Attachment A – Clean Tariff

EIM Base Schedules Below Minimum Load

California Independent System Operator Corporation

August 3, 2021
29.11 Settlements and Billing for EIM Market Participants

(b) Imbalance Energy.

(3) Uninstructed Imbalance Energy.

(A) EIM Participating Resources.

(i) Calculation. For EIM Participating Resources and an EIM Entity Balancing Authority Area’s dynamic import/export schedules with external resources, the CAISO will calculate Uninstructed Imbalance Energy in the same manner in which it calculates Uninstructed Imbalance Energy under Section 11.5.2.1.

(ii) Settlement. The CAISO will settle the Uninstructed Imbalance Energy with the EIM Participating Resource Scheduling Coordinator or the EIM Entity Scheduling Coordinator, as applicable.

(B) Non-Participating Resources.

(i) Calculation. For non-participating resources in an EIM Entity Balancing Authority Area, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2, except that the CAISO will treat an EIM Base Schedule as a Day-Ahead Schedule and the CAISO will treat an EIM Manual Dispatch and an EIM Auto-Match as a Dispatch Instruction.

(ii) Settlement. The CAISO will settle the Uninstructed Imbalance
Energy for non-participating resources in an EIM Entity Balancing Authority Area at the applicable RTD Locational Marginal Price in accordance with Section 11.5.2.1 with the applicable EIM Entity Scheduling Coordinator and will treat EIM Balancing Authority Demand in the same manner as the CAISO treats CAISO Demand under that Section.

(C) Non-Participating Load.

(i) Calculation. For non-participating Load in an EIM Entity Balancing Authority Area, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2.2, except that the CAISO will determine deviations based on the EIM Base Load Schedule.

(ii) Settlement. The CAISO will settle Uninstructed Imbalance Energy for non-participating Load in an EIM Entity Balancing Authority Area at the applicable Default LAP Hourly Real-Time Price in accordance with Section 11.5.2.2 with the applicable EIM Entity Scheduling Coordinator and will treat EIM Balancing Authority Demand in the same manner as the CAISO treats CAISO Demand under that Section.

(D) EIM Base Schedules Below PMin.

(i) Calculation. For deviations from an EIM Base Schedule below PMin submitted by an EIM Entity Scheduling Coordinator or an EIM Participating Resource Scheduling Coordinator, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2 as if the EIM Resource had received a Dispatch Instruction to PMin based upon the submission of an Energy Self-Schedule.

(ii) Settlement. The CAISO will settle Uninstructed Imbalance
Energy for deviations from an EIM Base Schedule below PMin in an EIM Entity Balancing Authority Area at the applicable RTD Locational Marginal Price in accordance with Section 11.5.2.1 with the applicable EIM Entity Scheduling Coordinator or EIM Participating Resource Scheduling Coordinator.

(c) **Unaccounted For Energy of EIM Entities.**

1. **Calculation.** The CAISO will calculate Unaccounted For Energy for each EIM Entity Balancing Authority Area as the difference between metered Demand, and the sum of the metered Supply and the metered values at the interties, adjusted for losses.

2. **Settlement.**

   (A) **Unaccounted for Energy Settlement.** The CAISO will settle Unaccounted For Energy with the applicable EIM Entity Scheduling Coordinator at the applicable Hourly Real-Time LAP price.

   (B) **Election Not to Settle Unaccounted for Energy.** Annually, an EIM Entity Scheduling Coordinator that submits metered Demand through Meter Data calculated without End-Use Meters may elect to not settle Unaccounted For Energy through the CAISO Markets, in which case –

       (i) the CAISO will apply a zero-percent Transmission Losses factor when calculating the Initial EIM base load schedule per section 29.34(g); and

       (ii) the EIM Entity Scheduling Coordinator will apply a zero-percent Transmission Losses factor when calculating their metered Demand.

* * * * *
(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 any hourly-level schedules below PMin that the EIM Entity seeks an accounting for, 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.

(f) **Real-Time EIM Base Schedules.**

(1) **In General.**

(A) **Initial Submission.** EIM Entity Scheduling Coordinators, EIM Participating Resource Scheduling Coordinators, and non-participating resources in the EIM Entity Balancing Authority Area that wish to submit real-time hourly EIM Base Schedules, or, with regard to non-participating resources, wish to submit EIM Base Schedule information pursuant to Section 29.34(f)(4), must submit such schedules or other information consistent with the requirements of the Business Practice Manual for the Energy Imbalance Market and at least 75 minutes before the start of the Operating Hour.

