



California ISO

Subscriber Participating TO Market Scheduling Options Straw Proposal


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- This collaborative meeting is intended to stimulate open dialogue and engage different perspectives.
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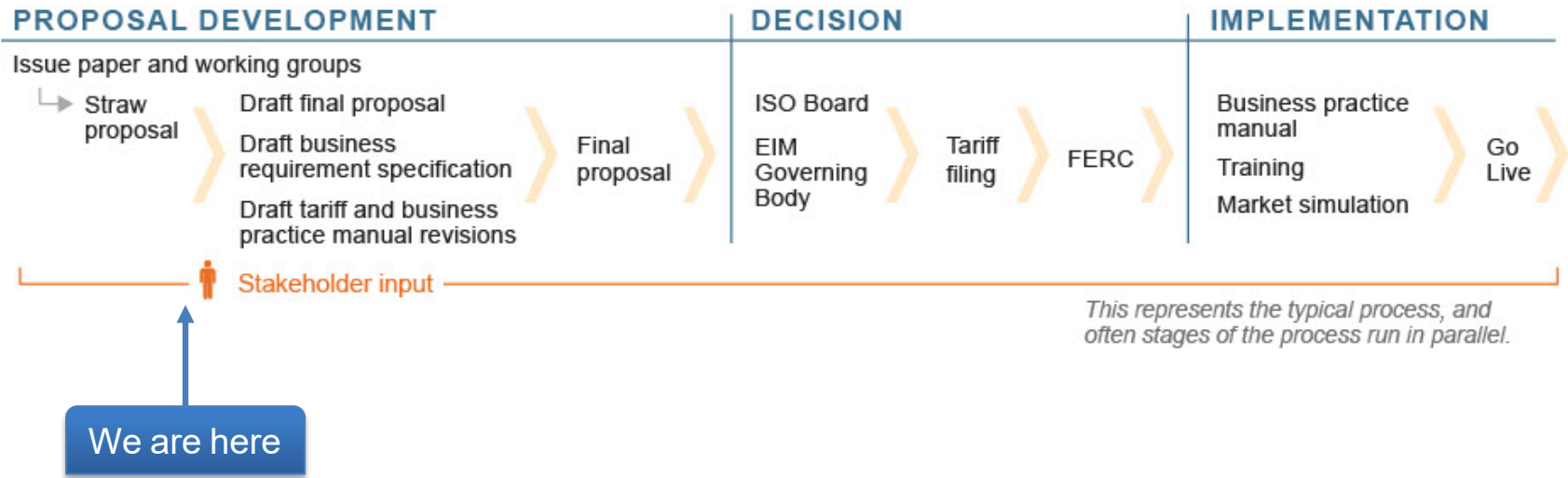
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Agenda

Time	Topic	Presenter
1:00 - 1:05	Welcome & introductions	Yelena Kopylov-Alford
1:05 - 1:20	Background and Issue Paper comments	Riddhi Ray
1:20 -2:20	Straw Proposal – CRR/Economic Bidding	Riddhi Ray
2:20 – 3:20	Numerical Examples	Riddhi Ray
3:20 - 3:30	Next Steps	Yelena Kopylov-Alford

CAISO Policy Initiative Stakeholder Process



FERC Approved

- Under the Subscriber Participating TO model, the developer will place the new transmission facilities under CAISO operational control and connect generation to the CAISO balancing area, without seeking approval through the CAISO's transmission planning process.
- Subscribers receive Existing Transmission Contracts (ETCs) to the exit point of the Subscriber Participating TO transmission facilities.
- The ETCs provide the subscriber with a higher scheduling priority and a financial hedge against congestion and transmission charges.
- Subscriber Participating TO is paid for non-subscriber user of the new transmission facilities

Background

- Issue Paper published on November 13, 2024 describing certain implementation complexities with the existing ETC model, and proposing alternative market scheduling options to mitigate some of the identified issues.
- Two different market scheduling options proposed for consideration, i.e. the Merchant CRR/economic bidding option and the Unbalanced CRN option.
- CAISO discussed the Issue Paper on the November 20, 2024 stakeholder call on.
- CAISO posted the Straw Proposal on January 16, 2025 to expand on the final options.

Stakeholder comments

- A total of seven stakeholders submitted comments on the Issue Paper.
- BAMx, PG&E, SDG&E and Six Cities asked for clarification of the existing ETC implementation.
- SCE opposed the non-subscriber usage charge and payments under the current ETC model, and also opposed paying both CRR rents and non-subscriber usage payments under the CRR options model.
- BAMx, Pattern, SCE, and Six Cities were generally supportive of the CRR option but raised specific questions addressed in the Straw Proposal.

Stakeholder comments (*cont.*)

- SFPUC asked for CRR option and unbalanced ETC option to be expanded to all ETC/TOR holders in the CAISO BAA.
- SCE and Six Cities asked specific questions regarding option switching and application of WAC and TAC under the unbalanced ETC model.
- Pattern asked for an increase of allowed bid segments.
- SDG&E indicated concerns on potential uplift and downstream implementation.

