



California ISO

Price Formation Enhancements

Working Group Session #2

08/10/2023

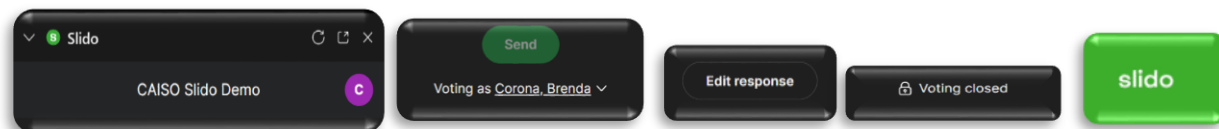
Housekeeping reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- These collaborative working groups are intended to stimulate open dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Note: The ISO encourages any verbal or written agreements to comments made during this working group session.

Instructions for WebEx



- The “raise hand” icon is located in the lower tool bar. You will hear a beep tone when you are un-muted; at that time please state your name, and question. Attendees dialed in on the phone only press #2 will hear a notification when you are un-muted; at that time please state your name and question.
- WebEx platform will **LOCK** and mute you if you mute yourself once you have finished your question. Do not mute yourself until you have completed your question or comment.
 - Virtual Attendees will see questions on right screen above the chat window.



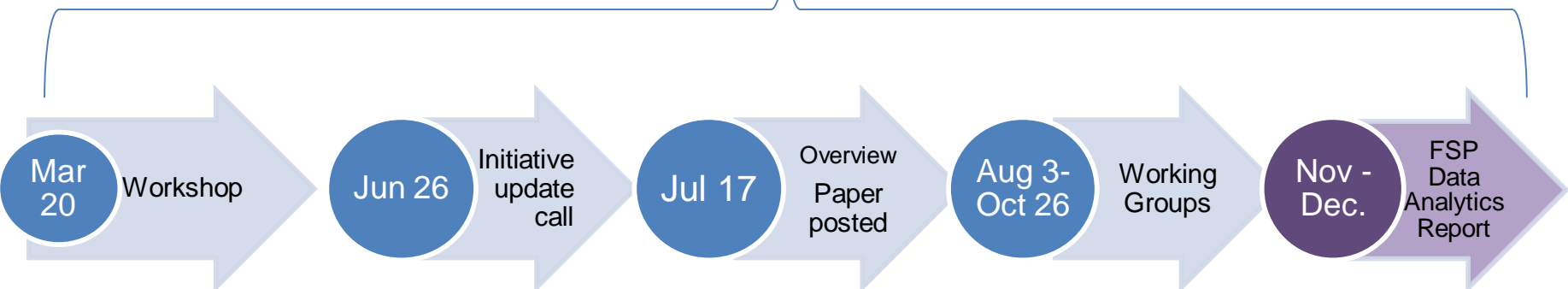
- In-Person Attendees will use the passcode to login from a device to answer questions

Today's Working Group Agenda

Time	Topic	Presenter
9:00 – 9:10	Welcome, Slido Polling Overview, Today's Agenda, Stakeholder Process Overview	Brenda Corona
9:10 – 9:20	Polling Clarifications/Today's Goals and Approach	Juan Buitrago
9:20 – 10:45	Scarcity Pricing – Problem Statements	Juan Buitrago
10:45 – 10:55	Next Working Group Agenda Build	Juan Buitrago
10:55 – 11:00	Next steps	Brenda Corona

Pre-Development Phase: PFE Approach

Stakeholder Input



2023

2024

Scarcity Pricing

BAA-Level Mitigation

Fast Start Pricing (Part of Phase 1 & 2)

Phase 1

ISO Policy Initiative Stakeholder Process



This represents the typical process, and often stages of the process run in parallel.

Stakeholder meetings, working groups and workshops may occur throughout the stakeholder process.

We are here

- Working groups will inform the Phase 1 straw proposal
- The ISO will take notes and produce reports of each of our working group meetings.

