



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

Facilitator: Deb Le Vine

Scribe: Emily Hughes

January 20, 2022

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

# Agenda:

| <b>Time:</b>  | <b>Topic:</b>                       | <b>Presenter:</b> |
|---------------|-------------------------------------|-------------------|
| 9:00 - 9:05   | Welcome/introductions               | Jimmy Bishara     |
| 9:05 - 9:10   | Draft scope topic timeline          | Deb Le Vine       |
| 9:10 - 10:15  | CAISO presentation                  | George Angelidis  |
| 10:15 - 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

# Scope Topic Timeline – Revision

| Estimated Meeting Date | Topic   |
|------------------------|---|
| Jan 4                  | WG introduction – review principles, scope and agree on order of topics   |
| Jan 6                  | Transmission Availability – EIM background and discussion of buckets  |
| Jan 11 - 27            | Transmission Availability – Continue discussion, allow for WG participants to present their preferred options, discuss potential compromise positions and complete design objectives  |
| Feb 1 - 3              | Timing and Duration – Introduce options, allow for WG participants to present their preferred options, discuss potential compromise positions and complete design objectives          |
| Feb 8 - 10             | Transmission Unavailability – Introduce options, allow for stakeholders to present their preferred options, discuss potential compromise positions and complete design objectives     |
| Feb 15 - 22            | Compensation – Introduce options, allow for stakeholders to present their preferred options, discuss potential compromise positions and complete design objectives                    |
| Feb 24 – Mar 3         | Congestion Rent Allocation – Introduce options, allow for stakeholders to present their preferred options, discuss potential compromise positions and complete design objectives      |
| Mar 8 - 10             | External Resource Participation – Introduce options, allow for stakeholders to present their preferred options, discuss potential compromise positions and complete design objectives |
| Mar 15 -22             | Slack meetings for additional scope items, cleanup, etc.  |
| Mar 24                 | Final meeting and working group report published  |



# Transmission Products and Contracts in EDAM

George Angelidis, Ph.D.

Principal, Power Systems Technology Development

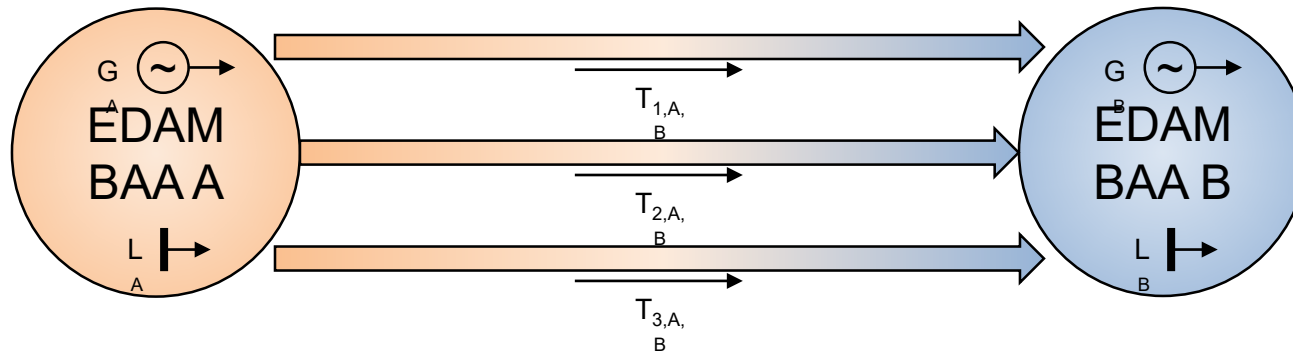
EDAM Working Group 2: Transmission Commitment and  
Congestion Rent Allocation

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



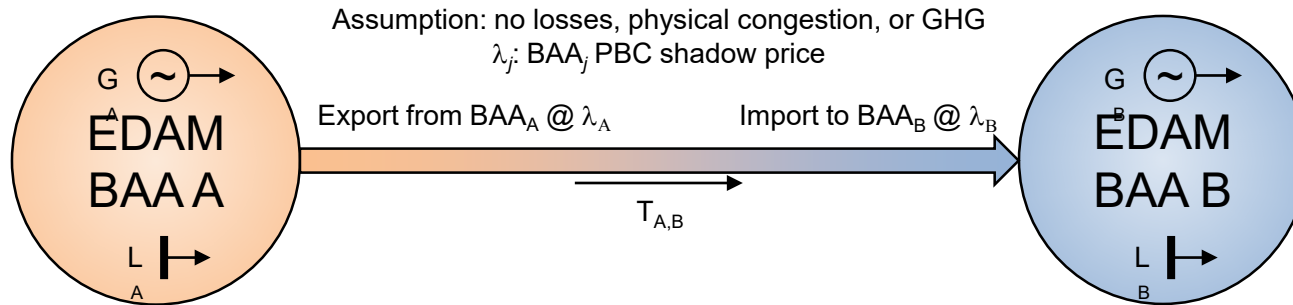
- Transfers registered in Master File:
  - ◆ From BAA, To BAA, Intertie, Type (Bucket 1/2/3)
  - ◆ Commodity (for Bucket 1) used in RSE
    - Energy, IRU, IRD, RU, RD, CR; (no need for RCU/RCD Bucket-1 Transfers)
  - ◆ Transmission Customer(s)/Owner(s) and ownership % (for transfer revenue allocation)
  - ◆ 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 (not 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>