



California ISO

Extended Day Ahead Market Initiative – Foundational Workshop

November 12, 2021

9:00 a.m. – 4:00 p.m.

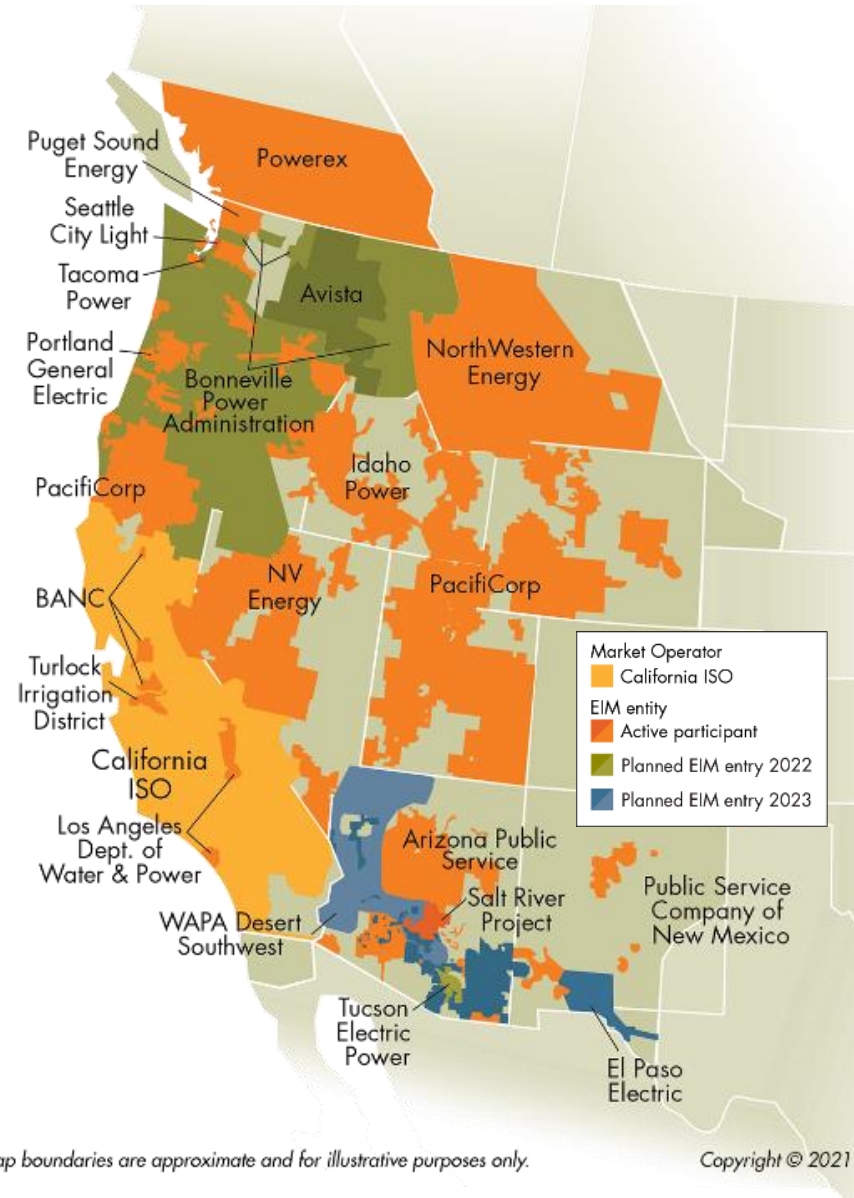
Agenda

Time:	Topic:	Presenter:
9:00 – 9:05 a.m.	Welcome & Agenda	Kristina Osborne
9:05 – 9:15 a.m.	Introductory Remarks	Elliot Mainzer
9:15 – 9:45 a.m.	What is EDAM?	Mark Rothleder
9:45 - noon	Common EDAM Design Principles	Stakeholder Panelists
Noon – 1:00 p.m.	<i>LUNCH</i>	
1:00 – 2:00 p.m.	EDAM Initiative Scope Topics	Milos Bosanac
2:00 – 2:30 p.m.	Stakeholder Working Groups/Structure	Milos Bosanac
2:30 – 3:00 p.m.	EDAM Market Design Timeline	Milos Bosanac
3:00 – 3:45 p.m.	Open Forum & Questions	
3:45 – 4:00 p.m.	Closing Remarks & Next Steps	Kristina Osborne

What is the Extended Day-Ahead Market (EDAM)?

