modeling Standard to Determine Affected System Impacts

50. SPP refutes EDF's claim that SPP's use of its NRIS standard to evaluate impacts on the SPP system from the interconnection requests in the MISO February 2016 West study group is unjust and unreasonable.¹⁰² SPP explains that, in performing studies to evaluate the impact on the SPP system resulting from an interconnection on a neighboring system, SPP uses the thresholds associated with the same level of service that is requested on the neighboring system.¹⁰³ SPP argues that this approach is appropriate because NRIS and ERIS have different impacts due to different levels of deliverability and curtailment priorities. SPP argues that, if it were to study all neighboring system requests (whether for NRIS or ERIS) using the ERIS threshold, SPP's members would be exposed to negative impacts and SPP would not appropriately assign the interconnection customer the cost of that higher level of service.¹⁰⁴

51. PJM similarly states that it studies requests on MISO's system using the same standard it applies to interconnection requests on its own system consistent with the level of service requested by the interconnection customer.¹⁰⁵ PJM argues that to do otherwise would potentially disadvantage PJM's interconnection customers in terms of adverse impacts to the PJM system and PJM generators that could surface in the form of system congestion or market-to-market payments and inappropriate assignment of costs.

52. MISO disagrees with EDF's contention that the modeling standard must be uniform among all the RTOs, as (1) each RTO has its own unique market structure and

¹⁰² SPP Answer to the Complaint at 24.

¹⁰³ *Id.* at 20-21, Purdy Aff. ¶ 12.

¹⁰⁴ *Id.* at 21.

¹⁰⁵ PJM Answer to the Complaint at 25.

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resource mix, and (2) section 2.5 of the MISO GIP is clear that interconnection customers must comply with the Affected System RTO's procedures when an Affected System study is performed.¹⁰⁶

4. The Complaint Is Not the Appropriate Forum to Address the Concerns

53. The RTOs argue that the Generator Interconnection NOPR docket is the more proper forum to address the Commission's Affected System coordination policy on a generic, industry-wide basis where all stakeholders may be heard, as opposed to a complaint proceeding in which EDF is requesting a policy change applicable to only the named RTO respondents without any explanation of why such RTOs should be held to a different standard than other RTOs or the industry in general.¹⁰⁷

54. The RTOs argue that any outstanding issues involving Affected System Coordination should be addressed through the normal stakeholder channels. MISO states that it has conducted regular meetings with its stakeholders, SPP, and PJM to discuss coordination improvements and expects in the next six months to identify areas that can be optimized.¹⁰⁸ SPP states that its Generation Interconnection Improvement Task Force is addressing Affected System Coordination issues and is open to all stakeholders.¹⁰⁹

D. EDF Answer

55. EDF states that the non-RTO commenters in this proceeding all support well-documented Affected System coordination procedures and that many provide examples of how they have been harmed by a lack of such procedures; thus, EDF contends, there is a clear need for Commission action.¹¹⁰ EDF argues that MISO, SPP, and PJM fail to provide any detail explaining how Affected System coordination occurs and instead cite to the same tariff and JOA provisions that EDF finds vague and unjust and unreasonable.¹¹¹ EDF asserts that delays in MISO's interconnection queue are ongoing

¹⁰⁶ MISO Answer to the Complaint at 28-29.

¹⁰⁷ *Id.* at 6, 17-18; SPP Answer to the Complaint at 30; PJM Answer to the Complaint at 20-21.

¹⁰⁸ MISO Answer to the Complaint at 32.

¹⁰⁹ SPP Answer to the Complaint at 30.

¹¹⁰ EDF Answer at 3-6.

¹¹¹ *Id.* at 6.

