

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

**California Independent System) Docket No. ER19-2347-000
Operator Corporation)**

**MOTION FOR LEAVE TO FILE ANSWER AND ANSWER OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION TO
COMMENTS AND PROTESTS**

The California Independent System Operator Corporation (CAISO) answers one protest¹ and comments filed in this proceeding in response to the CAISO's July 2, 2019 tariff amendment (July 2 Tariff Amendment).² Only the California Public Utilities Commission opposes the July 2 Amendment. The rest of the interveners were either fully supportive³ or generally supportive with some minor qualifications.⁴ A number of entities intervened without comments.⁵

The July 2 Tariff Amendment modifies the CAISO's real-time local market power mitigation rules in three separate and distinct sets of tariff revisions. First,

¹ See protest filed by the California Public Utilities Commission (CPUC).

² The CAISO files this answer pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R., §§ 385.212, 385.213. For the reasons explained below, the CAISO respectfully requests waiver of Rule 213(a)(2), 18 C.F.R. § 385.213(a)(2), to permit it to answer the protest filed in this proceeding. The CAISO also addresses requests for clarifications and other suggestions.

³ See comments filed by the Bonneville Power Administration, Idaho Power Company, the National Hydropower Association, and the Pacific Northwest Joint Commenters (the Eugene Water & Electric Board, Powerex Corp., Public Generating Pool, Public Power Council, Public Utility District No. 1 of Chelan County, Public utility District No. 1 of Snohomish County, and Seattle City Light).

⁴ See comments filed by the Department of Market Monitoring (DMM) and Pacific Gas and Electric Company (PG&E).

⁵ See interventions filed by California Department of Water Resources, Calpine Corporation, Cities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside, City of Santa Clara, Modesto Irrigation District, NRG Power Marketing LLC, Northern California Power Agency, NV Energy Inc., PacifiCorp, and Southern California Edison Company.

the CAISO proposes to modify its real-time market local market power mitigation rules so the CAISO market will no longer mitigate a resource's bids in a market interval merely because the resource's bids was mitigated in a prior interval. Second, the CAISO proposes to allow an EIM entity balancing authority area in the CAISO's real-time market to limit dispatch of incremental net exports when the market mitigates its resources' bids. Third, the CAISO proposes to improve the calculation of cost-based bids used in the market power mitigation process, by introducing a new hydro default energy bid (hydro DEB) option based on opportunity costs that would apply to all hydroelectric resources with storage capability that participate in the CAISO markets, including the western energy imbalance market (EIM).

The CPUC protest, which concerns only the hydro DEB, fails to raise any new information that was not fully considered through the stakeholder process, and it fails to support a finding that the CAISO's proposal is not just and reasonable or is unduly discriminatory. As explained in the July 2 Tariff Amendment and further discussed in this answer, the Commission should accept the July 2 Tariff Amendment as filed without condition or modification.

I. Motion for Leave to File Answer

Pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure,⁶ the CAISO respectfully requests waiver of Rule 213(a)(2), 18 C.F.R. § 385.213(a)(2), to permit it to answer the protest and comments filed in the proceeding. Good cause for the waiver exists because the CAISO's answer will

⁶ 18 C.F.R. §§ 385.212, 385.213.

aid the Commission in understanding the issues in the proceeding, provide additional information to assist the Commission in the decision-making process, and help to ensure a complete and accurate record in the proceeding.⁷

II. Answer

A. Use of Distant Electrical Pricing Hubs Reasonably Reflects a Hydroelectric Resource's Opportunity Costs.

The CPUC is concerned that hydroelectric resource owners could distort prices in their local area because the proposal allows for consideration of the future value of energy at different locations than a hydroelectric resource's location. The CPUC argues that including the price of transmission in the hydro DEB is inappropriate because doing so would distort the energy market by including the value of transmission in the energy market.⁸ The CPUC is concerned that differences in prices between electrical pricing hubs could increase energy costs on California ratepayers associated with EIM transfers above the cost in the local area where the hydro DEB would be applicable. In support of these concerns, the CPUC cites the comments made by the DMM and the Market Surveillance Committee (MSC) during the stakeholder process preceding the July 2 Tariff Amendment.⁹

