

174 FERC ¶ 61,201  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;  
Neil Chatterjee, James P. Danly,  
Allison Clements, and Mark C. Christie.

Midcontinent Independent System Operator, Inc.                      Docket No. ER21-679-000

ORDER ACCEPTING TARIFF REVISIONS, SUBJECT TO CONDITION

(Issued March 19, 2021)

1. On December 17, 2020, pursuant to section 205 of the Federal Power Act (FPA)<sup>1</sup> and Part 35 of the Commission’s regulations,<sup>2</sup> Midcontinent Independent System Operator, Inc. (MISO) filed revisions to MISO’s Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff) to modify the process for selecting Spinning Reserves.<sup>3</sup> In this order, we accept for filing MISO’s proposed Tariff revisions, to become effective June 1, 2021, as requested, subject to the condition that MISO submit a compliance filing within 45 days of the date of this order, as discussed below.

**I. Background**

2. MISO currently selects Spinning Reserves based solely on a Spin-Qualified Resource’s<sup>4</sup> Spinning Reserve Offer, which is defined as a single price in dollars per

---

<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> 18 C.F.R. pt. 35 (2020).

<sup>3</sup> Spinning Reserve is “A specified percentage, based on Applicable Reliability Standards, of Contingency Reserve that must be synchronized to the Transmission System and that meets all Applicable Reliability Standards, and that can be converted to Energy within the Contingency Reserve Deployment Period following a deployment instruction.” MISO Tariff, Module A, § I.S.

<sup>4</sup> A Spin-Qualified Resource in MISO is a Generation Resource, External Asynchronous Resource, Demand Response Resource (DRR) – Type I, DRR-Type II, or a Stored Energy Resource – Type II that has met the requirements to be eligible to submit Spinning Reserve Offers into the Energy and Operating Reserve Markets. MISO Tariff, Module A, § 1.S.

MWh at which the resource agrees to sell Spinning Reserves. MISO selects resources with the lowest Spinning Reserve Offers until all Spinning Reserve requirements have been met, without regard to a resource's deployment cost,<sup>5</sup> and deploys these selected resources on a *pro rata* basis during a contingency event. MISO then makes whole any deployed resources whose deployment costs, i.e., incremental energy costs, exceed Locational Marginal Price (LMP) revenues during the applicable interval via Revenue Sufficiency Guarantee<sup>6</sup> payments.

## II. Filing

3. MISO explains that as a result of the current selection and deployment methodology, resources with low Spinning Reserve Offers and those that self-schedule are consistently selected, even though they may have significantly higher deployment costs than resources with slightly higher Spinning Reserve Offers. MISO states that the deployment of these higher-energy cost resources can require substantial make-whole payments resulting in an increased amount of inefficient uplift to the market.<sup>7</sup> Specifically, MISO states that the MISO Independent Market Monitor (IMM) estimated approximately \$900,000 of annual uplift from 2010-2015 was due to high Spinning Reserves deployment costs, mainly from DRR-Type I resources with high curtailment costs. Additionally, in its 2019 State of the Market report the IMM estimated that MISO would incur approximately \$1.4 million in inefficient uplift to Spinning Reserves resources in 2020.<sup>8</sup>

4. MISO's proposed solution to the inefficient uplift is two-fold. First, MISO proposes to eliminate make-whole payments for Spinning Reserve deployments. According to MISO, the separation between Spinning Reserve Offers used to select resources and energy production costs incurred during deployment can incentivize

---

<sup>5</sup> MISO Filing at 2-3. As discussed *infra* at P 30, we understand "deployment cost" to be MISO's term for a Spin-Qualified Resource's incremental energy offer or, in the specific case of a Spin-Qualified DRR-Type I resource, its Shutdown and/or Hourly Curtailment costs. However, this term is not defined in MISO's Tariff.

<sup>6</sup> Capitalized terms used but not otherwise defined in this order have the meanings ascribed to them in MISO's Tariff.

<sup>7</sup> MISO Filing at 3.

