

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**California Independent System )  
Operator Corporation )**

**Docket No. ER23-2020-000**

**MOTION TO INTERVENE AND COMMENTS  
OF THE DEPARTMENT OF MARKET MONITORING  
OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or “Commission”), 18 C.F.R. §§385.212, 385.214, the Department of Market Monitoring (“DMM”), acting in its capacity as the Independent Market Monitor for the California Independent System Operator Corporation (“CAISO”), submits this motion to intervene and comment in the above-captioned proceeding.

**I. MOTION TO INTERVENE**

DMM respectfully requests that the Commission afford due consideration to these comments and motion to intervene, and afford DMM full rights as a party to this proceeding. Pursuant to the Commission’s Order 719, the CAISO tariff states “DMM shall review existing and proposed market rules, tariff provisions, and market design elements and recommend proposed rule and tariff changes to the CAISO, the CAISO Governing Board, FERC staff, the California Public Utilities Commission, Market Participants, and other interested entities.”<sup>1</sup> As this proceeding involves CAISO tariff provisions that would affect the efficiency of CAISO markets, it implicates matters within DMM’s purview.

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<sup>1</sup> CAISO Tariff Appendix P, Section 5.1.

## II. SUMMARY

In this filing, CAISO proposes tariff revisions originating from its recently approved Market Parameter Changes Enhancement stakeholder initiative.<sup>2</sup> The proposed tariff revisions will: (1) adjust the threshold CAISO applies for considering the effectiveness of injections and withdrawals at certain nodes in managing congestion; and (2) permit temporary changes to parameter values the CAISO market uses to reflect relative scheduling priorities and constraints.<sup>3</sup> DMM supports CAISO's proposed tariff revisions.

The proposed changes to shift factor thresholds for some nodes should help increase market dispatch and efficiency. The proposal to establish tariff authority to temporarily modify the numerical value of specific scheduling run parameters should help to prevent market outcomes that do not align with relative scheduling priorities assigned to different schedule types in the tariff. The proposed tariff revisions include important provisions to ensure that the CAISO will notify market participants of any temporary changes and will only utilize this authority to help maintain the intended scheduling priorities.

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<sup>2</sup> *Market Parameter Changes Enhancement – Revised Final Proposal*, California ISO, March 14, 2023: <http://www.caiso.com/InitiativeDocuments/Revised-Final-Proposal-Market-Parameter-Changes-Enhancement.pdf>

<sup>3</sup> *California Independent System Operator Corporation Tariff Amendment to Adjust Shift Factor Threshold and Enhance Market Parameter Change Process*, California Independent System Operator Corporation, Docket No. ER23-2020-000, (“Transmittal Letter”).

### **III. COMMENTS**

#### **Reducing shift factor thresholds**

CAISO proposes to reduce the shift factor thresholds for the CAISO balancing area's major distributed load aggregation points (DLAPs) and trading hubs, and to have the tariff authority to reduce the shift factor thresholds for large intertie scheduling points. DMM supports these proposed revisions but notes that they warrant careful monitoring. CAISO should monitor for the correct implementation of the intended design and for significant unintended consequences of the design.

A shift factor at a node for a specific transmission constraint is the percentage of a one MW injection at the node that is modeled as flowing over the constraint. Currently, the software disregards any shift factor below 2 percent. This simplification is needed to decrease the time it takes each market run to find a solution. The threshold also prevents the potential large swings in the schedules from one interval to another of individual generators whose output has relatively little impact on a constraint.

Reducing this threshold from 2 percent to 0.2 percent for nodes with large injections or withdrawals should result in more efficient market outcomes. If a node with large injections or withdrawals currently falls below the 2 percent threshold for a particular constraint, the market software will not consider adjusting any of the injections or withdrawals at that node when trying to optimally manage congestion over that constraint. Therefore, reducing the threshold for large nodes could significantly increase the injection and withdrawal options available to the market software to consider when managing congestion on particular constraints. In such cases, this could also reduce the total bid costs of load and generation receiving schedules from the market software. DMM

supports the proposed tariff revisions because of this potential enhancement to transmission management and efficiency of market solutions.

Ideally, the CAISO would reduce the shift factor threshold for all nodes, and not just the large nodes. However, reducing the threshold for all nodes could have a significant detrimental impact on market software run time and decrease the ability of the software to incorporate other potential valuable future market design enhancements. DMM understands this proposal is designed to achieve some efficiency benefits, while limiting detrimental modeling impacts by only decreasing the threshold for the largest nodes.

This proposal involves changes to a highly technical detail of CAISO's optimization software. As with any such change, this warrants careful monitoring. CAISO should monitor for the correct implementation of the intended design and for significant unintended consequences of the design.

### **Market parameter change process**

CAISO proposes to establish tariff authority to temporarily modify the numerical value of specific scheduling run parameters to prevent market outcomes that do not align with relative scheduling priorities assigned to different schedule types in the tariff. The proposed tariff revisions include the important provision that this will not authorize CAISO to change the numerical parameters in a way that changes the order of different schedule types in the tariff. The proposed revisions also include the important provision that CAISO will notify market participants of any temporary change to tariff-specified parameters within one business day of a change. DMM supports the proposal.

The numerical values of scheduling run parameters for all types of supply or demand schedules is an important aspect of the market design. If the tariff lists the parameter for one type of schedule as larger than another, this represents a market design that is intended to prioritize one type of schedule over the other in conditions when the optimization cannot economically redispatch the system to honor both schedules. Therefore, DMM believes CAISO should not have the authority to change the scheduling run parameters in a way that changes the order of these scheduling priorities without filing such a change in policy at FERC.

However, it is important for CAISO to have the ability to quickly change the relative size of the numerical scheduling run parameters in a way that does not change the priority of different schedules as defined in the tariff. This is because the initial difference in size between the numerical parameters for schedules may not always result in the optimization dispatching resources in the order of priorities defined in the tariff.

As CAISO describes in its filing, the need for increasing the difference between the size of parameters in order for the schedules to reflect the correct dispatch order may not become apparent until the software actually dispatches schedules in the wrong order under stressed system conditions. Thus,, for CAISO to effectuate its FERC-approved policy on the relative order that various schedules should be dispatched in stressed conditions, CAISO should have the ability to temporarily change the size of scheduling parameters as described in its proposal.

The proposed tariff revisions explicitly prohibit CAISO from temporarily changing parameter sizes in a way that changes the tariff-specified order of schedules. Therefore, the proposal prevents CAISO from changing its policy on which schedules should have

priority over others without filing for FERC's approval of such a change. The proposal also stipulates that CAISO will publicly notify market participants of any temporary parameter changes within one business day. This should allow market participants to identify if any temporary parameter size changes may unintentionally impact the intended scheduling order. DMM believes these two provisions should ensure that CAISO only uses the proposed authority to help effectuate the intended market design.

#### **IV. CONCLUSION**

DMM respectfully requests that the Commission afford due consideration to these comments as it evaluates the proposed tariff provisions before it.

Respectfully submitted,

**By: /s/ Ryan Kurlinski**

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Independent Market Monitor for the  
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Dated: June 21, 2023

## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 21<sup>st</sup> day of June, 2023.

**/s/ Aprille Girardot**  
Aprille Girardot