

October Monthly Meeting

Hayley Williamson

Woori Lee

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Teleconference

October 14, 2022

Agenda

- **Welcome Remarks and Announcements** – *Vice-chair Williamson*
- **EDAM Governance Update** – *Commissioner Tawney, BOSR Representative on the GRC*
- **EDAM Market Design Update** - *Woori Lee, Wholesale Electricity Markets Analyst, WIEB*
 - Transmission Commitment
 - Overview of the three buckets framework
 - Explanation of the three pathways proposed under Bucket 2
 - Compensation for transmission made available to the EDAM
- **Next Steps** - *Bonnie Lamond, WIEB*

Commissioner Tawney

BOSR Representative on the GRC

Workshop Question: Is the list of unresolved items complete?

Joint Authority*	Unresolved	ISO BOG Sole Authority
<p>1: Definitions and Interpretation 6: Communications 10: Metering 11: CAISO Settlements and Billing 12: Creditworthiness 13: Dispute Resolution 14: Uncontrollable Force, Indemnity, Liabilities, and Penalties 20: Confidentiality 22: Miscellaneous 27: CAISO Markets and Processes 29: Energy Imbalance Market 30: Bid and Self-Schedule Submission for all CAISO Markets 31: Day-Ahead Market 33: Enhanced Day-Ahead Market [New section to be added to Tariff] 34: Real-Time Market 35: Market Validation and Price Correction 37: Rules of Conduct 39: Market Power Mitigation Procedures Section 44: Flexible Ramping Product</p>	<ul style="list-style-type: none">• Initiatives Associated with Transmission Access into, out of and through the CAISO-Controlled Grid• System Market Power in CAISO BAA• Congestion Instruments• Others?	<p>2: Access to the CAISO Controlled Grid 3: Local Furnishing, Other Tax-Exempt Bond Facility Financing 4: Roles and Responsibilities 5: Black Start and System Restoration 7: System Operations Under Normal and Emergency Conditions 8: Ancillary Services 9: Outages 15: Regulatory Filings 16: Existing Contracts 17: Transmission Ownership Rights 19: Reliability Coordinator 23: Categories of Transmission Capacity 24: Comprehensive Transmission Planning Process 25: Interconnection of Generating Units and Facilities 26: Transmission Rates and Charges 28: Inter-SC Trades 36: Congestion Revenue Rights 40: Resource Adequacy Demonstration for all SCs in the CAISO BAA 41: Procurement of RMR Resources 42: Adequacy of Facilities to Meet Applicable Reliability Criteria 43A: Capacity Procurement Mechanism</p>

Governance review timeline

Jul - Aug

- July 15 – publish straw proposal
- July 20 – GRC public meeting
- August 15 – straw proposal comments due
- August 29 – GRC public meeting to discuss stakeholder comments

Sept

- September – GRC work to refine proposal
- September 23 – GRC general session meeting to discuss scope of joint and advisory authority

Oct-Dec

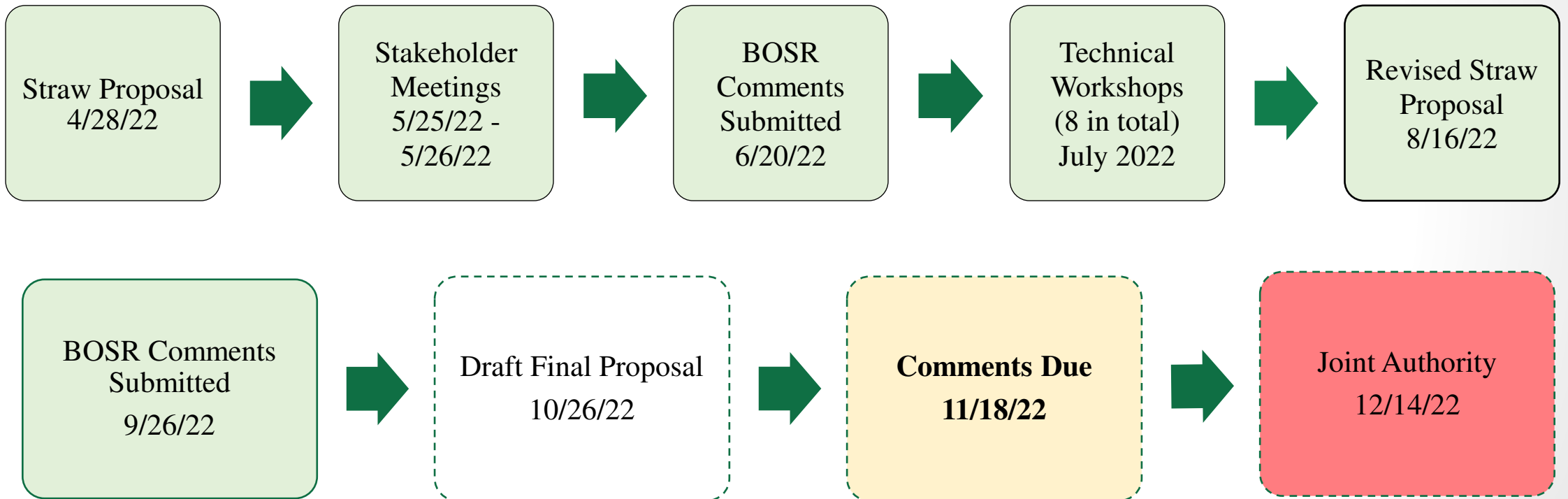
- Late October – issue revised proposal
- December – issue final proposal
- December – bring to WEIM GB and BOG for decision with EDAM market design proposal