<sup>8</sup> *Id.* at 3-5.

higher-cost resources to submit low offers, which creates unnecessary uplift and market inefficiency.<sup>9</sup>

5. Second, to compensate for the elimination of make-whole payments, MISO proposes to revise the definition of Spinning Reserve Offer to explicitly allow market participants to include in the offer “a dollar component reflecting an expectation of any Incremental Energy Costs that might exceed market revenues” if they are deployed, which would represent their expected deployment costs in excess of the expected LMP market revenues. MISO’s filing describes this amount that can be added to the Spinning Reserve Offer as a “probabilistic cost adder” that MISO states is to represent the expected probability of deployment multiplied by the net cost of deployment. MISO states that the resulting Spinning Reserve Offers will continue to be selected using the current least-cost method, but those offers may include the net cost of deployment if the market participant so chooses.<sup>10</sup> MISO asserts that these changes will ensure that resources with the lowest overall cost are selected first, reducing the amount of inefficient uplift to the market.<sup>11</sup>

6. MISO states that the combination of these two components will provide for a more efficient selection of Spinning Reserves, which in turn will produce more accurate market clearing price signals that reflect actual deployment costs and reduce unnecessary uplift associated with the deployment of higher-cost resources when lower-cost alternatives are available.<sup>12</sup> MISO states that resources will recover applicable costs through more accurate market clearing prices, rather than through inefficient uplift. MISO also states that selected resources will continue to be deployed on a *pro rata* basis.<sup>13</sup>

7. MISO states that it expects its proposal will slightly raise the clearing price for Spinning Reserves, which will reflect the enhanced accuracy of the new offer structure. In addition, MISO states that its proposal will not negatively impact reliability because there are enough resources with moderate net deployment costs to take the place of any resources with high energy costs that may choose to place Spinning Reserve Offers less frequently.<sup>14</sup>

---

<sup>9</sup> *Id.* at 6.

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

<sup>11</sup> *Id.* at 5-6.

<sup>12</sup> *Id.* at 2.

<sup>13</sup> *Id.* at 6.

<sup>14</sup> *Id.* at 8; MISO Testimony at 10.

8. MISO notes that in contrast to Spinning Reserves, Supplemental Reserves are currently deployed on a least-cost rather than *pro rata* basis, which can somewhat mitigate uplift associated with the startup costs of Supplemental Reserve resources. MISO states that its proposal does not address Supplemental Reserves because: (1) their associated uplift has not dramatically increased in recent years; (2) MISO primarily deploys Spinning Reserves during contingency events; and (3) the proposed approach is not well suited to addressing the recovery of Supplemental Reserve start-up costs.<sup>15</sup>

9. MISO states that the IMM supports its filing,<sup>16</sup> and notes that it proposed five alternatives and reviewed each one internally, with the IMM, and with stakeholders, weighing the pros and cons of each proposal. MISO states that it did not select either of two alternatives that would require market system modifications that would either incorporate the cost of deployment in market participant offers or change the deployment logic from *pro rata* to least-cost, stating that such alternatives were infeasible based on the cost of system investments or required staff time to implement.<sup>17</sup>

10. To effectuate its proposed design, MISO proposes several Tariff revisions. MISO proposes to revise the definition of a Spinning Reserve Offer contained in Module A, section 1.S to properly capture the cost and probability of deployment. MISO proposes to revise Module C, section 40.2.19 to clarify that Real-Time Revenue Sufficiency Guarantee make-whole payments do not apply to resources committed in any of the Reliability Assessment Commitment or Look-Ahead Commitment processes to provide Spinning Reserves and deployed during a contingency event. Similarly, MISO proposes to revise Module C, section 40.3.5.1 to provide that Real Time Offer Revenue Sufficiency Guarantee Program make-whole payments do not apply to the portion of a market participant's Incremental Energy Costs that exceeds the LMP during a contingency event deployment. MISO further proposes to revise sections 40.3.5.1, 40.3.5.2 and 40.3.5.3 to remove various references to DRR-Type I resources receiving payments under the Real Time Offer Revenue Sufficiency Guarantee Program. Finally, MISO proposes to revise Schedule 27, section A.1.a.ii.2 to provide that dispatch instructions for Spinning Reserves to deploy during contingency events will be excluded from Real Time Offer Revenue Sufficiency Guarantee Program calculations.<sup>18</sup>

11. MISO requests waiver of the Commission's prior notice requirement to permit a June 1, 2021, effective date for the proposed revisions, which is more than 120 days from

---

<sup>15</sup> MISO Filing at 5.

<sup>16</sup> *Id.* at 12.

<sup>17</sup> *Id.* at 8-10.

