




Extended Day-Ahead Market ISO Balancing Authority Area Participation Rules

Stakeholder Meeting: Track A1 Draft Final Proposal
August 2, 2023

Reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- If you need technical assistance during the meeting, please send a chat to the event producer.

Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the bottom of your screen.

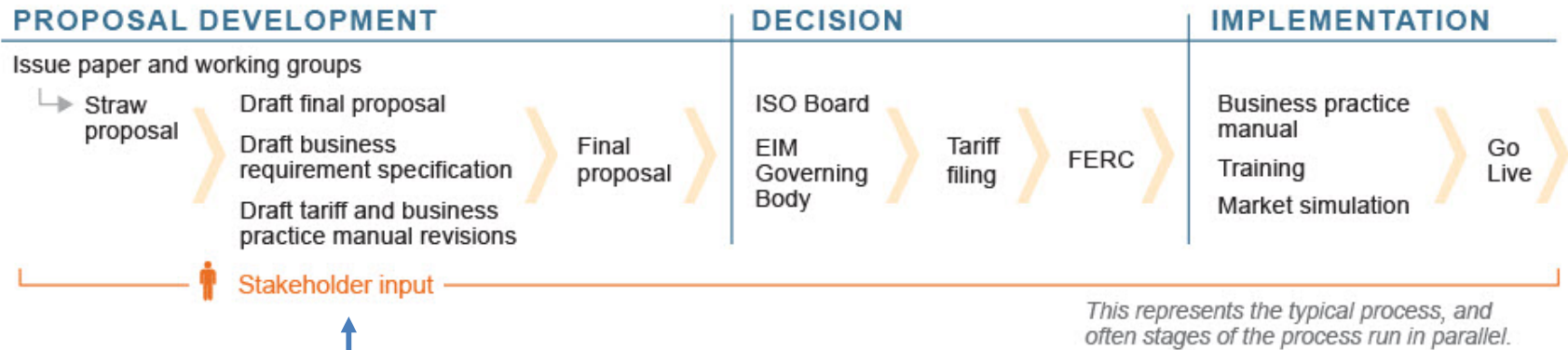
Note: #2 only works if you dialed into the meeting.

- Please remember to state your name and affiliation before making your comment.
- You may also send your question via chat to either Isabella Nicosia or to all panelists.