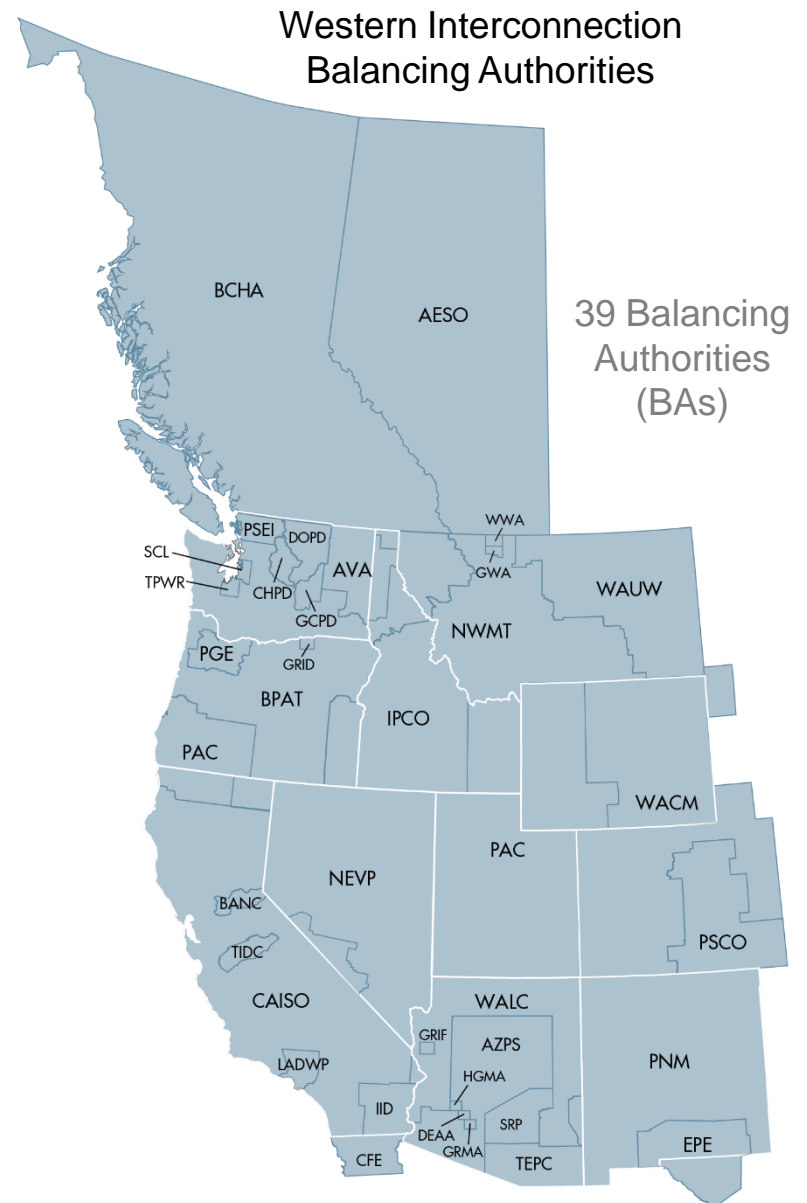
What is EDAM?

- The Western Energy Imbalance Market (EIM), established 2014:
 - voluntary real-time wholesale energy market.
 - optimally and economically dispatches generating resources.
 - balances supply and demand across a wider western footprint.
- EDAM builds upon the EIM:
 - expands optimized dispatch of diverse generating resources through the day-ahead market.
 - across the longer, day-ahead, timeframe.
 - maximizes efficient use of available transmission to serve load across a larger footprint.



