



California ISO

EIM Resource Sufficiency Evaluation Enhancements – Revised Draft Final Proposal

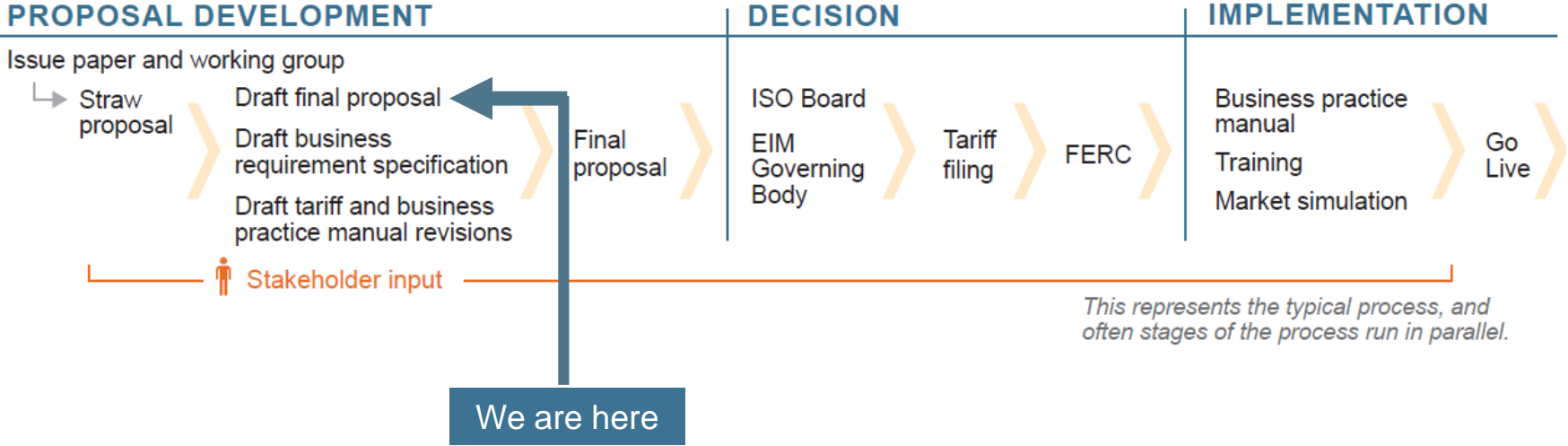
Stakeholder Meeting

December 21, 2021

Agenda

Time:	Topic	Presenter
10:00 – 10:05	Welcome and stakeholder process	Kristina Osborne
10:05 – 11:55	Stakeholder Comments and Changes to the Proposal	Danny Johnson
11:55 – 12:00	Decisional Designation and Next Steps	Kristina Osborne

Stakeholder Process



Since its draft final proposal, the CAISO has solicited stakeholder feedback in numerous venues

- A stakeholder call on October 12
- Stakeholder comments on the draft final proposal submitted to the CAISO on October 22
- An Market Surveillance Committee meeting on November 19 that provide a detailed analysis of the functioning of the real-time market and RSE on 7/9/21
- A stakeholder workshop on December 8 that focused on discussing the implications of the analysis presented on 7/9/21 RSE performance

STAKEHOLDER COMMENTS AND CHANGES TO THE PROPOSAL

The CAISO's market clearing process differently situates it as compared to other EIM participants

- The market optimization includes the hour-ahead scheduling process's optimization, which schedules and commits supply resources for the hour
 - Depending on the economics, it may use CAISO internal generation, imports at the CAISO interties, or EIM transfers to meet the CAISO's capacity and flexibility needs
- This necessitates different treatment for the CAISO in the:
 - Balancing test
 - Treatment of Interchange awards
 - Use of demand response
 - Use of load conformance

Stakeholders supported the CAISO's proposal to limit revenue allocation to entities that are exposed to balancing test

- CAISO understands stakeholder concerns on:
 - Resources in the CAISO balancing authority being re-dispatched as a result of out-of-balance EIM entity base schedules
 - The CAISO's potential to be under scheduled as a result of its market clearing process
- The balancing tests intent to align base schedules to forecasted demand is not targeted to the CAISO
- The current proposal to exclude any entity that is not subject to the test from revenue allocation derived from the test is still appropriate in light of these concerns

Stakeholders supported the CAISO's proposed changes to account for market constraint relaxations in the flexible ramp sufficiency test

- The flexible ramping sufficiency upward and downward requirements are calculated using as a reference, the real-time pre-dispatch interval results immediately prior to RSE's hour of evaluation
 - To the extent that the market solution contains a power balance constraint relaxation, that quantity may artificially bias the upward and downward requirements

The majority of stakeholders have supported the CAISO's proposal to discount, for the purpose of the RSE, import awards that do not have a transmission profile portion of an e-Tag submitted by T-40

- The CAISO is expanding this proposed provision to not count CAISO intertie schedules (imports and exports) that meet this criteria
 - Aligns with intertie deviation settlement rules
- CAISO also recognizes that the proposed timing of discounting the import awards does not provide the CAISO with a curing period for re-procurement of supply for purposes of passing the RSE
 - Even if this supply can be re-procured by the fifteen minute market or re-bid as a 15-minute imports, it would be inappropriate to count for the purposes of passing the RSE