<sup>18</sup> *Id.* at 11-12.

filing, and argues that good cause exists to grant its requested waiver because of the lead-time required for market participants to plan for the next Planning Resource Auction.<sup>19</sup>

### **III. Notice and Responsive Pleadings**

12. Notice of MISO's filing was published in the *Federal Register*, 85 Fed. Reg. 84,329 (Dec. 28, 2020), with interventions and protests due on or before January 7, 2021. On December 23, 2020, the Commission issued an errata notice extending the comment period to January 19, 2021. Timely motions to intervene were filed by: Coalition of MISO Transmission Customers; Cooperative Energy; Coalition of Midwest Power Producers; DTE Electric Company; Entergy Services, LLC; Consumers Energy Company; American Municipal Power, Inc.; jointly, Wisconsin Electric Company, Wisconsin Public Service Corporation and Upper Michigan Energy Resources Corporation; Alliant Energy Corporate Services, Inc.; Ameren Services Company; and MidAmerican Energy Company. Timely motions to intervene and protests were filed by Alcoa Corporation and Alcoa Power Generating Inc. (collectively, Alcoa) and Advanced Energy Management Alliance (AEMA). Missouri Joint Municipal Electric Utility Commission (MJMEUC) and WPPI Energy (WPPI) (collectively, MJMEUC and WPPI) jointly filed a timely motion to intervene and comments. On January 29, 2021, MISO filed a motion for leave to answer and answer to the protests (MISO Answer). On February 5, 2021, MJMEUC and WPPI filed a motion for leave to respond and response to MISO's Answer (MJMEUC and WPPI Response).

#### **A. Protests and Comments**

13. AEMA, Alcoa, and MJMEUC and WPPI assert that MISO's proposal misplaces its focus on eliminating uplift and fails to address the real problem with MISO's current treatment of Spinning Reserves, i.e., the selection and deployment of Spinning Reserves without regard to deployment costs, which AEMA states are not ignored in other markets.<sup>20</sup> The commenters contend that the optimal solution is to upgrade MISO's systems to consider deployment costs, which most stakeholders supported.<sup>21</sup> MJMEUC and WPPI maintain that MISO's statements about the time and financial costs of

---

<sup>19</sup> *Id.* at 14 (citing 18 C.F.R. § 35.3(a)(1)).

<sup>20</sup> Alcoa Protest at 6; AEMA Protest at 3; MJMEUC and WPPI Comments at 7.

<sup>21</sup> Alcoa Protest at 7-8; AEMA Protest at 3; MJMEUC and WPPI Comments at 7-8.

improving the current deployment logic are unpersuasive given how long this issue has been pending.<sup>22</sup>

14. AEMA, Alcoa, and MJMEUC and WPPI contend that MISO's proposal shifts risks to market participants that are unrelated to the actual operation of a market participant's resource, and therefore discourages participation.<sup>23</sup> MJMEUC and WPPI further argue that MISO has not explained why market participants are better positioned than MISO to calculate deployment probabilities, nor how its proposal will result in more efficient and only slightly increased Spinning Reserve prices.<sup>24</sup> MJMEUC and WPPI add that Spinning Reserve prices will become more inefficient due to the imperfect estimates made by market participants.<sup>25</sup> MJMEUC and WPPI argue that MISO's proposal could lead to unintended consequences for Spinning Reserves and create a bad precedent inviting further departures from the core cost-recovery approach that underpins MISO's markets.<sup>26</sup>

15. AEMA and Alcoa contend that MISO's proposal is harmful to demand response and other distributed energy resources that have low standby costs (i.e., costs of providing Spinning Reserve aside from deployment costs) and high deployment costs.<sup>27</sup> AEMA argues that these market participants lack the ability to hedge the additional risks associated with MISO's proposal, creating an additional barrier to participation.<sup>28</sup> AEMA and Alcoa assert that under MISO's proposal, such resources would be unable to recover the legitimate costs associated with removing demand from the system, which they note benefits the market in the form of lower energy prices.<sup>29</sup> Further, Alcoa disputes MISO's implied assertion that certain Spinning Reserve resources with high deployment costs underbid in order to receive large deployment windfalls, and instead argues that concerns about high energy offers would be better addressed by more scrutiny

---

<sup>22</sup> MJMEUC and WPPI Comments at 8.