What EDAM is Not

- EDAM is not equivalent to becoming a full member of the California ISO or any other RTO:
 - Transmission control, planning and cost allocation remains with member entity.
 - It is unlikely that EDAM will result in a single, unified transmission rate across the EDAM footprint.
 - Resource Adequacy and Resource Planning will continue to remain with member entities and their respective regulating authorities.
- EDAM is not intended to result in any changes to state regulatory authority.



Map source: WECC

EDAM Benefits – An Overview

- **Potential production cost savings through:**
 - More efficient day-ahead hourly trading and use of available transmission across the market footprint.
 - More efficient day-ahead unit commitment.
 - Cost-effective day ahead solution for serving load across a larger market footprint.
- **Load and generation diversity benefits across a larger geographic area:**
 - Diversity of load patterns can reduce capacity needs and costs.
 - Diversity of supply can help meet flexibility needs of the entire system.
- **Potential environmental benefits:**
 - Reduced curtailments of renewable generation.
 - Greenhouse gas reductions through dispatch of least cost generation.

Common EDAM Design Principles

Stakeholder Panelists

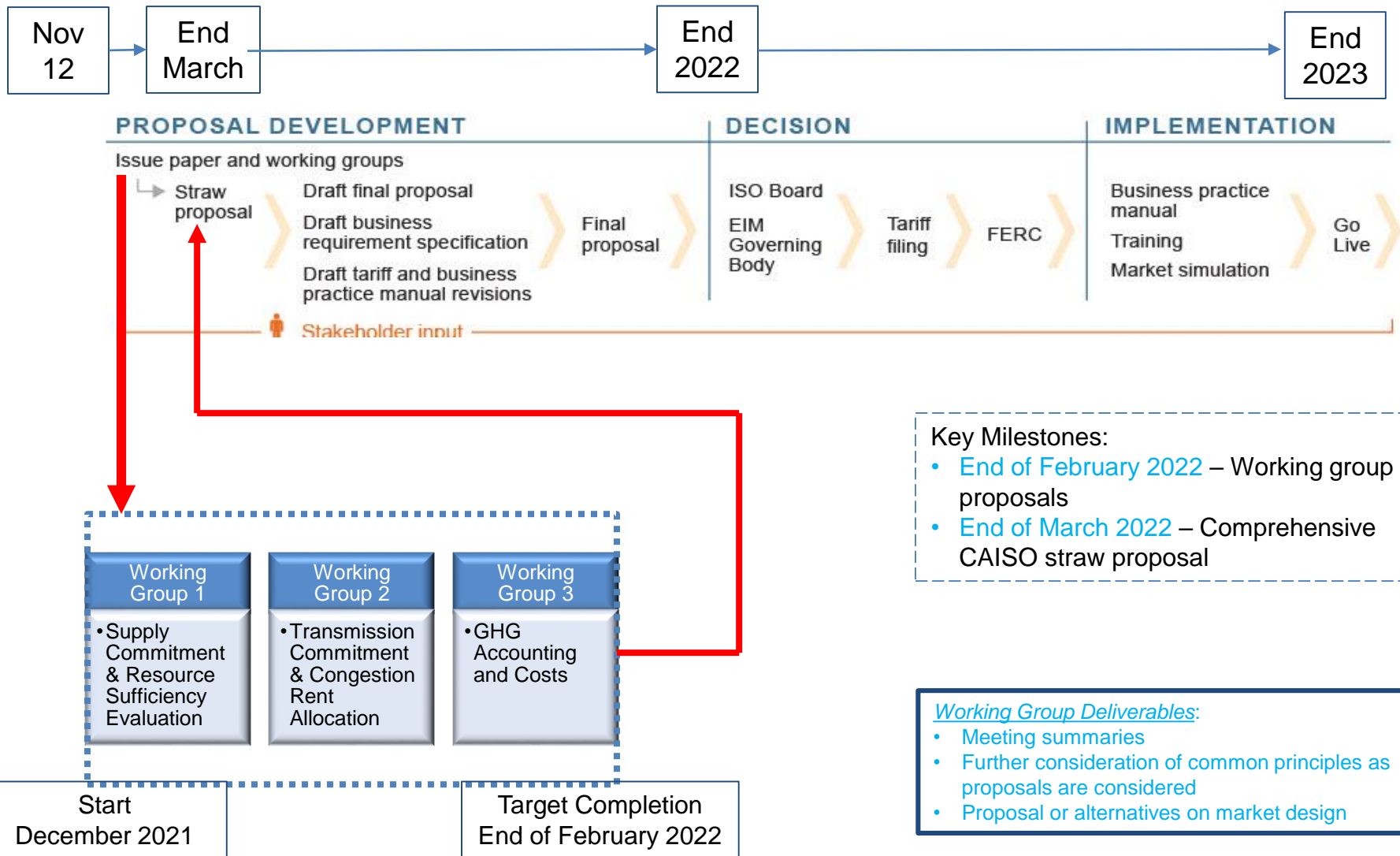
- Kathy Anderson, Senior Manager, Real Time Operations and Markets, Idaho Power Company
- Jeffrey Nelson, Director, FERC Rates and Market Integration, Southern California Edison
- Scott Ranzal, Director Portfolio Management, Pacific Gas and Electric Corporation
- David Rubin, Federal Energy Policy Director, NV Energy
- Josh Walter, Strategic Advisor, Seattle City Light
- Mike Wilding, Vice President, Energy Supply Management, PacifiCorp

