



Extended Day-Ahead Market Working Group 2: *Transmission Commitment and Congestion Rent Allocation*

Facilitator: Deb Le Vine

Scribe: Emily Hughes

March 1, 2022

Meeting Cadence: Tuesdays and Thursdays, 9 – 11 a.m.

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
- Stakeholders are welcome to present perspectives at these meetings
 - Please submit a request to present using the link located on the EDAM Resources slide at the end of this presentation

Agenda:

Time:	Topic:	Presenter:
9:00 - 9:05	Welcome/introductions	Kristina Osborne
9:05 - 9:10	Kick-off meeting	Deb Le Vine
9:10 – 10:55	CAISO Transmission in EDAM	Milos Bosanac
10:55 - 11:00	Upcoming topics	Deb Le Vine



EDAM Working Group 2

Presentation: CAISO Transmission in EDAM

3.1.2022

Topics Covered Today

- Brief recap of transmission framework supporting EDAM transfers
- Revisiting Bucket 1
- CAISO transmission supporting EDAM transfers



Key Concepts to Consider

- Maximizing transmission availability for EDAM transfers
- Treatment of firm energy contracts used for RSE in context of Bucket 1
- Potential “reciprocity” in hurdle free transmission to support robust EDAM transfers





California ISO

Recap – Transmission Supporting EDAM Transfers

ISO PUBLIC

COPYRIGHT © 2022 by California ISO. All Rights Reserved

Role of transmission across EDAM Entity interfaces

- Through the extension of the day ahead market, generation commitment is optimized to derive benefits.
- Absent transfers between EDAM BAAs, only generation internal to the BAA is optimized to derive benefits.
- Transmission availability at EDAM BAA interfaces allows for optimized generation commitment across EDAM BAAs to derive mutual benefits through EDAM transfers.
- The EDAM should look to maximize transmission availability to increase EDAM transfers and derive mutual benefits.

Transmission “Buckets” Framework – EDAM Transfers

Bucket 1

- Supports delivery of resource sufficiency capacity across EDAM BAA interfaces
- Eligible for congestion rents
- Firm, Conditional Firm (PTP and NITS)

Bucket 2

- Voluntarily made available to market by transmission right holders
- Eligible for congestion rents
- Firm, Conditional Firm (PTP)

Note: introduced consideration of “unscheduled PTP” availability in Bucket 2.

Bucket 3

- Unsold, unreserved, Firm, Conditional Firm, or “otherwise highly reliable” ATC
- Made available by Transmission Provider
- Subject to OATT usage rate.

Note: introduced consideration of potentially non-firm ATC.

High quality transmission supporting transfers supports reliability and dependability of transfers.



Revisiting Bucket 1 Transmission – Supporting Resource Sufficiency and EDAM Transfers

Delivered Firm Energy Contracts for Resource Sufficiency

- Firm energy contracts are a common arrangement across the west to serve load and fill gaps in resource portfolios across the year.
 - Example: WSPP Schedule C arrangements.
 - Characterized as highly reliable, dependable.
- Title to the power is taken at the interface of the sinking BAA.
- The transmission path or quality of transmission is not known by the start of the DA market (10am).

General qualities:

- Delivery point to system is consistent.
- Neither source nor transmission path known by time of DA market run at 10am.

Firm Energy Contracts & Bucket 1 Transmission

- Under the current construct and scope of Bucket 1, firm energy contracts used for the RSE may not be able to bring transmission to support the transfer.
 - Bucket 1 requires firm/conditional firm transmission across interfaces.
 - For delivered firm energy products, transmission quality may not be known until later in DA or in RT.
- Consideration of how to treat these arrangements for purposes of Bucket 1 transmission.

Potential Approach – Deemed Supported by Bucket 1

- Allow firm energy contracts to fit under current construct by being “deemed” as supported by Bucket 1 transmission.
 - Market recognizes there is transmission or will be transmission supporting transfer (regardless of ultimate quality), as these are highly reliable.
- Tradeoffs:
 - If self-scheduled, further limits Bucket 1 transmission for optimizing EDAM transfers, may reduce benefits.
 - Does the transmission quality of these delivered arrangements meet expectations of Bucket 1?



