

172 FERC ¶ 61,234  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Richard Glick and James P. Danly.

California Independent System  
Operator Corporation

Docket No. ER20-1890-000

ORDER ACCEPTING TARIFF REVISIONS SUBJECT TO CONDITION

(Issued September 17, 2020)

1. On May 22, 2020, the California Independent System Operator Corporation (CAISO) filed, pursuant to section 205 of the Federal Power Act (FPA),<sup>1</sup> revisions to its Open Access Transmission Tariff (Tariff) to enhance its market rules regarding the treatment of energy transactions scheduled at interties. In this order, we accept the Tariff revisions, effective October 1, 2020, as requested.

**I. Background**

2. CAISO states that it clears a significant volume of energy imports and exports through intertie transactions with neighboring balancing authority areas (BAAs) to meet operational needs and provide economic benefits, and that imports serve up to 25% of the supply needed in individual hours to meet demand in the CAISO BAA.<sup>2</sup> CAISO explains that undelivered imports and exports can detrimentally affect reliability and market pricing. CAISO states that undelivered imports may create inefficient use of transmission paths and force grid operators to take out-of-market actions to serve load.<sup>3</sup>

3. CAISO explains that under the current Tariff rules, the 15-minute market assumes that a scheduling coordinator will deliver its awarded intertie transaction if it indicates as such through CAISO's automated dispatch system after the hour-ahead scheduling

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<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> Transmittal at 2.

<sup>3</sup> *Id.*

process<sup>4</sup> is completed, regardless of whether the scheduling coordinator submits the accompanying electronic tag (E-Tag) at that time.<sup>5</sup> However, E-Tags are not due until 20 minutes before the operating hour or 15-minute interval and, to the extent that a scheduling coordinator does not ultimately submit an E-Tag to deliver its awarded inertia transaction, CAISO's hour-ahead scheduling process and 15-minute market runs cannot make up for the undelivered energy. Therefore, it falls on the five-minute market or out-of-market actions by operators to make up for any deficiencies. CAISO states that it has several mechanisms intended to address the problem of undelivered energy, but they are insufficient, as evidenced by significant amounts of awarded but undelivered energy at the inertias.<sup>6</sup>

4. CAISO explains that its existing monthly non-delivery charge for deviations from awarded inertia transactions does not adequately address the problem of awarded but undelivered energy because it applies only in narrow circumstances: (1) hourly block schedules<sup>7</sup> and variable energy resources that use their own forecasts; (2) hourly block schedules if the schedule decline is made prior to the start of the applicable 15-minute market interval; and (3) if non-deliveries equal or exceed both 300 MWh and 10% of the participants' monthly imports or exports. Thus, CAISO explains, the current non-delivery charge often does not apply to undelivered transactions and does not adequately incentivize market participants to deliver awarded inertia transactions.<sup>8</sup>

## II. CAISO Proposal

5. In this filing, CAISO proposes to: (1) enhance Tariff provisions regarding the treatment of inertia schedules and related rules regarding E-Tags;<sup>9</sup> (2) modify the non-

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<sup>4</sup> The hour-ahead scheduling process is the scheduling process conducted by CAISO at 75 minutes prior to the trading hour. CAISO Tariff, Appendix A.

<sup>5</sup> An E-Tag is an electronic label containing information regarding the scheduled inertia transaction, including the transmission path, the amount of energy to be transferred, and the specified 15-minute market interval(s).

<sup>6</sup> Transmittal at 2-3.

<sup>7</sup> An hourly block schedule is a bid or schedule in the real-time market from eligible resources for the same MWh quantity over an entire trading hour. CAISO Tariff, Appendix A. Thus, 15-minute dispatchable inertia resources are not subject to the charge. *Id.* at 3.

<sup>8</sup> *Id.* at 3, 14-16.

<sup>9</sup> CAISO Tariff, Proposed § 30.5.

delivery charge for deviations from awarded intertie transactions;<sup>10</sup> and (3) clarify aspects of CAISO's day-ahead intertie scheduling practices.<sup>11</sup> CAISO states that the proposed revisions address problems arising from significant amounts of undelivered intertie transactions in the CAISO market and will improve system reliability and price stability.<sup>12</sup>

6. CAISO states that the revisions to intertie schedules and E-Tag rules will provide the 15-minute market with more reliable information about whether intertie transactions awarded from the day-ahead and hour-ahead scheduling processes are likely to materialize in real time. Under the proposal, intertie transactions that do not follow the revised E-Tag rules will have their prior market awards set to zero in the 15-minute market and will be subject to the revised under- or-over-delivery charge, as discussed below.<sup>13</sup>