(B) **Interim Revisions.** EIM Entity Scheduling Coordinators, EIM Participating Resource Scheduling Coordinators, and non-participating resources in the EIM Entity Balancing Authority Area may revise hourly Real-Time EIM Base Schedules, or, with regard to non-participating resources, revise EIM Base Schedule information submitted pursuant to Section 29.34(f)(4), meeting the requirements of the Business Practice Manual for the Energy Imbalance Market at or before 55 minutes before the start of the Operating Hour.
(C) **Additional Revisions.** EIM Entity Scheduling Coordinators may continue to revise hourly Real-Time EIM Base Schedules, or, with regard to non-participating resources, revise EIM Base Schedule information submitted pursuant to Section 29.34(f)(4), at or before 40 minutes before the start of the Operating Hour.

(D) **Final Revision.** EIM Entity Scheduling Coordinators may further revise hourly Real-Time EIM Base Schedules, including EIM Base Schedules for EIM Participating Resources, at or before 30 minutes before the start of the Operating Hour.

(2) **EIM Base Schedule for EIM Participating Resources.** The EIM Base Schedule for each EIM Participating Resource must be within the Economic Bid range of the submitted Energy Bids for each Operating Hour for EIM Resources, which the CAISO will make available to the EIM Entity without price information, provided that an EIM Participating Resource Scheduling Coordinator may also include Energy below PMin in an EIM Base Schedule.

(3) **EIM Base Schedule for Imports and Exports.** EIM Base Schedules must-

(A) disaggregate Day-Ahead import/export schedules between the EIM Entity Balancing Authority Area and the CAISO Balancing Authority Area;

(B) identify the relevant EIM Interties for imports and exports to an EIM Entity Balancing Authority Area from Balancing Authority Areas other than the CAISO Balancing Authority Area; and

(C) include approved, pending, and adjusted E-Tags for imports and exports.

(4) **EIM Base Schedule Aggregation.** In response to a request by an EIM Entity Scheduling Coordinator, the CAISO will establish an electronic interface by which non-participating resources, Loads, and other customers of the EIM Entity may
submit EIM Base Schedule information to the EIM Scheduling Coordinator and the CAISO.

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Attachment B – Marked Tariff

EIM Base Schedules Below Minimum Load

California Independent System Operator Corporation

August 3, 2021
29.11 Settlements and Billing for EIM Market Participants

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(b) Imbalance Energy.

... *

(3) Uninstructed Imbalance Energy.

(A) EIM Participating Resources.

(i) Calculation. For EIM Participating Resources and an EIM Entity Balancing Authority Area’s dynamic import/export schedules with external resources, the CAISO will calculate Uninstructed Imbalance Energy in the same manner in which it calculates Uninstructed Imbalance Energy under Section 11.5.2.1.

(ii) Settlement. The CAISO will settle the Uninstructed Imbalance Energy with the EIM Participating Resource Scheduling Coordinator or the EIM Entity Scheduling Coordinator, as applicable.

(B) Non-Participating Resources.

(i) Calculation. For non-participating resources in an EIM Entity Balancing Authority Area, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2, except that the CAISO will treat an EIM Base Schedule as a Day-Ahead Schedule and the CAISO will treat an EIM Manual Dispatch and an EIM Auto-Match as a Dispatch Instruction.

(ii) Settlement. The CAISO will settle the Uninstructed Imbalance...
Energy for non-participating resources in an EIM Entity Balancing Authority Area at the applicable RTD Locational Marginal Price in accordance with Section 11.5.2.1 with the applicable EIM Entity Scheduling Coordinator and will treat EIM Balancing Authority Demand in the same manner as the CAISO treats CAISO Demand under that Section.

(C) Non-Participating Load.

(i) Calculation. For non-participating Load in an EIM Entity Balancing Authority Area, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2.2, except that the CAISO will determine deviations based on the EIM Base Load Schedule.

(ii) Settlement. The CAISO will settle Uninstructed Imbalance Energy for non-participating Load in an EIM Entity Balancing Authority Area at the applicable Default LAP Hourly Real-Time Price in accordance with Section 11.5.2.2 with the applicable EIM Entity Scheduling Coordinator and will treat EIM Balancing Authority Demand in the same manner as the CAISO treats CAISO Demand under that Section.

(D) EIM Base Schedules Below PMin.