EDAM Market Design Updates

Woori Lee

Wholesale Electricity Market Analyst

EDAM Market Design Timeline



Transmission Commitment in the EDAM

Discussion Topics

1. Overview of the three buckets framework
2. Explanation of the three pathways proposed under Bucket 2
 - Transmission in excess of RSE need
3. Compensation for transmission made available to the EDAM

Overview of the Three Transmission Buckets

Buckets Framework

- CAISO and the working group created a “buckets” framework in order to support robust EDAM transfers among EDAM BAAs.
- The bucket differentiates the compensation options for the types of transmission being made available to the market.

Bucket 1

- Sold firm Available Transfer Capacity (ATC)
- Made available by Transmission Customers
- Supports delivery of RSE capacity

Bucket 2

- Sold firm ATC
- Made available by Transmission Customers
- In excess of transmission needed to support RSE

Bucket 3

- Unsold Firm ATC
- Made available by Transmission Provider
- Cost recovery through Transmission Revenue Recovery

Bucket 2 Transmission

Proposed Three Pathways for Bucket 2 Transmission

Bucket 2 Transmission

- CAISO proposed three pathways for transmission customers to utilize their unscheduled transmission (Bucket 2) rights in the EDAM.

GOAL

- Maximize the amount of transmission rights made available to the market by including all transmission rights that are not scheduled by the time of the day-ahead market run in return for allocation of transfer revenues.
- Maximize the availability of high-quality transmission to the EDAM to derive robust benefits for all participating EDAM entities.
- Mitigate the market risk of a completely voluntary framework, including withholding of transmission.

Bucket 2 Transmission: Pathway 1

- Goal: To allow transmission customers to exercise their transmission rights while minimizing uplifts.

Pathway 1: Exercising transmission rights ahead of the day-ahead market run

- A transmission customer would **exercise those transmission rights** in the market by submitting a self-schedule prior to 10 a.m.
- Not available for market optimization.
- This will support the market's ability to produce feasible day ahead schedules.

Bucket 2 Transmission: Pathway 2

- Goal: To maximize the amount of transmission rights made available to the market by including transmission rights that are not scheduled by the day-ahead market run.

Pathway 2: Releasing transmission rights to EDAM in advance

- Allows a transmission customer **to release transmission rights to the market** in advance of the day ahead market run.
- Available for market optimization.
- Once they release the transmission to the EDAM, the transmission customer can not self-schedule use of the transmission rights in real-time.

Bucket 2 Transmission: Pathway 3

- Goal: To maximize the amount of transmission rights made available to the market by including transmission rights that are not scheduled by the time of the day-ahead market run.

Pathway 3: Unscheduled transmission rights becoming available to the EDAM

- For transmission customers that did not choose pathways 1 or 2, the transmission customer's unscheduled transmission will become available to the market.
- The transmission customers can exercise their rights between day-ahead and real-time as they do under the OATT.
- Such later exercise of transmission rights would have a priority lower than a day-ahead schedule that rolls into real-time.

Stakeholder Discussion

- Entities question whether making transmission available to the market by 10 a.m., prior to the day-ahead market run, is feasible given the current OATT practice.
- Pathway 3 may result in market re-optimization and could increase congestion costs.
 - This may force firm transmission rights holders to pay additional congestion costs in order to use those rights.
- Entities request CAISO to consider providing another pathway that would allow entities to keep transmission outside the market.
- Affording lower priority to transmission under pathway 3 would undermine rightsholders' firm transmission priority.

Transmission Compensation

Compensation for Transmission Made Available to the EDAM

CAISO's Proposal (Revised Aug)

- CAISO is proposing a compensation mechanism for the transmission made available to the market that would otherwise have been utilized under OATT.
 - A portion of Bucket 2 and Bucket 3 transmission will be made available to the EDAM.
 - Transmission providers may face the potential risk of foregone transmission revenues due to decreased sales of transmission.
- CAISO proposes a design to enable a transmission provider to recover its historical transmission revenue requirement (TRR) through EDAM.
 - Historical revenue at risk associated with short-term firm and non-firm transmission would be eligible for recovery through the EDAM.
 - The intent is to keep each EDAM entity whole from a historical TRR perspective.