7. CAISO proposes two deadlines for scheduling coordinators to submit and then finalize E-Tags, first at 40 minutes before the trading hour (T-40), and second at 20 minutes before the trading hour (T-20). CAISO explains that by T-40, the scheduling coordinator must submit a valid E-Tag with a transmission profile equal to the applicable economic bid or self-schedule,<sup>14</sup> or, for a 15-minute market economic bid, equal to or greater than the bid. Under CAISO's proposal, the scheduling coordinator may revise the energy profile of the E-Tag until T-20, but by T-20, the quantity of the energy profile of the E-Tag must equal the lower of the E-Tag transmission profile or the quantity of the economic bid or self-schedule. For a 15-minute market economic bid, the energy profile at T-20 must equal the lower of the E-Tag transmission profile or the quantity of the energy schedule of the first 15-minute market interval. CAISO explains that if the scheduling coordinator fails to submit an E-Tag by T-40, CAISO will set the energy schedule to zero for each 15-minute market interval of the hour. CAISO asserts that submitting an E-Tag with a transmission profile under the proposed revisions will provide a sufficient indicator that the scheduling coordinator intends to deliver the awarded energy. Further, CAISO contends that these

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<sup>10</sup> *Id.*, Proposed § 11.31 and Appendix A.

<sup>11</sup> *Id.*, Proposed § 11.32(i).

<sup>12</sup> Transmittal at 1, 17-18.

<sup>13</sup> *Id.* at 17-18.

<sup>14</sup> CAISO states that if a scheduling coordinator submits an E-Tag with a transmission profile less than its advisory energy schedule, CAISO will limit the energy schedule so as to not exceed the quantity of the transmission profile. *Id.* at 18.

revisions will also encourage scheduling coordinators to have physical generation and transmission procured when they submit bids.<sup>15</sup>

8. Next, CAISO proposes to revise the non-delivery charge to establish more robust incentives for market participants to deliver their awarded intertie transactions. Under CAISO's proposal, the non-delivery charge will apply to all intertie transactions regardless of the bid type that created the schedule, and the charge will apply to deviations from awarded amounts regardless of whether the deviation is an over- or under-delivery.<sup>16</sup> In addition, CAISO proposes to eliminate the current threshold of 10% or 300 MWh and instead assess charges for each 15-minute market interval.<sup>17</sup> CAISO explains that over- and under-deliveries will only be exempt from the charge under three limited circumstances when: (1) a balancing authority or transmission service provider curtails delivery for a reliability reason; (2) the deviation is part of an existing transmission contract or transmission ownership right self-schedule; or (3) the deviation is from a dynamic system resource.<sup>18</sup>

9. In instances when the scheduling coordinator declines an award, CAISO proposes to modify the charge for the over- or under-delivery to equal the greater of: (a) 50% of the locational marginal price in the corresponding 15-minute market interval at the intertie where the resource was scheduled; (b) 50% of the highest locational marginal price among the three five-minute real-time dispatch intervals corresponding to the 15-minute market interval at the intertie where the resource was scheduled; or (c) \$10.00 per MWh. When a scheduling coordinator accepts or does not act on<sup>19</sup> an award in CAISO's automated dispatch system but does not submit an E-Tag and fails to deliver, the non-delivery charges described in (a) or (b) will equal 75%, rather than 50%, of the applicable price.<sup>20</sup> CAISO proposes to allocate the under/over delivery charge similar to

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<sup>15</sup> *Id.* at 18-20.

<sup>16</sup> CAISO Tariff, Proposed § 11.31.

<sup>17</sup> *See id.* at Appendix A (proposing to delete the definitions for "Decline Threshold Percentage – Imports/Exports" and "Decline Threshold Quantity – Imports/Exports").

<sup>18</sup> Transmittal at 20-23; CAISO Tariff, Proposed § 11.31.1.3.

<sup>19</sup> If a scheduling coordinator does not act on an award, it is automatically accepted.

<sup>20</sup> Transmittal at 24-25; CAISO Tariff, Proposed § 11.31.2.

how it allocates the current decline monthly charge, except that CAISO will now do so on a daily, rather than monthly, basis.<sup>21</sup>

10. CAISO also proposes revisions to better align the rules for withdrawing E-Tags with the practice set forth in the relevant business practice manual, which states that CAISO will assess a charge when a scheduling coordinator withdraws an E-Tag prior to publication of the hour-ahead scheduling process.<sup>22</sup> CAISO explains that its current Tariff states that it will assess the charge when a scheduling coordinator withdraws an E-Tag prior to T-45 and suggests that the change will clarify the rule.