Today's agenda

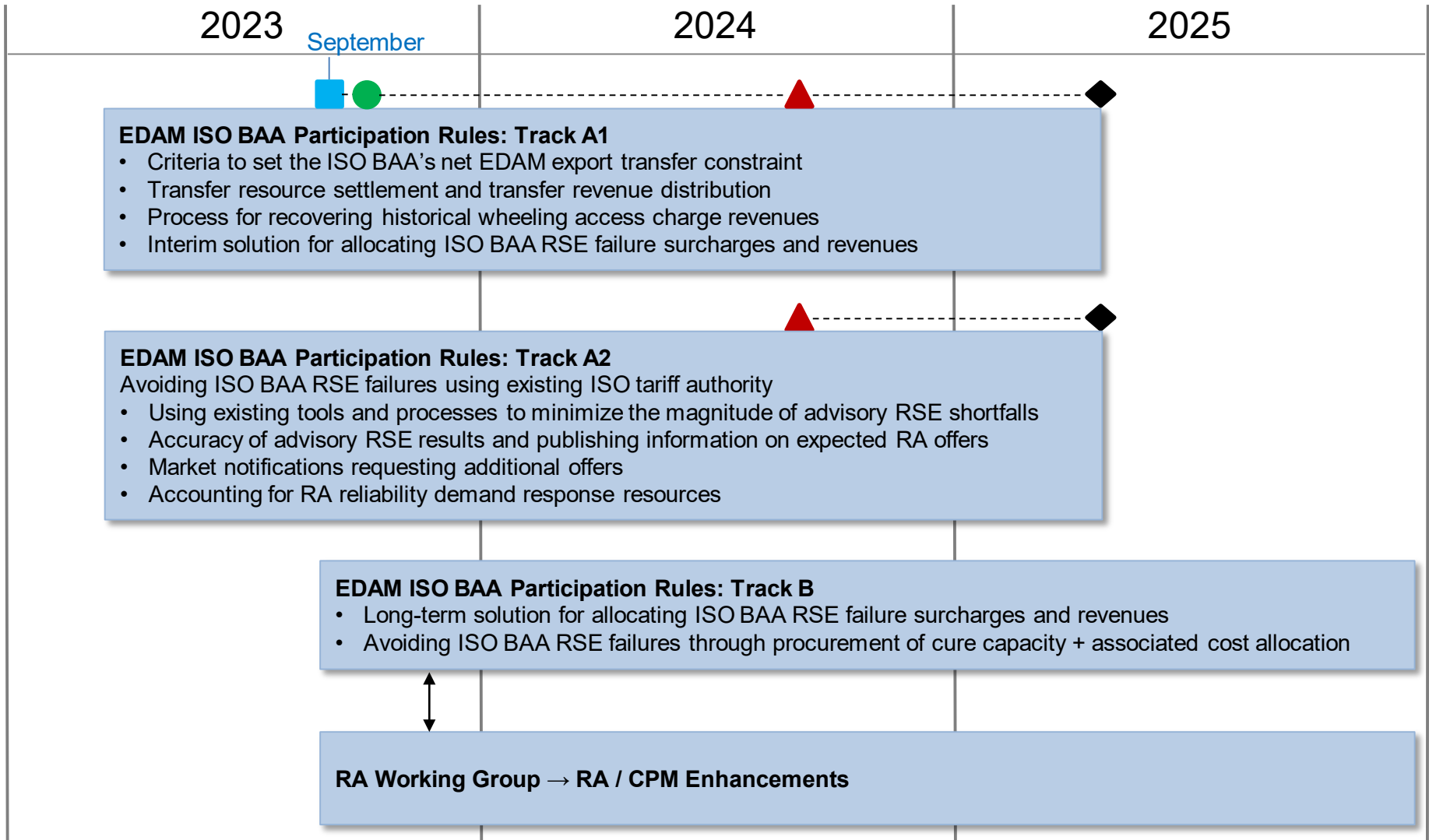
Time	Topic	Presenters
9:00am – 9:05am	Welcome + today's agenda	Isabella Nicosia
9:05am – 9:15am	Initiative schedule and upcoming tracks	CB Hall
9:15am – 10:10am	Criteria to set the ISO BAA's Net EDAM Export Transfer Constraint	CB Hall Danny Johnson Michael Martin
10:10am – 11:00am	Transfer resource settlement and transfer revenue distribution	James Lynn
11:00am – 11:30am	<i>Break</i>	
11:30am – 12:10pm	Process for recovering historical wheeling access charge revenues	James Lynn
12:10pm – 12:55pm	Interim solution for allocating RSE failure surcharges and revenues	CB Hall James Lynn
12:55pm – 1:00pm	Wrap-up + next steps	Isabella Nicosia

CAISO Policy Initiative Stakeholder Process



We are here for Track A1

Initiative Schedule and Upcoming Tracks



EDAM ISO BAA Participation Rules: Track A1

- Criteria to set the ISO BAA's net EDAM export transfer constraint
- Transfer resource settlement and transfer revenue distribution
- Process for recovering historical wheeling access charge revenues
- Interim solution for allocating ISO BAA RSE failure surcharges and revenues

EDAM ISO BAA Participation Rules: Track A2

Avoiding ISO BAA RSE failures using existing ISO tariff authority

- Using existing tools and processes to minimize the magnitude of advisory RSE shortfalls
- Accuracy of advisory RSE results and publishing information on expected RA offers
- Market notifications requesting additional offers
- Accounting for RA reliability demand response resources