The CPUC relies entirely on the DMM and MSC's comments in the stakeholder process in support of their protest and does not raise any new

⁷ See, e.g., *Equitrans, L.P.*, 134 FERC ¶ 61,250 at P 6 (2011); *Cal. Indep. Sys. Operator Corp.*, 132 FERC ¶ 61,023 at P 16 (2010); *Xcel Energy Servs., Inc.*, 124 FERC ¶ 61,011 at P 20 (2008).

⁸ See CPUC Protest at 4-5.

⁹ *Id.* at 5-7.

evidence in support of its statements. The CAISO agrees that both the DMM and the MSC raised concerns regarding elements of the CAISO's proposal during the stakeholder process. However, the CPUC fails to mention that the CAISO responded to these concerns and that ultimately both the MSC and the DMM supported proceeding with the CAISO's overall proposal with specific conditions.

The CPUC raises a concern with the CAISO's proposed use of distant geographic electrical pricing hubs in the formulation of the hydro DEB and points to the MSC's statements regarding this issue.¹⁰ The CPUC cites the MSC's statement that in "an efficient and liquid wholesale market, the opportunity costs presented by future export opportunities, or sales at 'distant hubs', would be fully captured in local futures prices."¹¹

As noted in the CAISO's July 2 Tariff Amendment, the MSC did express the concern that theoretically in a perfectly efficient market the difference in prices between the local and distant electrical pricing hubs could be captured by the sale of transmission separate from energy, and consequently should not be reflected in a default energy bid.¹² However, the CPUC fails to mention that the MSC's conclusion supported the CAISO's proposal, acknowledging that in practice these transmission rights cannot be readily sold to others, then their

¹⁰ *Id.* at 5.

¹¹ *Id.* at fn. 2.

¹² July 2 Tariff Amendment at 43.

value to make energy sales at a distant hub does represent an energy opportunity cost. Specifically, the MSC stated:

...a distant hub price could represent a legitimate opportunity cost if transmission rights from the resource to the hub have a use-it-or-lose-it character, are likely to be in surplus, and are not easily marketed to other participants.¹³

The MSC went on to conclude:

We agree with the ISO that the holding of firm transmission rights is a relevant factor to consider in deciding what distant hubs to consider. However, we recommend that use of distant hub prices not be allowed as a default or under just a showing of firm transmission rights, but that there be a greater showing burden be placed on resources that want to use further hubs in addition to much nearer hubs. This burden should include a demonstration to DMM's satisfaction that the transmission rights are in fact "use it or lose it" with zero opportunity cost through the relevant time horizon.¹⁴

In response to the MSC's recommendation, the CAISO included a requirement that the scheduling coordinator must not only demonstrate ownership of transmission rights to distant locations, but must also demonstrate that these rights are not fully committed and that there is an actual opportunity to use these rights.¹⁵ During the stakeholder process market participants provided convincing evidence that these transmission rights are indeed "use it or lose it," because there is no robust, bilateral market for unused transmission rights.¹⁶

The CPUC also fails to note that despite the MSC's concerns with some of the hydro DEB calculation details, the MSC "support[s] the general approach that

¹³ MSC Opinion at 6.

¹⁴ *Id.* at 1.

¹⁵ Proposed CAISO tariff section 39.7.1.7.2.