Initial EDAM Scope Topics

EDAM Topics Roadmap - Overview

- EDAM market design topics consist of those covered in the *Common EDAM Design Principles*, but also include additional topics that were not explicitly addressed by the principles.
- Stakeholder working groups will be tasked with market design development of a number of foundational elements.
- Topics not addressed in the working groups will be developed by ISO staff and incorporated into the comprehensive straw proposal.

Open and Inclusive EDAM Working Group & Stakeholder Engagement



EDAM Topics – From Common Principles

- **EDAM Entity Participation Commitment**
 - Defining the nature of commitment to participate in EDAM, and terms of entry and exit.
- **Transmission Commitment**
 - Defining the process for making transmission available to EDAM for optimization.
- **Congestion Rent Allocation**
 - Defining compensation and revenue allocation process for transmission made available to EDAM.

EDAM Topics – From Common Principles

- **Supply Commitment**
 - Defining the resource sufficiency evaluation framework in EDAM.
- **Confidence in EDAM Transfers**
 - Establishing level of confidence in, and priority of EDAM transfers to ensure these can be relied upon.
- **GHG Accounting**
 - Defining the market design framework accounting for GHG costs and obligations arising from EDAM transfers.

Additional EDAM Issues To Consider

- **Ancillary Services Optimization**
 - Consideration of potential optimization of ancillary services throughout the EDAM footprint.
- **Convergence Bidding**
 - Consideration of enabling convergence bidding across EDAM footprint or for individual participants.
- **Modeling of Non-EDAM Imports/Exports**
 - Consideration of aligning the market's modeling of CASO imports/exports with its modeling of EIM entity imports/exports.
- **Congestion Revenue Rights (CRR)**
 - Consideration of enabling CRRs within individual participating BAAs.
- **EDAM Administrative Fee**
 - Evaluation of administrative fees based on services provided through EDAM.
- **External Resource Participation**
 - Consideration of economic participation of external resources in EDAM.
- **EDAM Market Power Mitigation**
 - Consideration of enhancements to the market power mitigation process to better identify competitive regions; interplay with system market power mitigation.
- **Settlement Cost Allocation**
 - Implications on settlements arising from different proposals.