(i) Calculation. For deviations from an EIM Base Schedule below PMin submitted by an EIM Entity Scheduling Coordinator or an EIM Participating Resource Scheduling Coordinator, the CAISO will calculate Uninstructed Imbalance Energy in accordance with Section 11.5.2 as if the EIM Resource had received a Dispatch Instruction to PMin based upon the submission of an Energy Self-Schedule.

(ii) Settlement. The CAISO will settle Uninstructed Imbalance
Energy for deviations from an EIM Base Schedule below PMin in an EIM Entity Balancing Authority Area at the applicable RTD Locational Marginal Price in accordance with Section 11.5.2.1 with the applicable EIM Entity Scheduling Coordinator or EIM Participating Resource Scheduling Coordinator.

(c) **Unaccounted For Energy of EIM Entities.**

(1) **Calculation.** The CAISO will calculate Unaccounted For Energy for each EIM Entity Balancing Authority Area as the difference between metered Demand, and the sum of the metered Supply and the metered values at the interties, adjusted for losses.

(2) **Settlement.**

(A) **Unaccounted for Energy Settlement.** The CAISO will settle Unaccounted For Energy with the applicable EIM Entity Scheduling Coordinator at the applicable Hourly Real-Time LAP price.

(B) **Election Not to Settle Unaccounted for Energy.** Annually, an EIM Entity Scheduling Coordinator that submits metered Demand through Meter Data calculated without End-Use Meters may elect to not settle Unaccounted For Energy through the CAISO Markets, in which case –

(i) the CAISO will apply a zero-percent Transmission Losses factor when calculating the Initial EIM base load schedule per section 29.34(g); and

(ii) the EIM Entity Scheduling Coordinator will apply a zero-percent Transmission Losses factor when calculating their metered Demand.

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29.34 EIM Operations

(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 any hourly-level schedules below PMin that the EIM Entity seeks an accounting for, 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.

(f) **Real-Time EIM Base Schedules.**

(1) **In General.**

(A) **Initial Submission.** EIM Entity Scheduling Coordinators, EIM Participating Resource Scheduling Coordinators, and non-participating resources in the EIM Entity Balancing Authority Area that wish to submit real-time hourly EIM Base Schedules, or, with regard to non-participating resources, wish to submit EIM Base Schedule information pursuant to Section 29.34(f)(4), must submit such schedules or other information consistent with the requirements of the Business Practice Manual for the Energy Imbalance Market and at least 75 minutes before the start of the Operating Hour.

(B) **Interim Revisions.** EIM Entity Scheduling Coordinators, EIM Participating Resource Scheduling Coordinators, and non-participating resources in the EIM Entity Balancing Authority Area may revise hourly Real-Time EIM Base Schedules, or, with regard to non-participating resources, revise EIM Base Schedule information submitted pursuant to Section 29.34(f)(4), meeting the requirements of the Business Practice Manual for the Energy Imbalance Market at or before 55 minutes before the start of the Operating Hour.
(C) **Additional Revisions.** EIM Entity Scheduling Coordinators may continue to revise hourly Real-Time EIM Base Schedules, or, with regard to non-participating resources, revise EIM Base Schedule information submitted pursuant to Section 29.34(f)(4), at or before 40 minutes before the start of the Operating Hour.

(D) **Final Revision.** EIM Entity Scheduling Coordinators may further revise hourly Real-Time EIM Base Schedules, including EIM Base Schedules for EIM Participating Resources, at or before 30 minutes before the start of the Operating Hour.

(2) **EIM Base Schedule for EIM Participating Resources.** The EIM Base Schedule for each EIM Participating Resource must be within the Economic Bid range of the submitted Energy Bids for each Operating Hour for EIM Resources, which the CAISO will make available to the EIM Entity without price information, provided that an EIM Participating Resource Scheduling Coordinator may also include Energy below PMin in an EIM Base Schedule.

(3) **EIM Base Schedule for Imports and Exports.** EIM Base Schedules must-

(A) disaggregate Day-Ahead import/export schedules between the EIM Entity Balancing Authority Area and the CAISO Balancing Authority Area;

(B) identify the relevant EIM Interties for imports and exports to an EIM Entity Balancing Authority Area from Balancing Authority Areas other than the CAISO Balancing Authority Area; and

(C) include approved, pending, and adjusted E-Tags for imports and exports.

(4) **EIM Base Schedule Aggregation.** In response to a request by an EIM Entity Scheduling Coordinator, the CAISO will establish an electronic interface by which non-participating resources, Loads, and other customers of the EIM Entity may
submit EIM Base Schedule information to the EIM Scheduling Coordinator and the CAISO.

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