



2. Pursuant to *Allegheny Defense Project v. FERC*,<sup>4</sup> the rehearing request filed in this proceeding may be deemed denied by operation of law. However, as permitted by section 313(a) of the Federal Power Act,<sup>5</sup> we are modifying the discussion in the June 2020 Order and setting aside the order, in part, as discussed below.<sup>6</sup>

### **I. Background**

3. 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.<sup>7</sup> Order No. 2003 also required the transmission provider to coordinate interconnection studies and planning meetings with Affected Systems.<sup>8</sup> The Commission stated that, when a transmission provider adds its own new generation to its system, this may have a reliability effect on other systems, requiring coordination among systems. The Commission explained that 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 affiliates.<sup>9</sup>

4. The Commission found that the transmission provider must allow any Affected System to participate in the process when conducting interconnection studies and incorporate the legitimate safety and reliability needs of the Affected System. The Commission also stated that the Affected System is not required to participate in that process, and if the Affected System declines to work with the transmission provider, or fails to provide information in a timely manner, the transmission provider may proceed in the interconnection process without taking into account the information that could have

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<sup>4</sup> 964 F.3d 1 (D.C. Cir. 2020) (en banc).

<sup>5</sup> 16 U.S.C. § 825l(a) (“Until the record in a proceeding shall have been filed in a court of appeals, as provided in subsection (b), the Commission may at any time, upon reasonable notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any finding or order made or issued by it under the provisions of this chapter.”).

<sup>6</sup> 964 F.3d at 16-17.

<sup>7</sup> Order No. 2003, 104 FERC ¶ 61,103 at P 1.

<sup>8</sup> *Id.* PP 36, 116, 122.

<sup>9</sup> *Id.* P 122

been provided by the Affected System.<sup>10</sup> In Order No. 2003-A, the Commission further required that the results of any study of the effect of the interconnection on any Affected System be included in the host transmission provider's (i.e., the transmission provider to whose system an interconnection customer is seeking to interconnect) interconnection study within the time frame specified by the host transmission provider's LGIP "if available," which allows the interconnection process to proceed even in the face of delays or non-response by the Affected System.<sup>11</sup>

5. MISO and PJM are Commission-approved regional transmission organizations (RTO) and, as such, are also transmission providers. MISO's and PJM's tariffs contain provisions regarding Affected Systems coordination that are in addition to those contained in the Commission's *pro forma* LGIP.<sup>12</sup> Each RTO's tariff also identifies the requirement for the host RTO to coordinate with neighboring RTOs that are Affected Systems. In addition, the RTOs have entered into a Joint Operating Agreement (JOA),<sup>13</sup> which outlines the RTOs' processes for Affected System coordination and exchange of data and information between them. MISO's and PJM's business practice manuals provide additional information on their Affected System coordination procedures.<sup>14</sup>

6. On October 30, 2017, EDF Renewable Energy, Inc. (EDF)<sup>15</sup> filed a complaint with the Commission in Docket No. EL18-26-000. In the complaint, EDF argued, among other things, that the MISO and PJM tariffs, as well as the MISO-PJM JOA, were not

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<sup>10</sup> *Id.* P 121.

<sup>11</sup> Order No. 2003-A, 106 FERC ¶ 61,220 at P 115.

<sup>12</sup> See MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff, Attachment X, Generator Interconnection Procedures § 3.5 (Coordination with Affected Systems) (127.0.0); PJM Open Access Transmission Tariff, § 202 (Coordination with Affected Systems) (0.0.0).

<sup>13</sup> MISO, FERC Electric Tariff, MISO Rate Schedules, Rate Schedule No. 5, MISO-PJM Joint Operating Agreement (31.0.0); PJM, FERC Electric Tariff, Interregional Agreements, MISO-JOA (1.0.0) (MISO-PJM JOA). MISO and PJM each maintain their own versions of the MISO-PJM JOA in their respective eTariff databases at the Commission.