Slido Polling Feature

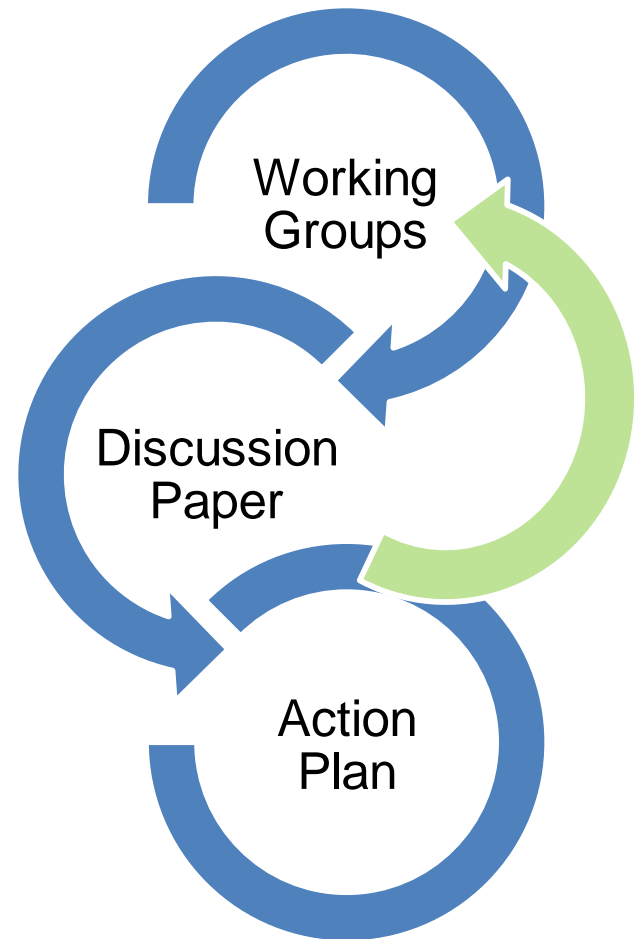
- These polling results are not binding
 - Sample could lead to over/under representation of perspectives
- The “Yes/No” pulse survey – snap shot of Working Group attendees meant to start dialogue
- Written comment – helps direct the dialogue
- Verbal comment/discussion amongst the community leads towards results for the Working Group!

Working Group Deliverables

Action Plan: A bridge between the working groups and a straw proposal, the Action Plan will inform the policy direction for Price Formation Enhancements Phase 2 stakeholder initiative.

The action plan will recap all perspectives shared in the working group process and identify the policy direction/basis of the straw proposal

You will have an opportunity to provide written comment on the Action Plan



Goals of Today's Working Group Session

The Working Group structure is meant to embrace flexibility to allow organic and robust conversation on the topics at hand – it is still key for us to drive towards solutions collaboratively

- **Focus on Guiding Principles and Problem Statements**
 - Last Working Group, SH considered set of Principles the ISO presented reflective of prior SH conversation and meetings on price formation. Today we will step back, and contextualize these principles against the broader market design framework.
 - Consider the final two principles from the PFE Overview, and submit their own.
 - You are leading today's conversation
 - Share your perspective on the challenges/problems you face that relate with the principles (Problem Statements)
 - Provide feedback on cadence, topics for next session, and volunteer presentations

PFE working group principles in context

These principles reflect standard principles of market design, and should be kept in mind when moving through the working group process:

1. Efficiency
2. Simplicity
3. Transparency
4. Feasibility
5. ??Are there other principles that need to be included??

Note: Not every solution will align with all principles listed. The principles are a resource to uncover problem statements, and facilitate assessment of prioritization and potential trade-offs between approaches.

1. Efficiency

In terms of market design principles, efficiency refers to: incentive compatibility, dispatch on offered prices will minimize actual system production costs, assets want to produce awarded amount.

- Prices should reflect the marginal cost of production
 - Draft Problem Statement (PS): What should prices reflect when there's no marginal unit? When we can't determine it?

1. Efficiency

In terms of PFE principles, what does Efficiency mean to you?

- When there is insufficient supply to identify a marginal unit, prices should reflect the willingness of market participants to avoid involuntary demand curtailments
- **[Reflecting SH feedback]: Prices should minimize the cost of production, i.e. maximize consumer surplus, in order to protect consumers.**
- Prices should provide sufficient incentives for market participants to perform and deliver in tight system conditions

1. Efficiency– Problem Statements

Using our Guiding Principle to identify Problem Statements for PFE

- When there is insufficient supply to identify a marginal unit, prices should reflect the willingness of market participants to avoid involuntary demand curtailment
 - *Draft PS: What is an accurate measure of consumer willingness to avoid involuntary curtailments?*
 - *Draft PS: is it feasible to determine a VOLL with sufficient accuracy, or apply a sufficiently heterogeneous metric?*
- **[Reflecting SH feedback]: Prices should minimize the cost of production, i.e. maximize consumer surplus, in order to protect consumers.**
- Prices should provide sufficient incentives for market participants to perform and deliver in tight system conditions

1. Efficiency– Problem Statements

slide

Using our Guiding Principle to identify Problem Statements for PFE

- What are the problems/challenges you are current facing as it relates to the Guiding Principle “Efficiency”?

2. Simplicity

In terms of market design principles, simplicity relates to: simple logic that applies broadly like uniform pricing, consistent and logical rules.

2. Simplicity

In terms of PFE principles, what does Simplicity mean to you?

- NERC provides a standard threshold timeframe.
- Scarcity pricing mechanisms allow market participants to compete on a level playing field in markets across the west.

