UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent	)	
System Operator, Inc.	)	**Docket No. ER22-1640-001**
	)	

MOTION FOR LEAVE TO ANSWER AND
ANSWER OF THE MIDCONTINENT INDEPENDENT
SYSTEM OPERATOR, INC.

The Midcontinent Independent System Operator, Inc. ("MISO") submits[1] this Motion for Leave to Answer and Answer to the comments and protests recently filed in Docket No. ER22-1640-001 by the following entities: Sierra Club and Union of Concerned Scientists (the "Public Interest Organizations" or "PIOs"), Advanced Energy Economy ("AEE"), Solar Energy Industries Association ("SEIA"), and Advanced Energy Management Alliance ("AEMA") (PIOs, AEE and SEIA are collectively referred to as the "Protesting Parties"). The comments and protests submitted by the Protesting Parties address MISO's Response to Letter Requesting Information, which was submitted by MISO in the above-captioned proceeding on October 11, 2022, in response to the Commission's request for additional information. This proceeding relates to proposed revisions to MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff ("Tariff") in compliance with the Federal Energy Regulatory Commission's (the "Commission") Order No. 2222.[2]

I. MOTION FOR LEAVE TO FILE ANSWER

Under Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, answers to

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1 *See* Rules 212 and 213 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC" or "Commission"), 18 C.F.R. §§ 385.212 and 213 (2016).

2 Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, 172 FERC ¶ 61,247 (2020) ("Order No. 2222").

protests are generally not permitted.[3] Nonetheless, the Commission waives this requirement where an otherwise prohibited answer would clarify the issues under consideration, ensure completeness of the record, or assist the Commission in its decision-making.[4] In this case, MISO provides a response to the concerns raised by the Protesting Parties that will clarify the issues under consideration, correct inaccurate statements, and assist the Commission with its decision-making. Accordingly, Rule 213(a)(2) should be waived in the instant case for good cause shown.

II. ANSWER TO THE PROTESTING PARTIES

A. MISO's proposed effective date is just and reasonable.

The Protesting Parties reiterate several earlier claims that MISO's proposed effective date for Order No. 2222 implementation is not just and reasonable, and highlight various claimed deficiencies in MISO's compliance filing. For the reasons previously set forth in this proceeding, and as discussed more fully below, the Protesting Parties' claims lack merit.

The PIOs allege that MISO's filing "does not respond to the Commission's request for [an] explanation of what efforts MISO took to 'quantify the reliability, transparency, and market-related benefits of removing barriers to the participation of DERAs in MISO's markets.'"[5] The PIOs also claim that MISO is "preferencing the optional [Multiple Configuration Resource] over the Commission-mandated Order No. 2222,"[6] and that MISO "has not adequately explained why Commission-mandated compliance with Order No. 2222 must wait for the optional

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3 *See* 18 C.F.R. § 385.213(a)(2) (2019).

4 *See, e.g.*, *Southwest Power Pool, Inc.*, 143 FERC ¶ 61,018, at P 15 (2013) (accepting answer that assisted in the decision-making process); *Texas Eastern Transmission, LP*, 122 FERC ¶ 61,205, at P 8 (2008) (accepting answer that completed the record); *California Independent System Operator Corp.*, 105 FERC ¶ 61,284, at P 10 (2003) (accepting answer that clarified the issues).

5 PIOs Protest, p. 2.

6 *Id.*, p. 3.

implementation of MCR."[7] Similarly, AEE and SEIA claim that by proposing to implement MCR first, "MISO is choosing to keep barriers to participation of DER aggregations in place nearly a decade after the Commission first sought to remove them."[8] Likewise, AEMA reiterates it prior allegation that MISO's proposed effective date is "objectively outrageous,"[9] and claims that MISO has not provided a practical explanation for its implementation timeline "given the rapidly evolving needs of consumers and opportunities to implement a two-phase approach."[10] AEMA also claims that MISO's response does not address a phased-in approach or whether the system could support limited DEAR implementation within existing participation models.[11]

None of these asserted concerns justify a departure from MISO's proposed implementation date. In its initial filing, MISO explained that its proposed effective date of October 1, 2029 is a reasonable implementation date for the MISO Region.[12] MISO noted that, consistent with Order No. 2222's direction, MISO evaluated the unique needs of its stakeholders as a whole, along with MISO's market systems, software, and measures to address reliability in the MISO Region and, based on this evaluation, MISO arrived on the October 1, 2029 effective date.[13] MISO provided further explanation and guidance supporting its proposed effective date in its July 8, 2022 Answer.[14] More recently, in response to the Commission's August 12, 2022 letter, MISO provided additional detail and clarification supporting its proposed effective date.[15] MISO respectfully

7 *Id*., pp. 3-4.

