

2027-2029 Final Market Design Roadmap

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Contents

Introduction 3
Background 3
Market Design Catalog and Roadmap Process 4
Market Design Catalog 4
Draft Market Design Roadmap Development 7
Draft Market Design Roadmap 8
Final Market Design Roadmap 10
2027 Decisions 12
Dispositions of Stakeholder Submissions 13
Appendix A: Final 2027-2029 Market Design Initiatives Roadmap 15
Appendix B: Dispositions of Market Design Initiative Submissions 16
Appendix C: Status Updates – Active Market Design Initiatives 17

Introduction

In its role as a market operator, the ISO is continuously engaged in evolving its markets to respond to the needs of a broad and diverse set of stakeholders, market participants, and regulators. The ISO administers an open and transparent stakeholder process each year to enable the development of market design policies that improve market operations, reliability, and efficiency. Through this process, ISO staff work with stakeholders to identify problem statements and iteratively develop market design solutions that culminate in proposals that ISO staff present to the ISO Board of Governors and/or the Western Energy Markets Governing Body for approval.

Through the annual Market Design Catalog and Roadmap process, the ISO solicits market design initiative proposals from stakeholders, assesses stakeholder support for proposed market design initiatives, and documents a work plan, called the Roadmap, for market design initiatives over the next three years.

The Catalog compiles stakeholder-submitted discretionary market design initiatives and characterizes stakeholder support for each initiative. The purpose of the Catalog is to develop a "short list" of discretionary market design initiatives which help inform Roadmap development. The Roadmap is the work plan describing the market design initiatives that the ISO plans to undertake over the next three years, and represents the intersection of stakeholder-identified priorities, initiative feasibility, urgency, and ISO resources. The Roadmap includes both discretionary and non-discretionary initiatives, as well as initiatives identified by stakeholders and initiatives identified by the ISO. Refer to the *Annual Policy Initiatives Roadmap Process*[1] document for further information on the Catalog and Roadmap purpose and process. The Roadmap also includes a disposition of all stakeholder submissions (Appendix B) as well as brief status and scope summaries for active initiatives (Appendix C).

Background

The California ISO maintains reliability and provides open access to the transmission system for 32 million customers in California and a small portion of Nevada, operates competitive wholesale electricity markets for 24 balancing authorities across 11 western states, and performs reliability services for much of the Western United States.

In its role as a market operator, the ISO evaluates and evolves its market design and pursues initiatives through its Market Design Catalog and Roadmap process to improve market

[1] https://stakeholdercenter.caiso.com/InitiativeDocuments/2024-FinalDiscretionaryPolicyInitiativesCatalog-AnnualPolicyInitiativesRoadmapProcess.pdf

operation, reliability, and efficiency. The 2027-2029 Market Design Catalog and corresponding Roadmap was developed in the context of the ongoing expansion of the competitive wholesale markets the ISO operates. The real-time component of the competitive wholesale electricity market, the Western Energy Imbalance Market (WEIM), has expanded and evolved over the last decade and in 2026 the day-ahead expanded with the launch of the Extended Day-Ahead Market (EDAM). EDAM is improving reliability benefits and economic value by optimizing the use of the grid and across the market footprint in the day-ahead timeframe.

The Market Design Roadmap prioritizes and sequences market design enhancements to build on and expand its competitive wholesale markets in the West. Several initiatives in the 2027-2029 Roadmap continue work on improvements to the foundational markets offered by the ISO today. Specifically, market power mitigation and scarcity pricing tracks elements of price formation enhancements, congestion revenue allocation enhancements, and greenhouse gas market features. In order to support the ISO's mission of an openly accessible power system that supports a diverse range of technology choices, two initiatives focus on refining market rules to allow more efficient integration of specific technologies: storage design and modeling enhancements and demand and distributed energy market integration.

The 2027-2029 Market Design Roadmap prioritizes initiatives that contribute to improved market operation, enhanced reliability, and market efficiency. It does so with input from stakeholders, participants, customers, and regulators consistent with ISO's mission, vision, and values.

