

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

**California Independent System) Docket No. ER23-1485-000
Operator Corporation)**

**ANSWER OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (“CAISO”) respectfully submits its answer to the comments filed by Marin Clean Energy (“Marin”) in the above-identified docket, in which the CAISO proposes to extend the minimum state of charge (“MSOC”) requirement for resource adequacy storage resources until the earlier of (a) September 30, 2023, or (b) the implementation of the CAISO’s planned exceptional dispatch state of charge enhancements.¹ Although Marin “does not oppose a temporary extension of the MSOC requirement,” it raises some questions that are not relevant to whether the CAISO’s proposed tariff revisions are just and reasonable. The issues Marin now raises have already been discussed at length in CAISO initiatives. Moreover, as Marin itself suggests, most of Marin’s concerns were addressed directly by the CAISO’s simultaneous filing to implement its Energy Storage Enhancements in a separate Commission proceeding.²

¹ The CAISO submits this answer pursuant to Rule 213 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213.

Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the CAISO tariff.

² Docket No. ER23-1533-000.

I. Answer

A. Marin’s hypotheticals are improbable and irrelevant to whether the CAISO’s proposed tariff revisions are just and reasonable.

When the CAISO faces excessively high demand, the MSOC requirement constrains real-time market awards in peak hours to resource adequacy storage resources to ensure they have sufficient charge to meet their discharge awards from the day-ahead market.³ Marin does not oppose extending this temporary measure and instead focuses its comments on exceptional dispatches and storage generally. Marin notes that “[c]harging during the hours leading up to critical hours may be expensive and inefficient,” and as such, “[f]urther detail regarding the timing of CAISO’s exceptional dispatch instructions and their impacts on energy storage resources’ compensation throughout the operating day would be helpful.”⁴ Marin poses a hypothetical where the CAISO exceptionally dispatches a storage resource “early in the day to completely discharge the resource by hour ending 1400,” potentially forcing the resource to then charge at higher prices to be fully charged for the evening’s net demand peak.⁵

As a preliminary matter, the CAISO notes it has discussed these details at length with stakeholders, and included its exceptional dispatch data on storage resources in the 2022 Summer Market Performance Report, which the CAISO quoted and cited throughout its transmittal letter in this proceeding.⁶ The 2022 Summer Market

³ *California Independent System Operator Corp.*, 175 FERC ¶ 61,168 at P 31 (2021).

⁴ Marin Comments at pp. 5-6.

⁵ *Id.*

⁶ CAISO 2022 Summer Market Performance Report (“Report”)

Performance Report has detailed discussions on storage resources' market behaviors and the very few instances in which the CAISO issued exceptional dispatches to storage resources (despite the extreme conditions the CAISO faced).⁷ As the Report describes, the CAISO only issued exceptional dispatches to storage resources on three days in September 2022 and only between hours ending 13 to 17. None of these exceptional dispatches were to discharge; they were all to charge or hold state of charge to ensure resources were fully charged for the afternoon net peak demand, which generally occurs around hour ending 18.⁸ The CAISO explained that real-time prices caused storage resources to receive discharge schedules that were higher than the expected day-ahead market outcomes, causing state of charge to be lower than expected.⁹

The CAISO agrees that, without the CAISO's energy storage enhancements, storage resources could lose revenues if they received the exceptional dispatches described in Marin's hypotheticals; however the CAISO believes Marin's hypotheticals are extremely unlikely. The CAISO is unaware of any instance when this has occurred. The CAISO's only (and few) exceptional dispatches to date were to charge or hold state of charge in the late afternoon, not *completely discharge* in the early afternoon and then be forced to charge again. The CAISO has not seen market or grid conditions that would necessitate such an unlikely result, nor does Marin identify any such conditions.

<http://www.caiso.com/Documents/SummerMarketPerformanceReportforSeptember2022.pdf>.

⁷ See Report at pp. 146-154.

⁸ *Id.* at 150.

⁹ *Id.*

The CAISO believes such a result is unlikely, especially given CAISO plans to implement new state of charge tools this year.

In any case, this issue is immaterial to whether the CAISO's proposed tariff revisions are just and reasonable and not unduly discriminatory. As the CAISO described at length in its transmittal letter, the MSOC requirement *reduces* the need to issue exceptional dispatches to storage resources. Rejecting the CAISO's filing based on Marin's comments would exacerbate, rather than relieve, the issues of concern to Marin. Moreover, exceptional dispatches are only available when the CAISO must issue them "during a System Emergency, or to prevent an imminent System Emergency or a situation that threatens System Reliability and cannot be addressed by the RTM optimization and system modeling."¹⁰

B. The CAISO has submitted tariff revisions to address any lost opportunity costs for storage resources that receive exceptional dispatches.

Marin also uses this proceeding to "ask[] if the CAISO can provide detail as to whether and how to account for high storage recharging costs subsequent to early day directives to discharge electricity compared to exceptional dispatch compensation for such discharge."¹¹ Marin raises similar questions "as to the accounting of lost opportunity costs for maintaining charge."¹² At the same time, Marin notes that it "plans to submit similar Comments in FERC Docket No. ER23-1533-000 regarding amendments to CAISO's Tariff to implement energy storage enhancements."¹³

¹⁰ CAISO Tariff Section 34.11.1.

¹¹ Marin Comments at p. 6.

¹² *Id.*

¹³ *Id.* at p. 5 n. 9.

The CAISO has addressed compensation for storage resources that receive exceptional dispatches to hold state of charge in the other Commission docket Marin mentions. Stakeholders supported the CAISO's proposed enhancements to ensure storage resources with opportunity costs when they receive an exceptional dispatch to hold a state of charge, and all parties that commented on the issue in the Commission proceeding supported the CAISO's enhancements. Additionally, the Commission approved the MSOC requirement as just and reasonable even before the CAISO proposed to implement the latter enhancements, and the MSOC requirement *decreases* the need to issue exceptionally dispatch storage resources while the CAISO develops replacement enhancements to do the same. As such, Marin's comments do not raise meaningful questions about whether the CAISO's proposed tariff amendments are just and reasonable, and the Commission should thus approve the temporary extension of the MSOC requirement for the reasons explained in the CAISO's transmittal letter.

II. Conclusion

For the reasons explained above and in this proceeding, the CAISO respectfully requests that the Commission accept the proposed tariff revisions as filed.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced 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 at Folsom, CA this 28th day of April, 2023.

/s/ Jacqueline Meredith
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