8 AEE and SEIA Protest, p. 4.

9 AEMA Protest, p. 2.

10 *Id*.

11 *Id*., pp. 3-4.

12 Apr. 14, 2022 Letter from M. Kessler to the Hon. K. Bose, Docket No. ER22-1640, p. 1.

13 *Id*.

14 July 8, 2022 MISO Mot. for Leave to Answer and Answer, Docket No. ER22-1640, pp. 3-7.

15 Oct. 11, 2022 Letter from S. Clay to the Hon. K. Bose, Docket No. ER22-1640, pp. 59-61.

submits that its prior responses meet any burden to establish that the proposed effective date is just and reasonable.

Moreover, as MISO has explained, MISO's efforts to implement its MCR initiative have been delayed by the mandates of Order No. 841, relating to electric storage participation in markets operated by regional transmission organizations and independent system operators.[16] MISO has explained that Order No. 841's timing necessitated that Electric Storage Resource ("ESR") functionality had to be built twice – on the legacy system and the new market system.[17] The new ESR product has added additional complexity to the new market system and the requirement to implement ESR functionality twice has pulled away highly skilled MISO and vendor resources and delayed the overall MSE implementation time.[18] Furthermore, MISO has developed and implemented the short-term reserves ("STR") product on its legacy systems because of the immediate benefits it would deliver to the MISO Region.[19] Implementing this functionality in the new market system, originally implemented in the legacy system, is also adding to the complexity of the new market system integration.[20]

The Protesting Parties' suggestions that MISO's proposed effective date limits the ability of DERs to participate under the current construct overlook the testimony filed with MISO's initial filing. As Ms. Laura Rauch explained, DERs "participate in a number of existing resource types within MISO."[21] Ms. Rauch outlined several existing resource types that offer opportunities for

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16 *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018).

17 Apr. 14, 2022 T. Ramey Testimony, Docket No. ER22-1640, p. 12 ("Ramey Testimony").

18 *Id.*, pp. 12-13.

19 *Id.*, p. 12.

20 *Id.*

21 Apr. 14, 2022 L. Rauch Testimony, Docket No. ER22-1640, p. 16 ("Rauch Testimony").

DERs to participate, to one degree or another.[22] MISO reiterated these points in its July 8, 2022 Answer, noting that Ms. Rauch's testimony "describes the existing resource models that support multi-nodal aggregation (*i.e.*, Demand Response Resource Type I ('DRR Type I'), Load Modifying Resource ('LMR') and Emergency Demand Response Resource ('EDR'))."[23] MISO respectfully submits that its filings establish the need for its requested approach and implementation date, particularly in light of the complexities involved in implementing market improvements in tandem.

B. MISO's single EP Node approach is just and reasonable.

The Protesting Parties similarly rehash a number of arguments criticizing MISO's proposed single elemental pricing node ("EP Node"). These claims appear focused on the degree to which MISO has addressed the Commission's questions, claiming that MISO did not sufficiently justify its positions. These claims should be rejected.

The PIOs assert that MISO's response does not "provide new information sufficient to justify its decision to forbid multi-nodal aggregations."[24] The PIOs point to claims by other protesters to the effect that a single EP Node "effectively bars residential resources capable of providing wholesale services through aggregation" from participating in MISO's markets.[25] AEE and SEIA are similarly critical of MISO's single EP Node proposal.[26] AEE and SEIA allege that MISO's "reliance on the SIT study does not meet the requirement for a 'detailed, technical explanation.'"[27] They claim it is unclear from the SIT study what conditions were modeled and

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22 *Id.*, pp. 16-17.