Price Formation Topics

- As part of the common EDAM design principles, the group also recognized the need to consider and evaluate price formation issues in parallel with the EDAM effort.
- The ISO will be launching the *Price Formation* initiative, through an issue paper, in early 2022.
- The topics considered as part of the initiative include:
 - Scarcity Pricing Enhancements
 - System Market Power Mitigation
 - Fast Start Pricing

Reference Materials

- The roadmap topics are consistent with the set of topics originally undertaken in the prior iteration of the EDAM effort in 2019.
- The issue paper provides further description on the EDAM topics.
 - <http://www.caiso.com/InitiativeDocuments/IssuePaper-ExtendedDayAheadMarket.pdf>
- EDAM initiative web page:
 - <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>

Stakeholder Working Group Structure

EDAM Stakeholder Working Groups

- Three stakeholder working groups to collaboratively design foundational elements of the EDAM.

Working Group 1

Supply Commitment &
Resource Sufficiency
Evaluation

Working Group 2

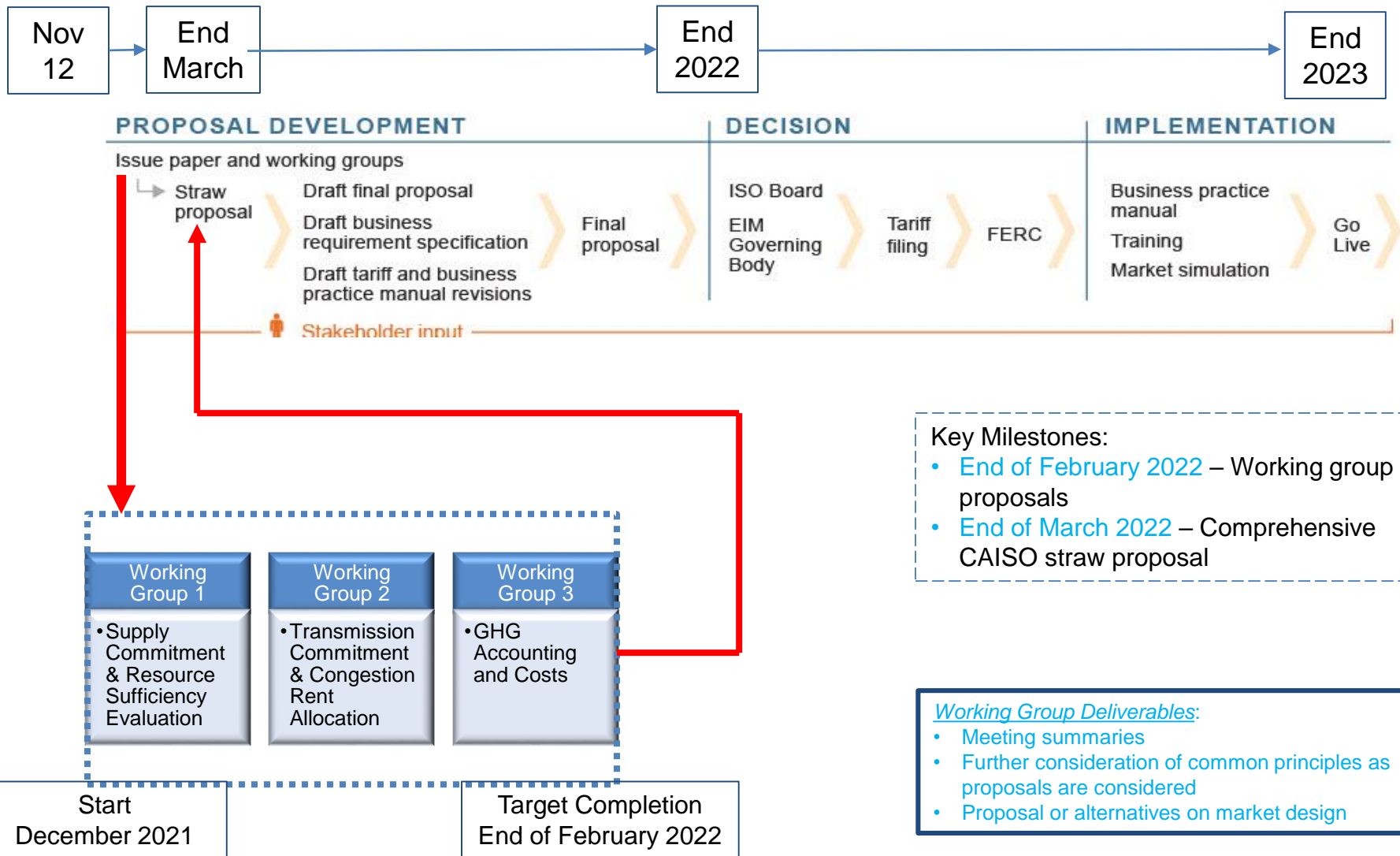
Transmission Commitment
& Congestion Rent
Allocation