Market Design Catalog and Roadmap Process

Market Design Catalog

In February 2026, 12 stakeholders submitted 18 proposals for consideration in the 2026 Market Design Roadmap and Catalog, the complete text of which are posted on the 2026 Policy Catalog and Roadmap webpage[2]. Two submissions were within the scope of the Infrastructure Policy Catalog and Roadmap and were referred to that process for further consideration[3]. The remaining 16 submissions were considered for prioritization by stakeholders and are listed below.

[2] 2026 Market Policy Catalog Submissions

[3] "Transmission Access Charge (TAC) Structure Enhancements" submitted by California Department of Water Resources State Water Project, and "Streamlined Augmentation of Operational Batteries" submitted by NextEra Energy Resources.

Table 1: 2026 Catalog Items

Submission Topic	Submission Title	Organization
Seams	Western market seams coordination	Appian Way Energy Partners
	Market-to-market seams	Bonneville Power Administration
	Internal and external market seams	Western Power Trading Forum
Resource Adequacy	Flex RA phantom obligation due to delayed commercial operation date	California Department of Water Resources - State Water Project
	Eliminate Flex RA & Update Capacity Procurement Mechanism	Western Power Trading Forum
	Maximum Import Capability (MIC) Enhancements	The Joint Parties
EDAM Enhancements and Analysis	EDAM and DAME assessment	California Public Utilities Commission Energy Division
	Imbalance reserve product enhancements	Pacificorp
	2028 EDAM Review	Pacific Gas & Electric
	EDAM enhancements	Western Power Trading Forum
EDAM Intertie Bidding	Economic intertie bidding under EDAM	Vitol Inc.
	EDAM BAA Transactional Market Seams Enhancements	The Energy Authority
	Intertie bidding with EDAM	Western Resource Advocates
Other	Liquidity of bilateral indices in FERC Order 831 implementation	California Public Utilities Commission Energy Division
	Rising costs to LSEs with Real-Time Congestion Offset (RTCO) Charges	California Department of Water Resources - State Water Project
	Ancillary Services Real-Time Re-Optimization	Pacific Gas & Electric

In April 2026, the ISO held a public stakeholder prioritization workshop in which organizations that submitted each of the 16 proposals were invited to present and provide additional context on their proposals and address questions from other stakeholders. Slides and a recording of this meeting are available on the 2026 Market Design Catalog and Roadmap webpage[4]. Following this workshop, all stakeholders were invited to participate in a poll to identify their top priorities and characterize their level of support for each initiative.

[4] 2026 Market Policy Catalog and Roadmap webpage

The Western Energy Markets Regional Issues Forum (RIF) also held a roundtable discussion of submitted proposals in March 2026, where members discussed issues and priorities among each of the sector liaisons. Following the roundtable discussion, the RIF issued a Roundtable Report in May 2026, which further documented the priorities of each of the RIF sectors[5]. The Western Energy Markets Body of State Regulators (BOSR) also submitted comments in May 2026 summarizing their priorities among both proposed and ongoing initiatives[6].

With stakeholder permission, thematically similar proposals were consolidated for voting purposes. Submissions from the following four organizations were consolidated into a single topic titled "western energy market seams": Appian Way Energy Partners, Bonneville Power Administration, The Energy Authority, and Western Power Trading Forum. Submissions from the following two organizations were consolidated into a single topic titled "EDAM intertie bidding-related topics": Vitol Inc. and Western Resource Advocates. Note that some thematically similar proposals remained separate – in these instances, stakeholders did not respond affirmatively to the ISO's request to consolidate their proposals. 36 stakeholders participated in the prioritization survey, and full survey results are included in the Catalog.

Two initiatives led as the highest single priorities for stakeholders: (1) Western energy market seams (eight votes), and (2) MIC enhancements (six votes).