23 July 8, 2022 MISO Mot. for Leave to Answer and Answer, Docket No. ER22-1640, p. 9.

24 PIOs Protest, p. 5.

25 *Id.*

26 AEE and SEIA Protest, pp. 6-8.

27 *Id.*, p. 7.

that, without such information, it is impossible to gauge the severity of MISO's concerns.[28] AEMA likewise takes issue with MISO's proposed single EP Node requirement, claiming that MISO's "conservative approach" fails to use two important parameters suggested in the Commission's Order, which could be used to help mitigate the impacts of multi-node aggregations—specifically, maximum capacity limits and distribution factors.[29] AEMA argues that by proposing a single node solution, MISO is proposing the simplest and easiest solution to implement but is not exploring ways to reduce barriers to participation by DEARs,[30] and further claims that MISO has provided "no technical reason for its single node restriction."[31]

None of these asserted concerns justify moving away from the proposed single EP Node approach. As to the PIO's claim of "effectively bar[ring] residential resources,"[32] the distribution system supports many types of customers. The Commission's Order requires heterogeneous aggregation of different resource types and differing customer classes.[33] DERs installed at commercial and small industrial customers may be aggregated to reach the 100 kW limit. As the penetration of storage, electric thermostats, and electric vehicles increases, the ability to reach the minimum size will increase, facilitating the potential for greater participation in the MISO markets. Hence, residential resources are not "effectively barred" and will, instead, likely increase at greater thresholds due to their ability to aggregate.

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[28] *Id.*, p. 7.

[29] AEMA Protest, p. 5.

[30] *Id.*

[31] *Id.*, p. 6.

[32] PIOs Protest, p. 5.

[33] Order No. 2222 at P 142 ("[W]e clarify the NOPR proposal and require each RTO/ISO to revise its tariff to allow different types of distributed energy resource technologies to participate in a single distributed energy resource aggregation (i.e., allow heterogeneous distributed energy resource aggregations).")

AEE and SEIA's claim that MISO has not provided a "detailed, technical explanation" for its proposed approach should be rejected. Order No. 2222 states that each "RTO/ISO must provide a detailed, technical explanation for the geographical scope of its proposed locational requirements" and that "[t]his explanation could include, for example, a discussion of the RTO/ISO's system topology and regional congestion patterns, or any other factors that necessitate its proposed locational requirements."[34]

In response to these claims, MISO faces technical challenges such as power flow oscillations, distribution factor calculation and transmission security. Contrary to the suggestion that MISO is similar to CAISO in transmission constraints, MISO has had 1044 unique transmission constraints bind in Real-Time SCED from January 1, 2022, through November 8, 2022.[35] MISO explained the transmission security risk in responding to the Commission's questions on reliability standards. If the DERs are deployed inconsistently with the supplied distribution factors, power flow oscillations or constraint exceedances may occur. To effectively calculate the distribution factor, the aggregator needs to know the impedance of the distribution system from the locations of the DERs to the transmission/distribution interface. The ISO needs to accurately model all injections and withdrawals at the transmission/distribution interface to effectively manage congestion on the transmission system. As such, any claim that MISO can simply adopt CAISO's approach fails to consider the features of the MISO market and region.

The Protesting Parties also overlook the three existing resource models that currently allow for multi-node aggregation. MISO described each of the three existing resource models currently available for multi-node aggregation in its compliance filing: Demand Response Resource Type

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[34] *Id*. at P 204.

[35] *See* 2022 Binding Constraints Report – Real-Time Market https://docs.misoenergy.org/marketreports/2022_rt_bc_HIST.csv (last accessed Nov. 9, 2022).

I (DRR Type I), Load Modifying Resource (LMR) and Emergency Demand Resource (EDR).[36] Resources meeting the requirements may register as a DRR Type I to participate in the Day-Ahead and Real-Time market. The LMR and EDR resource models are available for the Planning Resource Auction. The DRR Type I does not meet the intent of the order since it can provide Energy or Contingency Reserve or Short-Term Reserve by interrupting supply for a specific period of time. MISO also offers a single node Demand Response Resource Type II (DRR Type II), which can provide all products in the Day-Ahead and Real-Time market. With the existing options available to Market Participants, MISO did not see a need to offer an interim resource model. These existing options should allow participation until the Distributed Energy Aggregated Resource model is available.

