

177 FERC ¶ 61,070
FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

October 29, 2021

In Reply Refer To:
California Independent System Operator
Corporation
Docket No. ER21-2593-000

Davis Wright Tremaine LLP
1301 K Street, NW
Suite 500 East
Washington, DC 20005

Attention: Michael Kunselman

Dear Mr. Kunselman:

1. On August 3, 2021, pursuant to section 205 of the Federal Power Act (FPA)¹ and section 35.13 of the Commission's regulations,² the California Independent System Operator Corporation (CAISO) submitted revisions to its Open Access Transmission Tariff (Tariff) to allow Energy Imbalance Market (EIM) participants to submit EIM base schedules that include start-up energy below the minimum load of their resources.³ As discussed below, we accept the proposed revisions, effective as of the actual implementation date, subject to CAISO notifying the Commission of the actual implementation date within five days of that date.

2. CAISO explains that EIM base schedules reflect EIM entities' planned system operations and are the baseline for imbalance energy settlement in the EIM. Currently, EIM base schedules do not allow resources to include start-up energy below minimum load.⁴ According to CAISO, EIM entities identified this base schedule limitation as a

¹ 16 U.S.C. § 824d.

² 18 C.F.R. § 35.13 (2020).

³ CAISO August 3, 2021 Filing at 1 (Transmittal).

⁴ Minimum load for a generating unit is the minimum operating level at which it can operate at a continuous sustained level.

problem because the start-up energy below minimum load cannot be included in the EIM resource sufficiency evaluation⁵ even though EIM entities, in their role as balancing authorities, rely on the energy produced when a resource is starting and ramping to its minimum load. CAISO explains that the inability of EIM entities to account for energy below a resource's minimum load is most problematic for large resources that have long, multi-hour start-up times and minimum loads in the hundreds of megawatts. CAISO states that it undertook a stakeholder initiative in 2020 to consider this issue. According to CAISO, its proposed Tariff revisions provide a solution and have stakeholder support.⁶

3. CAISO explains that for CAISO resources, balanced schedules are established via the day-ahead integrated forward market and the real-time unit commitment process, whereas in the EIM, entities are responsible for creating their own balanced EIM base schedules. All energy shown in CAISO's day-ahead schedules is settled, but EIM base schedules are not settled. EIM imbalance energy settlement is limited to the deviations between the EIM base schedule and the metered output from the resource. CAISO explains that, under the proposed Tariff revisions, EIM entities will be able to include the expected energy produced during start-up in their base schedules, which will more accurately reflect their resource portfolio, enhance their ability to pass the resource sufficiency evaluation, and decrease EIM participating resources' uninstructed imbalance energy.⁷

4. CAISO further explains that, under its proposal, it will assume that when a resource is producing energy below its minimum load the resource will generally ramp in a linear manner up to its minimum load. To ensure there is no misuse of this functionality in an attempt to circumvent the intent of the resource sufficiency evaluation, CAISO proposes to perform after-the-fact monitoring on the EIM base schedules that contain resources with start-up energy. Examples of conditions CAISO proposes to

⁵ The resource sufficiency evaluation includes four different tests: (1) balancing, (2) feasibility, (3) capacity, and (4) flexibility. The balancing test ensures accurate base schedule submissions, while the feasibility test runs a powerflow on base schedules to inform EIM entities of expected congestion. The bid-range capacity test determines if an EIM entity has sufficient supply to meet its obligations. The flexible ramping sufficiency test ensures that each EIM entity can ramp to meet expected forecast variations in the upcoming operating hour. Transmittal at 3–4.

⁶ *Id.* at 3. CAISO states that its proposal only addresses a narrow issue that EIM entities seek to resolve in their role as the balancing authorities operating in the EIM. As such, CAISO states that it is not proposing broader design changes to incorporate start-up energy into its day-ahead market in this filing. *Id.* at 5.

⁷ *Id.* at 1–4.

monitor include: (i) an EIM base schedule below minimum load in an hour when there is an EIM base schedule at or above minimum load in the previous hour; (ii) a non-monotonically increasing pattern of EIM base schedules below minimum load over consecutive hours; (iii) lack of an EIM base schedule in an hour when there is an EIM base schedule below minimum load in the previous hour; and (iv) EIM base schedules below minimum load for an unreasonably long multi-hour period based on the resource's registered technology and start-up profile. CAISO states that it will examine operator logs, outage cards, and other available records to resolve any potential questions concerning potential observed patterns of misuse that could inappropriately impact the resource sufficiency evaluation or settlement. CAISO states that it will undertake these monitoring activities consistent with the rules of conduct applied by CAISO and pursue identified concerns accordingly.⁸

5. CAISO states that it will settle energy below minimum load included in an EIM base schedule as if the EIM resource had received a dispatch instruction to minimum load based upon the submission of an energy self-schedule. CAISO indicates that it will determine the quantity of uninstructed imbalance energy based on the resource's deviation from its start-up base schedule and its meter, and will settle the difference between the base schedule and the metered output at the applicable real-time dispatch locational marginal price; however, CAISO will not settle energy associated with the base schedule. According to CAISO, limiting the settlement to the difference between the EIM base schedule and the metered output should prevent a generator from getting paid imbalance energy for output up to its base schedule. In addition, CAISO indicates that it will consider the start-up period to be a self-commitment which excludes the start-up costs from bid cost recovery consideration. According to CAISO, this settlement results in appropriate treatment of EIM base schedule submissions below minimum load, while also mitigating concern that the base scheduled energy below minimum load could increase bid cost recovery.⁹

6. CAISO requests that the Commission accept its proposed Tariff revisions effective November 1, 2021, subject to confirmation by CAISO within five business days of the actual effective date.¹⁰

7. Notice of CAISO's filing was published in the *Federal Register*, 86 Fed. Reg. 43,537 (Aug. 3, 2021), with interventions and protests due on or before August 24, 2021. Timely motions to intervene were filed by Southern California Edison Company,

⁸ *Id.* at 5.

⁹ *Id.* at 5–6 (citing *Cal. Indep. Sys. Operator Corp.*, Motion to Intervene and Comments, Docket No. ER21-955-000, at 3 (filed Feb. 17, 2021)).

¹⁰ *Id.* at 6–7.

Modesto Irrigation District, and the City of Santa Clara, California. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2020), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

8. We accept CAISO's proposed Tariff revisions, effective as of the actual implementation date, subject to CAISO notifying the Commission of the actual implementation date within five days of that date.¹¹ We find that the proposed Tariff revisions appear to be just and reasonable, and have not been shown to be unjust, unreasonable, unduly discriminatory or preferential or otherwise unlawful. They allow EIM entities to include in their EIM base schedules the expected energy produced during start-up, which will allow EIM entities to more accurately reflect their resource portfolio in the EIM base schedules, enhance EIM entities' ability to pass the resource sufficiency evaluation, and decrease EIM participating resources' uninstructed imbalance energy. We also note that the proposed Tariff revisions are uncontested.

By direction of the Commission.

Kimberly D. Bose,
Secretary.

¹¹ CAISO anticipates an effective date of November 1, 2021 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 of the actual effective date. Accordingly, the eTariff records submitted by CAISO contain an effective date of 12/31/9998. CAISO's subsequent filing to confirm the actual effective date should be made using Type of Filing Code 150 – Report.