



February 3, 2021

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: California Independent System Operator Corporation  
Compliance Filing  
Docket No. ER20-1890-\_\_\_\_**

Dear Secretary Bose:

The California Independent System Operator Corporation (“CAISO”) submits this filing in compliance with the Federal Energy Regulatory Commission’s (“Commission”) February 1, 2021, order in this proceeding.<sup>1</sup>

## **I. Background and Discussion**

The February 1 Order accepted the CAISO’s December 17 filing for petition for limited tariff waiver in this proceeding, subject to a compliance filing to be submitted within 15 days. The Commission’s February 1 Order approved the petition for limited tariff waiver, extending the effective date of the proposed tariff changes from January 1, 2021 to February 1, 2021.

In compliance with the Commission’s directive, the CAISO submits the attached FERC-approved tariff records with the effective date of February 1, 2021. The CAISO has made no other changes to its proposed tariff revisions.

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<sup>1</sup> *Cal. Indep. Sys. Operator Corp.*, 174 FERC ¶ 61,077 (2021) (February 1 Order).

## II. Contents of Filing

In addition to this transmittal letter, this filing includes the following attachment:

Attachment A	Clean CAISO tariff sheets representing the records with the February 1, 2021 effective date
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## III. Conclusion

The CAISO respectfully requests that the Commission approve this filing as compliant with the February 1 Order.

Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, 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, California this 3rd day of February, 2021.

*/s/ Jacqueline Meredith*  
Jacqueline Meredith

**Attachment A – Clean Tariff**

**Intertie Deviation Settlement Compliance Filing**

**California Independent System Operator Corporation**

**February 3, 2021**

## **11.31 Under/Over Delivery Charge for Deviations from Intertie Awards**

For each FMM interval, the CAISO assesses an Under/Over Delivery Charge to a Scheduling Coordinator with an Intertie transaction if the Intertie resource supporting that transaction has a positive Under/Over Delivery Quantity. The Under/Over Delivery Charge is the product of the Intertie resource's Under/Over Delivery Quantity in that FMM interval and the Under/Over Delivery Price for the resource's corresponding intertie in that FMM interval.

### **11.31.1 Determining the Under/Over Delivery Quantity**

#### **11.31.1.1 Under/Over Delivery Quantity for Hourly Block Schedules**

For Self-Schedule Hourly Blocks for Energy and Ancillary Services and Economic Hourly Block Bids for Energy and Ancillary Services, and Economic Hourly Block Bids with Intra-Hour Option for Energy, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) HASP Block Intertie Schedule or HASP Advisory Schedule, as appropriate; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag. In the case of an Exceptional Dispatch or other manual Dispatch Instruction, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) Exceptional Dispatch or manual Dispatch Instruction quantity; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag.

#### **11.31.1.2 Under/Over Delivery Quantity for Fifteen-Minute Dispatchable Resources**

For Intertie transactions not addressed in Section 11.31.1.1, the Under/Over Delivery Quantity is the amount by which the HASP Advisory Schedule exceeds the quantity of the transmission profile of the E-Tag as of forty minutes prior to the Operating Hour. If the transmission profile of the E-Tag as of forty minutes prior to the Operating Hour is greater than or equal to the HASP Advisory Schedule, then there is no Under/Over Delivery Quantity for that Intertie transaction for that FMM interval.

In the case of an Exceptional Dispatch or other manual Dispatch Instruction, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) Exceptional Dispatch or manual Dispatch Instruction quantity; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag.

#### **11.31.1.3 Exclusions from the Under/Over Delivery Quantity**

The CAISO excludes from the Under/Over Delivery Quantity as calculated under either 11.31.1.1 or 11.31.1.2 any Energy that meets at least one of the following conditions:

- (a) Energy that is not delivered because a Balancing Authority or EIM Transmission Service Provider curtailed the delivery for reliability reasons. The reliability-based curtailment must be reflected on the transaction's final E-Tag.
- (b) Energy that is either delivered or not delivered as part of a valid ETC Self-Schedule or TOR Self-Schedule.
- (c) Energy that is either delivered or not delivered from a Dynamic System Resource.

### **11.31.2 Determining the Under/Over Delivery Price**

If ADS recognizes a Scheduling Coordinator as accepting an award at an Intertie (either because the Scheduling Coordinator actively accepts the award or because the Scheduling Coordinator fails to decline it) and the awarded Energy is not delivered, then the Under/Over Delivery Price is the greater of: (a) 75% of the LMP in the corresponding FMM interval at the intertie where the resource was scheduled; (b) 75% of the highest LMP among the three RTD intervals corresponding to the FMM interval at the intertie where the resource was scheduled; or (c) \$10.00.