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as a result of problems with Affected System information. As an example, EDF notes that MISO will not receive Affected System information from PJM needed for MISO's August 2016 Central study group until February 2018.¹¹²

56. EDF disputes the RTOs' claims that their Affected Systems practices are consistent with Order No. 2003.¹¹³ EDF notes that, in Order No. 2003-A, the Commission clarified that delays by an Affected System in performing interconnection studies or providing information for such studies was not an acceptable reason to deviate from the timelines in Order No. 2003.¹¹⁴ EDF argues that it has clearly demonstrated that the RTOs are not coordinating at a just and reasonable level and therefore are not meeting or exceeding Order No. 2003's requirement that the RTOs coordinate with respect to Affected Systems. EDF contends that, although a general coordination principle from Order No. 2003 may have been acceptable 15 years ago, it is no longer just and reasonable given the evolution of the RTO markets and the establishment of seams issues.

57. EDF claims that the RTOs have never provided any empirical basis to support their ERIS/NRIS practice, nor has the Commission reviewed the justness and reasonableness of the impact standard that each RTO applies.¹¹⁵ EDF argues that, for Affected System study purposes, generation locating on, and sinking power solely with, the host RTO are "external" to the Affected System RTO. Given this, EDF argues that, as there will not be power flows that sink on the Affected System RTO, there will not be impacts on the Affected System RTO. EDF concludes that an NRIS study standard to determine Affected System impacts is not just and reasonable.¹¹⁶ EDF contends that the fact that proposed generation in the host RTO has signed up for NRIS is irrelevant for Affected System study purposes.

¹¹² *Id.* at 7-8.

¹¹³ *Id.* at 10-11.

¹¹⁴ *Id.* at 10 (citing Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at P 121).

¹¹⁵ *Id.* at 22-23.

¹¹⁶ *Id.* at 23-24.

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58. EDF notes that MISO, SPP, and PJM did not adequately respond to its concerns about cost allocation coordination.¹¹⁷ EDF contends that the RTOs provided no details about how a “higher-queued” standard is determined and applied, nor did they adequately respond to EDF’s argument that the RTOs’ practices are inconsistent and can lead to allocating costs differently to projects on the seam.

59. EDF asserts that Commission action is needed soon, as monetary harm is being inflicted and will persist until the MISO, SPP, and PJM tariffs and JOAs are amended to impose specific just and reasonable coordination responsibilities.¹¹⁸ EDF asks the Commission to allow 60 days for the RTOs to submit tariff and JOA revisions containing: (1) an affirmative obligation for the Affected System RTO to deliver Affected System studies in the time needed for the host RTO to meet the study delivery timing requirements in its tariff; (2) an affirmative requirement for the host RTO to include Affected System RTO information with its own study results; (3) an obligation for the host RTO, Affected System RTO, and applicable interconnection customers to be apprised of the base model that the Affected System RTO will use for its analysis and an opportunity to comment before Affected System analysis begins; and (4) an obligation for the Affected System RTO to provide the Affected System model to the host RTO at the time the Affected System results are provided. EDF states that other issues, such as the timing for Affected Systems studies, the Affected System standard to be applied, and cost allocation will require additional time in the stakeholder process.¹¹⁹

E. Comments

60. RES agrees with the Complaint’s conclusion that there is insufficient information about the Affected System coordination process between RTOs and supports a discussion of the issues raised in the Complaint.¹²⁰ Tradewind states that there are inconsistent practices among the RTOs with respect to study coordination, model coordination, optimal upgrade identification, dispatch consistency, queue priority, how the RTOs treat ERIS and NRIS designations within Affected Systems, model availability, cost allocation, and restudy coordination.¹²¹ Tradewind requests that the Commission direct

¹¹⁷ *Id.* at 26-28.

¹¹⁸ *Id.* at 33.

¹¹⁹ *Id.* at 35-36.

¹²⁰ Motion to Intervene and Comments of Renewable Energy Systems Americas Inc. at 1-2.

¹²¹ Tradewind Energy Inc. Comments in Support of the Complaint at 2-7.

