



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

Facilitator: Deb Le Vine

Scribe: Emily Hughes

January 25, 2022

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

Agenda:

Time:	Topic:	Presenter:
9:00 - 9:05	Welcome/introductions	Jimmy Bishara
9:05 - 9:45	CAISO responses to questions	George Angelidis
9:45 - 10:55	Transmission availability – buckets	Deb Le Vine
10:55 - 11:00	Upcoming topics	Deb Le Vine

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



Transmission Products and Contracts in EDAM

George Angelidis, Ph.D.

Principal, Power Systems Technology Development

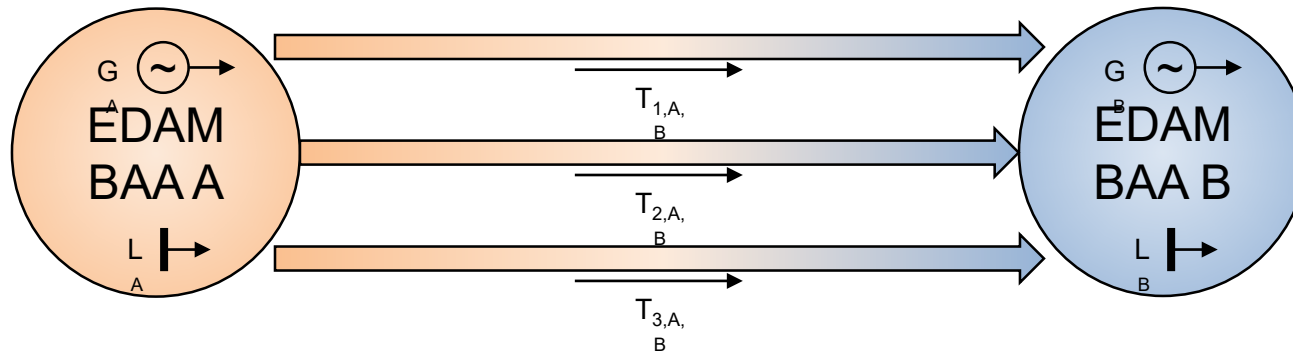
EDAM Working Group 2: Transmission Commitment and
Congestion Rent Allocation

Thursday, January 20, 2022

Overview

- How Transmission Products can be used in RSE, IFM, and RUC
- What is Transfer Revenue and how it is collected
- What happens to EDAM Schedules and Transfers in EIM
- How DAM/RTM currently supports Transmission Contracts in CISO
 - ◆ Physical Rights and/or
 - ◆ Financial Rights
- How Transmission Contracts can be supported in EDAM and EIM for EDAM and EIM BAAs

Transmission products used for different transfers

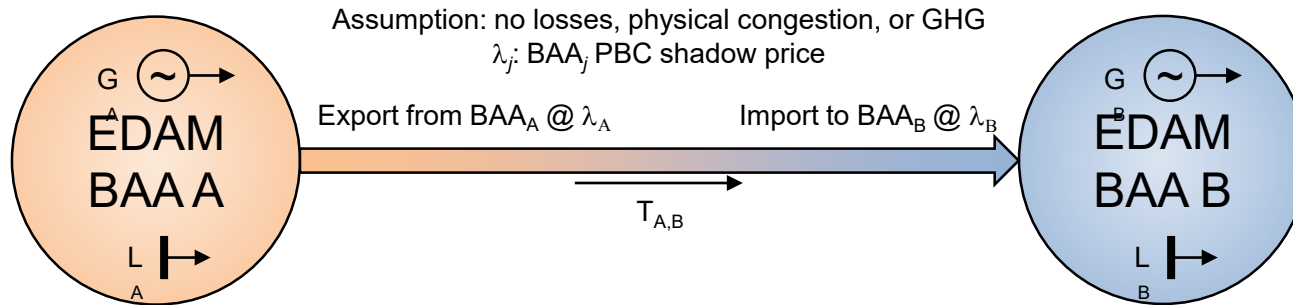


- Transfers registered in Master File:
 - ◆ From BAA, To BAA, Intertie, Type (Bucket 1/2/3)
 - ◆ Commodity (for Bucket 1) used in RSE
 - Energy, IRU, IRD, RU, RD, CR; (no need for RCU/RCD Bucket-1 Transfers)
 - ◆ Transmission Customer(s)/Owner(s) and ownership % (for transfer revenue allocation)
 - ◆ Transmission (Usage) Fee (for Bucket 3)
 - ◆ Option to use left-over transmission capacity in RUC
- Scheduling limits submitted as hourly transfer capacity bids (by 9am?)