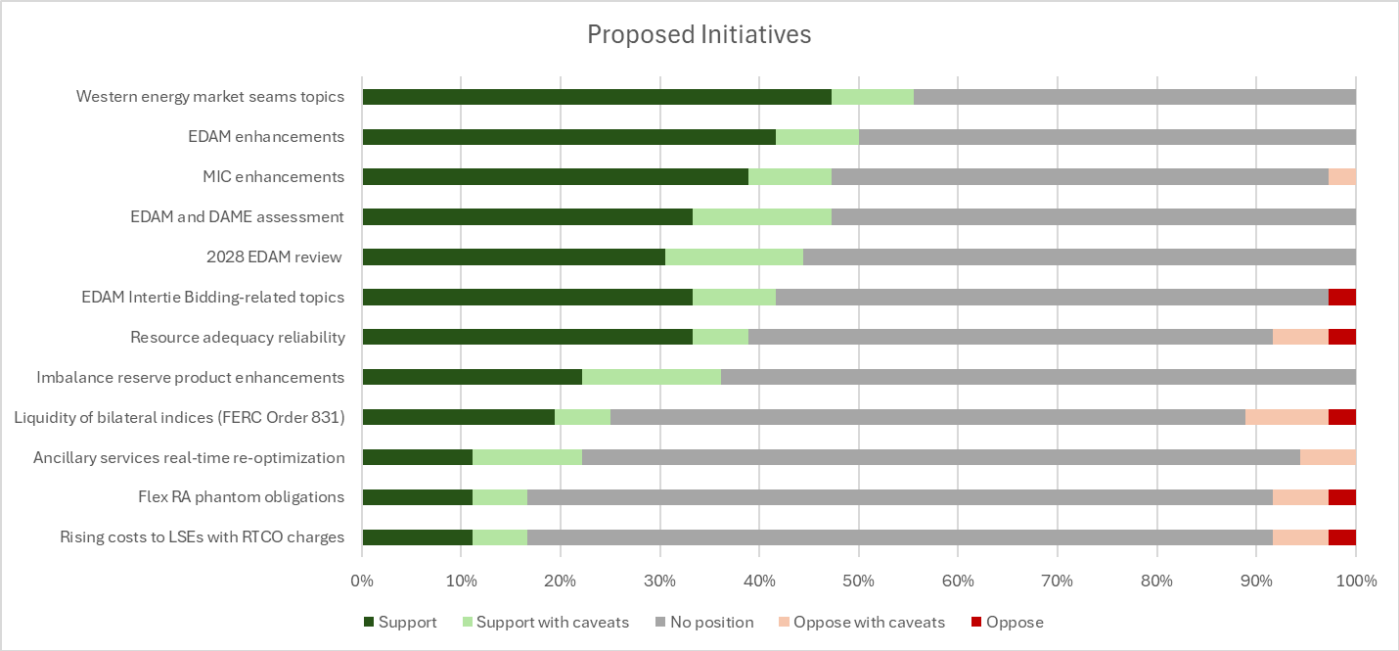
Table 2: Highest priority proposed initiatives, by number of stakeholder votes

Highest Priority	Votes
Western energy market seams topics	8
MIC enhancements	8
Resource adequacy reliability	4
EDAM and DAME assessment	4
EDAM Intertie Bidding-related topics	2
Rising costs to LSEs with RTCO charges	1
Liquidity of bilateral indices (FERC Order 831)	2
Flex RA phantom obligations	0
Imbalance reserve product enhancements	0
Ancillary services real-time re-optimization	0
2028 EDAM review	0
EDAM enhancements	0

[5] 2026 Regional Issues Forum Roundtable Report
[6] 2026 BOSR comments on Market Policy Catalog and Roadmap

Stakeholders were broadly supportive of all proposed initiatives and expressed the strongest support for the following three topics: western energy market seams, EDAM enhancements, and MIC enhancements. Aggregated results are highlighted below, with the full results available to in the Catalog[7].

Figure 1: Stakeholder feedback, proposed initiatives



Draft Market Design Roadmap Development

The stakeholder-identified priorities described in the Catalog were used to inform the internal planning efforts that produced the Roadmap. The stakeholder-identified priorities were a critical input to the Roadmap and were considered alongside ISO-identified market design initiatives. This list of initiatives underwent an internal prioritization process informed by stakeholders, ISO Critical and Strategic Objectives developed with ISO Board of Governors and WEIM Governing Body input, the ISO's own assessment of policy changes needed to ensure reliable and efficient operation of the grid and markets, and regulatory requirements. The scope, implementation timelines, and interdependencies of initiatives determined the number of market design initiatives that the ISO could undertake and is limited by the availability of ISO, stakeholder, and vendor resources.