<sup>14</sup> See MISO BPM-015, § 6.1.1.1.3; PJM Manual 14A, § 1.17.1.

<sup>15</sup> EDF has since changed its name to EDF Renewables, Inc.

sufficiently detailed regarding the coordination that occurs between a host RTO and an Affected System RTO.<sup>16</sup>

7. On September 19, 2019, the Commission granted the EDF complaint in part, denied the complaint in part, and directed MISO and PJM to make compliance filings.<sup>17</sup> The Commission found the lack of transparency surrounding whether MISO and PJM used the Network Resource Interconnection Service (NRIS) or Energy Resource Interconnection Service (ERIS)<sup>18</sup> modeling standards when conducting Affected System studies was unjust and unreasonable.<sup>19</sup> The Commission explained that the Affected System RTO's choice to study interconnection customers under the ERIS versus the NRIS modeling standard had the potential to significantly affect interconnection costs and should be part of the MISO-PJM JOA filed with the Commission. The Commission directed MISO and PJM to submit compliance filings to revise their JOA to describe the modeling standard (i.e., ERIS or NRIS) they use, as the Affected System RTO, to study

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<sup>16</sup> In the complaint, EDF made similar arguments about the Southwest Power Pool, Inc. (SPP) tariff and MISO-SPP JOA.

<sup>17</sup> September 2019 Order, 168 FERC ¶ 61,173.

<sup>18</sup> The Commission's *pro forma* LGIA defines ERIS and NRIS as follows:

[ERIS] shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an available basis. [ERIS] in and of itself does not convey transmission service.

[NRIS] shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System: (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. [NRIS] in and of itself does not convey transmission service.

<sup>19</sup> September 2019 Order, 168 FERC ¶ 61,173 at P 87.

interconnection customers that request NRIS or ERIS in the host RTO.<sup>20</sup> The Commission stated that it would evaluate whether the revisions that MISO and PJM proposed to comply with the directives in the September 2019 Order were just and reasonable in the proceedings addressing the compliance filings.<sup>21</sup>

8. In the June 2020 Order, the Commission accepted, in part, MISO and PJM's compliance filings to the September 2019 Order and directed MISO and PJM to submit further compliance filings.<sup>22</sup> The Commission found that MISO and PJM complied with the directive to describe the modeling standard (i.e., ERIS or NRIS) that they use to study, as the Affected System RTO, interconnection customers that request NRIS in the host RTO and interconnection customers that request ERIS in the host RTO. However, the Commission found that there was insufficient detail, in the proposed revisions to the MISO-PJM JOA regarding sink and dispatch assumptions.<sup>23</sup>

9. With respect to dispatch assumptions, the Commission found that when conducting a study of the impact of an interconnection request in the host RTO, the Affected System should use the dispatch assumptions of the host RTO, as those assumptions most closely reflect how the generator would actually be dispatched.<sup>24</sup> The Commission pointed to PJM's acknowledgement in its answer that it used the fuel-based dispatch assumptions of MISO in its Affected System studies, although neither the MISO-PJM JOA or PJM's BPMs reflected this practice.<sup>25</sup> The Commission found that an Affected System study using a different set of dispatch assumptions than the host RTO in which the generator is requesting interconnection may lead to unjust and unreasonable rates through assignment of network upgrade costs. The Commission stated that, for example, if an Affected System study's dispatch assumptions model a certain type of generator at a higher capacity factor than the host RTO (e.g., 40% vs. 15%), the study will overstate the impact of that type of generator, which may lead to assignment of network upgrade costs that would have otherwise been avoided had the Affected System study used the dispatch assumptions of the host RTO. The Commission therefore directed MISO and PJM to file a further compliance filing revising the MISO-PJM JOA

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<sup>20</sup> *Id.*

<sup>21</sup> *Id.* P 21.

<sup>22</sup> June 2020 Order, 171 FERC ¶ 61,278 at PP 46-47.

<sup>23</sup> *Id.* P 50.

<sup>24</sup> *Id.* P 51.