EDAM ISO BAA Participation Rules: Track B

- Long-term solution for allocating ISO BAA RSE failure surcharges and revenues
- Avoiding ISO BAA RSE failures through procurement of cure capacity + associated cost allocation

RA Working Group → RA / CPM Enhancements

 Board of Governors

 FERC filing

 Begin testing

 Go-live

Initiative Schedule

Date*	Milestone
8/2	Stakeholder meeting on A1 draft final proposal
8/14	Due date for stakeholder comments on A1 draft final proposal
8/25	Publish A1 final proposal and A1 draft tariff language
8/31	Stakeholder call: A1 final proposal + A1 draft tariff language
9/14	Due date for stakeholder comments on A1 draft tariff language
9/21	Board of Governors decision on Track A1
Q4	Track A1: FERC filing (if approved by ISO Board in September) Track A2: begin detailed stakeholder discussions in October Track B: begin detailed stakeholder discussions in October

**All dates are tentative until confirmed through a notice in the ISO's Daily Briefing.*

Criteria to Set the ISO BAA's Net EDAM Export Transfer Constraint

Criteria to Set the ISO BAA's Net EDAM Export Transfer Constraint

Constraint Formula

Net EDAM Export Transfer Constraint =

RSE Eligible Supply + (Non RSE Eligible Supply x Confidence Factor) –
RSE Obligation – Reliability Margin

Where the net EDAM export transfer constraint:

- Must be \geq shown bucket 1 transfers out of the BAA
- Cannot be a negative number

ISO BAA Proposal

- Constraint always turned on
- Distinction between “stressed hours” and “non-stressed hours” applied to both the confidence factor and reliability margin
- All other details memorialized in BPM (see the following slides)

*Change from
straw proposal*

Criteria to Set the ISO BAA's Net EDAM Export Transfer Constraint

ISO BAA Proposed Details for BPM: definition of stressed hours

Change from straw proposal

Any hour that meets one of the following conditions, as of approximately 8am day-ahead ISO BAA operations meeting:

- Net-load peak hours, defined as 4pm-9pm*
- Operational RA capacity + RA credits < demand forecast + contingency reserve requirement + regulation reserve.
- Operational net RA capacity + RA credits < net demand forecast + contingency reserve requirement + regulation reserve
- Advisory RSE upward failure quantity – expected day-ahead offers not yet submitted by available RA resources with day-ahead must offer obligations > 0
- Restricted Maintenance Operations
- Wide-area Transmission Emergency
- D+2 RUC infeasibility
- EEA Watch, if called before 8am day-ahead
- Flex Alert, if called before 8am day-ahead

**Net-load peak hours automatic triggering of stressed conditions will be applied on a seasonal basis. Additional details will be defined through the BPM process.*

Criteria to Set the ISO BAA's Net EDAM Export Transfer Constraint

ISO BAA Proposed Details for BPM: stressed hour details

Confidence factor: 0% ← *Change from straw proposal*

Reliability margin:

Hourly default values calculated by taking, at a minimum, the max of the three criteria listed below. Consistent with good utility practice, operations will determine the final reliability margins at the 8am day-ahead operations meeting.

1. Replacement reserves based on forecasted most severe single contingency
2. Protection for a non-credible contingency*
3. Imbalance reserve up requirement ← *Change from straw proposal*

**Non-credible contingencies can be based on weather conditions (fires) or potential impacts to fuel availability (gas operational flow order /curtailments can lead to a reduction in generation capacity that significantly exceeds the most severe single contingency that is protected)*