In all other cases, the Under/Over Delivery Price is the greater of: (a) 50% of the LMP in the corresponding FMM interval at the Intertie where the resource was scheduled; (b) 50% of the highest LMP among the three RTD intervals corresponding to the FMM interval at the Intertie where the resource was scheduled; or (c) \$10.00.

### **11.31.3 Allocation of Under/Over Delivery Charges**

For any Trading Day on which the CAISO assesses an Under/Over Delivery Charge, each Scheduling Coordinator receives a credit on its Settlement Statement for its share of the total Under/Over Delivery Charges collected for that day. The CAISO distributes the total charges collected pro rata based on a Scheduling Coordinator's Measured CAISO Demand on that day as a percent of total Measured CAISO Demand for the CAISO Balancing Authority Area on that day. Both the numerator and denominator of the pro rata calculation exclude demand served by ETCs and TORs.

### **11.32 Measures to Address Intertie Scheduling Practices**

The CAISO will take the following actions regarding Schedules that clear the Day-Ahead Market at the Interties and that are wholly or partially reversed through a FMM Schedule:

- (i) The CAISO will charge the Scheduling Coordinator the positive difference between the

Day-Ahead Market price and the FMM LMP applicable to any imports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or (b) withdraws the E-Tag or E-Tags prior to the CAISO's publication of HASP results on the CAISO's secure communication system.

- (ii) The CAISO will charge the Scheduling Coordinator the positive difference between the FMM LMP and the Day-Ahead Market LMP applicable to any exports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or (b) withdraws the E-Tag or E-Tags prior to forty-five (45) minutes before the Trading Hour.
- (iii) If a Scheduling Coordinator reduces a Day-Ahead import or export Schedule through a Bid to the RTM and submits Schedules on behalf of, or is, a CRR Holder, then the reduction to the import or export may be treated as a Virtual Award for purposes of adjusting CRR Revenue as further set forth in Section 11.2.4.6.
- (iv) For any import Schedule that clears the Day-Ahead Market which a Scheduling Coordinator reduces through a Bid to the RTM, such reduced quantities will be subject to the allocation of Net RTM Bid Cost Uplift as set forth in Section 11.8.6.6.
- (v) The provisions of this Section 11.32 will not apply to Schedules that clear the Day-Ahead Market at the Scheduling Points and that a Scheduling Coordinator wholly or partially reverses through a Bid to the RTM to the extent such Schedules are valid and balanced ETC, TOR, or Converted Rights Self-Schedules in the Day-Ahead Market.

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### 30.5.1 General Bidding Rules

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- (r) A Scheduling Coordinator may submit a Variable Energy Resource Self-Schedule for the RTM can be submitted from a Variable Energy Resource. A Scheduling Coordinator can use either the CAISO forecast for Expected Energy in the RTM or can provide its own forecast for Expected Energy pursuant to the requirements specified in Section 4.8.2. The Scheduling Coordinator must indicate in the Master File whether it is using its own forecast or the CAISO forecast for its resource in support of the Variable Energy Self-Schedule. The Scheduling Coordinator is not required to include the same MWh quantity for each of the four fifteen (15)-minute intervals that make up the applicable Trading Hour for the Variable Energy Resource Self-Schedule include. If an external Variable Energy Resource that is not using a forecast of its output provided by the CAISO submits a Variable Energy Resource Self-Schedule and the Expected Energy is not delivered in the FMM, the Scheduling Coordinator for the Variable Energy Resource will be subject to the Under/Over Delivery Charge as described in Section 11.31. Scheduling Coordinators for Dynamically Scheduled Variable Energy Resources that provide the CAISO with a two-hour rolling forecast with five-minute granularity can submit Variable Energy Resource Self-Schedules.

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### 30.5.7 E-Tag Rules and Treatment of Intertie Schedules

In addition to complying with all generally applicable E-Tagging requirements, Scheduling Coordinators



must submit their E-Tags consistent with the requirements specified in this Section 30.5.7. If a Scheduling Coordinator receives an intra-hour Schedule change, then the Scheduling Coordinator must, by twenty minutes before the start of the FMM interval to which the Schedule change applies, ensure that an updated energy profile reflects the change. Absent extenuating circumstances, the CAISO automatically updates Energy profiles on E-Tags for Energy Schedules that change from HASP to the FMM within a Trading Hour. In performing this service for a Scheduling Coordinator, the CAISO does not assume any responsibility for compliance with any E-Tag requirements or obligations to which the Scheduling Coordinator is subject. The changed energy profile will apply for the balance of the operating hour unless it is subsequently changed by a further updated energy profile.

