



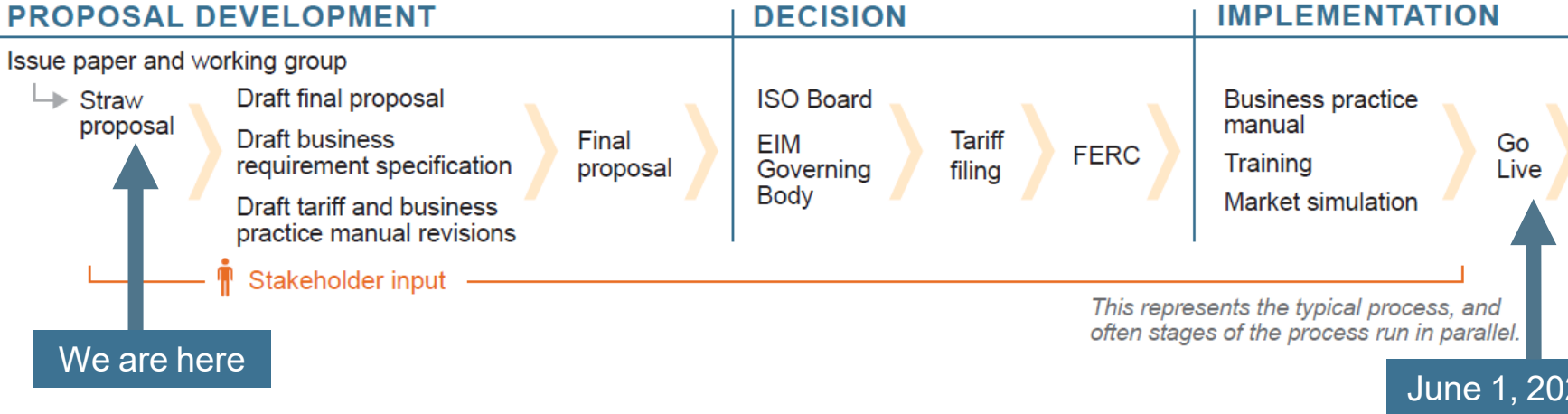
# WEIM Resource Sufficiency Evaluation Enhancements – Phase 2 - Straw Proposal

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July 11, 2022

# Agenda

Topic	Presenter
Welcome and stakeholder process	Isabella Nicosia
Evolution of the WEIM RSE	Danny Johnson
Proposal	Danny Johnson
EIM Classification and Next Steps	Isabella Nicosia

# Stakeholder Process



# EVOLUTION OF THE WEIM RESOURCE SUFFICIENCY EVALUATION

During 2021, the CAISO developed an initial set of RSE enhancements, specifically designed to increase the accuracy of the test

- Approved through Joint Governance in February 2022; implemented June 17, 2022
- The enhancements:
  - Revised counting rules for supply made available to the real-time market
  - Ensured the reference point used for flexible ramping sufficiency requirement calculation reflected actual operating conditions
  - Expanded framework for demand response participation
  - Suspended intertie uncertainty adder
  - Revised balancing test revenue allocation
  - Increase transparency relating to the WEIM RSE
- Additional accuracy enhancements were deferred to provide time for additional analysis

From March-to-June 2022 the CAISO conducted analysis on the impact to the WEIM RSE of load conformance, uncertainty and the effect of WEIM offers in clearing the HASP market

Analysis to support the policy development was responsive to stakeholder concerns and perspectives

- The CAISO published preliminary analysis on each element
- Held multiple stakeholder calls to receive feedback on the preliminary analysis
- Published final analysis on June 21, 2022 and held final stakeholder call on June 29, 2022

The CAISO also examined, with stakeholders, the potential to implement energy assistance through the WEIM prior to summer 2022

- Held 2 stakeholder workshops during the spring of 2022
- Examined proposal put forward by NVE; comments highlighted:
  - Significant support for concept
  - Additional development was necessary to work out the best implementation method, the allocation for assistance energy revenue and rulesets to prevent misuse of functionality
- The accelerated policy development of RSEE Phase 2 is in direct response to stakeholder desire to leverage the WEIM for energy assistance during the summer of 2023

# PROPOSAL



The CAISO is not proposing to include load conformance in the WEIM RSE test obligations for any BAA

