



California ISO

Western EIM Base Schedule Submission

Issue Paper / Straw Proposal

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Market Design Policy

September 30, 2020

Agenda

Time:	Topic:	Presenter:
1:00 – 1:10	Welcome and stakeholder process	Kristina Osborne
1:10 – 2:50	Proposal	Danny Johnson
2:50 – 3:00	EIM Governing Body classification and next steps	Kristina Osborne

CAISO policy initiative stakeholder process



Initiative Scope

- Examine moving the market closing timeline for financially binding EIM base schedules from forty minutes prior to the operating hour (T-40) to thirty minutes prior to the operating hour (T-30)
- Examine allowing startup energy to be accounted for in an EIM base schedule
 - This will allow for the inclusion of startup energy in the resource sufficiency evaluation (RSE) and a reduction of imbalance energy settlement

EIM BASE SCHEDULE SUBMISSION DEADLINE

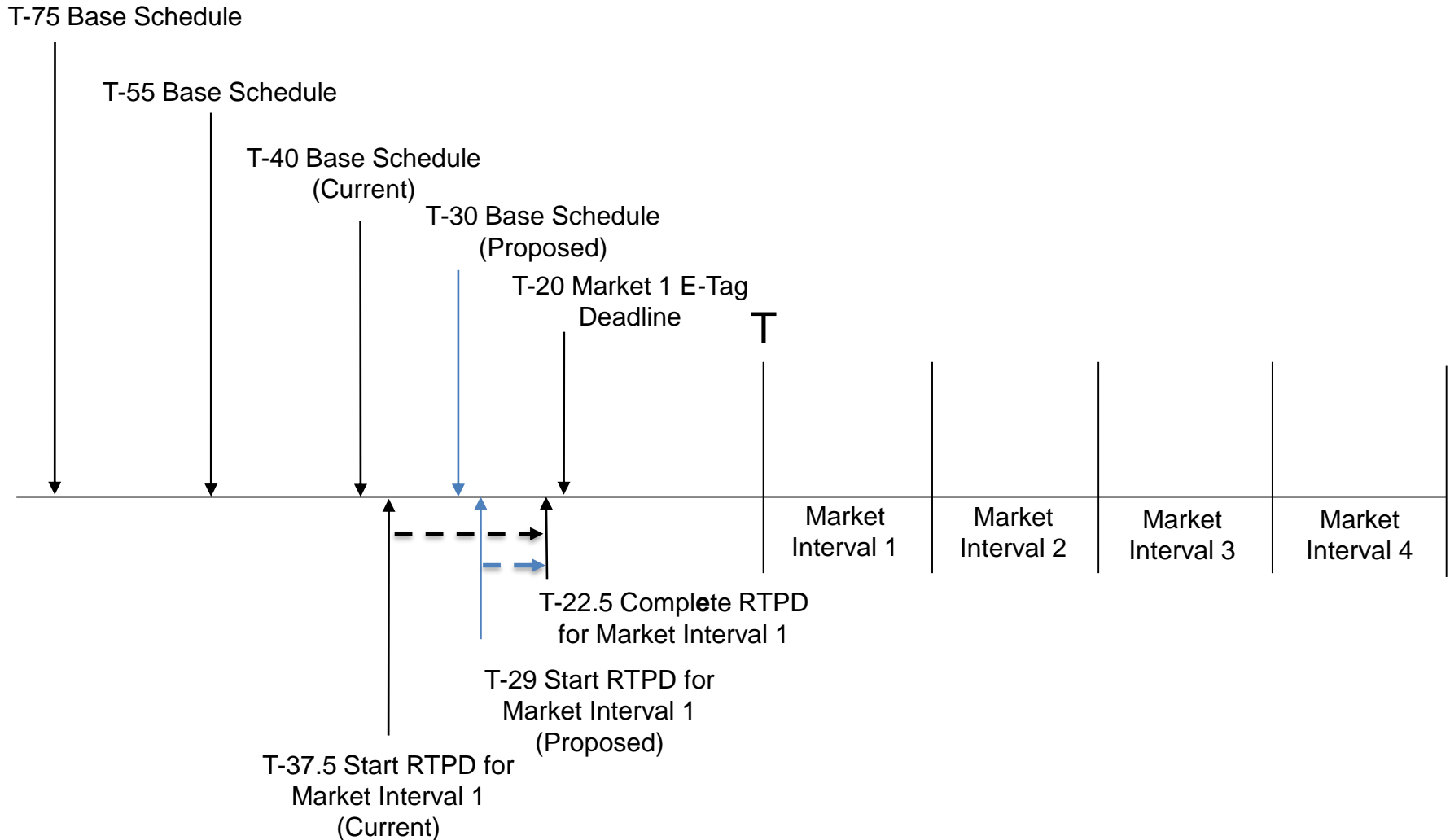
EIM Base Schedules Submission Deadline – Background