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the RTOs to adopt specific improvements in Affected System coordination; if it does not, Tradewind requests that the Commission hold a technical conference.¹²² Alliant Energy supports interconnection reforms that encourage better coordination between Affected Systems and requests that the Commission provide guidelines and/or best practices as to how better coordination could occur between regions.¹²³

61. E.ON and NextEra state that they have also encountered problems with the Affected Systems process between MISO and PJM, such as study results being unavailable in a timely manner or containing errors, which has detrimentally impacted their ability to plan for the interconnection of their projects and caused wasted time and financial resources.¹²⁴ E.ON argues that there is a need to define the study scope of Affected System analysis, including whether an ERIS or NRIS standard should be used and an explanation of how network upgrade impacts are allocated between interconnection customers on both sides of an RTO seam.¹²⁵ E.ON further argues that the tariffs and JOAs should specify dates by which each RTO provides current cluster information to the neighboring RTO so it can perform Affected System analysis.¹²⁶ NextEra argues that transmission providers should be required to align the timing of interconnection studies and standardize or publicize their modeling data.¹²⁷

62. MidAmerican argues that the tariffs and JOAs lack significant details about the Affected Systems study process, which creates uncertainty that affects the rates, terms, and conditions of interconnection customers.¹²⁸ MidAmerican requests that the Commission require a stakeholder process in order to develop specific requirements to coordinate: (1) the timing of Affected System studies; (2) consistent modeling; (3) clear documentation of study methods and queue position on Affected Systems; (4) non-discriminatory treatment of projects on host and Affected Systems; and (5) stakeholder

¹²² *Id.* at 8.

¹²³ Comments and Motion to Intervene of Alliant Energy Corporate Services, Inc. at 2-4.

¹²⁴ E.ON Comments at 2-8; NextEra Comments at 5-8.

¹²⁵ E.ON Comments at 11-16.

¹²⁶ *Id.* at 16-20.

¹²⁷ NextEra Comments at 8-10.

¹²⁸ MidAmerican Comments at 7-8.

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input on the processes involving Affected Systems.¹²⁹

63. The MISO Transmission Owners acknowledge that EDF has identified some valid concerns about the Affected Systems process, but argue that the solutions proposed in the Complaint are too general and fail to recognize that any appropriate remedies will be different for each RTO and each pair of adjacent RTOs.¹³⁰ The MISO Transmission Owners state that the Commission should allow MISO to work to address the issues for each of its Affected Systems through the stakeholder process.

IV. Discussion

A. Procedural Matters

64. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2017), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

65. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2017), the Commission grants NextEra's late-filed motion to intervene, given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

66. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2017), prohibits an answer to an answer unless otherwise ordered by the decisional authority. We will accept EDF's answer because it has provided information that assisted us in our decision-making process.

B. Substantive Matters

67. We reject requests to dismiss the Complaint. We find that EDF has shown that the Affected Systems coordination between MISO, SPP, and PJM may be unjust, unreasonable, or unduly discriminatory or preferential because the tariffs and JOAs do not fully explain the guidelines and timelines that the RTOs use to coordinate with Affected System RTOs during the interconnection process. For instance, EDF alleges a lack of transparency and clarity in the study delivery requirements between the host RTO and the Affected System RTO, as well as in the modeling standards that are used in determining Affected System impacts and associated cost responsibility. EDF points out that the MISO-SPP and MISO-PJM JOAs require SPP and PJM to provide MISO

¹²⁹ *Id.* at 8-12.

¹³⁰ MISO Transmission Owners Comments at 2.

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with Affected System results twice a year, even though MISO's tariff requires four to five system impact studies to be delivered each year, per sub-region, with Affected System results. EDF argues that this timing mismatch between the three phases of MISO's interconnection study process and Affected System study results has caused study delays in MISO. As an example, EDF alleges that difficulties in receiving timely Affected Systems information has delayed MISO's system impact studies for its February 2016 West, February 2016 East, and August 2016 Central interconnection study groups. In addition, EDF's answer alleges that such delays are ongoing (e.g., MISO will not receive Affected System information from PJM, which MISO needed for its August 2016 Central study group, until February 2018). We find that EDF has provided sufficient evidence that this lack of transparency and clarity in the Affected Systems coordination process may result in: (1) unjust and unreasonable practices that result in inappropriate Affected System network upgrade costs; (2) a lack of information necessary to accurately estimate the cost of interconnection service; and (3) delayed interconnection study results, all of which may detrimentally impact an interconnection customer's ability to make decisions about entering or remaining in the interconnection queue and determining whether its project is economically viable.