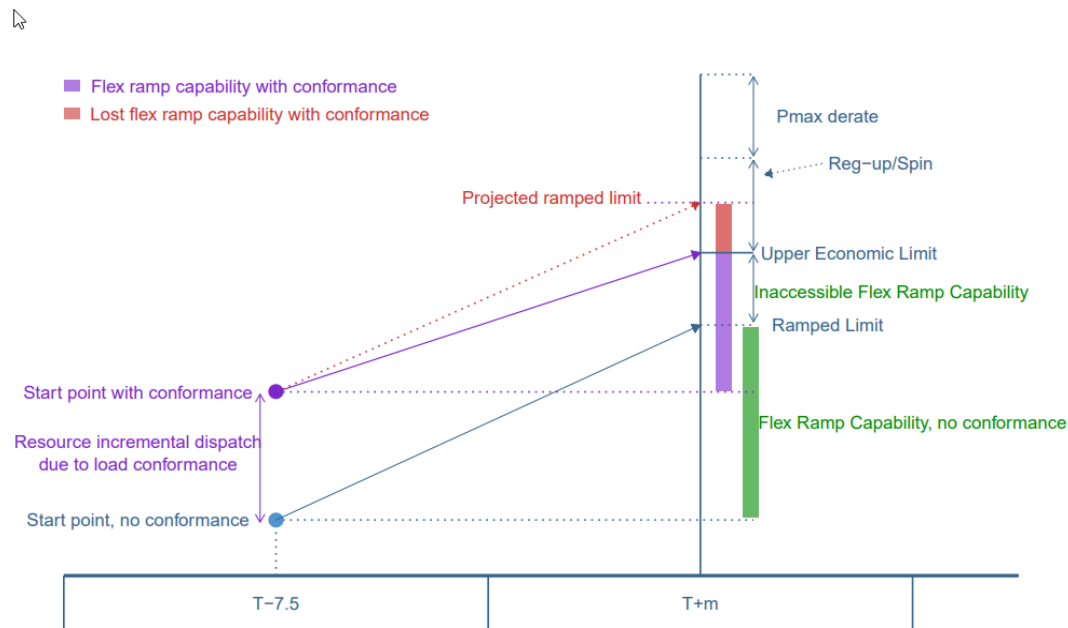
## Background

- By design load conformance cannot benefit any BAA in passing the capacity test; benefit can be achieved in the flexible ramping sufficiency test to the extent increased WEIM transfers unload resources internal to BAA that can be shown as upward flexibility
- No 1-to-1 relationship between load conformance and increased WEIM transfers. Conformance can also drive:
  - Increase output or additional commitment of resource internal to BAA
  - Increase in hourly import schedules
  - Decrease of hourly export schedules

# The CAISO is not proposing to include load conformance in the WEIM RSE test obligations for each BAA

## Reasoning

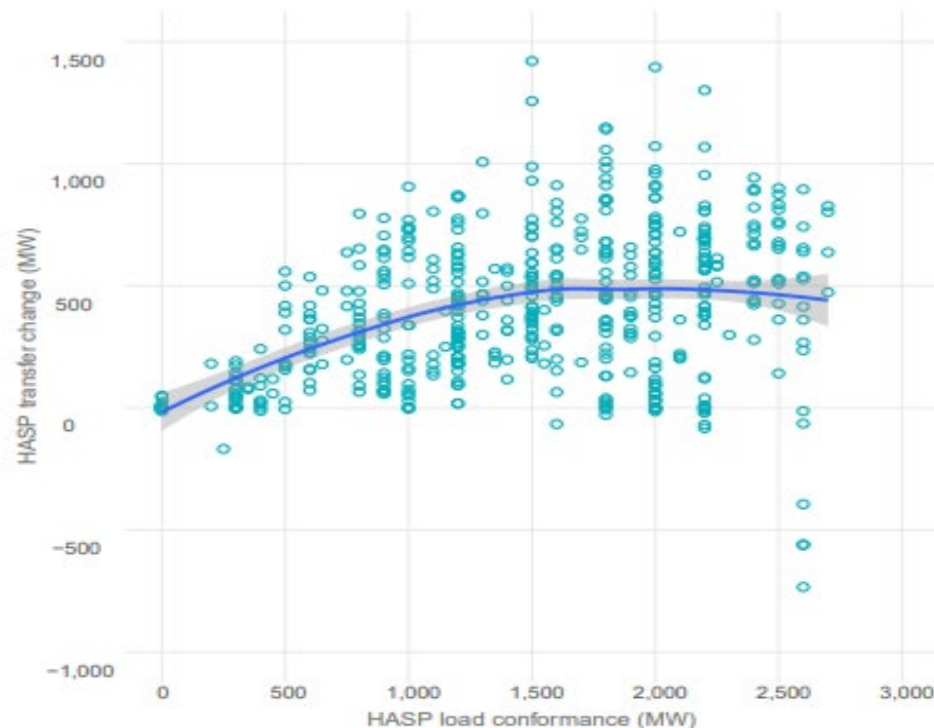
- Robust analysis shows that the CAISO BAA's use of load conformance routinely reduces its net flexibility in the flexible ramping sufficiency test through increasing internal resources schedule in excess of WEIM transfers