2. Simplicity – Problem Statements

Using our Guiding Principle to identify Problem Statements for PFE

- **[Reflecting SH Feedback] Prices in bilateral market are driven by CAISO prices, so allowing CAISO prices to rise significantly above marginal cost could facilitate exercise of market power (BAA-Level MPM)**

2. Simplicity – Problem Statements

slide

Using our Guiding Principle to identify Problem Statements for PFE

- What are the problems/challenges you are current facing with Scarcity Pricing as it relates to the Guiding Principle “Simplicity”?

3. Transparency

In terms of market design principles, transparency relates to: “much is known by many” about transaction prices, sufficient information exists in order to make bidding and procurement decisions, market prices are transparent and known to participants.

3. Transparency

In terms of PFE principles, what does Transparency mean to you?

- **[Reflecting SH Feedback]: Provide consumers with sufficient information, or sufficient agency, and in a timely manner to avoid price spikes or curtailments**

3. Transparency – Problem Statements

Using our Guiding Principle to identify Problem Statements for PFE

- Draft PS - Is it **feasible** to provide sufficient information within a timeline that market participants can react to (assets deliver the expected amount, consumers or utilities take mitigation action)

3. Transparency – Problem Statements



Using our Guiding Principle to identify Problem Statements for PFE

- What are the problems/challenges you are current facing with Scarcity Pricing as it relates to the Guiding Principle “Transparency”?

4. Feasibility

In terms of market design principles, feasibility relates to:

- Technologically feasible; the market can solve within prescribed timelines
- Operationally feasible; does the mechanism effectuate the needs of grid operators to maintain reliability
- Feasible implementation timelines (are we aiming for post-EDAM?)

4. Feasibility – Problem Statements

slide

Using our Guiding Principle to identify Problem Statements for PFE

- What are the problems/challenges you are current facing with Scarcity Pricing as it relates to the Guiding Principle “Feasibility”?

- **Does the following statement reflect one of our Guiding Principles or need inclusion via a new guiding principle:** Provide stronger incentives for market participants to perform and deliver in tight system conditions?

- **Does the following statement reflect one of our Guiding Principles, need inclusion via a new guiding principle:** Protect scarcity pricing provisions from triggering the potential of market power? Should this be converted into a Problem Statement for the PFE initiative?

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Wrap Up

- What are your takeaways from today's discussion?
- What would the Stakeholder community like to focus on next session?
- We will post resources for SH review and reference, and ongoing engagement:
 - Recording
 - PFE Discussion Paper reflecting WG feedback will be posted for community reference and comments
 - Stakeholder Comment tool

Next Steps – Schedule

August						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



- Aug 3, 2023 – Working Group Session 1 – Hybrid
 - Summer Performance Market Report June 2023 call at 11am, and Energy Storage Enhancements Hybrid Workshop at 1pm
- Aug 10, 2023 – Working Group Session 2 – Hybrid
- Aug 17, 2023 – Working Group Session 3 – Hybrid
- Aug 23, 2023 – Working Group Session 4 – Virtual

September						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

- Sep 4, 2023 – Holiday – Office Closed
- Sep 7, 2023 – Working Group Session 6 – Virtual
- Sep 14, 2023 – Working Group Session 7 – Virtual
- Sep 28, 2023 – Working Group Session 9 – Hybrid
 - Market Performance and Planning Forum Q3 at 9am

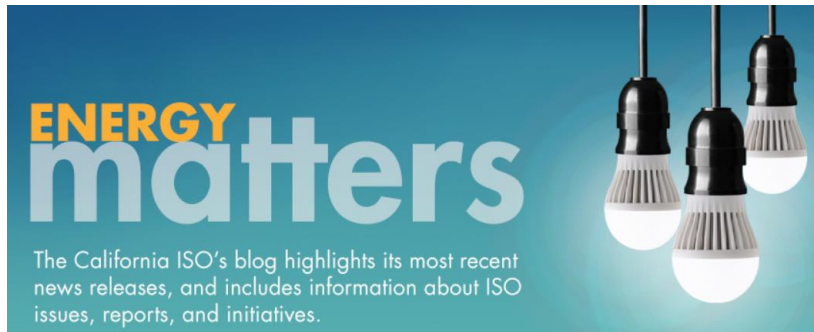
October						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

- Oct 4, 2023 – Working Group Session 10 – Virtual
- Oct 11, 2023 – Working Group Session 11 – Virtual
- Oct 18, 2023 – Working Group Session 12 – Virtual
- Oct 26, 2023 – Working Group Session 13 – Hybrid

-  Hybrid Working Group
-  Virtual Working Group

For reference

- Visit initiative webpage for more information:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Price-formation-enhancements>
- If you have any questions, please contact Brenda Corona at bcorona@caiso.com or isostakeholderaffairs@caiso.com
- Comment template for Working Group #2 due Aug 16th
- Working Group Session #2 - August 17, hybrid – to [register](#) to attend in person
 - Review Overview Paper, stakeholder submitted topics and scope items
 - Stakeholder presentations on principles (ongoing through working group series)



- *Energy Matters* blog provides timely insights into ISO grid and market operations as well as other industry-related news
<http://www.caiso.com/about/Pages/Blog/default.aspx>.