11. Finally, CAISO requests that the Commission waive its 120-day notice requirement<sup>23</sup> and issue an order by September 17, 2020 that accepts the revisions to be effective October 1, 2020. CAISO asserts that good cause exists for the Commission to grant these requests in order to give CAISO and market participants regulatory certainty and ample time to implement the proposed tariff revisions as part of CAISO's planned software release in the fall of 2020.<sup>24</sup>

### **III. Notice of Filing and Responsive Pleadings**

12. Notice of CAISO's filing was published in the *Federal Register*, 85 Fed. Reg. 32,375 (May 22, 2020), with interventions and protests due on or before June 12, 2020. Timely motions to intervene were filed by Calpine Corporation; the California Public Utilities Commission; Modesto Irrigation District; City of Santa Clara, California; the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities); California Department of Water Resources State Water Project; Northern California Power Agency; Southern California Edison Company; the CAISO Department of Market Monitoring (DMM); and Powerex Corporation (Powerex). DMM and Powerex both also submitted comments. On June 29, 2020, CAISO filed an Answer to the comments.

#### **Comments**

13. DMM and Powerex support the proposed Tariff revisions as an improvement over current market rules that may reduce costs and increase market efficiency, but suggest

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<sup>21</sup> Transmittal at 26; CAISO Tariff, Proposed § 11.31.3.

<sup>22</sup> Transmittal at 26; CAISO Tariff, Proposed § 11.32.

<sup>23</sup> 18 C.F.R. § 385.203(b)(3) (2020).

<sup>24</sup> Transmittal at 30-31.

that additional steps are needed to address reliability and market issues associated with import bids used to meet resource adequacy capacity requirements.<sup>25</sup>

14. Powerex states that inertie non-deliveries have contributed to emergency conditions in CAISO, and contends that delivery failures reflect CAISO's inability to distinguish firm energy supply from non-firm energy, unit-contingent energy, and speculative supply in dispatch, pricing, and settlement. Powerex argues that even if CAISO's proposed measures reduce inertie delivery failures, the displacement of firm energy in CAISO markets by speculative and non-firm supply will continue to create reliability challenges and price spikes. Specifically, Powerex contends that speculative supply creates price spikes in CAISO and the Energy Imbalance Market (EIM), reserves limited transmission capacity for awards that may not deliver, and enables CAISO to pass the resource sufficiency test in the EIM and rely on resources in the EIM.<sup>26</sup>

15. DMM states that the high monthly threshold in CAISO's current non-delivery charge was adopted at a time when CAISO had insufficient information to distinguish non-deliveries resulting from factors beyond the supplier's control, but that CAISO is now enhancing its information systems. DMM agrees that CAISO's proposed non-delivery charge revisions will incent importers to accept or decline cleared import bids sooner in the real-time market process. DMM asserts that the additional, more timely information makes real-time schedules more accurate and provides grid operators earlier notice of non-delivery and additional time to take manual actions to ensure reliability.<sup>27</sup>

16. DMM also agrees that, to the extent CAISO's Tariff revisions reduce out-of-market actions for reliability, the changes could ultimately reduce real-time uncertainty, increase market efficiency, and create more accurate real-time prices. DMM encourages CAISO to track undelivered imports to provide a more accurate picture of real-time uncertainty.<sup>28</sup>

17. Similar to Powerex, DMM expresses concerns regarding the significant portion of resource adequacy requirements that are met by imports and notes that the current rules could allow a significant portion of resource adequacy requirements to be met by high priced day-ahead import bids that are not backed by resources that are available in the real-time market. Although DMM supports CAISO's proposed revisions overall, DMM does not view the instant filing as a solution to this market design problem, and suggests

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<sup>25</sup> DMM Comments at 9; Powerex Comments at 4.

<sup>26</sup> Powerex Comments at 5-7.

<sup>27</sup> DMM Comments at 3-5.

