**Redlines Based on the Revised Draft Final Proposal Dated December 16, 2021**

**\*\*\* All redlines in blue highlighting are currently pending in ER21-955, with a new effective date anticipated for Fall 2022. \*\*\***

## 29.34 EIM Operations

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(e) **EIM Resource Plan.**

(1) **In General.** By 10:00 a.m. of the day preceding the Operating Day, the EIM Entity Scheduling Coordinators on behalf of non-participating resources and EIM Participating Resource Scheduling Coordinators on behalf of EIM Participating Resources, must submit all applicable components of the EIM Resource Plan as set forth in Section 29.34(e)(3).

(2) **Scope.** The EIM Resource Plan components must cover a seven day horizon (with hourly detail for each resource) beginning with the Operating Day.

(3) **Contents.** The EIM Resource Plan shall comprise –

(A) EIM Base Schedules of EIM Entities and EIM Participating Resources;

(B) Energy Bids (applicable to EIM Participating Resources only);

(C) EIM Upward Available Balancing Capacity;

(D) EIM Downward Available Balancing Capacity;

(E) EIM Reserves to Meet NERC/WECC Contingency Reserves Requirements; and

(F) if the EIM Entity Scheduling Coordinator is not relying on the CAISO’s Demand Forecast, a Demand Forecast.

(4) **Contents of EIM Base Schedules.** EIM Base Schedules of EIM Entities must include hourly-level Demand Forecasts for EIM Demand, hourly-level schedules for resources, including the State of Charge for Non-Generator Resources or storage devices, and hourly-level scheduled Interchanges.

(5) **Adjustment Prior to Submission of Real-Time EIM Base Schedules.** The EIM Entity Scheduling Coordinator may adjust the components of the EIM Resource Plan prior to the submission of Real-Time EIM Base Schedules up to 75 minutes before the Operating Hour.

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(k) **EIM Resource Plan Balance.** If, after the final opportunity for the EIM Entity to revise hourly Real-Time EIM Base Schedules according to Section 29.34(f)(1)(D), Supply in the EIM Base Schedules of an EIM Entity Balancing Authority Area accounted for in Section 29.34(l) does not balance the Demand Forecast referenced in Section 29.34(l), the CAISO will adjust the Demand in the EIM Base Schedule to equal Supply. A Balancing Authority Area in the EIM Area that is not subject to the balancing test in this Section 29.34(k) will not be eligible for revenue apportionment and allocation pursuant to Section 29.11(d)(3).

(l) **EIM Resource Sufficiency Evaluation – Capacity Test.**

(1) **Requirement.** The EIM Base Schedules for resources included in the EIM Resource Plan must meet the Demand Forecast for each EIM Entity Balancing Authority Area, and for the CAISO Balancing Authority Area the RUC Schedules, the HASP Advisory Schedules and HASP Intertie Block Schedules or the FMM Schedules, as applicable and as detailed in Business Practice Manuals, must meet the Demand Forecast.

(2) **Supply and Demand Forecast.** Conditions and actions in the Real-Time Market will affect what Supply will be counted and what Demand Forecast will be referenced in the capacity test performed in accordance with this Section 29.34(l) and, in some cases as noted below, both this capacity test and the flexibility test performed in accordance with section 29.34(m).

(A) For purposes of this section 29.34(l) and also for purposes of Section 29.34(m) with respect to Section 29.34(l)(2)(A)(iii), Supply counted in the capacity test will also include—

(i) a Generating Unit with a Bid in the RTM through the upcoming Hour if the duration of its Bid is in excess of its Start-Up Time from the hours for which the Bid was submitted, with the cold Start-Up Time used for a resource that is offline at the start of the STUC horizon and the warm Start-Up Time used for a resource that is online at the start of the STUC horizon;

(ii) a Multi-Stage Generating Resource counted as available in accordance with 29.34(l)(1)(A)(i) that subsequently receives a Transition Instruction to move into a lower configuration or changes its Commitment Status to Shut-Down; or

(iii) a Multi-Stage Generating Resource transitioning between configurations in the hour under evaluation, in both the capacity test and the flexibility test performed in accordance with Section 29.34(m).

