



Extended Day-Ahead Market Working Group 1: *Supply Commitment and Resource Sufficiency Evaluation*

Resource Sufficiency Evaluation details

Facilitator: Mark Richardson

Scribe: Bob Kott

March 9th, 2022

Meeting Cadence: Mondays and Wednesdays, 1 – 3 p.m.

Agenda:

Time:	Topic:	Presenter:
1:00 – 1:05	Welcome/introductions	Kristina Osborne
1:05 – 1:50	Start discussion on Confidence in EDAM Transfers	ISO Team
1:50 – 2:50	Examples of Transfer scenarios	Bobby Olsen
2:50 – 2:55	Recap of Discussion	Bob Kott
2:55 – 3:00	Upcoming topics	Mark Richardson

Reminders:

- These collaborative working groups are intended to foster open dialogue and sharing of ideas and perspectives
- Please raise your hand if you have a question or comment at any time during the meeting and the facilitator will call on you
 - Please start by stating your name and affiliation
- Meetings are recorded and video files posted on corresponding working group webpages
- Please submit EDAM working group inquiries using the link located on the resources slide at the end of this presentation



California ISO

Confidence in EDAM Transfers

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Confidence in EDAM Transfers

- Through the extension of the day ahead market, participating entities will be relying on EDAM transfers reliably serve load.
 - Portion of EDAM optimization benefits is avoiding commitment of generating units to serve load.
 - Confidence in transfer impacts ability to realize resource commitment benefits
- High confidence in EDAM transfers incentivizes participation, maximizing efficiency and derivation of mutual benefits across the EDAM footprint.
- A robust sufficiency test and day ahead market design helps ensure load and uncertainty are covered to enable firm energy transfers.

Key Considerations Throughout Discussion

- What is the level of confidence of the receiving EDAM BAA in transfers clearing the DA market, that these will continue to be supported under stressed conditions?
- How is supply secured to serve native load used in concert with EDAM market transfers?
- If there is common ground on ensuring that EDAM transfers are high confidence, what is the interplay with components of the DA market design to ensure this high confidence?

Ensuring transfers are reliable is a prerequisite for EDAM benefits to be realized – Day Ahead

- In the Day-Ahead the design will
 - IFM procures imbalance reserves to cover the 95th percentile of uncertainty
 - RUC procures reliability capacity to cover the difference between physical supply clearing IFM and the demand forecast
 - Imbalance reserves and reliability capacity have a must-offer obligation in WEIM
 - All EDAM BAAs pass the EDAM RSE and the WEIM RSE

Ensuring transfers are reliable is a prerequisite for EDAM benefits to be realized – Real Time

- In WEIM the design will serve to
 - Contingency reserves are deployed to cover outages
 - Uncertainty materializes beyond the 95th percentile coincidentally in all EIM BAAs (highly improbable)
 - All reliability capacity, imbalance reserves, and new supply bids are dispatched and all transfers are re-optimized
 - WEIM needs to relax the power balance constraint prompting Operator actions for emergency conditions

SRP Examples

DAME enhancements account for the majority of uncertainty that can materialize between day-ahead and real-time

- Day-ahead market enhancements (IRU) ensures supply sufficiency can meet upward uncertainty to a 97.5 confidence level
 - What is the risk associated with 2.5% uncertainty materializing with no additional supply materializing in RT? Materializing coincidentally across the EDAM footprint?
 - Uncertainty relating to hydro forecast is not a component of the uncertainty calculation
 - No accounting for uncertainty relating to generation outages
- What is the impact of the CAISO's proposal to procure imbalance reserves through graduated penalty prices?

How/whether to account for diversity benefit within the EDAM footprint

- Should imbalance reserve procurement be adjusted?
 - How is this translated to the WEIM?
- Could it be accounted for through testing the EDAM BAA footprint as a whole in WEIM RSE for resource sufficiency?
 - To the extent upward uncertainty beyond the 97.5th percentile does not occur simultaneously, residual capacity can be used to address other types of uncertainty that can arise (outage and hydro)

Are there additional opportunities to leverage EDAM to increase reliability going into real-time

- Should prioritization be given to EDAM transfers over exports to non-EDAM BAA cleared from the EDAM (not backed by specific pre-identified resources)?
 - This would be an extension of the CAISO LPT framework. This can help address uncertainty that can arise between day-ahead and real-time.
- What are the rules for occurrence of non-credible contingencies between day-ahead and real-time (N-1-2, N-3, etc...) due to events such as fires?

Check In

- Continue discussion on Failure Consequences
- Start discussion on Certainty and Confidence of EDAM Transfers
- Walk-through examples
- Next Steps
 - Continue discussion on Certainty and Confidence of EDAM Transfers

Questions?

EDAM Resources

- List of [*Common EDAM design principles and concepts*](#)
- Initiative and working webpages:
 - EDAM initiative webpage:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>
 - Working Group 1 webpage:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-Day-Ahead-Market-Working-Group-1-Supply-Commitment-Resource-Sufficiency-Evaluation>
 - The working group webpages include meeting materials, initial scope items, and weekly summary reports
- Please submit EDAM WG inquiries and/or requests to present at <https://www.surveymonkey.com/r/EDAMWG-Inquiries>
 - Presentations due 5 business days prior to the meeting where they are scheduled to present, if time allows
- [Register](#) for working groups to help the ISO gauge interest and facilitate communication throughout process.
- Nov 30, 2021 Day-Ahead Market Overview Training: <https://youtu.be/lbXRsfVbCg>