California ISO

CAISO Transmission in EDAM

ISO PUBLIC

COPYRIGHT © 2022 by California ISO. All Rights Reserved

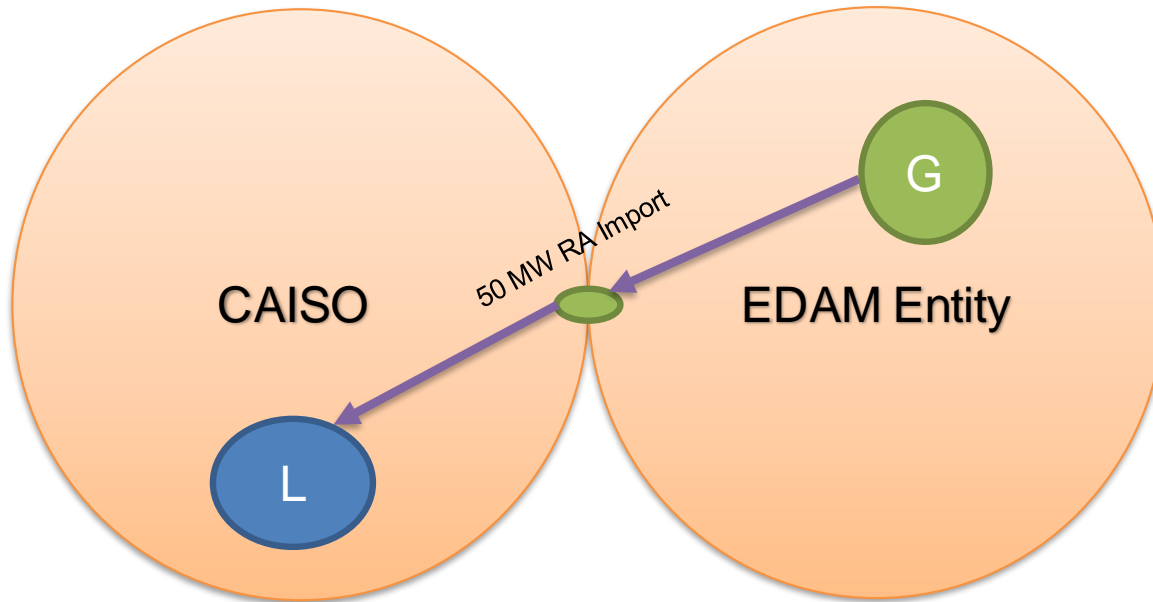
CAISO Transmission - Background

- The CAISO currently does not have a forward transmission reservation process for reserving transmission.
- Transmission capability at interfaces is utilized by the market to optimize resource commitment and dispatch relative to energy bid at the intertie.
- The cost of transmission is borne by CAISO load, across the entire BAA (akin to Network Customers under OATT).
- Exports from, and wheels through, the CAISO system pay a wheeling access charge for use of transmission.

CAISO Bucket 1 – Supporting Resource Sufficiency

- CAISO relies on imports, including resource adequacy imports, to reliably serve load and meet resource sufficiency.
- Imports into the CAISO, to meet resource sufficiency, bring with it transmission across the CAISO interface in the import direction that can support EDAM transfers.
- In the export direction, under the Bucket 1 approach transmission is made available to the extent EDAM entity relies on non-RA exports from the CAISO to meet its resource sufficiency.

RSE Imports to CAISO – Bucket 1 in import direction

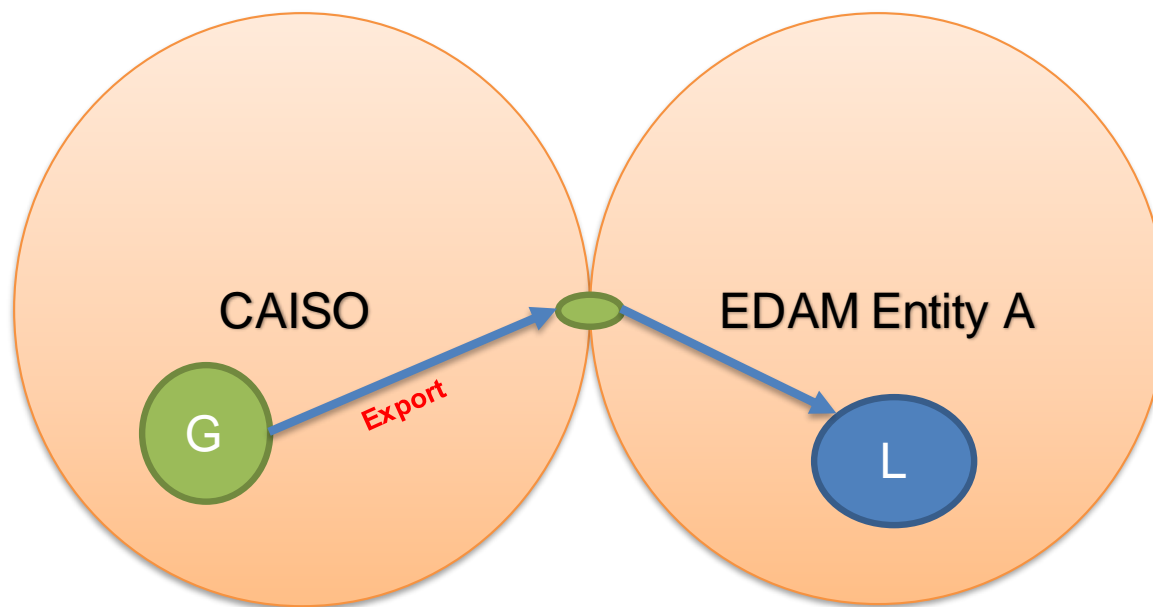


Key Question: Firm energy contracts, delivered to interface (title take at interface) do not know the quality of transmission by time of DA market.