Three Components of TRR

- EDAM recoverable TRR is comprised of three components that represent the recoverable revenues through the EDAM

Today's
Discussion

Component 1:

- Revenues associated with the short-term firm and non-firm point to point products

Component 2:

- New transmission builds that increase transfer capability between EDAM BAAs

Component 3:

- Revenues for wheeling-through volumes for EDAM BAAs that exceed imports/exports from the EDAM entity BAA

Transmission Revenue Requirement

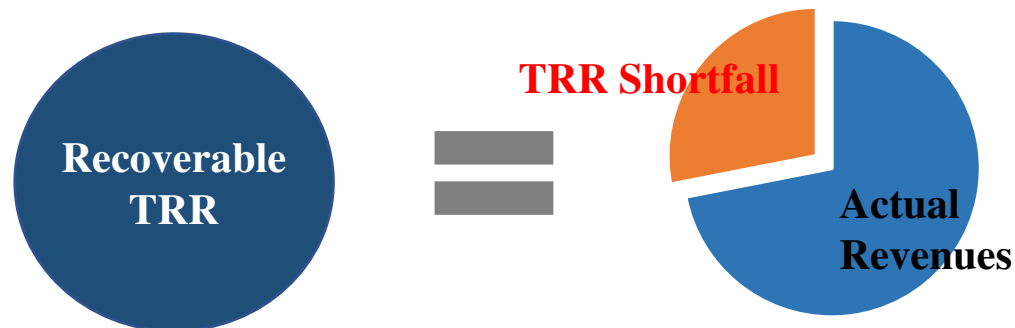
- Referred term “Transmission Revenue Requirement” (TRR) can be misleading.
 - The FERC approved formula for revenue requirement is:

$$R \equiv B \cdot r + E + d + T$$

Where,
 R = revenue requirement,
 B = rate base,
 r = allowed rate of return,
 E = operating expenses,
 d = annual depreciation expense, and
 T = all taxes not counted as operating expenses

- The issue at hand is whether participating BAAs will receive revenue in the EDAM that is comparable to only **short-term firm and non-firm transmission revenue requirement**.

- Make EDAM entity whole:



EDAM Recoverable TRR

- Calculating Recoverable Transmission Revenue Requirement
 - The proposal is that each EDAM BAA transmission provider calculate their BAA’s EDAM recoverable TRR based on the transmission provider’s average FERC-approved transmission revenue requirement for **short-term firm and non-firm point to point transmission services** for the most recent three years.

[CAISO presented example of TRR calculation]

	Total TRR (3 years average)	Short-term Firm TRR (3 years average)	Non-Firm TRR (3 years average)	EDAM Recoverable TRR
EDAM Entity (OATT)	\$100 M	\$5 M	\$2 M	\$7 M

TRR Shortfall

- Calculating the TRR Shortfall Recoverable through EDAM
 - EDAM entities will continue to make sales through the OATT, and those sales would reduce the amount needed to be recovered.

$$\text{TRR Shortfall} = \text{EDAM Recoverable TRR} - \text{Actual Transmission Revenues}$$

[CAISO example of TRR shortfall calculation]

EDAM Recoverable TRR	Short-term Firm Actual Sales	Non-Firm Actual Sales	TRR Shortfall
\$7 M	\$3 M	\$1 M	\$3 M

Stakeholder Discussion

- What components should be included in the transmission recoverable revenue?
 - Short-term firm & non-firm/new build/wheeling through
- Across what time period is the TRR derived?
 - 3 years or longer.
- Some entities argue that TRR undermines the need for transmission customers to continue to purchase PTP transmission beyond their Bucket 1 needs.
 - Shifting transmission cost recovery onto load creates uncertainty in the transmission rate recovery process for TSPs.
 - TRR could devalue the long-term transmission purchases.

EDAM Market Design

Next Steps

Date	Topic
October 26 th	Draft final proposal posting
November 2 - 3	Technical meetings
November 4 th	Proposing to move BOSR Monthly Meeting to November 4th
November 7 th	Staff to circulate draft BOSR comments on final proposal
November 18th	BOSR comments on draft final proposal
December 7 th	Final proposal posting
December 14 th	ISO Board and WEIM Governing Body decision

Upcoming Meetings

Advanced Western Electricity Market Training Forum

October 19, October 27, and October 28, 2022

10:00 AM MDT / 9:00 AM PDT – 1:00 PM MDT / 12:00 PM PDT

November BOSR Monthly Meeting Moved

Friday, November 4, 2022 at 10:00 AM MDT / 9:00 AM PDT