The CAISO is not proposing to include load conformance in the WEIM RSE test obligations for each BAA

## Reasoning

- Even if there was consensus to include the impact of load conformance, no accurate means to regularly estimate it exists



The CAISO is proposing to only account for a portion of the LPT exports the HASP process cleared from the CAISO BAA in its WEIM RSE obligations

Background:

- WEIM import offers, in combination with real-time self scheduled exports, result in the CAISO BAA clearing additional LPT HASP exports
  - Obligations are added to CAISO BAA RSE requirement
  - The WEIM advisory offers are not counted as CAISO BAA supply
- Analysis shows this interaction can result in hundreds to thousands of additional MW being included on CAISO BAA's RSE obligations
  - Reliability issues and need for LPT curtailment is exacerbated when the CAISO BAA is limited from accessing WEIM incremental imports following an WEIM RSE failure

The CAISO BAA is aligning its rules and WEIM RSE counting practices with those of other BAA's. Only firm transactions are represented in base schedules

Reasoning:

- Unreasonable for the CAISO BAA to fail the RSE due to LPT exports that it cannot be certain are supported by supply internal to the CASIO BAA; and would not be cleared if it meant risking CAISO BAA load or PT exports
- The CAISO has existing framework to prioritize its own load and PT exports over LPT exports
  - Load and PT exports have different market scheduling priorities, as defined by penalty prices in the CAISO tariff and BPM
- To the extent the CAISO BAA does not fail, it is reasonable to expect the all HASP exports to flow
  - The CAISO carries reserves for LPT exports

Should the CAISO discount LPT exports that would cause the CAISO BAA to fail the WEIM RSE; equal discount would be applied pro-rata to LPT supply shown on WEIM base schedules

- The CAISO BAA would look to support as many LPT exports in its WEIM RSE obligations as it reasonable believes can be sourced from its BAA
- If the CAISO BAA cannot guarantee that LPT exports can be supported, it is not reasonable a WEIM BAA should be able to count them as firm supply
  - Reflected in lower priority status
  - The CAISO could be in effect “firming up” the WEIM advisory supply

## The CAISO is proposing to tag all LPT exports as firm-provisional; clarifying their status as subordinate to CAISO BAA demand and PT exports

- All LPT exports are available for curtailment to the extent necessary for the CAISO BAA to support its load and PT exports
- Propose to differentiate priority between day-ahead and real-time LPT exports
- All LPT export curtailments would be done with CAISO BAA system operator supervision
  - Would strive to exclude from curtailment LPT exports to a BAA in an EEA2

The CAISO is proposing to test for uncertainty in the WEIM RSE; as calculated by the quantile regression methodology

Reasoning: Analysis shows that the quantile regression methodology represents an improvement in accuracy in predicting future uncertainty

- Primary improvement is driven by incorporating forecast data in addition to historical observations
- Would be implemented in flex-ramp test concurrent with FRP refinements (Fall 2022), and in capacity test with RSEE Phase 2 (June 1, 2023)
- CAISO requests stakeholder feedback on the WEIM RSE testing against the 95% confidence for the uncertainty requirement
  - Existing confidence interval is based upon FRP procurement target