What Bucket 1 transmission supports these arrangements?

- 50 MW import RA import into CAISO for resource sufficiency.
- Bucket 1 transmission consists of 50 MW across interface, in import direction.

RSE Exports from the CAISO

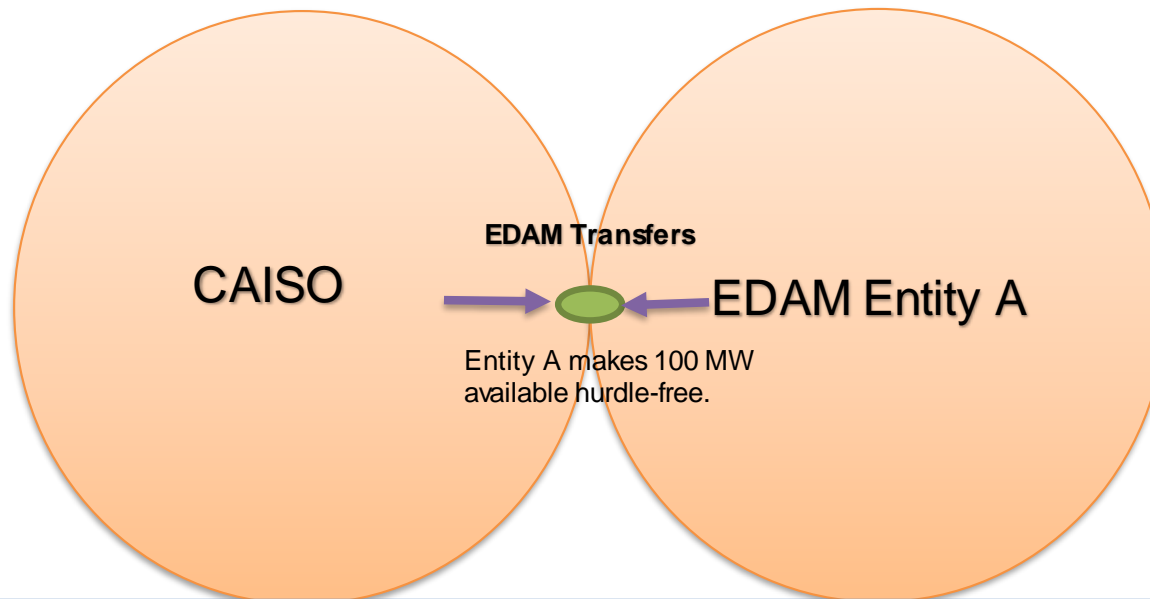


- EDAM entity A relies on exports of non-RA capacity from the CAISO to meet its resource sufficiency in DA.
- The challenge - how is transmission in export direction secured to support resource sufficiency and overall support hurdle free transfers?

Concept of Reciprocal Transmission – Bucket 1 and 2

- Hurdle-free transmission is important to support transfers between EDAM areas to unlock economic dispatch benefits.
- At interfaces with adjacent EDAM Entities, the CAISO could consider making available a “reciprocal” amount of transmission, hurdle free, to support transfers.
- The CAISO and EDAM entities derive benefits from these hurdle-free transfers, particularly in periods of excess renewable generation.
- Applying a hurdle to transmission supporting transfers would impede the benefits and ability to economically export clean energy from the CAISO.

Concept of Reciprocal, Hurdle Free, Transmission



- EDAM Entity A makes 100 MW available, hurdle-free, at the interface with the CAISO to support EDAM transfers.
- CAISO would match the 100 MW at the interface, hurdle free, in the export direction, to support transfers and derive mutual benefits.

CAISO Transmission Reservation Process

- The CAISO is currently undertaking the *Transmission Service & Market Scheduling Priorities* initiative.
- The initiative considers a limited forward transmission reservation process for wheels through the CAISO to establish scheduling priority.
- To the extent a reservation process is established, wheels through the CAISO could reserve and pay for transmission in advance that could, potentially, be considered Bucket 1 transmission supporting RSE.
- That initiative will continue to evaluate this framework and implication alongside other concepts in EDAM, but could further complement the “reciprocity” framework.

Bucket 3 Transmission

- Bucket 3 transmission is made available at a hurdle rate – the wheeling access charge (WAC) – to support EDAM transfers.
- Due to the hurdle rate, Bucket 3 transmission is utilized after the hurdle-free transmission is exhausted.
- Transmission at interfaces with CAISO is made available as Bucket 3 transmission, above the Bucket 1 and 2 hurdle-free transmission amounts.

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 2 webpage: <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-Day-Ahead-Market-Working-Group-2-Transmission-Commitment-Congestion-Revenue-Allocation>
 - 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>