¹⁶ July 2 Tariff Amendment at 45.

is proposed based upon gas costs and forward prices for energy.”¹⁷ The MSC prefers “that the forward prices used in the DEB calculations be adjusted, if practical, by opportunity costs for transmission provided by resource owners and checked by the ISO.”¹⁸ But notes that if it is not practical, the MSC “support[s] implementation of the proposal, at least for the near term, but the CAISO should continue to work to refine this aspect of the proposal.”¹⁹ As noted by the MSC, estimation of bilateral transmission rights is not practical because the CAISO has no firsthand knowledge of an entity’s bilateral transmission rights. The MSC also noted that even if the CAISO could estimate the cost of transmission from a local hub to a distant hub, “some resources may not be located at or electrically close to their assigned ‘local’ hub,” which means “their opportunity cost of point-to-point firm rights that would enable them to convey their power to the distant hub will be difficult to determine, since the likelihood of a liquid market for such rights from their location is even lower than between recognized hubs in the West.”²⁰ The MSC further recognizes that “transmission rights might be traded for particular hours that might not correspond to when the resource would sell the energy that corresponds to the opportunity cost being calculated.”²¹ Because of all these complications, the CAISO does not believe it is practical or reasonable to

¹⁷ MSC Opinion at 8.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 7.

²¹ *Id.*

estimate costs of bilateral transmission rights and utilize such estimates into the hydro DEB.

In an attempt to bolster support for its protest, the CPUC also cites statements made by the DMM during the stakeholder process that including distant electrical pricing hubs in a hydroelectric resource's default energy bid will increase the default energy bid, and could increase energy prices.²² The CPUC states that the "DMM also performed an analysis showing that allowing resources in the Northwest to use Southwest hub prices to construct their default energy bids could increase prices in the Northwest by up to \$20/MWh."²³ The fact that it may increase energy prices does not mean it is not just and reasonable if the prices from the distant electrical pricing hub legitimately reflect energy opportunity costs. In any case, the CPUC fails to cite the DMM's conclusion on this issue as referenced in the DMM's memorandum to the CAISO Board of Governors. Specifically, the DMM concluded that "[a]lthough DMM has concerns about these provisions, we support the proposal in light of (1) the specific nature of hydro resources, (2) the lack of a must-offer obligation in the EIM and (3) the potential benefits from increased participation by entities with hydro resources."²⁴ This conclusion is repeated in the DMM's comments submitted to the Commission in response to the CAISO's filing.²⁵

²² CPUC Protest at 6-7.

²³ *Id.* at 7, fn. 4.

²⁴ DMM Board Memo at 1.

²⁵ See DMM Comments at 2.

Finally, the CPUC is concerned that a “price increase in the Pacific Northwest can lead to increased prices in the CAISO footprint, particularly in the NP26 region where EIM transfers can link the northern California market to the EIM areas in the Pacific NW.”²⁶ The CPUC’s concern is misplaced. First, the DMM did not state that a price increase in the Northwest would lead to increased prices in the California footprint. Second, the higher default energy bids of resources in the Northwest cannot raise prices in California. The market only mitigates EIM entity resources if there is congestion *into* an EIM balancing authority area relative to the CAISO. In this case, the EIM balancing authority area would not be exporting to California, and the price of a hydro DEB in an EIM balancing authority area would not impact prices in California.

Second, the DMM’s findings were relevant to support the DMM’s conclusion that “...under the ISO’s proposed methodology the standard default energy bids available to hydro resources in the Northwest will be high enough to allow hydro units to avoid being dispatched in all but a very small percentage of intervals and hours per day – *with* or *without* the use of prices at the Palo Verde hub and a full 12 months of futures prices.”²⁷ The CAISO agrees with the DMM that the proposed methodology will be sufficient to allow hydroelectric resources in the West manage their use limitations effectively. The CAISO also agrees with the DMM’s second conclusion that “[a]t the same time, including the provisions allowing use of prices at the Palo Verde hub and up to 12 months of futures

²⁶ CPUC Protest at 7.

²⁷ DMM Board Memo at 5.

prices in the methodology results in a limited increase in the default energy bid during the spring and fall months and still provides significant protection against the potential for the exercise of market power.”²⁸ The CAISO does not agree with the CPUC, nor does the CPUC raise any valid evidence to support its conclusion, that the proposed methodology will increase energy prices in the California footprint.

