

**Attachment A – Clean Tariff Language**

**Compliance Filing Day-Ahead Market Enhancements and Extended Day-Ahead Market**

**California Independent System Operator Corporation**

**February 16, 2024**

## **Section 4**

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### **4.9.5 Scheduling by or on Behalf of a MSS Operator**

All Bids, including but not limited to Self-Schedules, submitted on behalf of an MSS Operator for the delivery of Energy, Imbalance Reserves, Reliability Capacity, and Ancillary Services to Loads connected to the MSS and for the delivery of Energy, Imbalance Reserves, Reliability Capacity, and Ancillary Services from Generating Units forming part of the MSS or System Units shall be submitted by a Scheduling Coordinator that complies with all applicable provisions of the CAISO Tariff, which Scheduling Coordinator may be the MSS Operator, provided that the MSS Operator complies with all applicable requirements for Scheduling Coordinators. A Scheduling Coordinator shall separately identify Bids that it submits on behalf of an MSS Operator.

**4.9.5.1** Without limiting the foregoing, the Scheduling Coordinator for the MSS must submit gross generation information for the System Unit, Generating Unit, and information regarding imports, exports and Gross Loads to the CAISO in the format and in accordance with the timelines applicable to other Scheduling Coordinators.

**4.9.5.2** The Scheduling Coordinator for the MSS will designate, in discrete quantities and with prices for Energy, Imbalance Reserves, Reliability Capacity, and Ancillary Services: (1) Bids in the Day-Ahead Market and Real-Time Market (including Bids for internal Generation and internal Demand within the MSS), (2) Submissions to Self-Provide Ancillary Services or Bids for Regulation, Spinning Reserve, and Non-Spinning Reserve, capacity and associated Bid for Energy, or (3) any feasible combination thereof.

### **4.9.5.3 MSS Demand Forecast**

The Scheduling Coordinator for the MSS shall provide CAISO with Demand forecasts of the MSS. To the extent that the Scheduling Coordinator does not provide requisite Demand Forecast for the MSS it represents, the CAISO shall produce a Demand Forecast for each MSS Load Take-Out Point.

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## Section 29

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### **29.39 EIM Market Power Mitigation.**

- (a) **EIM Market Power Mitigation Procedure.** The CAISO shall apply the Real-Time Local Market Power Mitigation procedure in Section 39.7 to the Energy Imbalance Market, including EIM Transfer constraints into an EIM Entity Balancing Authority Area on an EIM Internal Intertie, except as provided in Section 29.39. In relation to power balance constraints within the EDAM Area and EIM Area, the Marginal Energy Cost in the CAISO Balancing Authority Area will reflect a competitive marginal energy price. For this purpose, when an EDAM Balancing Authority Area's or EIM Balancing Authority Area's Marginal Energy Cost is greater than CAISO Balancing Authority Area's Marginal Energy Cost, then Real-Time Local Market Power Mitigation process will apply the competitive path assessment. If non-competitive conditions exist, the Real-Time Local Market Power Mitigation process will treat the differential between the Marginal Energy Cost in the CAISO Balancing Authority Area and the Marginal Energy Cost in the EDAM Balancing Authority Area or EIM Balancing Authority Area similar to the non-competitive component of the Marginal Cost of Congestion in CAISO's Local Market Power Mitigation process and will subject resources' Bids to mitigation procedures.
- (b) **Competitive Path Assessment.** The CAISO shall conduct the competitive path assessment to determine for each EDAM Balancing Authority Area and EIM Entity Balancing Authority Area whether a path is competitive or non-competitive, consistent with Section 39.7.2, except that –
- (1) EDAM Resource Scheduling Coordinators and EIM Participating Resource Scheduling Coordinators shall submit information required by the CAISO to perform the competitive path assessment;

- (2) the competitive path assessment shall not exclude EDAM Resources or EIM Participating Resources from the test used to determine the competitiveness of Transmission Constraints on the basis that they may be net buyers of Energy in the Real-Time Market; and
- (3) the CAISO may establish different Reference Buses for each Balancing Authority Area, which need not be within the Balancing Authority Area, for calculating the LMP decomposition which is used to trigger Bid mitigation, based on the topology of each Balancing Authority Area and consideration of the bus at which the Marginal Cost of Congestion component of Locational Marginal Prices is least influenced by market power.
- (c) **Locational Marginal Price Decomposition.** The CAISO shall perform the Locational Marginal Price decomposition within each EDAM Entity Balancing Authority Area and EIM Entity Balancing Authority Area using the results of the competitive path assessment and the Congestion pricing results of the premarket run to determine which resources may have local market power due to Congestion on a non-competitive Transmission Constraint, consistent with Section 34.2.3 and 39.7.
- (d) **Default Energy Bids.** The CAISO shall use the methods and standards set forth in Section 39.7 to determine Default Energy Bids for EDAM Resources and EIM Participating Resources, except that the CAISO will use the Market Services Charge and system operations charges described in Section 33.11.6 reflected in the EDAM Administrative Charge or Section 11.22.2 reflected in the EIM Administrative Charge, as applicable.

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### **Section 31**

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#### **31.3.1.6.2 Procurement Curve**

In each run of the IFM, the CAISO procures IRU and IRD for each Balancing Authority Area participating in the Day-Ahead Market to meet their Upward Imbalance Reserves Requirement and Downward Imbalance Reserves Requirement, respectively, subject to a procurement curve. The procurement curves for IRU and IRD are calculated based on separate statistical analysis of the Upward Imbalance Reserve Requirement and Downward Imbalance Reserve Requirement for each EDAM Entity Balancing Authority Area to ensure the total cost of Imbalance Reserves Awards for IRU or IRD does not exceed the expected cost of violating Operating Reserve requirements. Provided, however, the upper bound of the procurement curve for both IRU and IRD is \$55/MWh.