Clarification of ETC implementation

- CAISO provided a lengthy appendix of the current implementation approved by FERC and supported by numerical examples.
- Any import or export market schedule submitted without using ETCs on the Subscriber Participating TO transmission path will be considered as non-subscriber usage.
- Balanced ETCs provide the subscriber a priority scheduling right, a hedge from congestion and no TAC/WAC charges for the use of the Subscriber Participating TO facilities but if the transaction uses non-Subscriber Participating TO facilities congestion is paid and TAC will be charged to demand and WAC is charged to export.

WEIM and EDAM Impact on Non-subscriber Usage

- IFM and HASP awards will be subject to WAC and non-subscriber usage calculations.
- Under WEIM reciprocity rules with WEIM BAAs, only FMM and RTD incremental transfers are not subject to WAC and will also not be considered as non-subscriber usage.
- In EDAM, any transfers at EDAM transfer points will not be subject to WAC or SPTO specific non-subscriber usage calculations. The Subscriber Participating TO may recover the non-subscriber usage revenue through EDAM access charge.

Straw Proposal

- After consideration of submitted comments and internal deliberations, the CAISO is proposing to proceed only with the CRR/economic bidding option.
- The CAISO proposes an option for ETC to convert to CRR based on the TOR to CRR conversion process allowed for PacificCorp and TANC today instead of the merchant CRR process.
- CRR nomination process will be allowed on a monthly basis, and will reduce the ETC MWs on the Subscriber Participating TO transmission path.
- Subscriber Participating TO will also provide updated Transmission Rights and Transmission Curtailment Instructions.

CRR/Economic Bidding Option Discussion (*cont.*)

- The CRRs will provide only IFM congestion hedge for all schedules on the transmission path, which is different than the ETC treatment of IFM and RTM congestion hedge for only subscriber schedules.
- Only certain SCs maybe allowed to bid at specific Subscriber Participating TO scheduling points if entitlements have use-limitations imposed by non-CAISO transmission service providers.
- Subscribers will pre-register specific SCID/export-import resource combinations to be counted as subscriber usage, or agree to settle any non-subscriber treatment of subscriber schedules bilaterally with Subscriber Participating TO.

Unbalanced ETC Option

- The CAISO is not proceeding with Unbalanced ETC option after considering submitted comments as well as the implementation complexity of this option.
- Moreover, the option would have allowed this unbalanced ETC only for a narrow set of Market Participants, the Subscriber Participating TOs and not for the larger group of market participants that use ETCs and TORs today.
- The CAISO is not prepared to allow this option to the broader market at this time within this narrow stakeholder initiative.

Numerical Examples Summary

- CRR/economic bidding example
- Subscriber generation
- Partial ETC usage
- WEIM reciprocity

Assumptions and Clarifications in Numerical Examples

- NSU: Non-Subscriber Usage
- NSUR: Non-Subscriber Usage Rate
- NSUPA: Non-Subscriber Usage Payment Allocation
- PC: Pinal Central
- PV: Palo Verde
- Subscribers can schedule using ETCs or CRRs with economic bids.
- If Subscribers use economic bids for exports and imports, without converting to CRRs, they give up all subscriber treatment rights and obligations.
- Assume that NSUR is equal to CAISO WAC and TAC.

CRR Option/ Economic Bidding Scenario

- SunZia wind to Pinal Central transmission capability= 3,000 MW
 - ETC retained= 1,000 MW
 - CRRs exchanged = 2,000 MW
- Pinal Central to Palo Verde transmission capability = 2,000 MW
 - ETC retained = 0 MW
 - CRR = 2,000 MW
- Assume that in one hour, the following is bid into the Day-Ahead Market: Wind generation = ETC1+Wind Bid1 = 2500 MW
 - ETC1 (wind to PC) = 1,000 MW
 - Wind Bid1 = 1,500 MW

CRR Option/ Economic Bidding Scenario (*cont.*)

- Import bid1 at Pinal Central = 1,000 MW
- Export bid1 at Pinal Central = 500 MW
- NSU for wind generation: assume Wind subscribed capacity = 3000 MW
 - Wind award = ETC1+Wind Bid1 = 2500 MW
 - NSU = $\max(0, \text{market award} - \text{subscriber MW})$
= $\max(0, 2500 - 3000) = 0$
 - NSUPA = $0 * \$11 = \0

CRR Option/ Economic Bidding: Pinal Central Non-Subscriber Usage Payment Allocation (Subscriber SCID non-exempt from WAC and NSU)

- NSU at Pinal Central = imports + exports
= 1000+500 = 1500 MW
- NSUPA at Pinal Central = 1,500*\$11 = \$16,500
- WAC at Pinal Central = 500*\$11 = \$5,500
- Export Bid1 at Pinal Central is subscriber export bid and is not exempt from WAC or NSU calculations. In this scenario, Subscriber Participating TO can reimburse the subscriber for any WAC charged to the export bid.