# The CAISO is proposing to permanently remove the adder for intertie uncertainty

Reasoning: Analysis shows the current methodology for estimating intertie uncertainty is sub-optimal and that no obvious external conditions that correlate to increased intertie uncertainty can be used to inform requirement

- All interchange transactions shown for the WEIM RSE are similarly situated
  - RSEE Phase 1 enhancement that discounts, from the CAISO BAA's RSEE supply, any intertie transactions that don't have a transmission profile e-tag by T-40, better aligns it with bilateral practices

The CAISO is proposing to modify the consequences of failing the WEIM RSE to provide the opportunity to cure over and undersupply conditions through the WEIM

### Background:

- During the February 2022 Joint Governance meeting, multiple CAISO Board and EIM GB members expressed support for leveraging the WEIM to provide emergency assistance
- CAISO previously investigated adding this functionality for the summer of 2022; but determined additional policy development was necessary

The CAISO proposes to cure undersupply conditions through a hurdle rate for incremental transactions set at the bid cap

- Leverages an existing constraint that ensures a BAA can not export itself into a capacity deficiency
- Optional for a BAA; functionality identified in masterfile
- Ensuring transactions occur at the bid-cap makes costs comparable to emergency energy assistance
- To prevent misuse, the CAISO is open to additional administrative penalties, but seeks stakeholder input in developing proper incentives
  - The CAISO proposes to use the new hurdle rate framework to replace limiting transfers as an administrative penalty

# The CAISO proposes a new type of revenue called assistance energy

- Propose to calculate assistance energy separately as additional component of LMP congestion
  - Would be determined using relevant shift factors onto BAA interties for deficiency amounts
  - Similar to “transmission revenue” currently being discussed in EDAM
- Two options to allocate revenue
  - Pro-rata to net WEIM exporters
  - Pro-rata based on residual supply calculated in WEIM RSE
- CAISO BAA would default to cure insufficiency through the WEIM
  - Increased reliability and comparable pricing to bilateral emergency energy assistance

## The CAISO is also proposing to utilize the WEIM to cure oversupply conditions

- When a BAA is an oversupply condition, exports may be limited through a failure of the flexible ramping sufficiency down test
- Propose a hurdle rate set at \$0 to relax export transfer limitation
  - Benefits oversupply BAA through reduction to negative prices
  - Benefits remainder of footprint through access to low cost supply
  - Reduces unnecessary curtailment of low carbon resources
- Should consideration be given to relaxing import limitations to provide additional off-takers for oversupply energy?

# NEXT STEPS

# EIM Decisional Classification

- The CAISO is proposing Joint Authority for all elements of the proposal with the exception of the changes to the lower priority export tagging rules
  - The proposed LPT tagging would change the rules about how to tag exports from the CAISO balancing authority area, and are not applicable to WEIM participants in their capacity as WEIM participants
  - The CASIO views the proposed changes to the tagging rules as severable for the remainder of the proposal

# Schedule

Date	Milestone
July 11, 2022	Stakeholder Call for Straw Proposal
July 25, 2022	Comments Due on the Straw Proposal
August 16, 2022	Publish Draft Final Proposal
August, 23, 2022	Stakeholder Call for Draft Final Proposal
September 26, 2022	Publish Final Proposal
August / September 2022	Development of Draft Tariff Language and BRS
October 26, 2022	Decision at Joint Governance Meeting
June 1, 2023	Implementation

*\*Dates are tentative until confirmed through a notice in the ISO's Daily Briefing*



# Comments

- All related information for the WEIM RSEE Phase 2 initiative is available at:  
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/EIM-resource-sufficiency-evaluation-enhancements>
- Please submit stakeholder written comments on today's discussion and the WEIM RSEE Phase 2 straw proposal by July 25, 2022, through the ISO's commenting tool
  - The commenting tool is located on the Stakeholder Initiatives landing page (click on the “commenting tool” icon):  
<https://stakeholdercenter.caiso.com/StakeholderInitiatives>



- The ISO is pleased to be hosting the Stakeholder Symposium in-person at the Safe Credit Union Convention Center in downtown Sacramento on Nov. 9 – 10, 2022
- Registration now on the Stakeholder Symposium page at: <https://californiaiso.swoogo.com/2022StakeholderSymposium>
- Please direct questions to [symposiumreg@caiso.com](mailto:symposiumreg@caiso.com)