[7] 2026 Catalog & complete stakeholder survey responses

The Market Design Initiative Roadmap provides an outline of the ISO's planned market design initiatives over the next three years from 2027 to 2029. The goal of the Roadmap is to preview the general scope of market design changes that the ISO is committed to addressing over the short and medium term and provide transparency about the ISO's market design initiative planning. Emergent market design issues will be incorporated into the ISO's market design initiatives work plan as necessary. The scope and timing of each listed initiative represents the ISO's best estimate at this time and is subject to change. The initiative scopes described in the Roadmap incorporate major themes the ISO anticipates will be addressed in each initiative but is not inclusive of all topics that may be addressed. The absence of a specific topic in the described scope does not preclude it from consideration within the initiative. Initiative working groups are the appropriate venue for further scope refinement and discussion, and the ISO requests that stakeholders direct these requests to the relevant initiative rather than future catalog submissions.

Draft Market Design Roadmap

Following the publication of the Draft Market Design Roadmap on September 24, 2026, the ISO led several public presentations to share schedule changes for existing market design initiatives and invite stakeholders to provide feedback on the draft roadmap. At an October 1 stakeholder meeting, ISO policy staff provided detailed schedule updates for each active market design initiative, including an explanation of changes, next steps, and considerations that motivated the schedule updates. ISO staff also provided an overview of the draft roadmap, a description of stakeholder submissions that were not included in the draft roadmap, and a preview of the expected changes to the 2027 catalog and roadmap process. Finally, all stakeholders were invited to participate in a survey to provide feedback on the draft roadmap and the roadmap process.

The ISO also led targeted stakeholder outreach, presenting draft roadmap updates at a public Regional Issues Forum meeting (October 5) and Body of State Regulators meeting (October 9). The focus of these presentations was to (1) Review additions and schedule changes to the roadmap, and (2) Solicit feedback on the draft roadmap's priorities and proposed schedules.

Stakeholders provided verbal comment during each of the three public meetings as well as written comment during the six-week stakeholder survey period. 23 stakeholders submitted comments during this period. Following the stakeholder comment period, 11 utilities submitted a separate letter to the ISO's President and CEO on the subject. Stakeholders generally supported the Draft Roadmap and its focus on advancing existing initiatives, while emphasizing the need for realistic sequencing that allows for meaningful stakeholder participation. In their

joint letter, the 11 utilities supported additional flexibility in the Roadmap to allow for full engagement of all stakeholders across market design initiatives. IOUs, public power entities, and other load-serving interests largely supported the proposed portfolio but cautioned that the roadmap leaves limited capacity for additional work and requested clearer scope, timing, and coordination for initiatives affecting resource adequacy, congestion costs, and demand flexibility. EDAM entities and other regional stakeholders supported the additional time for technically complex regional initiatives, particularly congestion revenue allocation, but sought stronger attention to EDAM intertie bidding, seams, price formation, and alignment with the transition to ROWE governance. Storage, distributed energy resource, and demand response interests generally pushed for clearer or accelerated milestones, phased implementation, and separate tracks where broader issues could delay near-term improvements. Market participants were divided on price formation, with some advocating faster progress on comprehensive scarcity pricing while several California entities supported targeted market power mitigation but opposed further work on scarcity pricing and fast-start pricing.

Final Market Design Roadmap

Based on stakeholder feedback on the draft roadmap, the ISO updated the final roadmap schedule to incorporate additional policy development time for several initiatives. These schedule adjustments will enable more thorough stakeholder engagement, consideration of multiple perspectives, and policy analysis, ultimately resulting in durable, consensus-driven final proposals. Schedule changes also reduce the number of concurrent tracks within single initiatives, giving stakeholders more capacity to meaningfully engage on each track. A summary of decisional date changes is included in the table below, followed by a complete description of all schedule changes.