- A base schedule is a forward energy schedule with hourly granularity that is the baseline to measure deviations for settlement through the EIM
- EIM entities submit base schedules at the following times prior to each operating hour
 - T-75
 - T-55
 - T-40
- The T-40 EIM base schedule is the final financially binding schedule. This schedule serves as the baseline for settling imbalance energy in the EIM

EIM Base Schedules Submission Deadline – Proposed Changes

- In the BPA EIM implementation agreement, CAISO agreed to examine moving the market closing timeline for financially binding hourly resource plans from T-40 to T-30
- This will be accomplished by shortening the run time of the current T-37.5 real time pre-dispatch (RTPD) interval. Will move start time to after T-30, with result publication remaining at T-22.5
 - CAISO Technology has validated this is feasible
 - The final RSE evaluation will begin following T-30 deadline but prior to the RTPD interval

EIM Base Schedule Submission – Revised Timeline



EIM Base Schedules Submission Deadline - Immediate Benefit

- Creates the ability for EIM entities to submit more accurate final base schedules as deadline is closer to the operating hour
 - Reduces the financial impact of imbalance settlements
 - Provides more accurate base schedule for RSE
- The change would be available to all EIM participants

EIM BASE SCHEDULE ENERGY BELOW MINIMUM LOAD

EIM Base Schedule Energy Below Minimum Load - Background

- EIM resources are not able to show startup energy
 - This is particularly important for resources with large minimum loads and multi-hour start times that are not able to show startup energy as part of a base schedule
 - Startup energy is currently treated as uninstructed imbalance energy
 - Under current design, an EIM entity may attempt to capture this energy by inflating base schedules on other resources
 - Less accurate base schedule
 - Exposes both resources to uninstructed imbalance energy
- CAISO's day-ahead market balances supply and demand in its balancing authority area
 - The optimization of startup energy is a future enhancement

EIM Base Schedule Energy Below Minimum Load – Proposed Changes

- Allow EIM entities to submit EIM base schedules for a resource's entire energy output, including portions below a resource's minimum load
 - This will allow EIM entities to capture the startup energy of a resource
- Propose to include this energy within an EIM entity's RSE
- Settlements will treat startup energy as part of a EIM base schedule
 - Base schedules are not paid/charged for energy

EIM Base Schedule Energy Below Minimum Load - RSE

- The startup energy will be included as part of an EIM entity's RSE
 - EIM entities have the ability to embed this energy within the balanced base schedule they submit
- Startup energy will not be included as part of CAISO's RSE

EIM Base Schedule Energy Below Minimum Load – Bid Cost Recovery

- Startup energy will be UIE for CAISO resources but not for EIM resources
- CAISO proposes to modify the Bid Cost Recovery (BCR) calculation to account for an EIM entities startup energy
 - Without this modification unequitable cost shifting may result
 - CAISO would calculate an EIM entity's startup energy from their submitted base schedule and add this term to the denominator of the BCR calculation
 - Proposed modification:

$$\sum EIM\ Transfers\ (Export)$$

$$\sum EIM\ Transfers\ (Export) + |UIE| + |UFE| + Base\ Schedule\ Startup\ Energy$$

EIM Base Schedule Energy Below Minimum Load – Monitoring

Base Schedule Aggregation Portal Validation:

- A base schedule below minimum load in an hour when there is a base schedule at or above minimum load in the previous hour

After-the-fact monitoring criteria:

- A non-monotonically increasing pattern of base schedules below minimum load over consecutive hours
- Lack of a base schedule in an hour when there is a base schedule below minimum load in the previous hour
- Base schedules below minimum load for an unreasonably long multi-hour period based on the resource registered technology and startup profile

EIM GOVERNING BODY CLASSIFICATION AND NEXT STEPS

EIM Governing Body Classification

The CAISO has not yet done a detailed analysis of the EIM Governing Body's role in the approval of tariff changes resulting from this initiative, but believes that the scope of this initiative is likely within the EIM Governing Body's primary approval authority

- Stakeholders are encouraged to submit responses to the EIM classification in written comments

Next Steps

Date:	Milestone:
Sept 24, 2020	Publish issue paper/straw proposal
Sept 30, 2020	Stakeholder call
 Oct 14, 2020	Comments due
Oct 30, 2020	Publish draft final proposal
Nov 6, 2020	Stakeholder call
Nov 18, 2020	Comments due
Dec 2, 2020	EIM GB
Dec 16-17, 2020	ISO Board of Governors

Please submit comments using online template available on the initiative [webpage](#).