Criteria to Set the ISO BAA's Net EDAM Export Transfer Constraint

ISO BAA Proposed Details for BPM: non-stressed hour details

Change from straw proposal

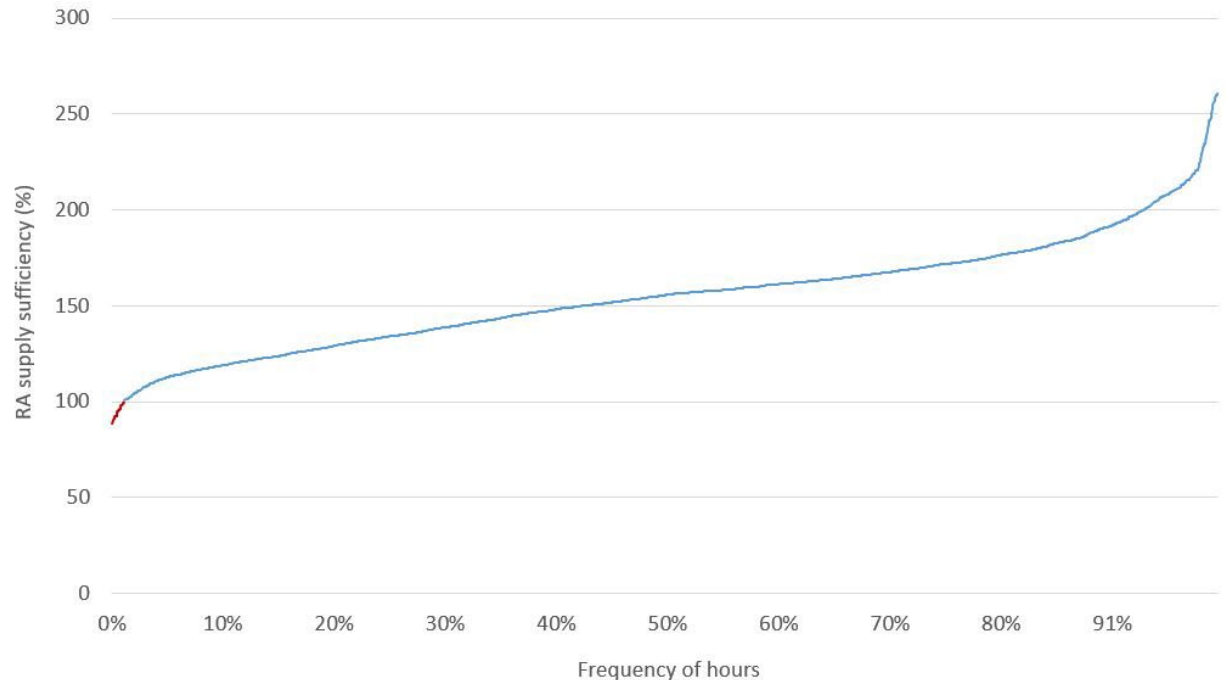
Confidence factor: 0% (a positive confidence factor may be appropriate and supported by stakeholders in the future, after the CAISO gains experience in EDAM*)

Reliability margin:

CAISO BAA
system operator
discretion

Change from straw proposal

Frequency of RA supply sufficiency (July through Sep 2022)



*The ISO will utilize the BPM for any revisions to the confidence factor during non-stressed conditions

Transfer Resource Settlement and Transfer Revenue Distribution

Transfer Settlement Fundamentals

- IFM co-optimizes transmission for energy and imbalance reserve transfers while RUC optimize transmission for reliability capacity transfers.
- Transfer Resource Settlement:
 - Energy transfer schedules will settle at marginal IFM MCC + IFM MCL
 - Imbalance reserve transfer schedules settle at IRU / IRD Price
 - Reliability capacity transfer schedules settle at RCU / RCD Price
- Congestion revenue is generated when BAA internal intertie scheduling constraint binds or BAA physical flow constraint binds
- Transfer revenue is generated when BAA net transfer scheduling constraints binds
 - Calculated based the marginal price differences between source and sink BAAs

Transfer resource settlement sub-allocation

- Pathway 1 and 3 transmission transfer schedules settle directly with the transmission customer
- Transfer schedules awarded on all other transmission settles with the BAA
 - EDAM BAA net transfer schedule settlement is allocated to EDAM Entity for further sub-allocation
 - ISO staff proposes to sub-allocate the ISO BAA net transfer schedule settlement to ISO BAA metered demand

