



California ISO

WESTERN EIM

Briefing on draft final policy initiatives roadmap 2022 - 2024

Greg Cook, Executive Director Market and Infrastructure Policy

Board of Governors and EIM Governing Body Joint Meeting

General Session

February 9, 2022

Annual roadmap process is a comprehensive planning process for enhancing and evolving the ISO markets

- Roadmap developed through a stakeholder process to prioritize the policy initiatives the ISO will undertake over the next three years
- Annual roadmap process includes updating the policy initiatives catalog
 - Directory of current, planned, and potential policy initiatives
 - New potential policy initiatives originate from stakeholders and internally at the ISO
 - Updated twice a year but catalog submissions are accepted year-round



PRIMARY DRIVERS

Primary drivers of 2022 three-year policy roadmap

- **Increased resource and load variability** - enhance the day-ahead market and extend to EIM entities to leverage regional diversity and provide west-wide benefits
- **Increasing amounts of storage resources** - enhance ISO markets to efficiently dispatch storage resources in alignment with operational needs
- **Economic and reliability benefits of greater integration of Western markets** – extend the day-ahead market across a larger footprint and openly and optimally manage access to available transmission



MARKET DESIGN AND REGIONAL MARKETS



Extended day-ahead market initiative is exploring expanded day-ahead market participation to provide regional benefits

- EDAM will improve market efficiency and more effectively integrate renewable resources by
 - Optimizing day-ahead unit commitment
 - Producing hourly energy transfer schedules
 - Capture resource diversity benefits and improve transmission utilization across a larger footprint
- This year's roadmap reflects the high-priority the ISO is giving to enabling participating in EDAM by 2024

Day-ahead market enhancements initiative addresses challenges of the transforming grid


- Efficiently schedule supply to address net load uncertainty and real-time ramping needs
 - Improve market efficiency and price signals by co-optimizing imbalance reserves with energy and ancillary services
 - Enhance the residual unit commitment process to also schedule downward capacity
- Reduce out-of-market actions
- Plays an important role in setting up the foundation for EDAM

Price formation enhancements initiative will improve pricing provisions for efficient market pricing during tight supply conditions

- Explore scarcity pricing mechanisms to ensure prices incentivize accurate scheduling and bidding that aligns with operational needs
 - Provide strong incentives for resources including storage to align with operational needs
- System-level market power mitigation enhancements is related to the price formation initiative, but will be discussed in EDAM
- Explore fast-start pricing
- Explore advisory market interval pricing issues related to storage dispatch and pricing

Resources sufficiency evaluation enhancements - phase 2 initiative will examine further resource sufficiency evaluation enhancements

- Consequences for failing resource evaluation
- Inclusion of upward operator adjustments (i.e. load conformance)
- Accounting for exports supported by EIM transfers or speculative exports
- Demand response monitoring
- Further enhancements to account for storage resources
- Intertie uncertainty calculation
- Other potential enhancements




Transmission services and market scheduling priorities initiative is developing a process forward process to release available ISO transmission for use by non-ISO entities

- Considers a holistic, long-term, process for wheel-through transactions to obtain high-priority scheduling rights
- Recognizes the need for, and dependence on, wheeling through ISO's system to serve external load
- Also considering near-term enhancements to scheduling priority processes




RESOURCE ADEQUACY, TRANSMISSION, DR & DER, AND STORAGE



Resource adequacy phase 2 initiative will develop changes to align with day-ahead market enhancements and improve must offer obligation rules

- Day-ahead market enhancements alignment
 - Bid price and must offer obligations changes
 - Flexible resource adequacy
- Enhance must offer obligations for storage and conditionally available resources
 - Bid insertion modifications




Central procurement entity implementation will develop CPUC resource adequacy central buyer related enhancements

- Develop enhancements to accommodate a separate central buyer of resources adequacy resources on behalf of load serving entities




Capacity procurement mechanism enhancements initiative will provide increased assurance of capacity to meet operational needs

- Examine pricing provisions related to the soft offer cap
- Examine procurement authority to align with changing operational needs



Energy storage enhancements initiative is developing enhancements to efficiently dispatch storage resources in alignment with operational needs

- Improvements to the existing storage model
- New model for state of charge
- Storage exceptional dispatch provisions to ensure reliable system operations
- Enhancements to the co-located resource model
- Storage dispatch and compensation related topics are also planned to be addressed in the price formation initiative



Interconnection process enhancements initiative will address a number of issues related to enhancing the generator interconnection and deliverability allocation procedures