#### **30.5.7.1 Self-Schedule Hourly Blocks**

By forty minutes prior to the applicable Trading Hour, the Scheduling Coordinator must submit an E-Tag (or set of E-Tags) that passes CAISO E-Tag validation procedures and that supports the Self-Schedule Hourly Block. If the Scheduling Coordinator fails to submit a valid E-Tag by forty minutes prior to the applicable Trading Hour, then the CAISO will set the MW quantity of the FMM Schedule associated with the Self-Schedule Hourly Block to zero for each FMM interval of the hour.

The transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour must be equal to the Self-Schedule Hourly Block. If the Scheduling Coordinator has a transmission profile less than its advisory Energy schedule, then the CAISO will limit the schedule for Energy in the FMM so that it does not exceed the quantity of the transmission profile.

The energy profile of the E-Tag at forty minutes prior to the applicable Trading Hour need not equal the Self-Schedule Hourly Block and the Scheduling Coordinator may revise the Energy profile up to twenty minutes prior to the applicable Trading Hour. At twenty minutes prior to the applicable Trading Hour, the quantity of the Energy profile must be equal to the lower of: (a) the transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour; or (b) the Self-Schedule Hourly Block. A Scheduling Coordinator is exposed to the Under/Over Delivery Charge if the Energy profile at twenty minutes prior to the applicable Trading Hour is not equal to the Self-Schedule Hourly Block.

The CAISO may modify the Energy profile due to Reliability related curtailments.

### **30.5.7.2 Variable Energy Resource Self-Schedule**

By forty minutes prior to the applicable Trading Hour, the Scheduling Coordinator must submit an E-Tag (or set of E-Tags) that passes CAISO E-Tag validation procedures and that supports the Variable Energy Resource Self-Schedule. If the Scheduling Coordinator fails to submit a valid E-Tag by forty minutes prior to the applicable Trading Hour, then the CAISO will set the MW quantity of the FMM Schedule associated with the Variable Energy Resource Self-Schedule to zero for each FMM interval of the hour.

The transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour must be equal to the Variable Energy Resource Self-Schedule. If the Scheduling Coordinator has a transmission profile less than its advisory Energy schedule, then the CAISO will limit the schedule for Energy in the FMM so that it does not exceed the quantity of the transmission profile.

The energy profile of the E-Tag at forty minutes prior to the applicable Trading Hour need not equal the Variable Energy Resource Self-Schedule and the Scheduling Coordinator may revise the Energy profile up to twenty minutes prior to the applicable Trading Hour. At twenty minutes prior to the applicable Trading Hour, the quantity of the Energy profile must be equal to the lower of: (a) the transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour; or (b) the Variable Energy Resource Self-Schedule. A Scheduling Coordinator is exposed to the Under/Over Delivery Charge if the Energy profile at twenty minutes prior to the applicable Trading Hour is not equal to the Variable Energy Resource Self-Schedule.

The CAISO may modify the Energy profile due to Reliability related curtailments.

### **30.5.7.3 Economic Hourly Block Bid**

By forty minutes prior to the applicable Trading Hour, the Scheduling Coordinator must submit an E-Tag (or set of E-Tags) that passes CAISO E-Tag validation procedures and that supports the Economic Hourly Block Bid. If the Scheduling Coordinator fails to submit a valid E-Tag by forty minutes prior to the applicable Trading Hour, then the CAISO will set the MW quantity of the FMM Schedule associated with the Economic Hourly Block Bid to zero for each FMM interval of the hour.

The transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour must be equal to the Economic Hourly Block Bid. If the Scheduling Coordinator has a transmission profile less than its advisory Energy schedule, then the CAISO will limit the schedule for Energy in the FMM so that it does

not exceed the quantity of the transmission profile.

The energy profile of the E-Tag at forty minutes prior to the applicable Trading Hour need not equal the Economic Hourly Block Bid and the Scheduling Coordinator may revise the Energy profile up to twenty minutes prior to the applicable Trading Hour. At twenty minutes prior to the applicable Trading Hour, the quantity of the Energy profile must be equal to the lower of: (a) the transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour; or (b) the quantity of the Economic Hourly Block Bid. A Scheduling Coordinator is exposed to the Under/Over Delivery Charge if the Energy profile at twenty minutes prior to the applicable Trading Hour is not equal to the Economic Hourly Block Bid.

The CAISO may modify the Energy profile due to Reliability related curtailments.

