

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

**California Independent System)
Operator Corporation)**

Docket No. ER22-2661-000

**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.”¹ As this proceeding involves CAISO tariff provisions that would affect the efficiency of CAISO markets, it implicates matters within DMM’s purview.

¹ CAISO Tariff Appendix P, Section 5.1.

II. COMMENTS

In this filing, the CAISO proposes several tariff changes to the flexible ramping product.² DMM supports the proposed refinements as significant improvements to the flexible ramping product. The proposed changes will continue the CAISO's ongoing process of developing market based procurement of flexible capacity and reserves needed to manage a system that is increasingly comprised of intermittent renewable resources. The process started with the implementation of the real-time flexible ramping constraint in 2011, evolved into the current real-time flexible ramping product in 2016, and now includes development of proposed day-ahead imbalance reserve products.

Accounting for transmission constraints will allow flexible capacity product and energy prices will more accurately reflect the costs of deliverable flexible reserves

The flexible ramping product design does not currently account for transmission. As a result, the optimization can often procure *ineffective* flexible reserves that cannot be converted to energy because they are behind constrained transmission elements—making flexible reserves appear less scarce than they really are. By enforcing transmission constraints in the flexible ramping procurement, flexible reserve prices will more accurately reflect actual market conditions. Energy prices will also better reflect actual market conditions when the flexible capacity constraint is binding. This is because there is a tradeoff between holding flexible reserves for later and the cost of producing energy now. By enforcing transmission constraints, energy prices will appropriately rise as flexible capacity becomes scarcer.

² *Tariff Amendment to Refine Flexible Ramping Product*, California Independent System Operator Corporation, Docket No. ER22-2661-000, ("Transmittal Letter").

Method for accounting for transmission constraints

The CAISO will account for transmission constraints by modeling flexible capacity as being deployed as energy and flowing over the transmission system. These deployment scenarios will not ensure that all procured flexible ramping capacity is deliverable in all cases. But ensuring that all flexible capacity is always deliverable in all potential cases would be too high a standard in this context. Using the deployment scenarios will be a vast improvement over the current procurement which ignores transmission constraints altogether. The CAISO's proposal should greatly improve the flexibility of the real-time dispatch to meet uncertain net load. To the extent that significant amounts of stranded flexible reserves persist, the ISO can continue to refine the deployment scenarios.

Proxy demand resource eligibility to provide flexible ramping product

The CAISO proposes to change the default Masterfile setting for proxy demand resources to be hourly block dispatchable rather than five-minute dispatchable. Hourly block schedules are not eligible for flexible ramping product awards. Restricting procurement of flexible reserves to resources that are dispatchable within the real-time market intervals is necessary given the purpose of the flexible ramping products. Any proxy demand and other resources that are not dispatchable within the real-time market intervals should not be eligible to meet flexible ramping requirements. Proxy demand resources that are able to provide flexibility will be able to reflect this ability by requesting that Masterfile setting be changed from hourly block dispatchable to either 15-minute or 5-minute dispatchable.

Deriving flexible ramping product demand curves

DMM supports CAISO's efforts to improve the accuracy of its estimates of net load uncertainty. Using quantile regression to estimate the percentile points along the demand curve could be a significant improvement over the current approach. The CAISO should continue to inform stakeholders and seek their input on the regression formulation and the resulting demand curves. The CAISO should continually assess the demand curve formulations and make changes when needed.

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/ Roger Avalos

Eric Hildebrandt, Ph.D.
Executive Director, Market Monitoring

Ryan Kurlinski
Sr. Manager, Market Monitoring

Roger Avalos
Senior Advisor, Market Monitoring

California Independent System Operator
Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: 916-608-7123
ehildebrandt@caiso.com

Independent Market Monitor for the
California Independent System Operator

Dated: September 6, 2022

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 6th day of September, 2022.

/s/ Jennifer Shirk
Jennifer Shirk