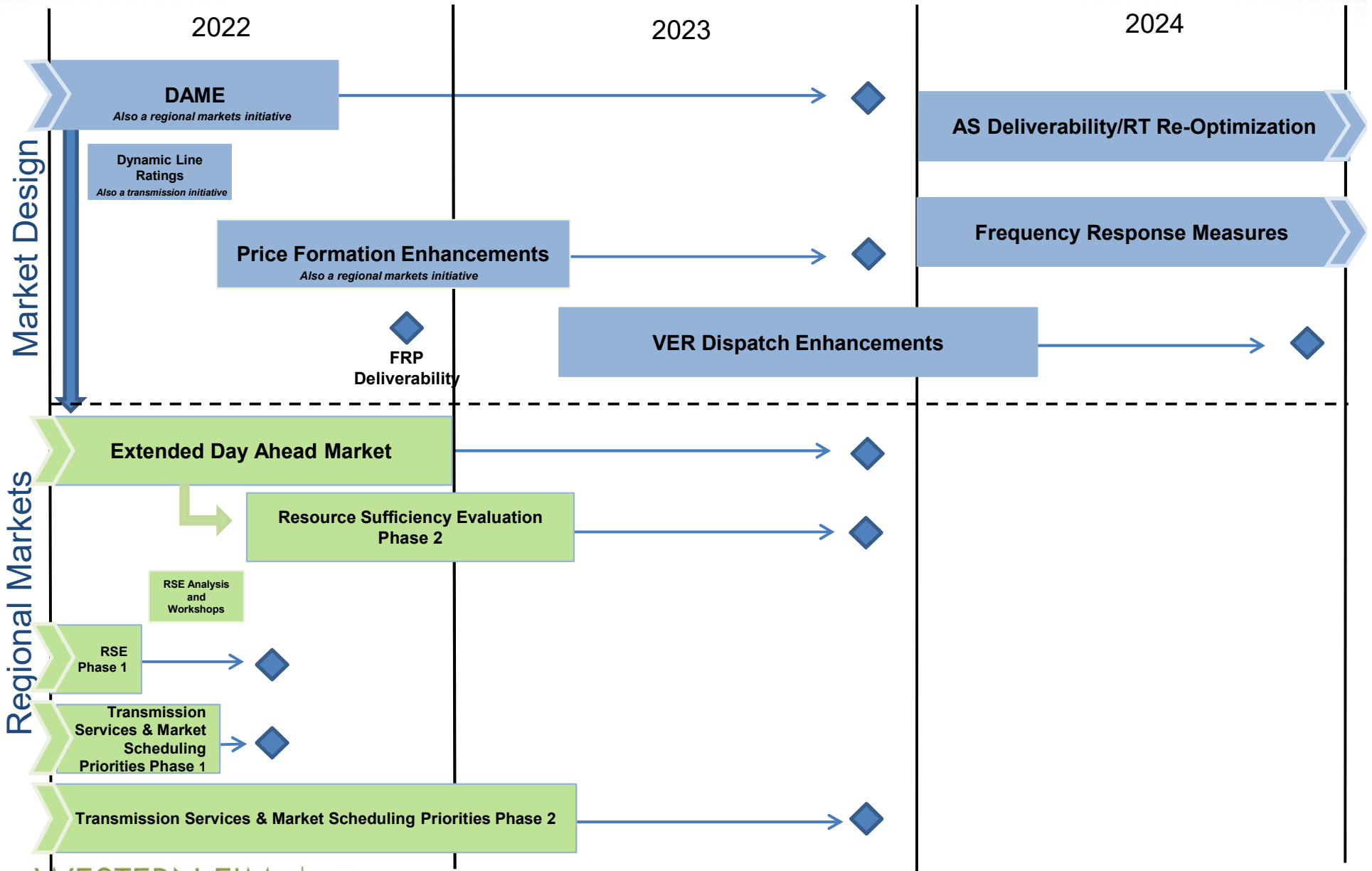
- Enhancements to incrementally improve the efficacy of the existing processes
- Enhancements to address queue overload
- Broader process reform considerations focusing on aligning the procurement processes



