

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY MARKET REGULATION

California Independent System
Operator Corporation
Docket No. ER15-861-003

September 24, 2015

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

Attention: Anna McKenna, Esq.
Attorney for California Independent System Operator Corporation

Reference: Deficiency Letter

Dear Ms. McKenna:

On August 19, 2015, pursuant to the Order on Technical Conference issued by the Commission in this proceeding on July 20, 2015,¹ the California Independent System Operator Corporation (CAISO) filed proposed tariff revisions (August 19 Filing) to enhance the Energy Imbalance Market (EIM) functionality so that it will automatically recognize and account for capacity the balancing authority area (BAA) has available to maintain reliable operations, known as “EIM Available Balancing Capacity.” The proposed revisions seek to address the structural market design issue CAISO identified over the course of the Commission’s section 206 proceeding on price spikes² observed in PacifiCorp’s BAAs after the launch of the EIM.³ CAISO states that its proposed

¹ *Cal. Indep. Sys. Operator Corp.*, 152 FERC ¶ 61,060 (2015).

² *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191 (2015).

³ Following the implementation of the EIM, certain transitional conditions arose that caused the transmission and power balance constraints described in sections 27.4.3.2 and 27.4.3.4 of the CAISO tariff to bind more frequently than expected, producing atypically high prices in the fifteen minute and five-minute markets in the PacifiCorp BAAs. These “price spikes” or “price excursions” were not reflective of actual physical scarcity, but rather the inability of CAISO’s systems to see BAA operator actions taken

enhancement will allow the EIM entity to identify capacity it deems necessary to reliably operate its system and deploy this capacity through the EIM to resolve power balance infeasibilities in its BAA, and simultaneously participate in congestion management. According to CAISO, this will prevent infeasibilities that would otherwise arise without this visibility.⁴

Please be advised that the filing is deficient and the Commission requires additional information in order to process the filing. Please provide complete responses to the following within 30 days:

1. CAISO states that one of the two root causes of the price excursions experienced after the launch of EIM was “a structural limitation in the current design of the EIM, namely the lack of visibility to the market of capacity that is available to PacifiCorp to meet load in its balancing area and that is not bid into the EIM.”⁵ Previously in this proceeding, in its comments following the April 9, 2015 Technical Conference, CAISO stated that it believes “it is necessary to enhance the functionality of the market systems to ensure that systems are automatically informed of the full scope of available capacity and recognize the actions the EIM entity takes to manage such capacity to balance its system.”⁶
 - a. Under CAISO’s proposal, it is optional for an EIM entity to identify all or a portion of its EIM Available Balancing Capacity.⁷ Please explain how the proposal ensures that CAISO’s systems are automatically informed of the full

by PacifiCorp to manage its system. CAISO April 23 Comments on Technical Conference at 4-7; CAISO August 19 Filing at 11.

⁴ *Id.* at 1-3.

⁵ *Id.* at 3.

⁶ CAISO April 23, 2015 Comments on Technical Conference at 9.

⁷ An EIM entity scheduling coordinator shall “register with the CAISO, consistent with the provisions in the Business Practice Manual for the Energy Imbalance Market, all non-participating resources that the EIM Entity Scheduling Coordinator *may* designate as EIM Available Balancing Capacity in its EIM Resource Plan” (emphasis added). CAISO Proposed Tariff section 29.4 (c)(4)(J). “*If* the EIM entity scheduling coordinator *elects* to identify this [EIM Available Balancing Capacity] for the CAISO, it will include this capacity in the currently labeled “regulation up” and “regulation down” fields of the EIM resource plan” (emphasis added). CAISO August 19 Filing at 12.

- scope of available capacity if an EIM entity does not identify sufficient EIM Available Balancing Capacity.
- b. Explain what is meant by “full scope of available capacity”.
 - c. CAISO’s proposal includes a constraint that is utilized in the scheduling run of CAISO’s market optimization to ensure that available balancing capacity will not be used to resolve a potential infeasibility outside of the BAA in which the EIM Available Balancing Capacity is located.⁸ Please clarify why an EIM entity should not be required to make all of its excess reserves visible as EIM Available Balancing Capacity, given that CAISO’s proposal includes a constraint to prevent the EIM Available Balancing Capacity from being used for EIM transfers.
2. CAISO proposes to define EIM Available Balancing Capacity as “[a]ny EIM Upward Available Balancing Capacity or EIM Downward Available Balancing Capacity.” CAISO proposes to define EIM Downward Available Balancing Capacity as “[a]ny downward capacity from an EIM Participating Resources or a non-participating resource that an EIM Entity Scheduling Coordinator has identified in the EIM Resource Plan as available to address power balance and transmission constraint violations in the EIM Balancing Authority Area.” CAISO proposes to define EIM Upward Available Balancing Capacity as “[a]ny upward capacity from an EIM Participating Resources or a non-participating resource that an EIM Entity Scheduling Coordinator has identified in the EIM Resource Plan as available to address power balance and transmission violations in the EIM Balancing Authority Area.”⁹
- a. CAISO indicates that an EIM entity scheduling coordinator may choose to identify portions of its excess reserves as EIM Available Balancing Capacity, which could be in the form of regulation and load-following capacity or “other capacity that the balancing authority has determined is necessary for reliable operations.”¹⁰ Please provide additional detail regarding what types of capacity are considered “other capacity that the balancing authority has determined is necessary for reliable operations” such that the capacity will be eligible for designation by an EIM entity

⁸ CAISO August 19 Filing at 21; CAISO Proposed Tariff Section 39.4(r)(3)(C).