Transfer Revenue Distribution and Sub-allocation

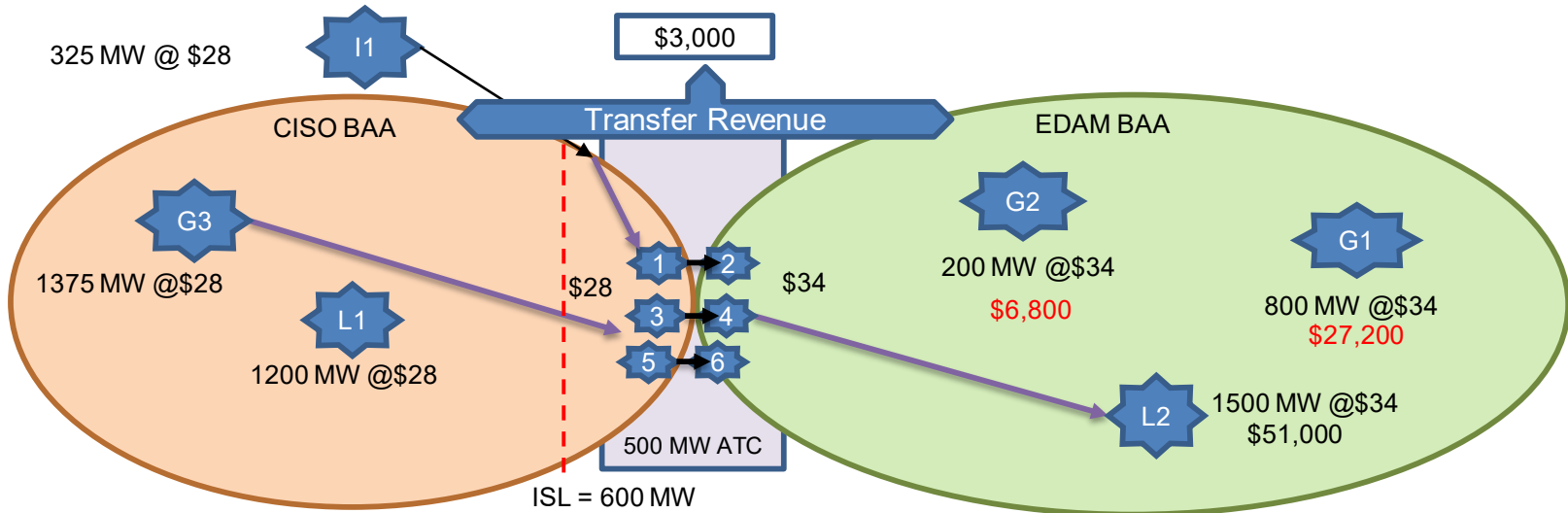
Congestion revenue distribution:

- EDAM congestion revenue is distributed to EDAM Entity
- CISO congestion revenue funds congestion revenue rights

Transfer revenue distribution:

