

179 FERC ¶ 61,133
FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

May 24, 2022

In Reply Refer To:
California Independent System
Operator Corporation
Docket No. ER22-1431-000

California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630

Attention: William H. Weaver

Dear Mr. Weaver:

1. On March 23, 2022, pursuant to section 205 of the Federal Power Act,¹ the California Independent System Operator Corporation (CAISO) submitted revisions to its Open Access Transmission Tariff (Tariff) to enhance reliability demand response resource (RDRR) bidding in CAISO's real-time markets. In this order, we accept the proposed Tariff revisions, effective as of the actual implementation date, as requested, subject to CAISO filing a notice with the Commission within five days after CAISO's actual implementation date.

2. CAISO explains that RDRRs are demand response resources that CAISO enables for dispatch through market optimization when the reliability coordinator has declared an emergency where CAISO has exhausted, or imminently will exhaust, economic resources, including imports.² CAISO states that, under the existing Tariff rules, RDRRs must submit bids no less than 95% of the soft energy bid cap of \$1,000/MWh, and are

¹ 16 U.S.C. § 824d.

² Resources may provide load curtailment in CAISO's markets through two demand respond models: proxy demand resources or RDRRs. A proxy demand resource is an economically-dispatched demand response resource, and an RDRR is dispatched only when CAISO's system experiences a significant transmission or system emergency. CAISO March 23, 2022 Filing (Transmittal) at 2.

subject to cost verification by CAISO in accordance with Order No. 831³ if they seek to bid above the soft energy bid cap.⁴ CAISO notes that RDRRs can submit reference level change requests to trigger the cost verification of bids submitted above the soft energy bid cap, and that such requests must be submitted by 8:00 a.m. of the business day on which the CAISO market runs.⁵ CAISO also notes that RDRRs can request after-the-fact cost recovery if CAISO cannot verify their costs before clearing its market.⁶

3. CAISO states that these existing Tariff rules for allowing RDRRs to bid above the soft energy bid cap are impractical. CAISO explains that although RDRRs can request to bid above the soft energy bid cap, they do not have easily verifiable costs to submit for CAISO review as they are not “true cost-based resources.”⁷ CAISO also notes that because it does not currently calculate default energy bids⁸ for demand response resources, as they are not subject to local market power mitigation, CAISO cannot verify RDRRs’ costs through the automated reference level change request process available to other resource types. Therefore, CAISO explains, RDRRs must submit manual reference level change requests for offers that exceed \$1,000/MWh. CAISO states that it

³ *Offer Caps in Mkts. Operated by Reg’l Transmission Orgs. & Indep. Sys. Operators*, Order No. 831, 157 FERC ¶ 61,115 (2016), *order on reh’g and clarification*, Order No. 831-A, 161 FERC ¶ 61,156 (2017). Order No. 831 requires each Regional Transmission Organization and Independent System Operator to, among other things: (1) cap each resource’s incremental energy offer at the higher of \$1,000/MWh or that resource’s verified cost-based incremental energy offer; (2) cap verified cost-based incremental energy offers at \$2,000/MWh when calculating locational marginal prices; and (3) establish a verification process for cost-based incremental offers above \$1,000/MWh that ensures that a resource’s cost-based incremental energy offer reasonably reflects that resource’s actual or expected costs.

⁴ CAISO, CAISO eTariff § 30.11.2. (Reference Level Change Requests) (4.0.0), § 30.11.2.3 (Energy Bids Above the Soft Energy Bid Cap); Transmittal at 6.

⁵ For example, for day-ahead bids, scheduling coordinators must submit the request before 8:00 a.m. of that day’s day-ahead market, and for real-time bids, scheduling coordinators must submit the request before 8:00 a.m. of that day’s real-time market.

⁶ Transmittal at 6.