<sup>25</sup> *Id.* (citing PJM, Answer, Docket No. ER20-939-000 at 12 (filed Mar. 13, 2020)).

to specify that MISO's and PJM's Affected System studies will model interconnection requests using the fuel-based dispatch assumptions of the host RTO.<sup>26</sup>

## II. Discussion

### A. Request for Rehearing

10. MISO and PJM argue on rehearing that the Commission relied upon an incorrect interpretation of the fuel-based dispatch assumptions that PJM uses for Affected System studies. MISO and PJM note that, in the June 2020 Order, the Commission stated that PJM acknowledged, in a March 13, 2020 answer to the compliance filing, that its Affected System studies used MISO's fuel-based dispatch assumptions.<sup>27</sup> In the answer, PJM stated:

PJM studies a MISO generator based upon the amount of NRIS or ERIS requested in its MISO interconnection request. For example, in the case of a wind generator in MISO requesting NRIS service, PJM may reduce the level of NRIS under study consistent with the capacity factor applied by MISO in its studies (e.g., if MISO applies a 15% capacity factor to a 100 MW wind generator requesting 100 MW of NRIS in MISO, PJM would apply a cap of 15% to the MISO generator under PJM's Affected System study).<sup>28</sup>

On rehearing, MISO and PJM explain that this example was trying to highlight how PJM studies, as an Affected System, a MISO wind generator requesting NRIS in MISO. However, they concede that this example neglected to state that MISO allows wind generators to request NRIS up to their full nameplate capacity value of 100%. MISO and PJM state that they did not intend this example to communicate that PJM follows MISO's fuel-based dispatch assumptions. Rather, they state that, like MISO, PJM as the Affected System RTO applies PJM criteria and uses PJM fuel-based dispatch assumptions for both PJM interconnection customers and MISO interconnection customers when a capacity factor is applied to wind generation for summer peak analysis. MISO and PJM assert that if PJM is required to follow the MISO fuel-based dispatch patterns, PJM will end up

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<sup>26</sup> *Id.*

<sup>27</sup> MISO and PJM Request for Rehearing at 8 (citing June 2020 Order, 171 FERC ¶ 61,278 at P 51).

<sup>28</sup> *Id.* (citing PJM, Answer, Docket No. ER20-939-000 at 12 (filed Mar. 13, 2020)).

attributing more violations to MISO wind generators in PJM's Affected System studies for impacts that, based on PJM's experience, are not valid.<sup>29</sup>

11. MISO and PJM also argue that the Commission's finding that the dispatch assumptions of the host RTO most closely reflect how the generator would actually be dispatched is unsupported by the record.<sup>30</sup> MISO and PJM assert that the purpose of the Affected System analysis is to identify required system upgrades caused by both PJM interconnection customers and MISO interconnection customers so that PJM, for example, may allocate the costs of system upgrades to the interconnection customer driving the need for the upgrade. MISO and PJM contend that the only way to fairly identify required system upgrades when evaluating interconnection customers is to subject the MISO generation to the same PJM planning criteria, planning tests, and dispatch assumptions that PJM applies to its own interconnection customers when analyzing the impacts to the PJM system. According to the RTOs, if PJM were to apply MISO's fuel-based dispatch assumptions to the MISO generator and dispatch the MISO wind generator to 100% capacity and the PJM wind generator at a 15% capacity factor, PJM would likely identify greater system impacts from the MISO wind generator.<sup>31</sup>

12. MISO and PJM also argue that the Commission's finding that an Affected System study using a different set of dispatch assumptions than the host RTO may lead to unjust and unreasonable rates through assignment of network upgrade costs is not supported by any evidence in the record.<sup>32</sup> MISO and PJM maintain that in order to assign upgrade responsibility and allocate costs among MISO and PJM wind generators, the more equitable approach is to treat them similarly by applying the same test, criteria, or similar dispatch assumptions of the specific RTO whose system is being studied for impacts.<sup>33</sup>

13. MISO and PJM also argue that the Commission's finding that Affected System RTOs may use their own modeling criteria (i.e., NRIS and ERIS) for all interconnection requests, including Affected System studies, but cannot use their own fuel-based dispatch

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<sup>29</sup> *Id.* at 8-9.