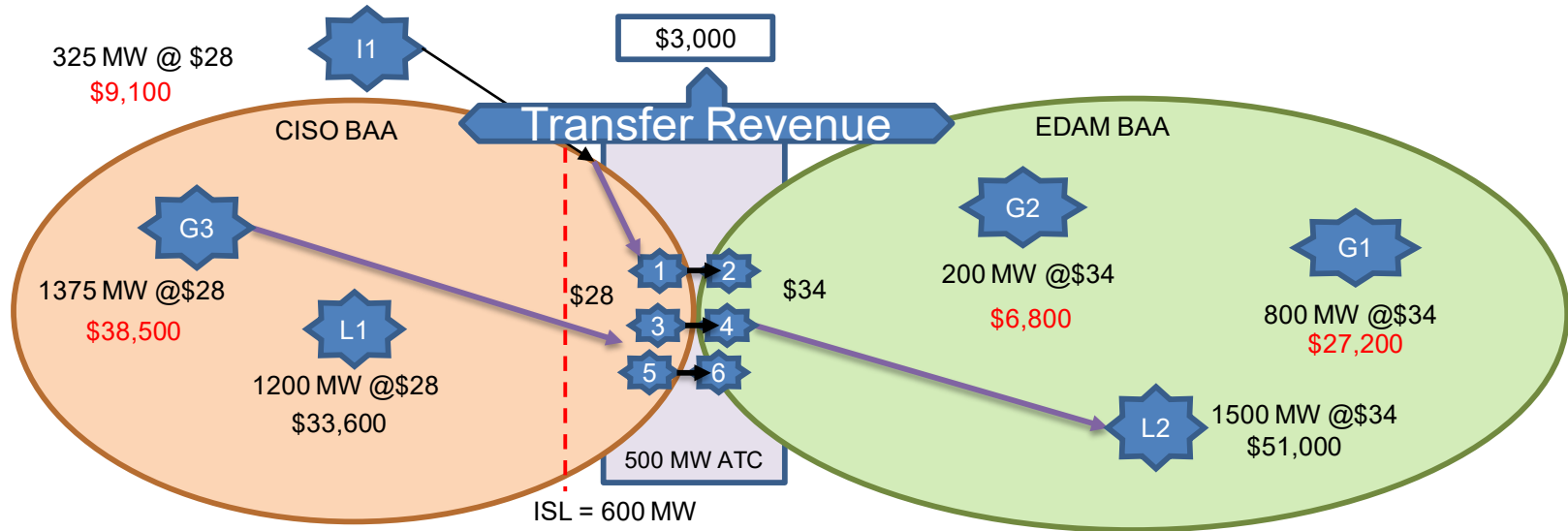
- Transmission released by transmission customer (TC): distributed to TC
- Transmission released by EDAM transmission service provider: distributed to source and sink BAAs
 - EDAM BAA Transfer revenue is allocated to EDAM Entity
 - CISO BAA Transfer Revenue sub-allocate to a combination of ISO transmission right holders (ETC/TOR) and measured demand:
 - Energy only transfer revenue attributed to transmission customer who schedule their rights settle directly with the ETC/TOR holder
 - Transfer revenue scheduled on ETC/TOR transmission released for optimization distributed directly to ETC/TOR holder in proportion to the released transmission and total transfer transmission
 - Conversely, energy/imbalance reserve/reliability capacity transfer revenue scheduled on non-ETC/TOR transmission will allocated to measured demand

Transfer Revenue Award:



	CISO BAA				EDAM BAA			
Res	Award	MEC	MCC	PMT/CHG	Award	MEC	MCC	PMT/CHG
Gen 3	1,375 MW	\$28	\$0	(\$38,500)				
Imp 1	325 MW	\$28	\$0	(\$9,100)				
ISO Load	1,200 MW	\$28	\$0	\$33,600				
Gen 1					800 MW	\$34	\$0	(\$27,200)
Gen 2					200 MW	\$34	\$0	(\$6,800)
Load					1,500 MW	\$34	\$0	\$51,000
Neutrality	200 MW Demand			\$ 14,000 Surplus	200 Supply			\$17,000 Shortfall

Transfer Revenue Distribution



	Transmission	MW	MEC Difference	Transfer Revenue	CISO	EDAM
Transfer 1-2	ETC/TOR	325	\$34-\$28 = \$6	\$1,950	\$975 (ISO)	\$975 (EDAM)
Transfer (3-4)	Pathway 2	75		\$450	\$225 (TC)	\$225 (TC)
Transfer (5-6)	ATC	100		\$600	\$300 (ISO)	\$300 (EDAM)

ISO Transfer Revenue Sub-Allocation	
SC(TOR)	\$ 975
SC (TC)	\$450
Metered Demand	\$600

Process for Recovering Historical Wheeling Access Charge Revenues

Historical TRR Recoverable Revenues: Collection

(1 of 2)

1. Historical WAC Recoverable Revenues Process

- Determine the historical three year wheeling export quantities
- Identify the associated Participating Transmission Owner (PTO)/Subscriber Participating Transmission Owner (SPTO) portions at each transfer location
- Calculate the “PTO WAC Recoverable Amount” based upon the current WAC rate.