#### **31.3.1.6.3 Imbalance Reserves Deliverability and Nodal Procurement**

##### **31.3.1.6.3.1 Nodal Procurement of Imbalance Reserves Awards**

The CAISO optimizes procurement of Imbalance Reserves Awards such that, in the event modeled uncertainty arises fully for either the upward or downward directions, the Energy that would be dispatched from resource capacity corresponding to the Imbalance Reserves Awards, as adjusted by the applicable Deployment Factor, would not result in flows exceeding Transmission Constraints and scheduling limits, including EDAM Transfer limits, on categories of transmission facilities identified in the Business Practice Manual. In revising the Business Practice Manual to establish or update either the Deployment Factor or the categories of transmission facilities, the CAISO will consider the trade-off between the: (a) operational benefit of clearing reliably deliverable Imbalance Reserves; and (b) economic implications from imposing deliverability requirements on Imbalance Reserves procurement. In considering this trade-off, the CAISO will evaluate considerations such as the anticipated or observed impact of the Deployment Factor or identified transmission facilities on the: (1) deliverability of Energy procured from awarded Imbalance Reserves; (2) Marginal Cost of Congestion for Energy; (3) Locational IRU Prices and Locational IRD Prices; (4) performance of the IFM optimization, including solution time and solution quality; (5) need to manually intervene in RUC or engage in other out-of-market action; and (6) effect of other factors whose magnitude of impact on the basic trade-off is unforeseen on the effective date of this Section 31.3.1.6.3.1.

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### **Section 33**

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#### **33.2.5 Implementation Activities.**

The CAISO and the prospective EDAM Entity will complete the following implementation activities:

- (A) **Execution of Necessary Agreements.** The prospective EDAM Entity has complied with Section 33.2.1, executed any necessary agreements for operating as an EDAM Entity, and helped the CAISO secure necessary agreements with third party prospective EDAM Market Participants.
- (B) **Operations Training.** Prior to the start of parallel operations as set forth in Section 33.2.3, all operations staff (including contractors or vendors) identified by the prospective EDAM Entity who will have responsibility for EDAM operations, market transactions and settlements, will have completed identified CAISO training modules.
- (C) **Forecasting Capability.** The CAISO and, to the extent the prospective EDAM Entity will use its own forecasts or is otherwise required to provide forecasting information to the CAISO, the prospective EDAM Entity has demonstrated its respective forecasting capability through –
  - (i) the definition of day-ahead demand forecast boundaries based on the conforming and non-conforming load characteristics, as applicable;
  - (ii) the documentation of EDAM Entity's choice of day-ahead demand forecast provider and how the demand forecast will be completed;
  - (iii) the accuracy of the CAISO forecast of demand based on historical actual load data for the defined demand forecast boundaries;

- (iv) the identification of weather stations locations used in forecasting, as applicable;
  - (v) the identification of the source of day-ahead Variable Energy Resource forecasts;
  - (vi) the accuracy of the day-ahead forecast of Variable Energy Resources;
  - (vii) the identification of all Hybrid Resources; and
  - (viii) the provision of CAISO historical data on day-ahead demand and renewable forecast information to fill the needed historical data period to produce the Imbalance Reserve requirements at the net load level.
- (D) **Resource Sufficiency Evaluation.** The prospective EDAM Entity Scheduling Coordinator demonstrates its ability to pass the Resource Sufficiency Evaluation for the prospective EDAM Entity's Balancing Authority Area.
- (E) **Transmission Availability.** The prospective EDAM Entity confirms initial registration of the transmission rights of the EDAM Transmission Service Providers in its Balancing Authority Area available for EDAM Transfers or that otherwise may be scheduled in the Day-Ahead Market.
- (F) **Operating Procedures.** Prior to the start of parallel operations pursuant to Section 33.2.3, the CAISO and the prospective EDAM Entity have defined, completed, and tested operating procedures for the prospective EDAM Entity and its Scheduling Coordinator's participation in the Energy Imbalance Market.
- (G) **System Readiness and Integration.**
- (i) **System and Functional Testing.** The prospective EDAM Entity and the CAISO have tested the functional and system elements in accordance with functional and system testing documentation posted on the CAISO Website.
  - (ii) **Prospective EDAM Entity Identification.** The CAISO has established and the prospective EDAM Entity has tested all necessary SCIDs and Resource IDs established for the prospective EDAM Entity's Balancing

Authority Area.

- (iii) **Certificates and Access.** The prospective EDAM Entity has issued all necessary certificates to its employees, contractors and vendors that require system access to perform EDAM-related job functions.
- (H) **Market Simulation and Structured Scenarios simulation.** The prospective EDAM Entity operations staff identified by the prospective EDAM Entity who will have responsibility for EDAM operations, transactions and settlements, have executed and passed all structured scenarios provided by CAISO with all significant issues resolved.
- (I) **Settlements.** The CAISO and the prospective EDAM Entity have demonstrated that –
  - (i) CAISO settlement statements and invoices match the operational data published to stakeholders or fed into settlement system and the resulting calculations correspond to the formulas defined in CAISO's tariff and Business Practice Manuals.
  - (ii) CAISO settlement statements and invoices allocates charges and credits to its customers accurately reflecting system and market data during parallel operations.
- (J) **Parallel Operations Plan.** The period of parallel operations specified in Section 33.2.3 runs consistently and in accordance with the prospective EDAM Entity specific parallel operations plan.