<sup>28</sup> *Id.* at 5-6.

that the issue of resource adequacy bidding be resolved through CAISO's ongoing resource adequacy enhancements initiative.<sup>29</sup>

18. Finally, DMM contends that the proposed language in Tariff section 30.5.7<sup>30</sup> may not reflect the final draft proposal that was approved by CAISO's Board of Governors. DMM explains that, contrary to what the proposed revisions imply, the E-Tag submitted at T-20 is not the determinant of the binding awards for the first two 15-minute market intervals of the hour. DMM suggests that CAISO clarify the Tariff language to specify that if the importer does not submit a correct E-Tag by T-20, CAISO will set the settled energy for the first two 15-minute market intervals of the hour to the minimum of: (1) the hour-ahead schedule, (2) the automated dispatch system accepted value, or (3) the E-Tag transmission profile.<sup>31</sup>

### **CAISO's Answer**

19. In response to commenters, CAISO confirms that the instant filing does not supplant other initiatives regarding energy imports and states that it continues to engage in active stakeholder processes to develop resource adequacy and day-ahead market enhancements.<sup>32</sup>

20. In addition, CAISO agrees with DMM that the energy profile of an E-Tag at T-20 does not impact the binding award in the first two 15-minute market intervals of the hour. CAISO clarifies that the proposed language in section 30.5.7 is meant to refer to the requirement that an E-Tag be submitted by T-40 and that if an importer submits no E-Tag by that point, then CAISO will zero out the schedule for all four intervals of the fifteen minute market. CAISO further explains that at T-20, the energy profile of the E-Tag must equal the lower of either the transmission profile at T-40 or the hourly schedule, and that if the scheduling coordinator does not submit an energy profile by T-20, the scheduling coordinator will be exposed to the under- or over-delivery charge. CAISO

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<sup>29</sup> *Id.* at 6-7.

<sup>30</sup> CAISO's proposed Tariff section 30.5.7.1 states: "If the Scheduling Coordinator fails to submit a valid E-Tag consistent with these deadlines, then the CAISO will set the MW quantity of the [15-minute market] Schedule associated with the Self-Schedule Hourly Block to zero for each [15-minute market] interval of the hour."

<sup>31</sup> DMM Comments at 8.

<sup>32</sup> CAISO Answer at 2-3.

proposes language to make the clarifications to Tariff section 30.5.7 suggested by DMM and states that it will file the language in a compliance filing if directed to do so.<sup>33</sup>

#### **IV. Discussion**

##### **A. Procedural Matters**

21. 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.

22. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2020), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept CAISO's answer because it has provided information that assisted us in our decision-making process.

##### **B. Substantive Matters**

23. We accept the proposed Tariff revisions, effective October 1, 2020, as requested, subject to the condition that CAISO submit a compliance filing within 30 days of the date of this order to make a clarifying edit to its Tariff, as discussed below.<sup>34</sup> We find that the changes to E-Tags and the non-delivery charge should improve the efficiency of the market and bolster reliability by creating more robust incentives for market participants to deliver their awarded intertie transactions. We find that the revisions to the E-Tag rules will provide the 15-minute market with more reliable information about whether intertie transactions awarded in the day-ahead and hour-ahead process are likely to materialize in real-time. Using more reliable information to run the market should improve market efficiency and help to decrease the need for out-of-market actions to maintain reliability. We also find that eliminating the non-delivery charge thresholds and modifying the method for calculating the charge will better ensure that the charge considers the effects on all markets disrupted by under- or over-delivery. Taken together,

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<sup>33</sup> *Id.* at 5-7.

<sup>34</sup> The United States Court of Appeals for the District of Columbia Circuit has held that, in certain circumstances, the Commission has "authority to propose modifications to a utility's [FPA section 205] proposal *if the utility consents to the modifications.*" *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 114-15 (D.C. Cir. 2017).



these revisions improve CAISO's current Tariff rules, which otherwise may not sufficiently incentivize a market participant to deliver an awarded intertie transaction.<sup>35</sup>

24. We agree with CAISO, DMM, and Powerex that CAISO should continue to work with stakeholders to develop solutions to the market design challenges raised in the comments. We encourage CAISO to further improve its rules for intertie transactions through the ongoing Resource Adequacy Enhancements and Day-Ahead Market Enhancements stakeholder initiatives.

25. We further agree with DMM's comments regarding the potential for confusion in Tariff section 30.5.7, and agree with CAISO that clarity in that section regarding scheduling 15-minute market intervals will avoid potential confusion regarding the processing of E-Tags and how those processes affect market awards. We therefore direct CAISO to submit a compliance filing, within 30 days of the date of this order, to implement the language CAISO proposed in its Answer to address DMM's concern.

The Commission orders:

(A) We hereby accept the Tariff revisions, effective October 1, 2020, subject to condition, as discussed in the body of this order.

(B) CAISO is hereby directed to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>35</sup> We grant CAISO's request for waiver of the Commission's advance notice requirement, 18 C.F.R. § 35.3(a), to permit the proposed Tariff revisions to be considered more than 120 days in advance of the requested effective date.