DRAFT FINAL ROADMAP AND ANNUAL PLAN

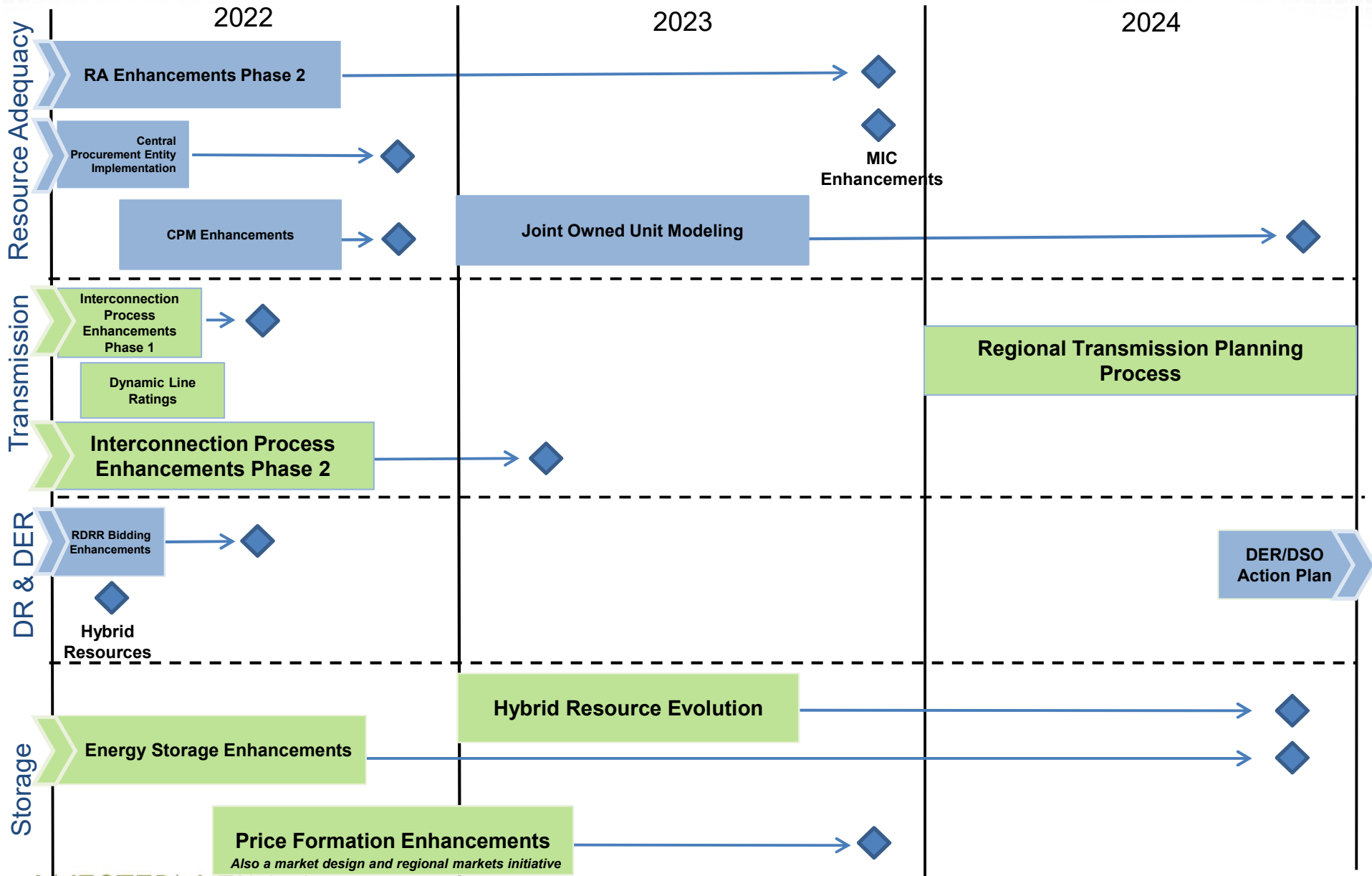
Market Design and Regional Markets

◆ = Implementation



RA, Transmission, DR & DER, and Storage

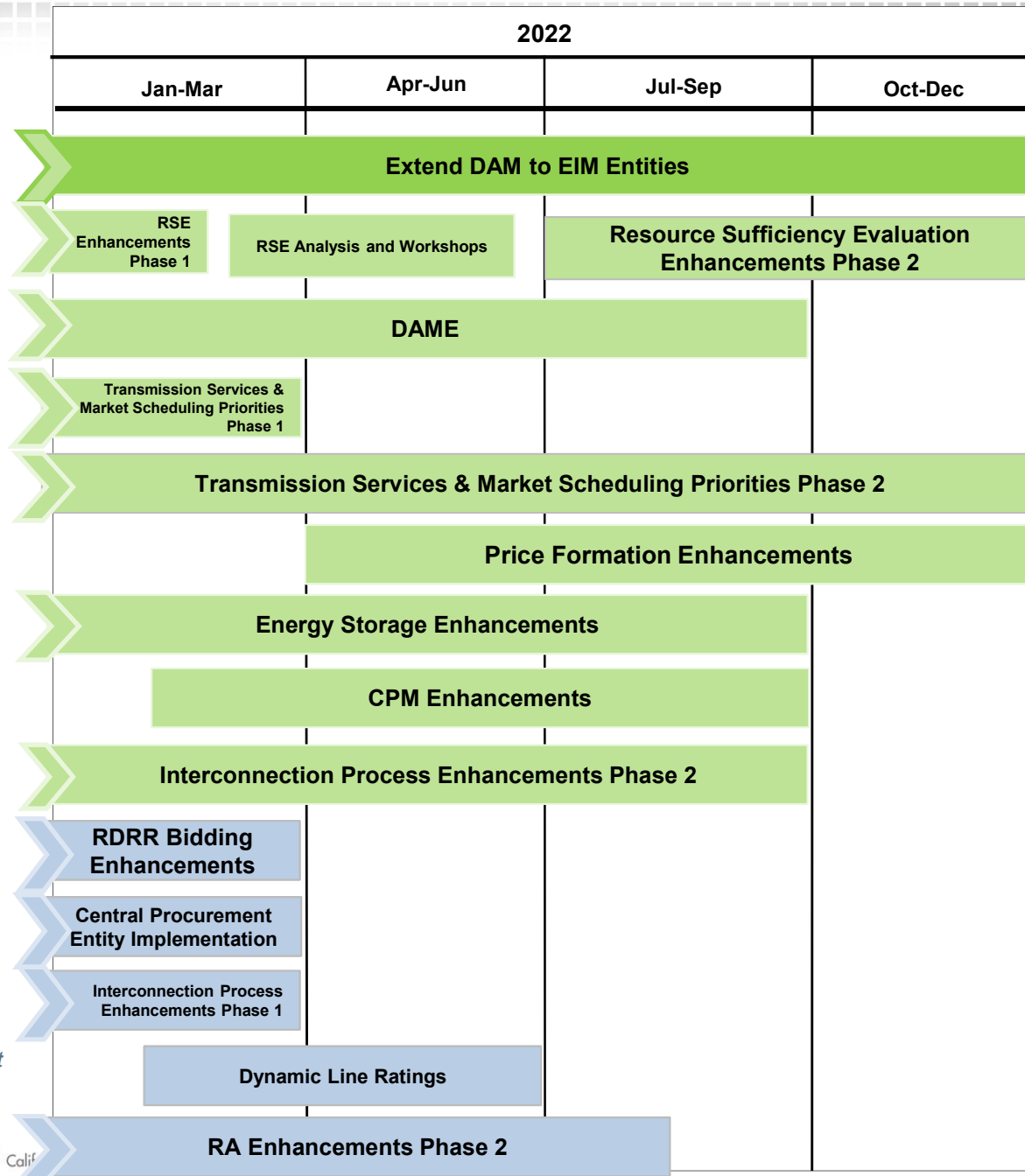
◆ = Implementation



2022 Draft Final Annual Plan


■	Major Initiatives
■	Initiatives

**Timeframes are approximate and subject to change*



Upcoming EIM Governing Body and Board decisions


- March EIM Governing Body/ISO Board meeting
 - Update to short and long start definitions (joint authority)
 - Reliability demand response resource enhancements to align with FERC Order 831 (joint authority)
 - Resource adequacy central procurement entity provisions (ISO Board only)
- May EIM Governing Body/ISO Board meeting
 - Reliability demand response resource enhancements (joint authority)
 - Interconnection process enhancements phase 1 (ISO Board only)



Stakeholders generally support the focus of the 2022 draft policy initiatives roadmap and annual plan, but are concerned about prioritization and feasibility

- Concerned that there will not be enough ISO and stakeholder bandwidth to complete other important initiatives that are foundational to EDAM
 - Day-ahead Market Enhancements, Price Formation, Resource Sufficiency Evaluation, and Transmission Services & Market Scheduling Priorities

The roadmap was developed based on inter-dependencies among initiatives. CAISO appreciates the challenge of achieving a regional day-ahead market by 2024

- 
- Advocate beginning a Resource Sufficiency Evaluation “Phase 1b” immediately to address to address load conformance adjustments

The CAISO plans to move immediately into a phase 1b initiative starting with workshops in February 2022.

- Also, encourage the CAISO to devote bandwidth to less significant issues that are important, but have never been addressed

The CAISO considers smaller initiatives through the roadmap and annual plan prioritization process

2022 policy initiatives roadmap process schedule:

- Draft final roadmap and annual plan – January 12
 - Stakeholder call – January 19
 - Comments – January 26
- Joint EIM Governing Body and ISO Board of Governors Meeting – February 9
 - Post final roadmap – February 17