68. We recognize that, in the Generator Interconnection NOPR, the Commission explained that transmission providers may not provide sufficient information on the guidelines and timelines they will use to coordinate with Affected Systems during the interconnection process.¹³¹ However, the Commission did not propose specific reforms in the Generator Interconnection NOPR to the *pro forma* LGIP/LGIA regarding Affected Systems coordination. The Complaint questions the justness and reasonableness of MISO's, SPP's, and PJM's implementation of the requirement in Order No. 2003 to coordinate with Affected Systems. We find that EDF has raised legitimate issues specific to the MISO, SPP, and PJM tariffs and JOAs that were not raised in the Generator Interconnection NOPR proceeding. Therefore, the Commission's consideration of Affected Systems issues in the Generator Interconnection NOPR proceeding does not merit dismissal of the Complaint.

69. Upon consideration of the Complaint and responses thereto, we find that EDF raises a number of issues related to the Affected Systems coordination between MISO, SPP, and PJM that warrant further examination. The record developed thus far suggests that such issues, and the underlying need to ensure that transmission providers offer all generators interconnection service pursuant to just and reasonable terms and conditions, may warrant further clarity in the Affected Systems coordination between MISO, SPP, and PJM. We find that a technical conference is an appropriate vehicle to develop a more complete record concerning these issues and the specific reforms proposed by EDF in the

¹³¹ Generator Interconnection NOPR, 157 FERC ¶ 61,212 at P 158.

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Complaint. Therefore, we direct Commission staff to establish a technical conference to explore these issues. We note that Commission staff at the technical conference will also consider issues related to Affected Systems coordination that were raised in response to the Generator Interconnection NOPR. We find that holding a joint technical conference on Affected Systems issues identified both in this Complaint and in the Generator Interconnection NOPR will offer the Commission and interested parties the opportunity to consider specific reforms in MISO, SPP, and PJM at the same time as more generic reforms. A notice will be issued concurrently with this order to establish dates and technical conference details.

70. In cases where, as here, the Commission institutes an investigation on complaint under section 206 of the FPA, section 206(b) requires that the Commission establish a refund effective date that is no earlier than the date a complaint was filed, but no later than five months after the filing date. Consistent with our general policy of providing maximum protection to customers,¹³² we set the refund effective date at the earliest date possible, i.e., October 30, 2017, the date of the Complaint.

71. Section 206(b) also requires that, if no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to section 206, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision. Based on our review of the record, we expect that the Commission should be able to render a decision within 12 months of the commencement of the technical conference.

The Commission orders:

(A) Commission staff is hereby directed to convene a technical conference to explore issues related to the Affected Systems coordination between MISO, SPP, and PJM, as well as the Affected Systems coordination issues raised in the Generator Interconnection NOPR, to be held at a date specified in a concurrent notice, as discussed in the body of this order.

¹³² See, e.g., *Seminole Elec. Coop., Inc. v. Fla. Power & Light Co.*, 65 FERC ¶ 61,413, at 63,139 (1993); *Canal Elec. Co.*, 46 FERC ¶ 61,153, at 61,539 (1989), *reh'g denied*, 47 FERC ¶ 61,275 (1989).

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(B) The refund effective date established in Docket No. EL18-26-000 pursuant to section 206(b) of the FPA will be October 30, 2017, as discussed in the body of this order.

By the Commission. Chairman McIntyre is not participating.

(S E A L)

Kimberly D. Bose,
Secretary.

Document Content(s)

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