(B) For purposes of this section 29.34(l) and also for purposes of Section 29.34(m) with respect to Sections 29.34(l)(2)(B)(iii) and 29.34(l)(2)(B)(iv), Supply counted in the capacity test will not include—

(i) an offline Generating Unit with a Bid in the RTM, RTPD or through the STUC horizon which received a Dispatch Instruction that was subsequently not followed;

(ii) a Generating Unit through the STUC horizon that is on Outage during the hour under evaluation or has returned from an Outage but is unable to ramp to Minimum Load within the hour under evaluation;

(iii) a Non-Generator Resource or storage device maximum output in the hour under evaluation based upon its State of Charge at the time the capacity test is performed, plus any additional Supply deemed available through Bids to consume Energy, in both the capacity test and the flexibility test performed in accordance with Section 29.34(m); or

(iv) a System Resource without a transmission profile in a submitted E-Tag that supports its Interchange Schedule by T-40, which will affect the quantity of Supply counted in both the capacity test and the flexibility test performed in accordance with Section 29.34(m).

(C) Supply counted in accordance with section 29.34(l)(2)(A)(i) may be adjusted in accordance with the timelines and procedures provided in the Business Practice Manual for the Energy Imbalance Market to account for constraints or other limitations that the Department of Market Monitoring has reported significantly reduce the Supply that was available to the Real-Time Market.

(D) Demand response under a demand response program administered in an EIM Entity Balancing Authority Area that does not otherwise qualify as an EIM Resource, i.e., count as Supply, may be accounted for through a corresponding EIM Entity adjustment to their Demand Forecast, which will then be referenced in the capacity test performed in accordance with this Section 29.34(l) and the flexibility test performed in accordance with Section 29.34(m), provided the EIM Entity submits an attestation to the CAISO in accordance with the procedures and timelines in the Business Practice Manual for the Energy Imbalance Market that certifies adjustments made to its Demand Forecast will correspond to expected increases or reductions in demand provided by the demand response.

(3) **Insufficient Supply.** An EIM Resource Plan or the CAISO equivalent shall be deemed to have insufficient Supply if the sum of EIM Base Schedules from non-participating resources and the sum of the highest quantity offers in the Energy Bid range from EIM Participating Resources, including Interchange with other Balancing Authority Areas, is less than the total Demand Forecast that the EIM Entity Scheduling Coordinator has decided to use for the associated EIM Entity Balancing Authority Area, and for the CAISO Balancing Authority Area the RUC Schedules, the HASP Advisory Schedules and HASP Intertie Block Schedules or the FMM Schedules, as applicable and as detailed in Business Practice Manuals, are less than the total Demand Forecast.

(4) **Excess Supply.** An EIM Resource Plan or the CAISO equivalent shall be deemed to have excessive Supply if the sum of EIM Base Schedules from non-participating resources and the sum of the lowest quantity Bids in the Energy Bid range from EIM Participating Resources is greater than the total Demand Forecast that the EIM Entity Scheduling Coordinator has decided to use for the associated EIM Entity Balancing Authority Area, and for the CAISO Balancing Authority Area the RUC Schedules, the HASP Advisory Schedules and HASP Intertie Block Schedules or the FMM Schedules, as applicable and as detailed in Business Practice Manuals, are greater than the total Demand Forecast.

(m) **EIM Resource Sufficiency Evaluation – Flexibility Test.**

(1) **Review.**

(A) **EIM Entity Balancing Authority Areas.** The CAISO will review the EIM Resource Plan pursuant to the process set forth in the Business Practice Manual for the Energy Imbalance Market and verify that it has sufficient Bids for Ramping capability, accounting for Sections 29.34(l)(2)(A)(iii), 29.34(l)(2)(B)(iii), 29.34(l)(2)(B)(iv) and 29.34(l)(2)(D), to meet the EIM Entity Balancing Authority Area upward and downward Ramping requirements, as adjusted pursuant to Sections 29.34(m)(2), (3), and (5).

(B) **CAISO Balancing Authority Area.** The CAISO will review the Day-Ahead Schedules in the CAISO Balancing Authority Area and verify that it has sufficient Bids for Ramping capability, accounting for Sections 29.34(l)(2)(A)(iii), 29.34(l)(2)(A)(iii) and 29.34(l)(2)(B)(iv), to meet the CAISO Balancing Authority Area upward and downward Ramping requirements, as adjusted pursuant to Sections 29.34(m)(2), (3), and (5).