In summary, contrary to the CPUC’s suggestions, the concerns raised by the DMM or the MSC during the stakeholder process does not give the Commission reason to reject to the CAISO’s proposal. Rather, the CAISO proposes a just and reasonable approach to the formulation of the hydro DEBs that provides a uniform and transparent solution and appropriately reflects the opportunity costs faced by western hydroelectric resources with storage capability. Based on the concerns expressed by the DMM and the MSC, the CAISO will monitor the implementation of the hydro DEBs over time. If the CAISO finds the current implementation approach does not accurately capture hydroelectric resources’ opportunity costs, the CAISO will propose any necessary changes to stakeholders and the Commission to be more consistent with actual opportunity costs in the West. The CAISO will also continue to provide the DMM and the MSC any information needed to monitor and evaluate the performance of the modified market rules.

²⁸ See DMM Comments at 10, and see DMM Board Memo at 5.

B. Continuing to rely exclusively on the Negotiated Option for Hydroelectric Resources is Unreasonable.

The CPUC correctly understands that hydroelectric resources can utilize the negotiated default energy bid option in any event. The CAISO has not proposed to modify or remove this option. However, the CPUC presumes that hydroelectric resources can reasonably recover their opportunity costs under the negotiated default energy bid option.²⁹ As discussed at length in the July 2 Tariff Amendment, this presumption is contrary to the CAISO's actual experience.³⁰ The CPUC presents no analysis or other information to support its conclusion that continuing to exclusively rely on the negotiated default energy bid option for hydroelectric resources is reasonable. Further, the CPUC fails to address the CAISO's reasoning that a standard hydro DEB option, consistent with the standard variable cost default energy bid option available to thermal resources, provides valuable transparency and certainty to the market. The Commission should find, as the CAISO has asserted and other comments support, that the negotiated option does not reasonably capture a hydroelectric resource's opportunity costs and, therefore, pursuing a hydro DEB option is reasonable.

²⁹ CPUC Protest at 3-4.

³⁰ July 2 Tariff Amendment at 30-31. Additionally, comments submitted by Idaho Power Company, Bonneville Power Administration, the National Hydropower Association, the Pacific Northwest Joint Commenters, PG&E, and the DMM, all support the CAISO's proposal of the hydro DEB. Most notably, commenters state that the proposed hydro DEB will promote EIM entity participation by hydroelectric resources.

C. Responses to Commenter Identification of Trade-Offs and Suggestions for Clarification.

The DMM believes that the proposal to allow an EIM entity balancing authority area in the real-time market to limit dispatch of incremental net exports could reduce market efficiency under certain conditions.³¹ The DMM also raises a concern about 100 percent of congestion offset revenue being allocated to the exporting balancing authority area, as it may create incentives for inefficient scheduling and bidding.³² However, the DMM has not identified any preferred alternatives, acknowledges the CAISO's transparency on this election, and supports the overall proposal.³³ In the end, the DMM believes that the market conditions associated with their concerns can be readily monitored and notes that the adjustments may be warranted.³⁴ The CAISO is prepared to undertake any necessary adjustments.

PG&E expresses tentative support of the proposal to allow an EIM entity balancing authority area in the real-time market to limit dispatch of incremental net exports under certain conditions.³⁵ Accordingly, PG&E's requests that the Commission direct the DMM to monitor the market impacts of the change and to report to the CAISO board in a year if any flaws are identified.³⁶

³¹ DMM Comments at 4.

³² *Id.*

³³ *Id.* at 4-5, 12.

³⁴ *Id.* at 12-13.

³⁵ PG&E Comments at 3

³⁶ *Id.*

The CAISO does not object to this request, but believes it is unnecessary for the Commission to direct such follow-up to occur. The DMM has committed in this proceeding to monitor the impact of the proposed market design changes and, indeed, that is their mission. In addition, the DMM reports regularly to its oversight committee of the board, and would certainly include the identification of any design flaw in such reports if that were to materialize.

III. Conclusion

For the foregoing reasons, the Commission should accept the tariff revisions contained in the July 2 Tariff Amendment without condition or modification.

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, pursuant to 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 5th day of August, 2019.

Grace Clark
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