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#### **33.4.1 EDAM Entity**

An EDAM Entity must be a Balancing Authority registered and certified as such under the applicable authorities and execute an EDAM Addendum to EIM Entity Agreement no later than ninety (90) days before the EDAM Entity Implementation Date. Upon receipt of such notice, the CAISO will undertake all necessary preparations to enable operation of the Day-Ahead Market

within the EDAM Entity Balancing Authority Area, as outlined in the Business Practice Manual for the Extended Day-Ahead Market, including issuance of a Market Notice within five Business Days after receipt of such notice.

An EDAM Entity must:

- (a) perform the obligations of an EDAM Entity in accordance with the EDAM Addendum to EIM Entity Agreement, Section 33, and other provisions of the CAISO Tariff that apply to EDAM Entities, subject to the limitations specified in Section 33.1;
- (b) determine and inform the CAISO about all Load Serving Entities within the EDAM Entity's Balancing Authority Area necessary to enable operation of the Day-Ahead Market in its Balancing Authority Area;
- (c) qualify as, or secure representation by, an EDAM Entity Scheduling Coordinator, provided that an EDAM Entity may not be represented by more than one EDAM Entity Scheduling Coordinator;
- (d) provide the CAISO and its EDAM Entity Scheduling Coordinator with information regarding all Transmission Constraints of which it is aware;
- (e) work with the CAISO to identify all resources within its Balancing Authority Area that do not currently participate in the Energy Imbalance Market pursuant to Section 29 so they can be represented in the Extended Day-Ahead Market as EDAM Resources and execute an EDAM Addendum to EIM Participating Resource Agreement pursuant to Section 33, which may be accomplished through execution of a separate EDAM Addendum to EIM Participating Resource Agreement or by including all or some of the resources under its EDAM Addendum to EIM Participating Resource Agreement;
- (f) define Load Aggregation Points in its Balancing Authority Area and be responsible for serving the associated Demand, including for an EDAM Load Serving Entity in its Balancing Authority Area that will be separately responsible for serving the associated Demand;
- (g) identify and inform the CAISO which resource types supported by the CAISO Markets are eligible to participate in the Day-Ahead Market as EDAM Resource Facilities;

- (h) determine and inform the CAISO of EDAM Transmission Service Providers within the EDAM Entity Balancing Authority Area;
- (i) serve as the entity that interacts with EDAM Transmission Service Providers within the EDAM Entity Balancing Authority Area; and
- (j) inform the CAISO whether or not the EDAM Entity intends to utilize the CAISO's Demand Forecast consistent with Section 33.31.1.

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### **33.11 Settlements And Billing for EDAM Market Participants**

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#### **33.11.3 Day-Ahead Market Settlement**

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##### **33.11.3.2 Settling Imbalance Reserves**

The CAISO settles Imbalance Reserves Awards issued to EDAM Resources as specified in Sections 11.2.1.1, 11.2.1.8, and 11.25.2.1.1 as though the EDAM Resource were a Participating Generator.

The CAISO allocates the costs of procuring Imbalance Reserves in the EDAM as specified in Section 11.2.1.9 individually for each EDAM Entity with the exception that any reference to the CAISO Balancing Authority Area is a reference to the Balancing Authority Area of the relevant EDAM Entity.

In allocating the costs of Imbalance Reserves, the CAISO assesses both the importing and exporting Balancing Authority Areas for EDAM Transfers of Imbalance Reserves. In the case of EDAM Entities, the CAISO assesses the Scheduling Coordinator representing the importing Balancing Authority Area a settlement equal to the product of the quantity of the import and the

Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location. In the case of EDAM Entities, the CAISO assesses the Scheduling Coordinator representing the exporting Balancing Authority Area a settlement equal to the product of the quantity of the export and the Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location. If the CAISO is one of the importing or exporting Balancing Authority Areas, then the CAISO allocates the product of the export or import, as appropriate, and the Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location to CAISO Scheduling Coordinators as specified in Section 11 for allocating EDAM Transfers of Imbalance Reserves.

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**33.11.7 [Not Used]**

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**33.18.5 EDAM Transfer Priority**

EDAM Transfers will have a priority equal to Demand in the EDAM Area and may be curtailed only as provided in Section 33.7.5. The Day-Ahead Market will include a constraint as provided in Section 33.27.4 to ensure each Balancing Authority in the EDAM Area meets its Balancing Authority Area requirements before supporting EDAM Transfers.

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**33.26 [Not Used]**

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#### **33.31.1.2.1.2 Imbalance Reserves Requirement**

The Imbalance Reserve requirement used in the 6:00 a.m. and 9:00 a.m. advisory run by the CAISO will be calculated in accordance with Section 31.3.1.6. The Imbalance Reserve requirement used in the final binding EDAM RSE will be the same requirement the CAISO used in the 9:00 a.m. advisory run unless the timelines in the Business Practice Manual for the Extended Day-Ahead Market otherwise allow for adjustment.

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#### **33.31.1.6 Timely Submission of Tags Necessary to Remain in EDAM Upward and Downward Pools**

A Balancing Authority Area in the EDAM Area must comply with the tagging protocols set forth in Section 33.30.8.3 and the Business Practice Manuals to ensure imports and exports are timely tagged. A Balancing Authority Area in the EDAM Area that fails to timely E-tag imports or exports and does not otherwise re-supply from a firm schedule or physical source to cover for the untagged imports or exports for the operating hour following the process in the Business Practice Manual will be removed from the EDAM Upward Pool or the EDAM Downward Pool, respectively, for that Trading Hour. A Balancing Authority Area in the EDAM Area that is removed from the EDAM Upward Pool or the EDAM Downward Pool in accordance with this Section 33.31.1.6 will be evaluated as an individual Balancing Authority Area and will not be allowed to share in the Diversity Benefits of the pool that it would have otherwise been a part of and as provided in Section 33.31.1.4.3.