⁹ CAISO Proposed Tariff, Appendix A, Definitions.

¹⁰ CAISO August 19 Filing at 12.

scheduling coordinator as EIM Available Balancing Capacity. In addition, please indicate where this information will be documented.

- b. With respect to the types of capacity that may be designated as EIM Available Balancing Capacity described in your response to question 2(a) above, what additional limitations exist, whether operational, physical, environmental, or otherwise that would affect the participation of these resources in resolving power balance or transmission constraints in the EIM entity's BAA?
3. Prior to CAISO's August 19 Filing, CAISO provided clarification in its May 21 Answer in this proceeding to Bonneville Power Administration's (BPA) question regarding which non-participating resources would be considered EIM Available Balancing Capacity. In its May 21 Answer, CAISO stated:

BPA requests that the CAISO clarify that the pricing and utilization of non-participating resources under its proposal applies only to resources that the EIM entity owns or operates, not to any non-participating resource within the EIM balancing authority area. The CAISO confirms that this interpretation is correct, with two caveats: (1) the "EIM entity" refers to PacifiCorp is in [sic: its] role as the balancing authority, not its merchant functions, and thus the "EIM entity" does not own any resources; and (2) the CAISO's proposal is not limited to resources "owned" by PacifiCorp, but includes any resources with whom PacifiCorp has contractual arrangements.¹¹

- a. Please clarify whether, under the proposal CAISO filed after submitting this answer to BPA, EIM Available Balancing Capacity is limited to those resources owned or operated by the EIM entity or the EIM entity's affiliates.
- b. Would a non-affiliated, non-participating resource that takes service under the PacifiCorp Open Access Transmission Tariff, or a non-affiliated, non-participating resource that has an interconnection agreement with an EIM entity be considered to have a contractual arrangement and therefore be considered as EIM Available Balancing Capacity?
4. CAISO explains that it allows EIM entities to adjust load forecasts, known as load

¹¹ CAISO May 21, 2015 Answer at 34.

biasing, to address changes in operating conditions and that the EIM entity is best equipped to determine the need for a load adjustment. CAISO further states that "there are times when PacifiCorp, as the balancing authority, may need to make adjustments to account for actual conditions that could not otherwise have been forecast by the CAISO."¹²

- a. Please explain how an EIM entity's adjustments to load forecast are communicated to CAISO market systems (e.g., direct input to Real-Time Pre-Dispatch/Real-Time Dispatch or through CAISO operations staff) and the timeline for such communication.
 - b. Are reasons for load biasing communicated to CAISO before adjustments are made? If so, how and when?
 - c. To the extent that EIM entities can directly adjust the load forecast used in the EIM market optimization without CAISO approval, please explain whether this input parameter can affect the resulting market rates, and why CAISO is not the appropriate entity to make such adjustments.
5. Please explain the possible pricing impact that the inclusion of EIM Available Balancing Capacity will have on the pricing run of the market optimization if the scheduling run determines that EIM Available Balancing Capacity is needed to resolve a potential power balance infeasibility in the EIM entity's balancing area.
- a. Please provide scenarios under which prices in the EIM could increase, decrease, or stay constant.
 - i. To the extent there are scenarios under which prices would stay constant or decrease, please explain why an increase in the price would not be the appropriate signal to send in such scenarios.
 - b. Please explain, under the scenarios you describe under 5. a. i., above, how EIM Participant decisions regarding participating resources affect whether EIM Available Balancing Capacity will be deployed and the potential effect on clearing prices.
6. Finally, proposed tariff section 29.34(r)(1) provides that "CAISO will use EIM Available Balancing Capacity identified in the EIM Resource Plan to address

¹² CAISO August 19 Filing at 35.

power balance constraint infeasibilities in the EIM BAA for which the EIM Available Balancing Capacity is designated by the responsible EIM Entity Scheduling Coordinator, while simultaneously participating in Congestion Management.”

- a. Please provide additional detail regarding how CAISO will utilize the EIM Available Balancing Capacity for Congestion Management.
- b. Please indicate why and under what conditions this is an appropriate use of this capacity.

This letter is issued pursuant to 18 C.F.R. § 375.307(a)(1)(v) (2015) and is interlocutory. This letter is not subject to rehearing pursuant to 18 C.F.R. § 385.713 (2015), and a response to this letter must be filed with the Secretary of the Commission within 30 days of the date of this letter by making an amendment filing in accordance with the Commission’s electronic tariff requirements.¹³

The information requested in this letter will constitute an amendment to your filing, and a new filing date will be established, pursuant to *Duke Power Company*, 57 FERC ¶ 61,215 (1991), upon receipt of CAISO’s electronic tariff filing. A notice of amendment will be issued upon receipt of your response.

Failure to respond to this letter within the time period specified may result in an order rejecting your filing. Pending receipt of the above information, a filing date will not be assigned to your filing.

Sincerely,

Steve P. Rodgers, Director
Division of Electric Power
Regulation – West

¹³ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at PP 3-8 (2010) (stating that an amendment filing must include at least one tariff record even though a tariff revision might not otherwise be needed). The response must be filed using Type of Filing Code 180 – Deficiency Filing. If there are no changes to tariff records, CAISO can attach a single tariff record with no changes.

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