Read a recent article featured in the blog:



July 24, 2023
Transmission

A big step forward on transmission infrastructure

By Deb Le Vine, Director, Infrastructure Contracts & Management

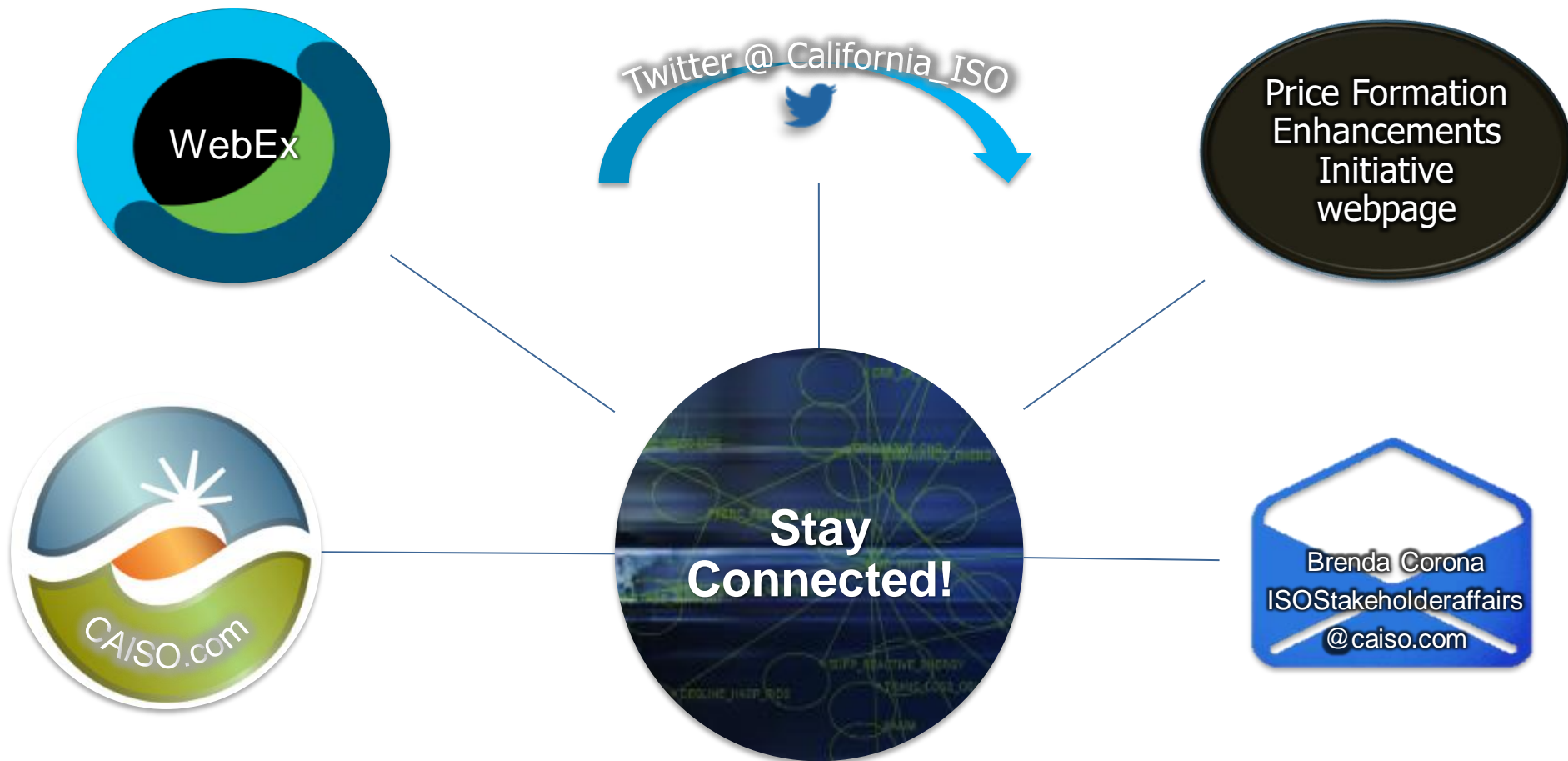
As anyone in the electricity business knows, planning, siting, permitting, financing and building transmission infrastructure is a complex, time-consuming and difficult process. Congress, the Federal Energy Regulatory Commission (FERC), state legislators and bulk electric system operators like the California ISO and others around the country ...

[READ MORE](#)

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Next PFE Working Group: Aug. 17th

at 2:00 P.M



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