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#### **33.31.2 Operation of the Day-Ahead Market in the EDAM Area**

##### **33.31.2.1 IFM MPM in the EDAM Area**

For purposes of the IFM MPM process in the EDAM Area, the CAISO applies a competitive path assessment to binding Transmission Constraints to determine whether a path is competitive or

non-competitive, consistent with the requirements of Section 29.39. If a path is non-competitive, MPM procedures will apply to determine any non-competitive contribution to LMPs. Resources' Bids will be subject to applicable mitigation procedures if the net contribution from non-competitive binding Transmission Constraints to these resources' LMPs is positive.

In relation to power balance constraints within the EDAM Area, the Marginal Energy Cost in the CAISO Balancing Authority Area will reflect a competitive marginal energy price. For this purpose, when an EDAM Balancing Authority Area's Marginal Energy Cost is greater than CAISO Balancing Authority Area's Marginal Energy Cost, then the IFM MPM process will apply the competitive path assessment. If non-competitive conditions exist, the IFM MPM process will treat the differential between the Marginal Energy Cost in the CAISO Balancing Authority Area and the Marginal Energy Cost in the EDAM Balancing Authority Area similar to the non-competitive component of the Marginal Cost of Congestion in CAISO's Local Market Power Mitigation process and will subject resources' Bids to mitigation procedures.

#### **33.31.2.2 IFM in the EDAM Area**

The IFM procures Energy and Imbalance Reserves for EDAM Entity Balancing Authority Areas but does not procure Ancillary Services. EDAM Entities must self-provide their full Ancillary Services requirements to the IFM and cannot submit Economic Bids for Ancillary Services to the IFM.

The CAISO procures Energy across the EDAM Area as specified in Section 31.3.1. The CAISO procures Imbalance Reserves across the EDAM Area as specified in Sections 31.3.1.5 and 31.3.1.6. An EDAM Resource must meet the requirements applicable to Participating Generators to be eligible for Imbalance Reserves Awards and must meet all of the RTM Bidding Obligations specified in Section 31.3.4.

#### **33.31.2.3 RUC MPM in the EDAM Area**

For purposes of the RUC MPM process in the EDAM Area, the CAISO applies a competitive path assessment to binding Transmission Constraints to determine whether a path is competitive or

non-competitive, consistent with the requirements of Section 29.39. If a path is non-competitive, MPM procedures will apply to determine any non-competitive contribution to RUC prices. Resources' Bids will be subject to applicable mitigation procedures if the net contribution from non-competitive binding Transmission Constraints to these resources' prices for Reliability Capacity Up is positive.

In relation to power balance constraints within the EDAM Area, the marginal Reliability Capacity cost in the CAISO Balancing Authority Area will reflect a competitive RUC price. For this purpose, when an EDAM Balancing Authority Area's marginal Reliability Capacity cost is greater than CAISO Balancing Authority Area's marginal Reliability Capacity cost, then the RUC MPM process will apply the competitive path assessment. If non-competitive conditions exist, the RUC MPM process will treat the differential between the marginal Reliability Capacity cost in the CAISO Balancing Authority Area and the marginal Reliability Capacity cost in the EDAM Balancing Authority Area similar to the non-competitive component of the Marginal Cost of Congestion in CAISO's Local Market Power Mitigation process and will subject resources' Bids to applicable mitigation procedures.

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## **Appendix A**

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### **- Deployment Factor**

As specified in Section 31.3.1.6.3.1 and further specified in the Business Practice Manual, the percentage of Imbalance Reserves Awards the CAISO models as being deployed for Energy for the purpose of modeling the deployment of Imbalance Reserves against Transmission Constraints. The CAISO establishes distinct Deployment Factors for Imbalance Reserves Up and Imbalance Reserves Down.

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- [Not Used]

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## APPENDIX B.29

### EDAM ADDENDUM TO EIM PARTICIPATING RESOURCE AGREEMENT

Effective [Date], [Full Legal Name] (“[Short Legal Name]”) and the California Independent System Operator Corporation (“CAISO”) (collectively the “Parties”) make and enter into this EDAM Addendum to the Parties’ [Date] EIM Participating Resource Agreement (the “Agreement”).

#### **WHEREAS:**

A. Pursuant to the Agreement, [Short Legal Name] has participated or will participate as an EIM Participating Resource in the CAISO’s Real-Time Market and is located in an EDAM Entity Balancing Authority Area;

B. The CAISO also operates the Day-Ahead Market pursuant to the CAISO Tariff; and

C. [Short Legal Name] extends its participation to the CAISO’s Day-Ahead Market in accordance with the EDAM Entity’s open access transmission tariff or the tariff of another transmission service provider within the EDAM Entity Balancing Authority Area.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Parties agree that the Agreement is hereby supplemented as follows:

- 1. Agreement to be Bound by CAISO Tariff.** Section 33 of the CAISO Tariff is incorporated herein and made a part hereof.
- 2. Interpretation.** All references in the Agreement to the “EIM” or the “Energy Imbalance Market” will also be read as references to the “EDAM” or the “Extended Day Ahead Market.” All references in the Agreement to an “EIM Entity” will also be read as references to an “EDAM Entity.” All references in the Agreement to “EIM Participating Resource(s)” will also be read as references to the “EDAM Resource(s).” All references in the Agreement to “EIM Resources” will also be read as references to “EDAM Resource Facilities.” All references in the Agreement to an “EIM Participating Resource Scheduling Coordinator” will also be read as references to an “EDAM Resource Scheduling Coordinator.” All references in the Agreement to Section 29 of the CAISO Tariff will also be read as references to Section 33 of the CAISO Tariff.
- 3. EDAM Resource Facilities.** Schedule 1 of the Agreement will be updated to include all EDAM Resource Facilities not already included in Schedule 1 as an EIM Resource.
- 4. Effective Date and Termination.** This EDAM Addendum will be effective as of the later of the date it is executed by the Parties and shall remain in full force and effect until terminated pursuant to the same process as is set forth in Section 3.2 of the Agreement, or until the EDAM Entity for the Balancing Authority Area in which the EDAM Resource is located ceases its participation in EDAM. If [Short Legal Name] terminates its participation as an EDAM Resource, it may continue to participate as an EIM Participating Resource under the terms of the Agreement.

**5. Miscellaneous.** Except as expressly modified by this EDAM Addendum, all other terms and conditions of the Agreement shall remain unchanged and in full force and effect.

**[Full Legal Name]**

**California Independent  
System Operator Corporation**

By: \_\_\_\_\_

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment B – Marked Tariff Language**

**Compliance Filing Day-Ahead Market Enhancements and Extended Day-Ahead Market**

**California Independent System Operator Corporation**

**February 16, 2024**

## **Section 4**

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### **4.9.5 Scheduling by or on Behalf of a MSS Operator**

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**4.9.5.1** Without limiting the foregoing, the Scheduling Coordinator for the MSS must submit gross generation information for the System Unit, Generating Unit, and information regarding imports, exports and Gross Loads to the CAISO in the format and in accordance with the timelines applicable to other Scheduling Coordinators.

**4.9.5.2** The Scheduling Coordinator for the MSS will designate, in discrete quantities and with prices for Energy, Imbalance Reserves, Reliability Capacity, and Ancillary Services: (1) Bids in the Day-Ahead Market and Real-Time Market (including Bids for internal Generation and internal Demand within the MSS), (2) Submissions to Self-Provide Ancillary Services or Bids for Regulation, Spinning Reserve, and Non-Spinning Reserve, capacity and associated Bid for Energy, or (3) any feasible combination thereof.

### **4.9.5.3 MSS Demand Forecast**

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- (3) the CAISO may establish different Reference Buses for each Balancing Authority Area, which need not be within the Balancing Authority Area, for calculating the LMP decomposition which is used to trigger Bid mitigation, based on the topology of each Balancing Authority Area and consideration of the bus at which the Marginal Cost of Congestion component of Locational Marginal Prices is least influenced by market power.

**(c) Locational Marginal Price Decomposition.** The CAISO shall perform the Locational Marginal Price decomposition within each [EDAM Entity Balancing Authority Area and](#) EIM Entity Balancing Authority Area using the results of the competitive path assessment and the Congestion pricing results of the premarket run to determine which resources may have local market power due to Congestion on a non-competitive Transmission Constraint, consistent with Section 34.2.3 and 39.7.

**(d) Default Energy Bids.** The CAISO shall use the methods and standards set forth in Section 39.7 to determine Default Energy Bids for [EDAM Resources and](#) EIM Participating Resources, except that the CAISO will use the Market Services Charge and system operations charges described in [Section 33.11.6 reflected in the EDAM Administrative Charge or](#) Section 11.22.2 reflected in the EIM Administrative Charge, [as applicable.](#)

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**Section 31**

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### **31.3.1.6.3 Imbalance Reserves Deliverability and Nodal Procurement**

#### **31.3.1.6.3.1 Nodal Procurement of Imbalance Reserves Awards**

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### **Section 33**

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#### **33.2.5 Implementation Activities.**

The CAISO and the prospective EDAM Entity will complete the following implementation activities:

- (A) **Execution of Necessary Agreements.** The prospective EDAM Entity has complied with Section 33.2.1, executed any necessary agreements for operating as an EDAM Entity, and helped the CAISO secure necessary agreements with third party prospective EDAM Market Participants.
- (B) **Operations Training.** Prior to the start of parallel operations as set forth in Section 33.2.3, all operations staff (including contractors or vendors) identified by the prospective EDAM Entity who will have responsibility for EDAM operations, market transactions and settlements, will have completed identified CAISO training modules.
- (C) **Forecasting Capability.** The CAISO and, to the extent the prospective EDAM Entity will use its own forecasts or is otherwise required to provide forecasting information to the CAISO, the prospective EDAM Entity has demonstrated its respective forecasting capability through –
  - (i) the definition of day-ahead demand forecast boundaries based on the conforming and non-conforming load characteristics, as applicable;
  - (ii) the documentation of EDAM Entity's choice of day-ahead demand forecast provider and how the demand forecast will be completed;
  - (iii) the accuracy of the CAISO forecast of demand based on historical actual load data for the defined demand forecast boundaries;

- (iv) the identification of weather stations locations used in forecasting, as applicable;
- (v) the identification of the source of day-ahead Variable Energy Resource forecasts;
- (vi) the accuracy of the day-ahead forecast of Variable Energy Resources;
- (vii) the identification of all Hybrid Resources; and
- (viii) the provision of CAISO historical data on day-ahead demand and renewable forecast information to fill the needed historical data period to produce the Imbalance Reserve requirements at the net load level.