Table 3: Decision date changes

Initiative	Draft Roadmap Decision Date	Final Roadmap Decision Date
Congestion Revenue Rights Enhancements: Phase 2a, Modeling Enhancements	Q1 2027	Q2 2027
Congestion Revenue Rights Enhancements: Phase 2b, Product definition and CRR auction and allocation process enhancements	Q3 2027	Q2 2028
Demand and Distributed Energy Market Integration: Demand Flexibility	Q3 2027	Q3 2028
Intertie Schedule Modeling Enhancements	Q4 2027	Q2 2027
Price Formation Enhancements Track 1: Near-term BAA-level market power mitigation and emergency pricing	Q4 2027	Q2 2027
Price Formation Enhancements Track 2: Integrated evaluation of comprehensive scarcity pricing and market power protections	Q4 2027	Q3 2028
Resource Adequacy Modeling and Program Design: Track 2, Outage substitution and availability and incentive mechanisms	Q2 2027	Q3 2027
Resource Adequacy Modeling and Program Design: Track 3b, Backstop reform and long-term ISO BAA solutions to EDAM RSE	Q4 2027	Q2 2028
Storage Design and Modeling: Topic Group 2a: Default Energy Bids	Q1 2027	Q2 2027
Storage Design and Modeling: Topic Group 2b, Uplift	Q1 2027	Q1 2028
Storage Design and Modeling: Topic Group 3, State-of-Charge Management	Q2 2027	Q3 2028

Congestion Revenue Rights Enhancements: The decision for CRR Phase 2a: Modeling enhancements has been moved from Q1 2027 to Q2 2027 to ensure sufficient time to complete all necessary policy work. The decision for Phase 2b: Product definition and CRR auction and allocation process enhancements has been moved from Q3 2027 to Q2 2028 to enable focus on the Congestion Revenue Allocation initiative.

Demand and distributed energy market integration: The decision date for the demand flexibility enhancements track has been deferred from Q3 2027 to Q3 2028 due to a focus on completing the nonconforming load forecasting enhancements track (previously called "large load forecasting enhancements" track). Correspondingly, policy development on the demand flexibility enhancements track will begin in Q3 2027 rather than Q1 2027.The status of the "end-user exports in demand response performance measurement" track has been updated from "policy development" to "California and Western state agency coordination" to reflect that the ISO will work directly with the CPUC, CEC, and other Western state agencies and stakeholders on these issues until the CPUC releases its recommendations in June 2028, per SB 913. The final roadmap also removes the "track 1-3" prefixes from the titles of each of the three tracks in recognition of these sequencing changes.

Greenhouse Gas Accounting and Reporting: Policy development work on the Washington and California program linkage topic will begin in Q2 2027 rather than Q1 due to the timing of receiving rules from the state programs. The initiative title has been renamed from "Greenhouse Gas Coordination," the "Accounting and reporting" topic has been renamed to "Out-of-market GHG accounting and reporting framework," and the "Net export constraint" topic has been renamed to "GHG accounting market design enhancements" to more accurately reflect the scope.

Intertie Schedule Modeling Enhancements: The decision date has been moved from Q4 2027 to Q2 2027.

Price formation enhancements: The final roadmap splits the market power mitigation and scarcity pricing topic into two tracks: (1) Near-term BAA-level market power mitigation and emergency pricing (decision Q2 2027), and (2) Integrated evaluation of comprehensive scarcity pricing and market power protections (decision Q3 2028). The draft roadmap included a single track with a decision in Q4 2027. This change will enable an earlier decision on proposal elements that are closer to reaching a conclusion while allowing additional time to engage stakeholders and work towards alignment on more complex topics. The dialogue on Fast Start Pricing was also shifted from Q1-2 2027 to Q3-4 2027 to enable a focus on bringing the Track 1 item for a decision in Q2 2027.

Resource Adequacy Modeling and Program Design: The decision for Track 2 (Outage substitution and availability and incentive mechanisms) has been moved from Q2 2027 to Q3 2027 to reflect a more realistic policy development timeline. The decision for Track 3b (backstop reform and long-term ISO BAA solutions to EDAM RSE) has been moved from Q4 2027 to Q2 2028 to account for the significant policy work underway in the other RAMPD tracks and the capacity of stakeholders and the ISO to advance these efforts concurrently. The start of policy development for Track 3b and Track 4 (Flex RA) have also been delayed by one quarter in 2027 to enable a focus on UCAP and Track 2 before beginning new policy development conversations.