<sup>30</sup> *Id.* at 10 (citing June 2020 Order, 171 FERC ¶ 61,278 at P 51).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* (citing June 2020 Order, 171 FERC ¶ 61,278 at P 51).

<sup>33</sup> *Id.* at 10-11.

assumptions when conducting an Affected System study, results in contradictory rulings without adequate explanation.<sup>34</sup>

14. Further, MISO and PJM state that each RTO's fuel-based dispatch assumptions are an integrated component of their larger interconnection and planning models that were customized to work with the rest of the RTO's models and study processes, and in many cases, are not compatible with the Affected System RTO's processes.<sup>35</sup>

15. More specifically, MISO and PJM state that each RTO uses base cases as part of its interconnection studies that are different from those of its neighbor. For example, MISO states that it uses summer peak and shoulder peak scenarios. PJM states that, by contrast, it uses summer peak and light load scenarios. MISO and PJM explain that the load in the MISO shoulder peak scenario is assumed to be 70-80% of summer peak load, while the load in the PJM light load scenarios is assumed to be 50% of summer peak load. MISO and PJM contend that, as an example, when MISO's fuel-based dispatch assumption for solar is listed at 50% in the shoulder peak case,<sup>36</sup> that 50% assumption is a product of the MISO shoulder peak case and keyed to the parameters of that case.<sup>37</sup> MISO and PJM maintain that because they do not use the same base cases, inserting the fuel-based dispatch assumption that PJM uses in its light load case for solar, which is 0%, into MISO's shoulder peak case would result in a study model that reflected neither PJM's dispatch nor MISO's. MISO and PJM explain that the 0% assumption used in PJM's light load case is not equivalent to a 0% assumption used in MISO's shoulder peak case. The RTOs state that the same would be true if PJM were to perform its light load analysis while using MISO's shoulder peak case assumptions and dispatch.<sup>38</sup>

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<sup>34</sup> *Id.* at 10-13 (citing September 2019 Order, 168 FERC ¶ 61,173 at P 86 (stating that “differences in the market structures across [the RTOs] may justify each RTO using its own approach, such as an NRIS or ERIS modeling standard, to evaluate the impacts to it as an Affected System regardless of the level of service that an interconnection customer is requesting in the host RTO.”)).

<sup>35</sup> *Id.* at 14.

<sup>36</sup> *Id.* (citing MISO BPM-015 at Table 6-1). Table 6-1 provides that “Dispatch level for solar resources will be aligned with solar dispatch in the MTEP shoulder peak case. It was 50% in 2017 MTEP shoulder peak case. This value is subject to change based on the solar capacity credit which is calculated annually.”

<sup>37</sup> MISO and PJM state that this same solar facility would be modeled at 100% dispatch in MISO's summer peak case. *Id.*

<sup>38</sup> *Id.* at 14-15.



16. Further, MISO and PJM argue that MISO's interconnection study procedures and modeling rules are inextricably linked with other MISO processes.<sup>39</sup> They explain that this applies to MISO's dispatch assumptions as well, which are part of MISO's planning criteria and linked with MISO's regional transmission plan. MISO and PJM argue that MISO cannot simply adopt PJM's cases for studying Affected System interconnection customers in order to apply their fuel-based dispatch assumptions, because this would decouple and create incongruities between MISO's planning and interconnection studies. They assert that, in effect, this directive would impose a partially unified planning criteria on the RTOs that is inconsistent with what either currently uses.<sup>40</sup>

17. MISO and PJM also contend that PJM's interconnection assumptions are linked with other PJM processes, such as PJM's regional transmission expansion plan (RTEP) models, dispatch assumptions, and planning criteria, and, PJM would face similar challenges applying dispatch and criteria that is not consistent with the established PJM criteria.<sup>41</sup>