Stakeholders supported the CAISO's proposal to classify some emergency actions as emblematic of resource insufficiency

- Stakeholders requested the CAISO consider additional actions beyond what was identified in the previous proposal
- The CAISO is proposing to add the practice of adjusting voltage schedules outside of nominal operating range for the purpose of reducing MW consumption, as an additional trigger

Stakeholders offered strong support for not counting offline resources, some stakeholders maintain the test should only count resources available to be started by the upcoming hour

- The CAISO proposes to discount in the RSE supply that was not able to be utilized by the real-time market
 - The real-time market with the longest horizon is STUC
 - The CAISO will initially count the bid max of the resources for the capacity test
- For resources that can only be started by STUC, the CAISO proposes to make configurable the amount of capacity that will be counted in the capacity test
 - A BPM provision will define guidelines to change counting from P_{max} to some lesser value

Stakeholders have raised concerns that the proposed penalties for demand response may create unwarranted risk due to forecast error when the under-scheduling test is being applied

- The CAISO is no longer proposing penalties that are explicitly targeted towards the use of demand response
 - Under-scheduling will continue to be applied per the current design, either following failures of the balancing test or the decision to use an EIM entity created forecast
- To the extent misuse of functionality is observed during normal monitoring, the CAISO will look to design more targeted demand response penalties as part of phase 2

Stakeholders in their comments believe the current calculation of intertie uncertainty is an inaccurate predictor of future uncertainty

- The CAISO proposes to remove the existing calculation of intertie uncertainty, and in phase 2 to stakeholder a design to capture intertie uncertainty
 - Analysis shows the current design using a 90 day look back and 95% confidence interval does not predict future uncertainty at a 95% level
 - The current process to exclude outlier data is not functioning as designed due to entity difficulties in replicating the calculation
 - Having coincident adders for net-load and intertie uncertainty at the 95% confidence level may over count total uncertainty

Stakeholders in their comments raised concerns with the CAISO's continued use of the histogram methodology to calculate net-load uncertainty in the capacity test

- The CAISO is proposing to remove this calculation under our current FERC authority
 - The increased frequency and magnitude of failures exceed what was expected
 - The potential replacement quantile regression methodology, or another measure of uncertainty is delayed until fall of 2022 at a minimum
- The CAISO will not revise the test to include uncertainty until the quantile regression methodology or another capacity test specific measure of uncertainty has stakeholder support as an accurate measure of uncertainty

Background on Load Conformance

- CAISO uses load conformance in HASP to ensure sufficient unloaded capacity. This may result in either:
 - Additional hourly imports or a decrease in hourly exports
 - Internal generation commitment or re-dispatch
 - EIM transfers
- EIM entities can more readily ensure they have committed sufficient internal generation or scheduled imports to the RSE. They also can more readily ensure they do not schedule bilateral exports that would prevent them from passing the RSE

Stakeholders in multiple venues reiterated their preference to include load conformance in phase 1 of the RSE

- The CAISO **disagrees** that its blanket use of load conformance should provide barrier to its ability to engage in EIM transfers
 - To the extent load conformance secures additional imports or commits additional generation, these outcomes should not raise its barrier to participate in the EIM as they are analogous to actions EIM entities take through their bilateral and base scheduling practices
- The CAISO **agrees** EIM transfers can unload internal BAA resources that aid in passing the flex ramp test
 - Additional analysis is needed to understand this correlation

Analysis has also highlighted that interactions between the RSE and the CAISO HASP process need to be addressed in concert with load conformance

- HASP may schedule exports at CAISO interties, which may go to both EIM and non-EIM balancing authority areas that count against the CAISO in the RSE
 - These exports can be backed by CAISO internal generation or access to EIM transfers
- The CAISO is also examining other market interactions that may drive EIM transfers

Decisional Designation

- CAISO staff believes that the EIM GB has joint authority with the Board of Governors over the tariff rule changes proposed in Phase 1
- The changes will be applicable to EIM balancing authority areas, EIM Entities, or other market participants within the EIM Entity balancing authority areas, in their capacity as participants in the EIM

Recent and upcoming schedule

Date	Milestone
Oct 6, 2021	Draft Final Proposal Posted
Oct 11, 2021	Draft Final Proposal Stakeholder Call
Oct 22, 2021	Draft Final Proposal Comments due
Dec 8, 2021	Stakeholder Workshop
Dec 16, 2021	Revised Draft Final Proposal Posted
Dec, 21 2022	Revised Draft Final Proposal Stakeholder Call
Jan 10, 2022	Revised Draft Final Proposal Stakeholder Comments Due
February 9, 2022	Joint Governance Meeting

Note: Tariff and BRS development expected in January/February 2022

Please submit written comments on the revised draft final proposal using the comments template linked on the initiative webpage by close of business January 10, 2022.

<https://stakeholdercenter.caiso.com/StakeholderInitiatives/EIM-resource-sufficiency-evaluation-enhancements>