Storage Design and Modeling: In order to prioritize completion of the Default Energy Bids item, Topic Group 2 is split into two decisions, with the DEB decision (Q2 2027) sequenced before the uplift decision (Q1 2028). Topic Group 2 items were both originally scheduled for a Q1 2027 decision. This update is responsive to stakeholder requests to prioritize the DEB topic while ensuring all policy is thoroughly considered before advancing to a decision. Recognizing the need to focus stakeholder and ISO resources on completing Topic Group 2 before fully turning to Topic Group 3 (state-of-charge management), the final roadmap schedules the Topic Group 3 decision for Q3 2028 rather than Q2 2027. The start of Topic Group 4 implementation has also been postponed from Q2 2027 to Q2 2028. This revised schedule reflects a more realistic timeline for completing the work across all topic groups.

Virtual Bidding: Policy development work will begin no sooner than 2029 rather than 2028 to accommodate the workload associated with ongoing initiatives in 2028.

2027 Decisions

The final roadmap includes eight decisions in 2027: five under primary WEM Governing Body authority and three under primary ISO Board of Governors authority. Decision dates in the final roadmap are considered to be “no sooner than,” and are subject to change based on initiative progress and stakeholder feedback. Projected 2027 decision dates are listed below, separated by expected decisional jurisdiction.

The ROWE Board is expected to begin making decisions on market design initiatives within its jurisdiction in Q1 2028. The final 2027-2029 Market Design Roadmap does not sort initiatives by decisional jurisdiction. In preparation for the 2028 governance transition, the 2027 policy roadmap process will sort existing initiatives into ROWE-jurisdictional and non-ROWE jurisdictional decisional classifications. The ISO will begin this work in the 2027 roadmap process to allow sufficient time for a thorough consideration of each initiative’s scope in order to support consistent and well-informed jurisdictional determinations.

Table 4: 2027 Market Design Initiatives

2027	WEM Governing Body Decisions	ISO Board of Governors Decisions
Q1		
Q2	PFE Track 1: Near-term BAA-level market power mitigation and emergency pricing	CRR Phase 2a: Modeling enhancements
	Storage Topic Group 2: Default energy bids	
	Intertie Schedule Modeling Enhancements	
Q3	EDAM Congestion Revenue Allocation	RAMPD Track 2: Outage substitution and availability and incentive mechanisms
		RAMPD Track 5: MIC Enhancements
Q4	DDEMI: Nonconforming load forecasting enhancements	

Dispositions of Stakeholder Submissions

In February 2026, 12 stakeholders submitted 18 proposals for consideration in the 2026 Market Design Roadmap and Catalog. Two submissions were within the scope of the Infrastructure Policy Catalog and Roadmap and were referred to that process for further consideration. The remaining 16 submissions were considered for prioritization by stakeholders, with dispositions described below. Of the 16 submissions, three submissions were added to the Roadmap under the initiative title, “Seams.” Seven submissions were classified as being in-scope of an existing market design initiative or analysis. The remaining six submissions were not added to the 2027-2029 Roadmap. Each of these items was submitted in previous roadmap processes, with the ISO unable to prioritize these items against the significant existing workload.

The ISO is committed to ensuring that all proposals receive robust internal review. Dispositions of all initiatives are described in Appendix B. Dispositions include the ISO’s determination of

whether the item will be addressed and, where possible, a brief summary of the factors that contributed to the item not being prioritized at this time.

As described in the Background section, prioritization of market design initiatives and process improvements was informed by a number of factors including stakeholder feedback, ISO resources, and the ISO's assessment of changes needed to meet ISO Strategic Objectives and reliably and efficiently operate the markets and meet regulatory requirements.

Stakeholders are welcome to resubmit market design initiatives that the ISO did not accept for inclusion in the Roadmap. For process improvement items that do not require a tariff change and stakeholder initiative, the ISO requests that stakeholders contact customer service staff or client representatives and resubmit them through the appropriate venues.

Appendix A: Final 2027-2029 Market Design Initiatives Roadmap

Appendix B: Dispositions of Market Design Initiative Submissions

Appendix C: Status Updates – Active Market Design Initiatives