⁷ *Id.*

⁸ A default energy bid represents a resource’s marginal cost; it is an energy bid curve used by CAISO for local market power mitigation. *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231, at n.310 & P 221 (2014).

essentially compensates RDRRs to be the first loads shed when CAISO has exhausted available supply and would otherwise direct distribution companies to shed loads that have neither elected to be turned off in an emergency nor received compensation for being turned off. CAISO asserts that although RDRRs are demand response resources because they provide load curtailment, RDRRs better resemble emergency purchases, which the Commission found to be outside the scope of Order No. 831 because “such transactions are administratively priced rather than based on short-run marginal cost.”⁹

4. CAISO adds that the current timing of manual reference level change requests is problematic for RDRR scheduling coordinators. CAISO states that scheduling coordinators do not know what system conditions will be like in the afternoon at the time they submit their manual reference level change requests in the morning before 8:00 a.m. CAISO states that conventional resource scheduling coordinators know that there is a substantial likelihood that CAISO will dispatch their resources during peak conditions; however, RDRR scheduling coordinators have no knowledge that CAISO will enable—let alone dispatch—RDRRs even in tight supply conditions. CAISO asserts that if RDRR scheduling coordinators sought to ensure their bids were always at or near the top of the bid stack to maintain their high strike price, they would have to submit reference level change requests every day during peak conditions.¹⁰

5. CAISO adds that RDRR scheduling coordinators may not know until after the market closes that CAISO may accept RDRR bids above the \$1,000/MWh soft energy bid cap in that day’s real-time market. According to CAISO, conventional resources—whose reference level change requests above the soft energy bid cap for that day’s real-time market CAISO approves—could outbid RDRRs in the real-time market, and the RDRR scheduling coordinators could lose their opportunities to submit reference level change requests in the real-time market for that day. CAISO explains that when it accepts an energy bid or the maximum import bid price exceeds the soft energy bid cap, scheduling coordinators may submit export bids, virtual bids, and energy bids for non-resource-specific system resources¹¹ that exceed the soft energy bid cap. CAISO states that, in emergency conditions, it does not constrain import resources’ bidding through cost verification, for doing so could discourage imports that can supplement resource adequacy imports during tight supply conditions. CAISO asserts that although RDRRs

⁹ Transmittal at 6-7 (quoting Order No. 831, 157 FERC ¶ 61,115 at P 198).

¹⁰ *Id.* at 7.

¹¹ Non-resource-specific system resources are import bids not identified by a specific resource and outside of CAISO’s balancing authority area. By contrast, resource-specific system resources are external resources that generally are treated like internal resources. *Id.* at 8.

would still be eligible for bid cost recovery after the market closes, CAISO's market optimization may dispatch RDRRs well before other economic resources with higher bids. CAISO states that if RDRRs are the marginal resources, they may suppress real-time prices in the early hours of an emergency when CAISO needs to signal scarcity and incentivize imports later in the day. CAISO notes that these results would be highly problematic in an emergency and contravene RDRRs' original intent and design.¹²

6. CAISO therefore proposes in this filing to raise the RDRR real-time bid floor to 95% (i.e., \$1,900/MWh) of the hard energy bid cap in the real-time market for hours when CAISO accepts energy bids priced up to \$2,000/MWh.¹³ CAISO states that this will ensure that: (1) RDRRs maintain the high strike price fundamental to their original design; (2) CAISO only dispatches RDRRs when it has exhausted or imminently will exhaust all economic, non-emergency resources; and (3) RDRRs do not suppress real-time prices during system emergencies.

7. CAISO states that if RDRR scheduling coordinators were not carefully watching for bid cap adjustments at the close of each morning's real-time market, they would not realize their bids below \$1,000/MWh would be rejected, and must be resubmitted with sufficient time before the real-time interval. CAISO states that, in such a case, without a new bid from RDRR scheduling coordinators, CAISO would reject the old bids, and the RDRRs would be left out of that real-time interval. CAISO therefore proposes to adjust submitted RDRR bids automatically based on the percentage of the RDRR bid floor originally submitted by the scheduling coordinator where the RDRR scheduling coordinator has not already manually adjusted the RDRR bid after the bid cap change.¹⁴ CAISO proposes to make this automatic adjustment occur after the market close for that real-time hour, and only when the RDRR's scheduling coordinator does not submit a new bid or opt out of that real-time interval.¹⁵

8. Finally, CAISO proposes the following Tariff revisions to clarify its RDRR policy: (1) strike "registered in the Master File" from Tariff section 30.6.2.1.2, as this specification is not applicable to RDRRs, and the software details are more appropriate

¹² *Id.*

¹³ CAISO, CAISO eTariff, Proposed [§ 30.6.2 \(Bidding and Scheduling of RDRRs\) \(11.0.0\)](#). *Id.* at 9.