<sup>23</sup> MJMEUC and WPPI Comments at 9; AEMA Protest at 4; Alcoa Protest at 17.

<sup>24</sup> MJMEUC and WPPI Comments at 6.

<sup>25</sup> *Id.* at 6-7.

<sup>26</sup> *Id.* at 8-9.

<sup>27</sup> AEMA Protest at 4-5.

<sup>28</sup> *Id.* at 2.

<sup>29</sup> *Id.* at 6.

and validation by the IMM, e.g., by capping the portion of a Spinning Reserve resource's incremental energy offer that is eligible for uplift during a contingency deployment.<sup>30</sup>

16. Alcoa argues that the Commission should reject MISO's proposal and direct MISO to compare the relative inefficiencies of its current process with alternatives that address the Spinning Reserve deployment costs holistically.<sup>31</sup> Alcoa contends that make-whole payments are symptoms of an underlying price formation issue that will not be solved by simply eliminating make-whole payments to Spinning Reserve resources. Alcoa argues that the relative ease of implementing MISO's proposed solution does not mitigate its flawed nature, and that if the cost of the current market inefficiency is low relative to the cost of enhancing the selection and deployment logic for Spinning Reserves, then the current process remains optimal. In addition, Alcoa contends that the current process is not necessarily always inefficient because during extended periods without contingency events, the market enjoys the benefit of low Spinning Reserve clearing prices and is not impacted by the high deployment costs of selected resources. Alcoa adds that any make-whole payments that would still be required under the solution supported by Alcoa and AEMA are not inefficient because they are offset by the benefit of overall lower Spinning Reserve clearing prices.<sup>32</sup>

17. Alcoa argues that MISO's proposal is unduly discriminatory against large industrial and manufacturing demand response resources, which tend to have low standby costs but high deployment costs.<sup>33</sup> Alcoa argues that MISO's proposal will reduce market transparency and distort prices because new offer curves may contain risk premiums and will no longer be based on the actual costs of providing Spinning Reserve at a specific moment in time.<sup>34</sup> Alcoa states that market participants would need to examine a complex set of statistical variables to estimate the odds of deployment, which is likely less critical to traditional generators that receive the bulk of their income from energy market sales than to large industrial demand response resources that base their market participation on a limited set of income streams and for whom standby payments are the primary financial incentive for supplying Spinning Reserve. Alcoa asserts that large industrial demand response resources can only offer to provide Spinning Reserve at cost if they have assurances of being made whole when deployed during a contingency event. According to Alcoa, MISO's proposal may force market participants to embed the

---

<sup>30</sup> Alcoa Protest at 15.

<sup>31</sup> *Id.* at 6.

<sup>32</sup> *Id.* at 8-9.

<sup>33</sup> *Id.* at 7.

<sup>34</sup> *Id.* at 10.

cost of deployment in their Spinning Reserve Offers, which is inefficient because it does not represent the true cost of standing by to provide Spinning Reserves. Alcoa also states that it occasionally experiences negative pricing during contingency events because MISO deploys resources on a *pro rata* basis even when the emergency is in an entirely different portion of the MISO system. Alcoa thus argues that MISO's proposal could increase the negative financial impact to demand response resources for following dispatch to support grid reliability and could force some demand response resources out of the market entirely.<sup>35</sup>

18. MJMEUC and WPPI argue that MISO's proposal is deficient because it contains no process for periodically reviewing the impacts of its proposal once implemented.<sup>36</sup> Alcoa contends that MISO's proposal is procedurally flawed because it was not endorsed by any stakeholder other than the IMM.<sup>37</sup>

### **B. MISO Answer**

19. MISO reiterates that its proposed changes to the Spinning Reserves selection process will benefit customers by incentivizing market participants to consider deployment costs in their Spinning Reserve offers. MISO argues that contrary to commenters' assertions, its proposal holistically addresses the root problem underlying the inefficient uplift at issue, i.e., the incongruity between the current low Spinning Reserve Offers and high deployment costs that are eligible for recovery through uplift.<sup>38</sup> MISO contends that the probability of deployment should not be overly difficult to estimate because contingency events have been historically limited and well-documented in MISO. In addition, MISO asserts that there is no additional risk to market participants under its design because the offer rules are simply changing. MISO adds that a market participant itself, rather than MISO, is best positioned to know what its offer Spinning Reserve should be (or whether it should stop participating) in a given set of circumstances.<sup>39</sup>

20. According to MISO, changing its deployment logic while maintaining uplift payments would still incentivize market participants with high deployment costs to submit low Spinning Reserve Offers. Further, pairing this change with modified

---

<sup>35</sup> *Id.* at 12-14.