How transfers can be used in EDAM

- Bucket-1 Transfer is used to transfer RSE requirement from target BAA to source BAA
 - Energy Transfer transfers demand forecast
 - IRU/IRD Transfer transfers IRU/IRD requirement (assuming DAME as base)
 - RU/RD/CR Transfer transfers RU/RD/CR requirement
- Bucket-1 and Bucket-2 Transfers are optimized in IFM at no cost
 - Excluding Bucket-1 RU/RD/CR Transfers in Phase-1 (AS co-optimization in Phase-2)
- Bucket-3 Transfers are optimized in IFM at the transmission fee
- Transfer revenue from Bucket-3 use or binding scheduling limits
- Left-over transfer capacity can be optionally used in RUC

Transfer revenue for transfers between EDAM BAAs



BAA A PBC: $G_A - L_A - T_{A,B} = 0 \quad \lambda_A$

■ Energy settlement for BAA A

- ◆ $-G_A \lambda_A$
- ◆ $L_A \lambda_A$
- ◆ $T_{A,B} \lambda_A$ (charge ETSR at BAAA)
- ◆ Neutral

BAA B PBC: $G_B - L_B + T_{A,B} = 0 \quad \lambda_B$

■ Energy settlement for BAA B

- ◆ $-G_B \lambda_B$
- ◆ $L_B \lambda_B$
- ◆ $-T_{A,B} \lambda_B$ (pay ETSR at BAA B)
- ◆ Neutral

- ◆ Transfer revenue to Transmission Customer(s)/Owner(s): $T_{A,B} (\lambda_B - \lambda_A)$

EDAM resource and transfer schedules in EIM

- Resource EDAM schedules roll over to EIM as base schedules
 - Automatic for EDAM BAAs; no need to submit in EIM
- EDAM transfers roll over to EIM as day-ahead transfers
 - They can be optionally re-optimized or treated like base transfers
 - Additional transfer capacity can be released in EIM for dynamic transfers
 - Possibly in the counter flow direction of day-ahead transfers
 - Using existing rights-holder or ATC method
 - Single existing transmission product in EIM (akin to Bucket-2)
- EIM settlement for imbalance energy deviations from base schedules, day-ahead transfers (EDAM BAAs), and base transfers (EIM BAAs)
 - Adopt EDAM transfer settlement or continue using existing settlement

Transmission contract (TC) registration

- Master File registration
 - Source (supply or import)/sink (load or export) resources, Scheduling Coordinator(s), and associated resource capacity
 - Requires specific load resources (custom LAP with custom LMP)
 - Contract path (schedule not physical flow)
 - Point-to-Point (nor necessarily the TC source/sinks) Transmission or a flowgate
 - May be shared by multiple transmission contracts
 - May include intertie(s); requires specific Bucket-1/2/3 Transfers
 - Type
 - Physical right (higher scheduling priority)
 - Financial right (congestion and/or transmission loss cost refund)
 - Entitlement (total capacity on contract path)
 - Expiration (DAM, HASP, or T-20)

Transmission contract validation

- Exercise a transmission contract submitting TC (TOR/ETC) self-schedules associated with that TC
- TC self-schedule validation
 - Resource (source or sink) is registered under the TC
 - TC self-schedule does not exceed the registered resource TC capacity
 - TC is balanced (total source equals total sink)
 - Load meters are used for load sinks in RTM
 - TC is within its entitlement (total source does not exceed TC entitlement)
 - TC has not expired (RTM)

Options for transmission contracts

- Exercise the TC by self-scheduling on it
 - If the contract path includes a transfer, release the associated Bucket-1 Transfer capacity (submit a scheduling limit to accommodate the TC use)
 - Transfer revenue offsets schedule cost
- Not exercise the TC by submitting economic bids
 - If the contract path includes a transfer, release the associated Bucket-2/3 Transfer capacity (submit a scheduling limit to accommodate the bid)
- Not exercise the TC and not submitting bids or self-schedules
 - If the contract path includes a transfer, release Bucket-2/3 Transfer capacity or reserve for release/use in EIM
 - Internal BAA transmission cannot currently be reserved, but TC is still honored in EIM while other resources are dispatched to accommodate its use

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>