#### **30.5.7.4 Economic Hourly Block Bid with Intra-Hour Option**

By forty minutes prior to the applicable Trading Hour, the Scheduling Coordinator must submit an E-Tag (or set of E-Tags) that passes CAISO E-Tag validation procedures and that supports the Economic Hourly Block Bid with Intra-Hour Option. If the Scheduling Coordinator fails to submit a valid E-Tag by forty minutes prior to the applicable Trading Hour, then the CAISO will set the MW quantity of the FMM Schedule associated with the Economic Hourly Block Bid with Intra-Hour Option to zero for each FMM interval of the hour.

The transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour must be equal to the Economic Hourly Block Bid with Intra-Hour Option. If the Scheduling Coordinator has a transmission profile less than its advisory Energy schedule, then the CAISO will limit the schedule for Energy in the FMM so that it does not exceed the quantity of the transmission profile.

The energy profile of the E-Tag at forty minutes prior to the applicable Trading Hour need not equal the Economic Hourly Block Bid with Intra-Hour Option and the Scheduling Coordinator may revise the Energy profile up to twenty minutes prior to the applicable Trading Hour. At twenty minutes prior to the applicable Trading Hour, the quantity of the Energy profile must be equal to the lower of: (a) the transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour; or (b) the quantity of the Economic Hourly Block Bid with Intra-Hour Option. A Scheduling Coordinator is exposed to the Under/Over Delivery Charge if the Energy profile at twenty minutes prior to the applicable Trading Hour is not equal to the Economic Hourly Block Bid with Intra-Hour Option.

The CAISO may modify the Energy profile due to Reliability related curtailments.

In the case of an intra-hour redispatch from the FMM, the CAISO may increment or decrement the Energy profile to correspond to the intra-hour redispatch. The MW level to which the FMM can redispatch an Economic Hourly Block Bid with Intra-Hour Option above its HASP Advisory Schedule is limited by the quantity of the transmission profile submitted by forty minutes prior to the applicable Trading Hour.

#### **30.5.7.5 FMM Economic Bid**

By forty minutes prior to the applicable Trading Hour, the Scheduling Coordinator must submit an E-Tag (or set of E-Tags) that passes CAISO E-Tag validation procedures and that supports the FMM Economic Bid. If the Scheduling Coordinator fails to submit a valid E-Tag by forty minutes prior to the applicable Trading Hour, then the CAISO will set the MW quantity of the FMM Schedule associated with the FMM Economic Bid to zero for each FMM interval of the hour.

The transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour must be greater than or equal to the FMM Economic Bid. If the Scheduling Coordinator has a transmission profile less than its advisory Energy schedule, then the CAISO will limit the schedule for Energy in the FMM so that it does not exceed the quantity of the transmission profile.

The energy profile of the E-Tag at forty minutes prior to the applicable Trading Hour need not equal the FMM Economic Bid and the Scheduling Coordinator may revise the Energy profile up to twenty minutes prior to the applicable Trading Hour. At twenty minutes prior to the applicable Trading Hour, the quantity of the energy profile must be equal to the lower of: (a) the transmission profile of the E-Tag at forty minutes prior to the applicable Trading Hour; or (b) the quantity of the FMM energy schedule for the first FMM interval of the applicable Trading Hour.

The CAISO may modify the Energy profile due to Reliability related curtailments.

Scheduling Coordinators with cleared FMM Economic Bids may update either the transmission profile or the Energy profile after forty minutes prior to the applicable Trading Hour and twenty minutes prior to the applicable Trading Hour, respectively. A Scheduling Coordinator choosing to update the transmission profile must submit an updated transmission profile at least 40 minutes prior to the applicable FMM interval. A Scheduling Coordinator choosing to update the Energy profile must submit an updated Energy profile at least 20 minutes prior to the applicable FMM interval.

Cleared FMM Economic Bids are eligible for Bid Cost Recovery as specified in Section 11.8.

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## **Appendix A**

### **Master Definition Supplement**

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#### **- Under/Over Delivery Charge**

For a given Intertie transaction that has an Under/Over Delivery Quantity for a FMM interval, a charge equal to the product of the Under/Over Delivery Price and Under/Over Delivery Quantity.

#### **- Under/Over Delivery Price**

The price, as further specified in Section 11.31.2, a Scheduling Coordinator is charged for deviations between Energy awarded at an Intertie and Energy delivered at that Intertie.

#### **- Under/Over Delivery Quantity**

The quantity of Energy at an Intertie, as further specified in Section 11.31.1, the CAISO deems either under- or over-delivered relative to awarded Energy for purposes of charging a fee for such under- or over-deliveries.

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