<sup>36</sup> MJMEUC and WPPI Comments at 7.

<sup>37</sup> Alcoa Protest at 7, 16.

<sup>38</sup> MISO Answer at 2-3, 8.

<sup>39</sup> *Id.* at 7-8.



Spinning Reserve selection criteria could increase uplift due to the disconnect between when resources are selected and deployed.<sup>40</sup> MISO maintains that its proposal is not unduly discriminatory simply because it may have different economic impacts on different resource types, and that resource owners will still have the opportunity to recover their costs through the market by developing appropriate offer strategies.<sup>41</sup> In addition, MISO argues that it is not required to quantify the expected price impacts of its proposal, or to propose a specific mechanism to monitor the impacts of its proposed design on an ongoing basis, because the market will produce prices based on the sound economic principles underlying the proposed design.<sup>42</sup>

21. MISO asserts that its proposal was not selected solely because it does not require significant software or system changes.<sup>43</sup> MISO states that there was no overwhelming support for or opposition to any particular option considered during the stakeholder process, and that it consulted with the IMM to assess the best way to solve the problem.<sup>44</sup>

### C. MJMEUC and WPPI Response

22. MJMEUC and WPPI assert that MISO does not meaningfully respond to concerns that it will be difficult for market participants to accurately predict contingency events and to estimate the portion of their deployment costs that will exceed market revenues.<sup>45</sup> MJMEUC and WPPI argue that MISO does not explain how offers that vary based on individual market participant estimates of deployment would improve price signals.<sup>46</sup> MJMEUC and WPPI contend that MISO similarly sidesteps the critical questions of how the proposal will impact prices, how it will impact the Spinning Reserves supply stack, and why retaining the current *pro rata* deployment approach is efficient.<sup>47</sup>

---

<sup>40</sup> *Id.* at 9-10.

<sup>41</sup> *Id.* at 11.

<sup>42</sup> *Id.* at 8-9.

<sup>43</sup> *Id.* at 10.

<sup>44</sup> *Id.* at 12-13.

<sup>45</sup> MJMEUC and WPPI Response at 3.

<sup>46</sup> *Id.* at 3-4.

<sup>47</sup> *Id.* at 4-5.

#### IV. Discussion

##### A. Procedural Matters

23. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2020), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

24. Rule 213(a)(2) of the Commission's Rule of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2020), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We accept the MISO Answer and MJMEUC and WPPI Response because they have provided information that assisted us in our decision-making process.

##### B. Substantive Matters

25. We find MISO's proposed Tariff revisions regarding MISO's process for selecting Spinning Reserves to be just and reasonable and therefore accept them subject to condition, as discussed below.<sup>48</sup> MISO's proposal to shift the market risk of supplying energy during contingency events from load (via uplift) to suppliers of Spinning Reserves through the inclusion of the deployment cost adder is reasonable. The deployment cost adder enables market participants to reflect in Spinning Reserve Offers their expected deployment costs in excess of market revenues, as well as their deployment risk, during a contingency event. Under MISO's proposal, resources' deployment costs will be more fully reflected in Spinning Reserve Offers, which will in turn be reflected in Spinning Reserve clearing prices.

26. We disagree with Alcoa that prices will no longer be based on the actual costs of providing Spinning Reserve at a specific moment in time. Offers to provide Spinning Reserve during a contingency event are inherently prospective based on resource owners' anticipated costs of providing Spinning Reserve during a future operating interval, and MISO does not propose to modify its current Tariff requirements governing offer submission deadlines. In addition, MISO's Tariff does not currently require Spinning Reserve Offers to be cost-based. For the same reason, we also disagree with commenters that MISO's proposal constitutes a marked departure from MISO's current cost-based framework.

---

<sup>48</sup> The U.S. Court of Appeals for the District of Columbia Circuit has held that, in certain circumstances, the Commission has "authority to propose modifications to a utility's [FPA section 205] proposal *if the utility consents to the modifications.*" *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 114-15 (D.C. Cir. 2017) (emphasis in original).