2. New Transmission Project Recoverable WAC Revenues Process

- Identify the total portion of transmission capacity that increases transfer capability.
- Estimate the portion of increased transfer capability that would facilitate WAC transactions
- Calculate the “PTO New Transmission Recoverable Amount” based upon the current WAC rate.

Historical TRR Recoverable Revenues: Collection

(2 of 2)

3. Excess Wheel-Through Recoverable Amount Process

- Calculate the Excess Wheel Through quantity is the **maximum** of zero and the ISO Wheel Through Transfer less the ISO Net Export transfer
 - ISO Net Export transfer is the **maximum** of zero and total export transfer less total import transfer
 - ISO EDAM Wheel Through Transfer is the minimum of total import transfer and total export transfer
- Calculate the Excess Wheel through amount at the current WAC rate
- PTO Excess Wheel Through is the product of Excess Wheel Through amount and the pro-portion of PTO Transmission Revenue Requirement/SPTO Proxy Transmission Revenue Requirement

4. TRR Revenue True-up is not applicable

- The Historical TRR Recoverable Revenue is captured in each PTO TRBA adjustment
- Current WAC rate will reflect Transmission Revenue Requirement and TRBA Adjustments

Historical TRR Recoverable Revenue: Distribution

- Distribute to PTO/SPTO pro-rata to PTO Historical TRR Recoverable Revenue and ISO BAA Historical TRR Recoverable Revenue
- PTO Historical TRR Recoverable Revenue is comprised of:
 - PTO/SPTO Historical WAC Recoverable Revenue
 - PTO/SPTO New Transmission Project Recoverable WAC Revenue
 - PTO/SPTO Excess Wheel-Through Recoverable Amount

Interim Solution for Allocating RSE Failure Surcharges and Revenues

Allocating RSE Failure Surcharges and Revenues

Draft Final Proposal for Interim Solution (Track A1)

RSE failure surcharges

Allocate RSE failure surcharges on an hourly basis as follows: based on MW of metered demand for each SC as a portion of total ISO BAA metered demand, for each hour the ISO BAA was assessed RSE failure surcharges

RSE failure revenues

Allocate RSE failure revenues on an hourly basis as follows: based on MW of metered demand for each SC as a portion of total ISO BAA metered demand, for each hour the ISO BAA received RSE failure revenues

Allocating RSE Failure Surcharges and Revenues

Starting Point for Long-Term Solution (Track B)

RSE failure surcharges

- Tier 1 allocated to LSEs whose month-ahead supply portfolios (RA + Non-RA) are less than their daily peak LSE metered demand
- Tier 2 allocated pro-rata to LSE metered demand

Examples of discussion items for track B

Should tier 1 use month-ahead supply or day-ahead supply?

- If month-ahead supply: (1) ISO visibility/access to non-RA? (2) non-RA counting rules? (3) adjustments for CPM designations?
- If day-ahead supply: how to associate day-ahead supply offers with specific LSEs?

Should tier 1 use LSE metered demand or LSE share of ISO BAA RSE obligation?

- If LSE metered demand: how to map scheduling coordinators to LSEs
- If LSE share of ISO BAA RSE obligation: how to derive LSE shares?

-Cost-causation accuracy vs. implementation complexity

-Allocations to local regulatory authorities (LRAs) vs. load-serving entities (LSEs)?

-Implications for RA programs?

Next Steps

Next steps

- Comments on the A1 draft final proposal are due by end of day **August 14, 2023**. Please submit your comments using the comment template available on the initiative webpage:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-Day-Ahead-Market-ISO-Balancing-Authority-Area-Participation-Rules>
- Upcoming milestones*:
 - 8/14: due date for stakeholder comments on A1 draft final proposal
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For reference

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- If you have any questions, please contact
isostakeholderaffairs@caiso.com