

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

California Independent System)	Docket No. ER15-1919-000
Operator Corporation)	Docket No. ER15-1919-001
)	

ANSWER TO COMMENTS

The California Independent System Operator Corporation (“CAISO”) hereby respectfully submits an answer to the further comments filed in the above-identified dockets.¹ These proceedings concern the CAISO’s proposed modifications to the CAISO tariff provisions governing the operation of the CAISO’s Energy Imbalance Market. The modifications enhance functionality, accommodate participation of additional balancing authority areas, address issues encountered during the first year of operations, and comply with certain Commission directives in its order approving implementation of the Energy Imbalance Market.

I. Background and Introduction

On June 15, 2015, the CAISO filed proposed modifications to the CAISO tariff provisions governing the operation of the CAISO’s Energy Imbalance Market that would (1) allow the use of available transfer capability for EIM transfers, (2) provide a cost based approach for greenhouse gas bidding by EIM participating resources and a means for such resources to avoid being

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.

dispatched to serve load in California, (3) align the EIM administrative charge with the grid management charge, and (4) include additional elements for the evaluation of resource sufficiency. On June 25, 2015, the CAISO submitted an errata to add a section of the transmittal letter (section III.E of the transmittal as corrected) that described one of the tariff changes and had been inadvertently omitted during editing.² On July 1, 2015, the CAISO submitted an amendment to the original filing to revise the requested effective date of a single tariff provision proposed in the June 15 filing.³

Pacific Gas and Electric Company submitted comments to the June 15 filing and the June 25 errata on the date noticed for comment on the June 15 filing. The Transmission Agency of Northern California submitted comments to the June 15 filing on the date noticed for comments. NV Energy submitted comments in support of the June 15 filing on the date noticed for comments on the June 25 errata. The CAISO filed an answer to these comments on July 17, 2015.

In addition, Southern California Edison Company (“SoCal Edison”) submitted comments supporting elements of the June 15 filing and questioning others on the date noticed for comments on the June 25 errata. PacifiCorp submitted comments generally in support of the June 15 filing on the date noticed for comments on the June 25 errata, but also questioning one element of the

² See Docket No. ER15-1919-000 (noticing that comments on the errata are due July 16, 2015).

³ See Docket No. ER15-1919-001 (noticing that comments on the amended effective date are due July 16, 2015).

proposal. Powerex filed comments concerning the June 15 filing on the date noticed for comments on the June 25 errata, which support elements of the proposal and also question the same element of the CAISO's proposal noted by PacifiCorp.

Because the CAISO received the PacifiCorp, Powerex, and SoCal Edison comments on the date noticed for comments on the June 25 errata, not the date noticed for comments on the June 15 proposal, the CAISO was unable to respond in its July 17 answer. Accordingly, the CAISO is providing this supplemental answer.

II. Answer

A. Flexible Ramping Sufficiency.

Section 29.34(m) of the CAISO tariff includes a resource sufficiency evaluation to ensure that each EIM balancing authority area has sufficient bid range from participating resources to meet the 15-minute net-load forecast and ramping requirements independently prior to the start of the operating hour. In its amendment, the CAISO proposed to enhance the resource sufficiency evaluation by including the historical scheduling error of hourly imports and exports in the base schedules. Specifically, under the proposal, if a balancing authority area has historically high import/export schedule changes between T-40 and T- 20, the CAISO will add an hourly block schedule difference that the balancing authority area must meet in addition to the capacity test, which the CAISO will calculate. On a monthly basis, the CAISO will calculate for each EIM entity balancing authority area histograms of the percentage of the difference between

imports and exports included in base schedules at T-40 and those scheduled and e-Tagged at T-20. Using this information, the CAISO will calculate any additional incremental and decremental requirements for the capacity test component of the resource sufficiency evaluation.

Powerex supports the goal of enhancing the resource sufficiency evaluation, but requests that the Commission direct the CAISO to take into account the actual performance of interchange schedules, *i.e.*, deliveries rather than e-tags, when considering adjustments to the sufficiency requirements.⁴ According to Powerex, by only considering deviations between base schedules and e-Tags submitted at T-20, CAISO's proposed approach will make an irrelevant distinction between deviations occurring prior to T-20 and those occurring after T-20 and will underestimate the amount of additional flexible ramping capacity needed to address the potential non-performance of imports and exports.