(D) **Resource Sufficiency Evaluation.** The prospective EDAM Entity Scheduling Coordinator demonstrates its ability to pass the Resource Sufficiency Evaluation for the prospective EDAM Entity's Balancing Authority Area.

(E) **Transmission Availability.** The prospective EDAM Entity confirms initial registration of the transmission rights of the EDAM Transmission Service Providers in its Balancing Authority Area available for EDAM Transfers or that otherwise may be scheduled in the Day-Ahead Market.

~~(F) **Historical Transmission Revenue Recovery.** The EDAM Entity provides the information and documentation necessary to account for the EDAM recoverable revenue pursuant to Section 33.26 associated with the EDAM Transmission Service Providers in its Balancing Authority Area.~~

~~(FG) **Operating Procedures.** Prior to the start of parallel operations pursuant to Section 33.2.3, the CAISO and the prospective EDAM Entity have defined, completed, and tested operating procedures for the prospective EDAM Entity and its Scheduling Coordinator's participation in the Energy Imbalance Market.~~

~~(GH) **System Readiness and Integration.**~~

- (i) **System and Functional Testing.** The prospective EDAM Entity and the CAISO have tested the functional and system elements in accordance with functional and system testing documentation posted on the CAISO

Website.

- (ii) **Prospective EDAM Entity Identification.** The CAISO has established and the prospective EDAM Entity has tested all necessary SCIDs and Resource IDs established for the prospective EDAM Entity's Balancing Authority Area.
- (iii) **Certificates and Access.** The prospective EDAM Entity has issued all necessary certificates to its employees, contractors and vendors that require system access to perform EDAM-related job functions.

(H) **Market Simulation and Structured Scenarios simulation.** The prospective EDAM Entity operations staff identified by the prospective EDAM Entity who will have responsibility for EDAM operations, transactions and settlements, have executed and passed all structured scenarios provided by CAISO with all significant issues resolved.

(I) **Settlements.** The CAISO and the prospective EDAM Entity have demonstrated that –

- (i) CAISO settlement statements and invoices match the operational data published to stakeholders or fed into settlement system and the resulting calculations correspond to the formulas defined in CAISO's tariff and Business Practice Manuals.
- (ii) CAISO settlement statements and invoices allocates charges and credits to its customers accurately reflecting system and market data during parallel operations.

(JK) **Parallel Operations Plan.** The period of parallel operations specified in Section 33.2.3 runs consistently and in accordance with the prospective EDAM Entity specific parallel operations plan.

\* \* \* \* \*

### 33.4.1 EDAM Entity

An EDAM Entity must be a Balancing Authority registered and certified as such under the applicable authorities and execute an EDAM Addendum to EIM Entity Agreement no later than ninety (90) days before the EDAM Entity Implementation Date. Upon receipt of such notice, the CAISO will undertake all necessary preparations to enable operation of the Day-Ahead Market within the EDAM Entity Balancing Authority Area, as outlined in the Business Practice Manual for the Extended Day-Ahead Market, including issuance of a Market Notice within five Business Days after receipt of such notice.

An EDAM Entity must:

- (a) perform the obligations of an EDAM Entity in accordance with the EDAM Addendum to EIM Entity Agreement, Section 33, and other provisions of the CAISO Tariff that apply to EDAM Entities, subject to the limitations specified in Section 33.1;
- (b) determine and inform the CAISO about all Load Serving Entities within the EDAM Entity's Balancing Authority Area necessary to enable operation of the Day-Ahead Market in its Balancing Authority Area;
- (c) qualify as, or secure representation by, an EDAM Entity Scheduling Coordinator, provided that an EDAM Entity may not be represented by more than one EDAM Entity Scheduling Coordinator;
- (d) provide the CAISO and its EDAM Entity Scheduling Coordinator with information regarding all Transmission Constraints of which it is aware;
- (e) work with the CAISO to identify all resources within its Balancing Authority Area that do not currently participate in the Energy Imbalance Market pursuant to Section 29 so they can be represented in the Extended Day-Ahead Market as EDAM Resources and execute an EDAM Addendum to EIM Participating Resource Agreement pursuant to Section 33, which may be accomplished through execution of a separate EDAM Addendum to EIM Participating Resource Agreement or by including all or some of the resources under its EDAM Addendum to EIM Participating Resource Agreement;

(f) define Load Aggregation Points in its Balancing Authority Area and be responsible for serving the associated Demand, including for an EDAM Load Serving Entity in its Balancing Authority Area that will be separately responsible for serving the associated Demand;

(g) identify and inform the CAISO which resource types supported by the CAISO Markets are eligible to participate in the Day-Ahead Market as EDAM Resource Facilities;

(h) determine and inform the CAISO of EDAM Transmission Service Providers within the EDAM Entity Balancing Authority Area;

(i) serve as the entity that interacts with EDAM Transmission Service Providers within the EDAM Entity Balancing Authority Area; and

(j) inform the CAISO whether or not the EDAM Entity intends to utilize the CAISO's Demand Forecast consistent with Section 33.31.1.

\* \* \* \* \*

### **33.11 Settlements And Billing for EDAM Market Participants**

\* \* \* \* \*

#### **33.11.3 Day-Ahead Market Settlement**

\* \* \* \* \*

##### **33.11.3.2 Settling Imbalance Reserves**

The CAISO settles Imbalance Reserves Awards issued to EDAM Resources as specified in Sections 11.2.1.1~~2~~, 11.2.1.8, and 11.25.2.1.1 as though the EDAM Resource were a Participating Generator.