AEE and SEIA's critique of the SIT study similarly lacks merit. The SIT study used registered Load Modifying Resources ("LMR") to represent DER. MISO had approximately 11,000 MW of LMR that was modeled as individual dispatchable demand at 14,397 EPNodes.

C. MISO's proposed telemetry requirements are just and reasonable.

AEMA asserts that MISO has not provided a reasonable explanation for its proposed telemetry requirements.[37] AEMA takes issue with MISO's response, claiming that MISO failed to address the Commission's request to provide an explanation of why MISO's proposed requirements "just and reasonable and do not pose an unnecessary and undue barrier to individual Distributed Energy Resources…."[38] AEMA also claims that MISO fails to address other barriers to participation, such as the issue of requiring data to be submitted every two seconds from all

[36] Rauch Testimony, pp. 19-20.

[37] AEMA Protest, p. 6.

[38] *Id.*, p. 7.

resources, regardless of size or services offered.[39] AEMA seems particularly concerned about the application of MISO's proposed ICCP telemetry requirements to smaller size DEARs that provide limited market services.[40]

Laura Rauch's testimony explains that the design requires telemetry for each DEAR along with the reliability benefits of this requirement.[41] The DERA may select other modes of communication to the individual DER, which reduces the telemetry burden for individual DER. Heterogenous aggregations will be more flexible, and the design needs to support their ability to provide all product and services and be comparable to other resources providing the same products and services.[42]

D. MISO has appropriately addressed double counting.

AEE and SEIA express their concern that MISO has not appropriately addressed the issue of double counting. Their concerns should be disregarded because MISO's approach conforms with Order No. 2222 and MISO's proposed Tariff language contains appropriate safeguards.

AEE and SEIA discuss MISO's process for review of double counting and double compensation, and claim that MISO's approach gives LSEs and EDCs "too much discretion to dictate what resources can enter the market."[43] AEE and SEIA also express their concerns about MISO's intention to provide additional details about double counting through the BPM, as "no

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[39] *Id*.

[40] *Id*., pp. 7-8.

[41] Rauch Testimony, p. 45 (stating that "DEARs will be modeled as generation at the transmission/distribution interface and will require telemetry at the aggregation, rather than the DER, level.").

[42] Apr. 14, 2022 Letter from M. Kessler to the Hon. K. Bose, Docket No. ER22-1640, p. 13.

[43] AEE and SEIA Protest, p. 12.

such manual" governing this review exists and conclude that there is "no way" for the Commission to determine whether MISO's process is "narrowly designed."[44]

AEE and SEIA's protest fails to recognize the language provided in Section 38.7(A)(ii) of the Tariff, which corresponds with the Commission's directive in Order No. 2222 to provide "narrowly designed" restrictions on RTO/ISO market participation for DERs through aggregations.[45] MISO's proposed Tariff language is clear that the review conducted by LSEs and EDCs will determine whether any DER within an aggregation is currently registered to provide the same service in MISO's markets as part of an existing resource, or enrolled to provide the same service at retail.[46] These are the specific, narrowly designed restrictions identified by the Commission in Order No. 2222.[47] Contrary to AEE and SEIA's protest, MISO's proposed evaluation does not place the LSE and EDC in the "gatekeeper role" for market entry; rather, the evaluation appropriately relies on those entities that have sufficient information to evaluate the DERs location and existing participation as part of another resource or that are providing the same service at retail. The details of the evaluation process through which this review will be accomplished is appropriately included in MISO's business practices manuals as they are implementation details while the underlying restrictions are appropriately included in the Tariff.[48]

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[44] *Id*.

[45] Order No. 2222 at P 161.

[46] MISO Tariff Section 38.7(A)(ii).

[47] Order No. 2222 at P 160 – 161.

[48] *See* Rauch Testimony, p. 9 (stating that certain items "were determined to be implementation details, which will be addressed in Business Practices Manuals subject to later discussions with MPs, RERRAs and EDCs."); *see also* Transmittal Letter, p. 32 (stating that "implementation details will be addressed in the Business Practices Manuals or resolved through later discussion with RERRAs and EDCs.").