¹⁴ CAISO, CAISO eTariff, Proposed [§ 30.6.2 \(Bidding and Scheduling of RDRRs\) \(11.0.0\)](#). *Id.*

¹⁵ *Id.* at 9-10.

for the business practice manuals;¹⁶ (2) insert the word “including” in the sixth clause of Tariff section 30.7.1 to clarify that this clause is not exclusive to the default energy bid modification described later in the Tariff, and that CAISO can notify scheduling coordinators of any other relevant default energy bid modifications;¹⁷ and (3) clarify that an RDRR bid above the soft energy bid cap cannot serve as the trigger to enable other resources—imports, virtual supply, all other RDRRs, etc.—to bid above the soft energy bid cap automatically in the real-time market.¹⁸

9. Notice of CAISO’s filing was published in the *Federal Register*, 87 Fed. Reg. 18,013 (Mar. 29, 2022), with interventions and protests due on or before April 13, 2022. Timely motions to intervene were filed by Calpine Corporation, Southern California Edison Company, Modesto Irrigation District, Pacific Gas and Electric Company, the Northern California Power Agency, and the City of Santa Clara, California. The California Public Utilities Commission filed a notice of intervention. On April 22, 2022, NRG Marketing Power Marketing LLC (NRG) filed a late motion to intervene. CAISO’s Department of Market Monitoring (DMM) filed a timely motion to intervene and comments. DMM supports CAISO’s proposed Tariff revisions. However, it recommends that, in a future initiative, CAISO more carefully consider allowing RDRRs to bid less than \$1,900/MWh if this better reflects their marginal cost in emergency situations.¹⁹

10. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2021), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

11. We accept CAISO’s proposed Tariff revisions, effective as of the actual implementation date, as requested, subject to CAISO filing a notice with the Commission within five days after CAISO’s actual implementation date.²⁰ We find that the proposed

¹⁶ CAISO, CAISO eTariff, Proposed [§ 30.6.2 \(Bidding and Scheduling of RDRRs\) \(11.0.0\)](#). *Id.* at 10-11.

¹⁷ CAISO, CAISO eTariff, Proposed [§ 30.7.1 \(Scheduling Coordinator Access\) \(2.0.0\)](#). *Id.* at 11.

¹⁸ CAISO, CAISO eTariff, Proposed [§ 30.5.8 \(Demand Bids, Export Bids, Virtual Bids, and Bids\) \(1.0.0\)](#). *Id.* at 11-12.

¹⁹ DMM Comments at 2.

²⁰ CAISO anticipates an effective date of June 1, 2022 for these Tariff revisions, but requests that the Commission allow the effective date for these Tariff revisions to be subject to confirmation by CAISO within five business days after the actual effective date. Accordingly, the eTariff records submitted by CAISO contain an effective date of

Tariff revisions are just and reasonable, and have not been shown to be unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful. Taken together, the proposed Tariff revisions improve and clarify CAISO's current Tariff rules on RDRR bidding in CAISO's real-time markets. The proposed Tariff revisions ensure that real-time market RDRR bids will be dispatched after non-RDRR bids during system emergency conditions, consistent with RDRRs' original intent and design. This will help ensure that when there is insufficient supply to meet demand, appropriate price signals will indicate scarcity and incentivize imports during tight supply conditions. We also note that CAISO's proposal preserves the existing bidding structure for RDRRs when the soft bid cap is in place.²¹

By direction of the Commission.

Kimberly D. Bose,
Secretary.

12/31/9998. CAISO's subsequent filing to confirm the actual effective date should be made using Type of Filing Code 150 – Report.

²¹ We do not address DMM's request that, in a future initiative, CAISO consider other enhancements to the RDRR bidding rules. That request is outside the scope of this filing.