Working Group 3

GHG Accounting and
Costs

- Working groups will drive toward a detailed market design proposal.

Open and Inclusive EDAM Working Group & Stakeholder Engagement



EDAM Stakeholder Working Groups - Transparency

- Stakeholder working group meetings will be public.
 - Publicly noticed and on CAISO calendar.
 - Ability of stakeholders to provide input – comments/questions/proposals – into the discussion.
- Publication of working group meeting minutes.
 - Available on EDAM initiative webpage.
- Working group deliverables will be part of a comprehensive CAISO proposal.
 - Subject to stakeholder comment and review.

Working Group Structure - Roles

- **ISO Facilitators** - each group will be managed by designated ISO facilitator.
 - Responsible for guiding discussion, driving toward resolution of issues and toward deliverables.
- **Scribe** – each group will have a designated scribe.
 - Responsible for capturing discussion and evolution of proposal(s), meeting summaries making those available for publication.
- **Stakeholder Participants** – open to all stakeholders.
 - Expected to constructively participate, contribute, and represent perspectives toward development of market design.
- **ISO policy and subject matter expert teams**
 - Active participation in the working groups and formulation of proposals.

Participation Commitment & Deliverables

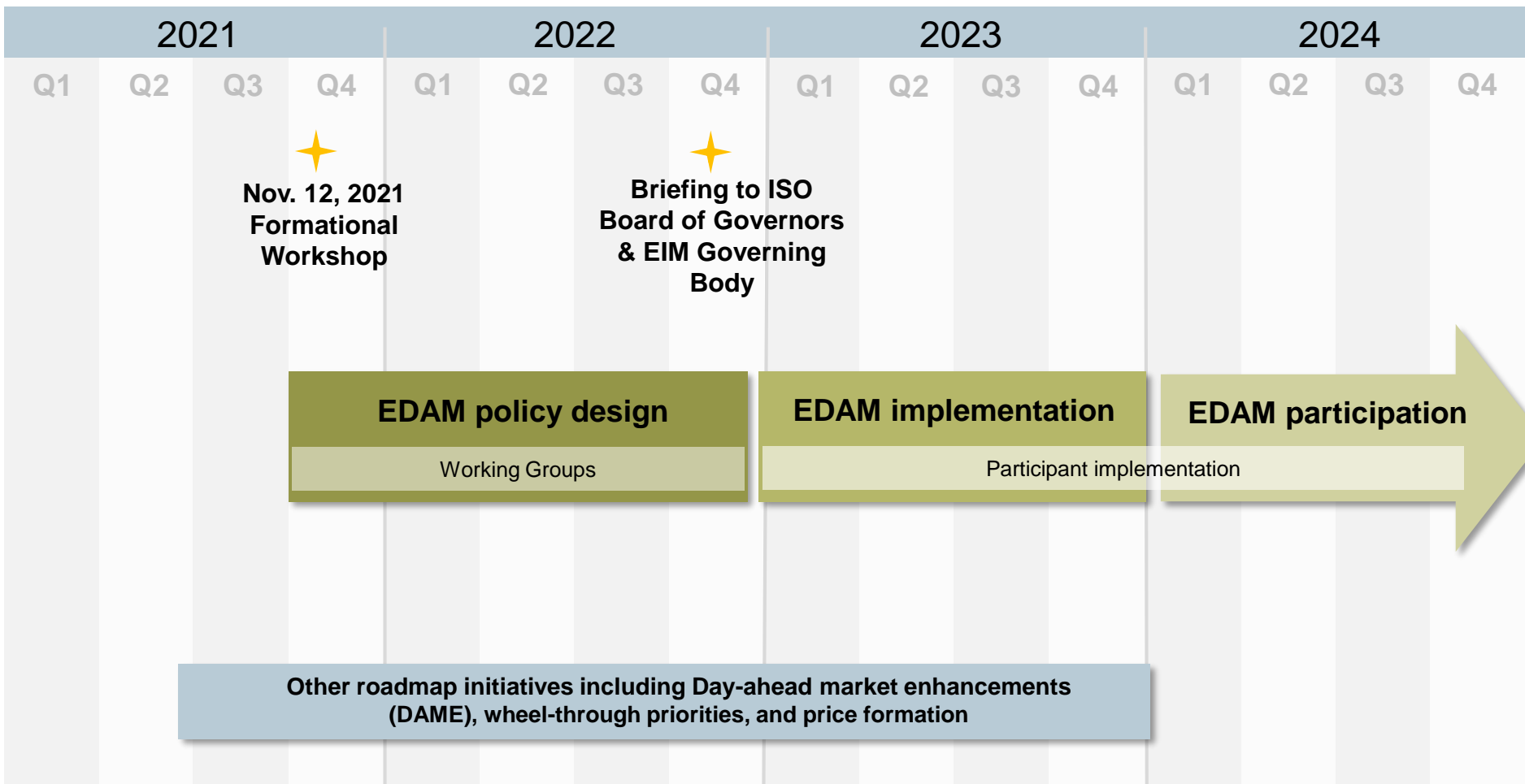
- Working group meetings will be a sizeable time and effort commitment.
 - Active, constructive, and collaborative engagement.
 - Stakeholders are encouraged to organize to cover all three working groups.
- Meeting Cadence
 - Weekly meeting cadence: two weekly 2-hour meetings.