The CAISO allocates the costs of procuring Imbalance Reserves in the EDAM as specified in Section 11.2.1.9 individually for each EDAM Entity with the exception that any reference to the CAISO Balancing Authority Area is a reference to the Balancing Authority Area of the relevant EDAM Entity.

In allocating the costs of Imbalance Reserves, the CAISO assesses both the importing and exporting Balancing Authority Areas for EDAM Transfers of Imbalance Reserves. In the case of EDAM Entities, the CAISO assesses the Scheduling Coordinator representing the importing Balancing Authority Area a settlement equal to the product of the quantity of the import and the Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location. In the case of EDAM Entities, the CAISO assesses the Scheduling Coordinator representing the exporting Balancing Authority Area a settlement equal to the product of the quantity of the export and the Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location. If the CAISO is one of the importing or exporting Balancing Authority Areas, then the CAISO allocates the product of the export or import, as appropriate, and the Locational IRU Price or Locational IRD Price, as applicable, at the relevant Scheduling Point pricing location to CAISO Scheduling Coordinators as specified in Section 11 for allocating EDAM Transfers of Imbalance Reserves.

\* \* \* \* \*

**33.11.7**      **[Not Used] ~~Transmission Revenue Recovery.~~**

~~The CAISO will allocate to each EDAM Entity and EDAM Load Serving Entity an EDAM Access Charge for recovery of EDAM recoverable revenue according to Section 33.26. The CAISO will charge Market Participants for transmission service on the CAISO Controlled Grid according to Section 26.~~

\* \* \* \* \*

### 33.18.5 EDAM Transfer Priority

EDAM Transfers will have a priority equal to Demand in the EDAM Area and may be curtailed only as provided in Section 33.7.5. The Day-Ahead Market will include a constraint as provided in Section 33.27.43 to ensure each Balancing Authority in the EDAM Area meets its Balancing Authority Area requirements before supporting EDAM Transfers.

\* \* \* \* \*

### 33.26 ~~[Not Used] Transmission Revenue Recovery And Charges~~

~~Access Charges for Day-Ahead Market transactions serving Load within the CAISO Balancing Authority Area that use the CAISO Controlled Grid are governed by Section 26. Transmission service charges for Day-Ahead Market transactions serving Load within an EDAM Entity Balancing Authority Area are governed by the applicable EDAM Transmission Service Provider tariff. Transmission service charges for Day-Ahead Market transactions supported by EDAM Transfers are addressed in this Section 33.26. Transmission service charges for Real-Time Market transactions are governed by Section 11, Section 26, or Section 29.26, as applicable.~~

\* \* \* \* \*

### 33.31.1.2.1.2 Imbalance Reserves Requirement

The Imbalance Reserve requirement used in the 6:00 a.m. and 9:00 a.m. advisory run by the CAISO will be calculated in accordance with Section ~~31.3.1.633-31.3~~. The Imbalance Reserve requirement used in the final binding EDAM RSE will be the same requirement the CAISO used in the 9:00 a.m. advisory run unless the timelines in the Business Practice Manual for the Extended Day-Ahead Market otherwise allow for adjustment.

\* \* \* \* \*

### **33.31.1.6 Timely Submission of Tags Necessary to Remain in EDAM Upward and Downward Pools**

A Balancing Authority Area in the EDAM Area must comply with the tagging protocols set forth in Section 33.30.8.3 and the Business Practice Manuals to ensure imports and exports are timely tagged. A Balancing Authority Area in the EDAM Area that fails to timely E-tag imports or exports and does not otherwise re-supply from a firm schedule or physical source to cover for the untagged imports or exports for the operating hour following the process in the Business Practice Manual will be removed from the EDAM Upward Pool or the EDAM Downward Pool, respectively, for that Trading Hour. A Balancing Authority Area in the EDAM Area that is removed from the EDAM Upward Pool or the EDAM Downward Pool in accordance with this Section 33.31.1.6 will be evaluated as an individual Balancing Authority Area and will not be allowed to share in the Diversity Benefits of the pool that it would have otherwise been a part of and as provided in Section 33.31.1.4.3.

\* \* \* \* \*

### **33.31.2 Operation of the Day-Ahead Market in the EDAM Area**

#### **33.31.2.1 IFM MPM in the EDAM Area**

The CAISO applies the IFM MPM specified in Section 31.2 to the EDAM Area. For purposes of the IFM MPM process in the EDAM Area, the CAISO applies a competitive path assessment to binding Transmission Constraints to determine whether a path is competitive or non-competitive, consistent with the requirements of Section 29.39. If a path is non-competitive, MPM procedures will apply to determine any non-competitive contribution to LMPs. Resources' Bids will be subject to applicable mitigation procedures if the net contribution from non-competitive binding Transmission Constraints to these resources' LMPs is positive.

In relation to power balance constraints within the EDAM Area, the Marginal Energy Cost in the CAISO Balancing Authority Area will reflect a competitive marginal energy price. For this

purpose, when an EDAM Balancing Authority Area's Marginal Energy Cost is greater than CAISO Balancing Authority Area's Marginal Energy Cost, then the IFM MPM process will apply the competitive path assessment. If non-competitive conditions exist, the IFM MPM process will treat the differential between the Marginal Energy Cost in the CAISO Balancing Authority Area and the Marginal Energy Cost in the EDAM Balancing Authority Area similar to the non-competitive component of the Marginal Cost of Congestion in CAISO's Local Market Power Mitigation process and will subject resources' Bids to mitigation procedures.