CRR Option/ Economic Bidding: Pinal Central Non-Subscriber Usage Payment Allocation (Subscriber SCID exempt from WAC and NSU)

- Export Bid at Pinal Central is submitted using an exempt SCID. In addition, import bid at Pinal Central is submitted from non-exempt SCID.
- NSU at Pinal Central = non- exempt only (imports + exports) = $1000 + 0 = 1000$.
- NSUPA at Pinal Central = $1000 * \$11 = \$11,000$
- WAC at Pinal Central = $0 * \$11 = \0
- Subscriber is not charged WAC and Subscriber Participating TO is not paid for non-subscriber usage.

Calculation of non-subscriber usage of interconnected generation

- Wind market award = 3000 MW to serve load in CAISO BAA
 - Wind generation registered subscriber MW = 3000 MW
- NSU = (market award-subscriber MW) = 3000-3000= 0
- NSUPA = 0*\$11= \$0
- TAC collected = 3000*\$11 = \$3300

Partial ETC Usage (SunZia as an example)

- Wind generation = 3000 MW (Wind Bid 1+ ETC2)
- ETC1 import= 100 MW (PC to PV export)
- Wind Bid1= 2000 MW
- ETC2= 1000 MW (wind to PV export)
- Export bid1(@PC)= 1600 MW
- Import bid1(@PC) = 200 MW
- @ Flow into PC $(100 - 1600 + 200 + 2000 + 1000) = 1700$
- @ Flow through PV $(1700 - 1000 - 100) = 600$ into CAISO BAA
- NSU(@PC)= $1600 + 200 = 1800$ MW

Partial ETC Usage (*SunZia cont.*)

- No WEM reciprocity
- $NSUPA(@PC) = (1600+200)*\$11 = \$19800$
 - WAC for PC export = $(1600)*\$11 = \17600
 - TAC for PC import supporting CAISO demand = $(200)*\$11 = \2200

Partial ETC usage, WEM reciprocity (TransWest as an example)

- “IPP” is Intermountain Power Project Switchyard which will be a new intertie with LADWP
- “HA-ELD” is Harry Allen-El Dorado transmission line which will be the point of interconnection of TransWest Express’s transmission system to the existing CAISO controlled grid.
- Wind generation = 3000 MW (ETC1+Wind Bid 1+ ETC3)
- ETC1 export= 1500 MW (wind to IPP)
- ETC2 import= 300 MW (IPP to HA-ELD)
- Wind Economic Bid1= 200 MW
- ETC3= 1300 MW (wind to HA-ELD)

Partial ETC usage, WEM reciprocity (*TransWest cont.*)

- Export bid1(@IPP)= 400 MW
- Import bid1(@IPP) = 100 MW
- NSU(@IPP)= 400+100= 500 MW
- Total NSU = 500 MW

@ Flow out at IPP = $-1500 + 300 - 400 + 100 = -1500$ MW

@Flow to HA-ELD = $300 + 200 + 1300 - 400 + 100 = 1500$ MW

- **WEM reciprocity IFM**
- Export bid1(@IPP) IFM award = 300 MW
- WAC charged in IFM= $300 * 11 = \$3300$
- NSU = 300 MW
- NSUPA = $300 * \$11 = \3300

Partial ETC usage, WEM reciprocity (*TransWest cont.*)

HASP

- Export bid1(@IPP) HASP incremental award = 50 MW
- WAC charged in HASP = $50 * \$11 = \550
- NSU = 50 MW
- NSUPA = $50 * \$11 = \550

FMM

- WEM transfer (@IPP) = 50 MW
- WAC charged = $0 * \$0 = 0$ (no WAC charge for transfer)
- NSU = 0
- NSUPA = $0 * \$11 = \0

Partial ETC usage, WEM reciprocity (*TransWest cont.*)

- Total WAC collected across IFM,HASP,FMM = $3300+550+0= \$3850$
- Total NSUPA paid across IFM, HASP, FMM = $3300+550+0= \$3850$

CAISO Request for Stakeholder Input

- CAISO is requesting stakeholders to provide input on the proposal to allow Subscribers to exchange their ETCs for CRR Options.
- This option will exist in addition to the existing balanced ETC option.
- The Subscriber Participating TO model is currently being implemented using the ETC model as approved by FERC in 2024.
- CAISO believes this policy change is not subject to the joint authority of the WEM Governing Body.

NEXT STEPS

Stakeholder Process Schedule

DATE	EVENT
1/27/2025	Stakeholder meeting on Straw Proposal
2/10/2025	Comments due on Straw Proposal
3/7/2025	Publish Draft Final Proposal
3/17/2025	Stakeholder meeting on Draft Final Proposal
3/31/2025	Comments due on Draft Final Proposal
4/14/2025	Publish Final Proposal
5/22/2025	Board of Governors Meeting

- Please submit comments on the straw proposal and meeting discussion using the commenting tool linked in the initiative page.
 - Comments are due by end of day **February 10, 2025**
- Visit initiative webpage for more information and comments template:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Subscriber-participating-transmission-owner-market-scheduling-options>
- If you have any questions, please contact isostakeholderaffairs@caiso.com

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