Powerex's argument conflates two elements of a series of three tests that the CAISO performs regarding the resource sufficiency evaluation process. The three elements include a balancing test, a capacity test, and a ramping test. In this initiative the CAISO only proposes changes to improve the capacity test portion of the resource sufficiency evaluation. The capacity test ensures that the bid range of participating resources is sufficient to meet the differences between the T-40 base schedules and the 15-minute interval load forecast of the EIM balancing authority area. An inconsistency between the hourly base schedule

⁴ Powerex at 7-9.

and the e-Tag submitted by the WECC tagging deadline for the operating hour (T-20) will increase the bid range necessary in all 15-minute intervals of the operating hour. That is why the CAISO must account for these *hourly schedule* changes, and the historical schedule changes in hourly block schedules between T-40 and T-20 provide the best data with which to do so.

The CAISO resource sufficiency evaluation already includes a test that addresses Powerex's concern. The third element of the resource sufficiency evaluation, the existing flexible ramping test, ensures that EIM participating resources have sufficient ramping capability to move and meet the 15-minute interval load forecast plus historical variability and uncertainty between the fifteen-minute schedule and actual delivery. Taking into account the differences within the operating hour between the values at T-20 (where T is the start of any 15-minute interval)⁵ and the actual tagged quantity relative to the FMM schedule would increase variability and uncertainty and, in turn, increase the flexible ramping requirement used in the flexible ramping test. This test already captures this variability because the historical differences between the final tagged values and the assumed delivery in the fifteen-minute market is captured in the flexible ramping requirement, which the EIM entity must meet each hour. Powerex has not demonstrated why the CAISO should create redundancy among two of the three elements of the resource sufficiency evaluation by including this variability

⁵ which is the WECC tagging deadline for 15-minute schedule changes prior to any 15-minute interval,

and uncertainty in the capacity element of the test or that the proposal is unjust and unreasonable.

PacifiCorp is concerned that use of prior month data in the histograms may not necessarily capture accurate seasonal usage or transaction patterns. PacifiCorp states it understands the CAISO's position that performing the calculation on a rolling basis approach, as suggested by PacifiCorp, would provide insufficient time for the EIM entity to make appropriate changes to increase the bid range, which may result in failure of the resource sufficiency evaluation. PacifiCorp nonetheless asks the Commission to require CAISO to re-evaluate this approach once CAISO has acquired at least a full year's worth of scheduling error actual data.⁶

The CAISO intends to continue to monitor performance of all parts of the Energy Imbalance Market. As part of this effort, the CAISO commits to reviewing available data on the histogram sample data and considering whether a different data sample is appropriate. If so, the CAISO will update its business practice manual through the change management process with stakeholders. PacifiCorp is also welcome to propose alternate data samples through the business practice manual change management process after additional information on the histogram data sample becomes available.

B. Greenhouse Gas Bidding by EIM Participating Resources.

Section 29.32 of the CAISO tariff allows EIM resources to include a bid adder in their bids in order to obtain compensation for costs incurred under

⁶ PacifiCorp at 8.

California greenhouse gas regulations in connection with energy transferred into California. In response to a Commission directive that the CAISO add a mechanism to allow an EIM participating resource scheduling coordinator to opt out completely from consideration for EIM transfer into California,⁷ the CAISO proposed a mechanism by which a resource would submit a single MW quantity and single bid price on an hourly basis to express its willingness to serve as the source of an EIM transfer into California and to be subject to California's greenhouse gas regulations. If the EIM participating resource does not submit a bid adder, or submits a bid adder with a zero MW quantity, the market would not deem the energy from the EIM participating resource to be delivered into California.

SoCal Edison objects to the CAISO proposal. It asserts that anything beyond a yes/no flag goes beyond compliance with the Commission's directive and states that if a generator is willing to be subject to possible greenhouse gas compliance, there is no reason to allow it to limit the amount it is willing to sell to California. SoCal Edison is concerned that the CAISO proposal could lead to market inefficiencies.⁸

On July 30, 2015, Commission staff issued a letter requesting additional information on the green-house gas modifications proposed in this filing. The CAISO will respond to those questions consistent with the Commission's order. Given that SoCal Edison's comments are closely related to staff's questions, the

⁷ *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231 at P 240 (2014)

⁸ SoCal Edison at 3.

CAISO will respond to SoCal Edison's comments at the same time to provide all parties and the Commission a comprehensive and meaningful response to the issues raised in this proceeding.

III. Conclusion

For the reasons explained above and in the ISO's June 15, June 25, and July 1 filings in these proceedings, as well as its initial answer and any further information submitted in response to staff questions, the Commission should accept the proposed tariff revisions as filed and without condition.

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 4th day of August, 2015.

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