### **33.31.2.2 IFM in the EDAM Area**

The IFM procures Energy and Imbalance Reserves for EDAM Entity Balancing Authority Areas but does not procure Ancillary Services. EDAM Entities must self-provide their full Ancillary Services requirements to the IFM and cannot submit Economic Bids for Ancillary Services to the IFM.

The CAISO procures Energy across the EDAM Area as specified in Section 31.3.1. The CAISO procures Imbalance Reserves across the EDAM Area as specified in Sections 31.3.1.5 and 31.3.1.6. An EDAM Resource must meet the requirements applicable to Participating Generators to be eligible for Imbalance Reserves Awards and must meet all of the RTM Bidding Obligations specified in Section 31.3.4.

### **33.31.2.3 RUC MPM in the EDAM Area**

~~The CAISO applies the RUC MPM specified in Section 31.9 to the EDAM Area, except that a reference to the CAISO Forecast of BAA Demand for the CAISO refers to the total CAISO Forecast of BAA Demand for all Balancing Authority Areas across the EDAM Area.~~

For purposes of the RUC MPM process in the EDAM Area, the CAISO applies a competitive path assessment to binding Transmission Constraints to determine whether a path is competitive or non-competitive, consistent with the requirements of Section 29.39. If a path is non-competitive, MPM procedures will apply to determine any non-competitive contribution to RUC prices. Resources' Bids will be subject to applicable mitigation procedures if the net contribution from non-competitive binding Transmission Constraints to these resources' prices for Reliability Capacity Up is positive.

In relation to power balance constraints within the EDAM Area, the marginal Reliability Capacity cost in the CAISO Balancing Authority Area will reflect a competitive RUC price. For this purpose, when an EDAM Balancing Authority Area's marginal Reliability Capacity cost is greater than CAISO Balancing Authority Area's marginal Reliability Capacity cost, then the RUC MPM process will apply the competitive path assessment. If non-competitive conditions exist, the RUC MPM process will treat the differential between the marginal Reliability Capacity cost in the CAISO Balancing Authority Area and the marginal Reliability Capacity cost in the EDAM Balancing Authority Area similar to the non-competitive component of the Marginal Cost of Congestion in CAISO's Local Market Power Mitigation process and will subject resources' Bids to applicable mitigation procedures.

\* \* \* \* \*

## **Appendix A**

\* \* \* \* \*

### **- Deployment Factor**

As specified in Section 31.3.1.6.3.1 and further specified in the Business Practice Manual, the percentage of Imbalance Reserves Awards the CAISO models as being deployed for Energy for the purpose of modeling the deployment of Imbalance Reserves against Transmission Constraints. The CAISO establishes distinct Deployment Factors for Imbalance Reserves Up and Imbalance Reserves Down.

\* \* \* \* \*

### **- ~~[Not Used]EDAM Access Charge~~**

~~The Access Charge that provides for historical transmission revenue recovery through the Extended Day-Ahead Market pursuant to Section 33.26.~~

\* \* \* \* \*

## APPENDIX B.29

### EDAM ADDENDUM TO EIM PARTICIPATING RESOURCE AGREEMENT

Effective [Date], [Full Legal Name] (“[Short Legal Name]”) and the California Independent System Operator Corporation (“CAISO”) (collectively the “Parties”) make and enter into this EDAM Addendum to the Parties’ [Date] EIM Participating Resource Agreement (the “Agreement”).

#### **WHEREAS:**

A. Pursuant to the Agreement, [Short Legal Name] has participated or will participate as an EIM Participating Resource in the CAISO’s Real-Time Market and is located in an EDAM Entity Balancing Authority Area;

B. The CAISO also operates the Day-Ahead Market pursuant to the CAISO Tariff; and

C. [Short Legal Name] extends its participation to the CAISO’s Day-Ahead Market in accordance with the EDAM Entity’s open access transmission tariff or the tariff of another transmission service provider within the EDAM Entity Balancing Authority Area.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Parties agree that the Agreement is hereby supplemented as follows:

- 1. Agreement to be Bound by CAISO Tariff.** Section 33 of the CAISO Tariff is incorporated herein and made a part hereof.
- 2. Interpretation.** All references in the Agreement to the “EIM” or the “Energy Imbalance Market” will also be read as references to the “EDAM” or the “Extended Day Ahead Market.” All references in the Agreement to an “EIM Entity” will also be read as references to an “EDAM Entity.” All references in the Agreement to “EIM Participating Resource(s)” will also be read as references to the “EDAM Resource(s).” All references in the Agreement to “EIM Resources” will also be read as references to “EDAM Resource Facilities.” All references in the Agreement to an “EIM Participating Resource Scheduling Coordinator” will also be read as references to an “EDAM Resource Scheduling Coordinator.” All references in the Agreement to Section 29 of the CAISO Tariff will also be read as references to Section 33 of the CAISO Tariff.
- 3. EDAM Resource Facilities.** Schedule 1 of the Agreement will be updated to include all EDAM Resource Facilities not already included in Schedule 1 as an EIM Resource.
- 4. Effective Date and Termination.** This EDAM Addendum will be effective as of the later of the date it is executed by the Parties and shall remain in full force and effect until terminated pursuant to the same process as is set forth in Section 3.2 of the Agreement, or until the EDAM Entity for the Balancing Authority Area in which the EDAM Resource is located ceases its participation in EDAM. If [Short Legal Name] terminates its participation as an EDAM Resource, it may continue to participate as an EIM Participating Resource under the terms of the Agreement.
- 5. Miscellaneous.** Except as expressly modified by this EDAM Addendum, all other terms and conditions of the Agreement shall remain unchanged and in full force and effect.

**[Full Legal Name]**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**California Independent  
System Operator Corporation**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_