27. We disagree that MISO's proposal is unduly discriminatory against resources with high deployment costs. Although commenters assert (and MISO generally agrees) that MISO's proposal will likely raise Spinning Reserve clearing prices and resources with high deployment costs may choose not to offer into the Spinning Reserve market or may clear that market less often, we believe this may be an efficient market outcome if, as a result of these reforms, resource offers are based on their expected costs to provide Spinning Reserves, because, as MISO explains, the market software currently selects (and pays uplift to) resources with low Spinning Reserve offers but high deployment costs when lower-cost alternatives are available. Under the proposed reforms, Spinning Reserve offers will also reflect a resource's anticipated deployment costs, and the market will be better able to select the set of Spinning Reserve resources that minimize the total cost of meeting the system's Spinning Reserve requirement. We also note MISO's statement that it expects the market will still be able to respond to contingency events without introducing reliability concerns under its proposal if resources with high deployment costs choose to offer into or clear the Spinning Reserve market less frequently.<sup>49</sup>

28. We disagree with Alcoa's assertion that the proposed deployment cost adder is unduly burdensome because the associated deployment probabilities will be prohibitively complex for market participants to calculate. Alcoa has not shown that this complexity is meaningfully greater than that routinely faced by market participants in the general course of developing offer strategies and assessing the risks of participating in MISO's markets. Because we are finding that MISO's proposed design is just and reasonable, we do not address commenters' arguments that MISO is better positioned than market participants to calculate deployment cost adders.

29. We disagree with commenters that MISO has failed to justify its proposed approach over alternative solutions, in particular, modifications to MISO's Spinning Reserve deployment logic. The Commission is required only to assess whether a proposed rate or tariff change is just and reasonable, not whether an alternative proposal may be more reasonable.<sup>50</sup> Having found MISO's proposal to be just and reasonable, the Commission is not required to consider whether alternative proposals are superior.<sup>51</sup>

30. We note an apparent drafting discrepancy in MISO's proposed Tariff revisions: although MISO states that the inefficient uplift has been primarily caused by DRR-Type I

---

<sup>49</sup> MISO Filing at 8; MISO Testimony at 10.

<sup>50</sup> *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984); *Louisville Gas & Elec. Co.*, 114 FERC ¶ 61,282, at P 29, *reh'g denied*, *E. ON U.S. LLC*, 116 FERC ¶ 61,020 (2006).

<sup>51</sup> *See, e.g., Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,265, at P 21 (2009).

resources,<sup>52</sup> MISO's proposed revised definition of a Spinning Reserve Offer in Module A of its Tariff, and its proposed revised language in section 40.2.19(b) of its Tariff that eliminates make-whole payments for the provision of Spinning Reserves by DRR-Type I resources, both reference a resource's "Incremental Energy Cost," which is a term that does not apply to DRR-Type I resources by definition.<sup>53</sup> We thus find that these proposed Tariff revisions appear to contradict existing Tariff language and could create ambiguity as to the specific types of deployment costs that DRR-Type I resources will be permitted to include in their Spinning Reserve Offers. Accordingly, we condition our acceptance on the understanding that MISO's use of the defined term "Incremental Energy Costs" in these sections was an inadvertent error, and that MISO intended to refer to shutdown and/or hourly curtailment costs in the context of DRR-Type I resource offers. We direct MISO to submit a compliance filing, within 45 days of the date of this order, that proposes Tariff language to reflect this understanding.

31. Finally, we grant MISO's requested waiver of the Commission's prior notice filing requirement to permit MISO's filing to be tendered more than 120 days in advance of the requested effective date.<sup>54</sup>

---

<sup>52</sup> MISO Filing at 8.

<sup>53</sup> Incremental Energy Cost is "[t]he area under a Generation Resource's, Demand Response Resource's—Type II, Stored Energy Resource's – Type II, Electric Storage Resource's, or External Asynchronous Resource's offered incremental Energy cost curve, consisting of (MW, dollars per MW) pairs, between an upper and lower bound." MISO Tariff, Module A, § 1.I.

<sup>54</sup> See 18 C.F.R. § 35.3(a)(1) (2020).

The Commission orders:

(A) MISO's proposed Tariff revisions are hereby accepted, to become effective June 1, 2021, subject to condition, as discussed in the body of this order.

(B) MISO is hereby directed to submit a compliance filing within 45 days of the date of this order, as discussed in the body of this order.