E. MISO's proposed review timeline is just, reasonable, and complies with Order No. 2222's mandates.

AEE and SEIA claim that MISO "admits" that it has not complied with the Commission's directive in Order No. 2222 to limit the timeline for distribution utility review to 60 days,[49] and that MISO has "confirmed that it is not complying with the directives in Order No. 2222" because MISO's process could take nearly twice the allotted 60 days.[50] AEE and SEIA opine that some steps in MISO's proposed coordination framework fall outside of the permitted timeframe.[51]

AEE and SEIA's protest fails to consider the Commission's statements in Order No. 2222 regarding the need to recognize regional differences in the design and implementation of the distribution utility review process.[52] The majority of MISO's states are retail regulated and do not provide for retail access. This regional difference requires LSEs, EDCs and RERRAs to perform a threshold evaluation of whether a DER is eligible to participate in an aggregation prior to initiating the 60-day EDC review process; otherwise, the EDC review process could be wasted on a DER that is not eligible to participate in an aggregation.

F. MISO's intention to develop certain matters through its BPMs is just and reasonable.

The PIOs criticize MISO's proposal to specify various implementation details through its Business Practice Manuals ("BPM") rather than through Tariff changes.[53] The PIOs allege that MISO's approach is "especially concerning" given the recent changes to MISO's Distributed Energy Resources Task Force ("DERTF").[54] The PIOs state that MISO has been "largely absent"

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49 AEE and SEIA Protest, p. 8.

50 *Id.*, pp. 8-10.

51 *Id.*

52 Order No. 2222 at P 296.

53 PIOs Protest, pp. 7-8.

54 *Id.*, p. 7.

from the DERTF and raise various concerns about MISO's involvement in the stakeholder process and whether there will be delays in resolving outstanding issues of DERA participation.[55]

MISO respectfully submits that the PIOs' narrative regarding the DERTF is incomplete, incorrect, and misleading. The DERTF's purpose is to: (1) serve as a focused forum for stakeholders and MISO to address many cross-functional issues associated with MISO's Order 2222 compliance as well as non-Order 2222 DER issues; (2) engage appropriate parties, including regulators, distribution utilities, and other subject matter experts in developing the coordination framework required by Order 2222; (3) identify potential risks and opportunities stemming from the integration and participation of DERs in the MISO markets, including study of the various services DERs can offer; and (4) recommend approaches and/or solutions to address these risks and opportunities.[56]

In response to the PIO's claim that MISO has been "largely absent" from the DERTF, MISO notes that it had 20 employees participating in the August 11, 2022 DERTF meeting[57] and 15 employees participating in the October 21, 2022 DERTF meeting.[58] MISO further notes that the DERTF continues its work, and its next meeting is scheduled for January 12, 2023.

III. COMMUNICATIONS

MISO requests waiver of Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.203(b)(3) (2019), to the extent necessary to permit the designation of

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55 *Id.*, p. 8.

56 Distributed Energy Resources Task Force Mission Statement, MISO, https://www.misoenergy.org/stakeholder-engagement/committees/DERTF/ (last accessed Nov. 26, 2022).

57 Distributed Energy Resources Task Force Meeting Minutes, MISO, https://cdn.misoenergy.org/20221021%20DERTF%20Item%2001c%20Minutes%2020220811626059.pdf (last accessed Nov. 30, 2022).

58 Distributed Energy Resources Task Force Meeting Minutes, MISO, https://cdn.misoenergy.org/20230112%20DERTF%20Item%2001c%20Minutes%2020221021626823.pdf (last accessed Nov. 30, 2022).

more than two persons for service on behalf of MISO in this proceeding and requests all communications related to this filing be directed to:

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IV. NOTICE AND SERVICE

MISO has served a copy of this filing electronically, including attachments, upon each person designated on the official service list compiled by the Secretary as well as on all Tariff Customers, MISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, as well as all state commissions within the region.

The filing has been posted electronically on MISO's website currently located at https://www.misoenergy.org/legal/ferc-filings/ for other parties interested in this matter.

V. CONCLUSION

WHEREFORE, MISO respectfully requests that the Commission accept this Answer, accept MISO's proposed Tariff revisions to facilitate MISO's compliance with Order No. 2222, and grant the proposed effective and implementation dates.

Respectfully submitted,

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DATED: December 2, 2022

CERTIFICATE OF SERVICE

I hereby certify that I have this day e-served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 2nd day of December, 2022, in Carmel, Indiana.

/s/ Julie Bunn

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