18. Additionally, MISO and PJM state that they use different tools to perform their deliverability analyses. They contend that many studies will automatically dispatch generators differently based on the contingency and each constrained facility, which they argue can impact the study result. MISO and PJM further state that PJM performs one study for one scenario for both ERIS and NRIS studies combined, compared to MISO, which performs separate ERIS and separate NRIS studies. They maintain that each of their analytic tools are customized to reflect their processes.<sup>42</sup>

19. Finally, MISO and PJM argue that requiring the Affected System RTO to use the dispatch assumptions of the host RTO would be unduly discriminatory and preferential. MISO and PJM state that the Commission held that "MISO . . . and PJM should be permitted to evaluate Affected System impacts in accordance with their existing practices,"<sup>43</sup> and that the Commission has not provided a reasoned explanation for its departure from this principle. They further maintain that this requirement is unduly

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<sup>39</sup> *Id.* at 15 (citing September 2019 Order, 168 FERC ¶ 61,173 at P 86).

<sup>40</sup> *Id.* at 15-16.

<sup>41</sup> *Id.* at 16.

<sup>42</sup> *Id.* at 16-17.

<sup>43</sup> *Id.* at 17 (citing September 2019 Order, 168 FERC ¶ 61,173 at P 86).

discriminatory and preferential because the Affected System RTO would be required to study similarly-situated interconnection requests under different dispatch assumptions.<sup>44</sup>

**B. Commission Determination**

20. Upon reconsideration, we are persuaded by the arguments raised on rehearing that the Commission should not have directed the Affected System RTO to use the dispatch assumptions of the host RTO when it conducts Affected System studies. Thus, we set aside the June 2020 Order, in part.

21. In the June 2020 Order, the Commission found that when conducting a study of the impact of an interconnection request in the host RTO, the Affected System should use the dispatch assumptions of the host RTO. The Commission found that an Affected System study using a different set of dispatch assumptions than the host RTO in which the generator is requesting interconnection may lead to unjust and unreasonable rates through assignment of network upgrade costs.

22. We note that the Commission's determination in the June 2020 Order partially relied on an explanation and example that PJM provided in its answer in Docket No. ER20-939-000, in which PJM stated that it used MISO's dispatch assumptions when studying MISO generators in its Affected System studies.<sup>45</sup> As an example, PJM submitted an excerpt from an Affected System study report it provided to MISO, in which it stated that it modeled MISO NRIS projects at 15.6% capacity (i.e., MISO's fuel-based dispatch assumption for wind generators for summer peak analysis).<sup>46</sup> Based on the information that MISO and PJM provided in their request for rehearing, it appears that the Commission based the fuel-based dispatch assumption compliance directive in the June 2020 Order on incomplete and incorrect information provided by PJM.

23. We are persuaded by the arguments raised on rehearing that each RTO's fuel-based dispatch assumptions are an integrated component of their larger interconnection and planning models, and more specifically, their corresponding base cases, which are different for each RTO, and in some cases use different load assumptions. We agree with MISO and PJM that these fuel-based dispatch assumptions are not logically severable from the framework in which they were developed, and in many cases, are not compatible with the Affected System RTO's processes. We further

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<sup>44</sup> *Id.* (citing *Dynegy Midwest Generation, Inc. v. FERC*, 633 F.3d 1122, 1127 (D.C. Cir. 2011) (generators located in different zones are similarly-situated for purposes of receiving reactive power compensation)).

<sup>45</sup> *See* PJM, Answer, Docket No. ER20-939-000 at 12 (filed Mar. 13, 2020).

<sup>46</sup> *Id.* at 6.

agree that requiring MISO and PJM to use each other's fuel-based dispatch assumptions as part of their own model when conducting Affected Systems analysis has the potential to result in unjust, unreasonable, and unduly discriminatory rates, terms, and conditions of service under the RTOs' tariffs.

The Commission orders:

In response to MISO and PJM's request for rehearing, the June 2020 Order is hereby modified and set aside, in part, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.