By the Commission. Commissioner Clements is concurring with a separate statement attached.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Midcontinent Independent System Operator, Inc.

Docket No. ER21-679-000

(Issued March 19, 2021)

CLEMENTS, Commissioner, *concurring*:

1. I support today's order accepting revisions to MISO's process for selecting spinning reserves because MISO has met its burden under section 205 of the Federal Power Act. I believe, however, that protestors in this proceeding raise two valid concerns that bear watching once this proposal is implemented.

2. The first relates to reserve price formation.<sup>1</sup> Under MISO's existing rules, reserves are selected based on a resource's submitted reserve offer—i.e., the price at which the resource has agreed to sell reserve, sometimes thought of as a “reservation” cost—plus an implied opportunity cost equal to the energy profits the resource must forego if it is instead selected to provide reserves.<sup>2</sup> These two components are thus costs directly associated with providing reserves.

3. As MISO explains in its filing, there is a dynamic in its market whereby resources selected for reserves that are later deployed for energy—i.e., asked by MISO to instead convert those reserves to energy—may not be fully compensated for that energy.<sup>3</sup> There can be multiple reasons for that energy revenue shortfall, but among them is the fact that not all resource types are eligible to set the energy price, so they may be deployed for energy even when the energy price does not cover their costs. Another reason is that MISO deploys resources on a *pro rata*, rather than least-cost, basis during a contingency event, so it is a near certainty that some of the resources deployed will be out of merit relative to the energy price and will not have their energy costs fully covered.

4. Regardless of the cause of the shortfall, it can and does occur, as MISO explains. Currently that shortfall is recovered by the resource through make-whole payments. But because MISO's proposal does away with those make-whole payments, MISO must offer an alternative means for recovery: Resources will be permitted—and arguably

---

<sup>1</sup> See Alcoa January 19, 2021 Protest at 10-13; Missouri Joint Municipal Electric Utility Commission and WPPI Energy January 19, 2021 Comments at 6-7, 8-9.

<sup>2</sup> See MISO December 17, 2020 Filing at 2; *Id.* (Testimony of Michael Robinson), at 4 (Robinson Test.).

<sup>3</sup> MISO Filing at 3 n.13; Robinson Test. 4.

compelled—to include in their reserve offer a portion of the costs they may incur if they are instead asked to provide energy after a contingency event. That is, they will be asked to approximate their potential energy revenue shortfall based on a future, unknown energy price and add that to their reserve offer. We can therefore expect that the reserve price will, at times, reflect not simply the marginal resources' cost of providing reserves during the given interval, but also its approximated revenue shortfall if it is instead deployed for energy. By allowing these energy costs within reserve offers, MISO is moving away, even if only in a small way, from reserve prices reflective solely of reserve costs. All this is to say, it appears MISO's proposal may be novel among RTO/ISO reserve markets, so while that is not inherently problematic, we are wise to evaluate over time its effect on reserve price formation.

5. The second concern relates to reserve market participation, and in fact derives from the first concern. Protestors argue that MISO's proposal will disadvantage resources capable of providing reserves cost-effectively if they also have high costs of providing energy and are ineligible to set the energy price under MISO's energy market rules.<sup>4</sup> While selection of energy and reserves is co-optimized, any unit of capacity can only provide one service at a time, so hampering a resource's competitiveness in providing one service because of its cost in providing another service may not foster efficient outcomes. As we strive for competition and efficiencies in the provision of market products to ensure reliable electric service, the effect of MISO's proposal on reserve market participation also bears watching.

6. So, while I am not persuaded at this time that these concerns rise to the level of rendering MISO's proposal unjust and unreasonable or unduly discriminatory or preferential, I intend to observe closely the effects on market pricing and participation once this proposal is implemented. I also know that MISO, along with other RTOs and ISOs, is currently engaged in a major effort to upgrade its market software in the coming years. This is a welcome development that promises to enhance efficiency and performance and foster greater participation by new technologies in wholesale markets. I encourage MISO and its stakeholders to consider whether reserve selection, pricing, and deployment is an area of potential improvement once that upgrade is in place.

For these reasons, I respectfully concur.

---

Allison Clements  
Commissioner

---

<sup>4</sup> See Advanced Energy Management Alliance January 19, 2021 Comments at 5-6; Alcoa January 19, 2021 Protest at 13-16.