 - Frequency can be adjusted by working group as necessary.
- Deliverables
 - Market design proposal, or limited alternatives, to be incorporated into broader EDAM straw proposal.
 - Deliverables completed by end of February 2022.

Next Steps on Working Groups

- Working groups are expected to commence the week of December 6th.
- Working group meetings will be organized to avoid or limit overlap between sessions.
- A market notice announcing the working group schedule will be published by November 23rd.
- Stakeholders can register for working groups here:
 - <https://www.surveymonkey.com/r/EDAM-WG>

EDAM Stakeholder Process Schedule

Extended day ahead market development plan



★ Key milestones

Stakeholder Process Schedule

Date	Milestone
Early Dec, 2021	Kick-off working group meetings
February 25, 2022	Working group – deliverables
March 28, 2022	Publish straw proposal
April 4, 2022	Stakeholder meeting to discuss straw proposal
April 18, 2022	Stakeholder comments due straw proposal
Late May 2022	Publish revised straw proposal
Late July 2022	Publish second revised straw proposal
Late Sep 2022	Publish draft final proposal
Late Nov 2022	Publish final proposal
Dec 2022	Briefing to Board of Governors & EIM Governing Body

Open Forum and Questions

Next Steps

Next Steps - EDAM Initiative Stakeholder Process

- Written comments on the workshop materials and discussion are due by end of day Dec 8, 2021. Please submit using the online template on the EDAM initiative webpage:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>
- Please send follow-up questions to isostakeholderaffairs@caiso.com.
- [Subscribe to ISO's Daily Briefing](#) to receive regular notifications related to EDAM and other ISO initiatives.