(C) **Power Balance Constraint and Load Conformance Considerations.** The CAISO, pursuant to the process set forth in the Business Practice Manual for the Energy Imbalance Market, will consider the quantity of any power balance constraint relaxation in the Real-Time Market solution, while excluding from consideration any Load conformance in the Real-Time Market solution, in the determination of whether sufficient Bids for Ramping capability are available to meet the upward and downward Ramping requirements in accordance with this Section 29.34(m)(1).

(2) **Determination of EIM Diversity Benefit.** The CAISO will calculate separately the upward and downward EIM diversity benefit as the difference between the sum of the upward and downward Uncertainty Requirements for all Balancing Authority Areas in the EIM Area, and the Uncertainty Requirement for the EIM Area.

(3) **Effects of EIM Diversity Benefit.** For each Balancing Authority Area in the EIM Area, the CAISO will reduce the upward and downward Uncertainty Requirements by the Balancing Authority Area’s pro rata share of the upward and downward EIM diversity benefit in the EIM Area as may be limited by –

(A) the available net import EIM Transfer capability into that Balancing Authority Area in the case of an upward Uncertainty Requirement; and

(B) the available net export EIM Transfer capability from that Balancing Authority Area in the case of a downward Uncertainty Requirement.

(4) **Determination of Flexible Ramping Sufficiency Credit.** The CAISO will calculate for each Balancing Authority Area in the EIM Area, the upward flexible Ramping sufficiency credit as the outgoing EIM Transfer from that area and the downward flexible Ramping sufficiency credit as the incoming EIM transfer into that area.

(5) **Effect of Flexible Ramping Sufficiency Credit.** The CAISO will reduce the upward Uncertainty Requirement of a Balancing Authority Area in the EIM Area by its upward flexible Ramping sufficiency credit, and will reduce the downward Uncertainty Requirement of a Balancing Authority Area in the EIM Area by its downward flexible Ramping sufficiency credit.

(n) **Effect of EIM Resource Capacity or Flexibility Insufficiency and Reliability Status.**

(1) **Insufficient Capacity.** If, after the final opportunity for the EIM Entity to revise hourly Real-Time EIM Base Schedules as provided in Section 29.34(f)(1)(D), the EIM Resource Plan or the CAISO equivalent has insufficient Supply as determined according to Section 29.34(l)-

(A) the CAISO will not include the EIM Entity Balancing Authority Area or the CAISO Balancing Authority Area in the Uncertainty Requirement of the EIM Area;

(B) the CAISO will hold the EIM Transfer limit into or from the EIM Entity Balancing Authority Area or the CAISO Balancing Authority Area, as specified in Section 29.34(n)(2), at the value for the last 15-minute interval.

(2) **Insufficient Flexible Ramping Capability.** If, after the final opportunity for the EIM Entity to revise hourly Real-Time EIM Base Schedules or the CAISO equivalent as provided in Section 29.34(f)(1)(D), the CAISO determines-

(A) that an EIM Entity Balancing Authority Area or the CAISO Balancing Authority Area has insufficient upward Ramping capacity according to Section 29.34(m), the CAISO will take the actions described in Section 29.34(n)(1)(A) and (B) in the upward and into the EIM Entity BAA or CAISO BAA direction; and

(B) that an EIM Entity Balancing Authority Area or the CAISO Balancing Authority Area has insufficient downward Ramping capacity according to Section 29.34(m), the CAISO will take the actions described in Section 29.34(n)(1)(A) and (B) in the downward and from the EIM Entity BAA or CAISO BAA direction.

(3) **Reliability Status.**

(A) **Notification.** Each EIM Entity must notify the CAISO according to the timelines and procedures set forth in the Business Practice Manual for the Energy Imbalance Market when they undertake emergency actions to address an Energy insufficiency in their Balancing Authority Area.

(B) **Effect.** Upon such notification and according to the timelines and procedures set forth in the Business Practice Manual for the Energy Imbalance Market, the CAISO will hold the EIM Transfer limit into or from the EIM Entity Balancing Authority Area as provided in Section 29.34(n)(1)(B) until the CAISO receives notification that the specified condition is no longer present.

(C) **CAISO.** This Section 29.34(n)(3) will apply to the CAISO Balancing Authority Area in the same manner it applies to an EIM Entity Balancing Authority Area, except that the CAISO will not be subject to the notice requirement applicable to an EIM Entity.

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