WESTERN ENERGY IMBALANCE MARKET

Briefing on ISO Website Overview

Peter Colussy External Affairs Manager – Regional

EIM Governing Body Meeting General Session March 1, 2017



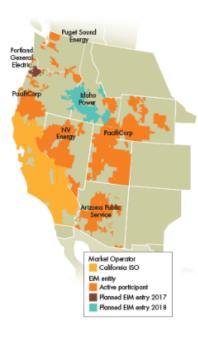
Western Energy Imbalance Market Webpage www.westernEIM.com

- Computer based training (CBT)
- > FAQs
- Quarterly benefits reports
- Monthly GHG tracking reports
- > Helpful links





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Western Energy Imbalance Market (EIM)

The Western EIM is a real-time wholesale energy market, the first of its kind in the western United States. It allows participating balancing authority areas to buy and sell the final few megawatts of power to satisfy demand within the hour it's needed. Since its launch in 2014, the ISO's western EIM has enhanced grid reliability and generated cost savings for participating utilities in eight states. The EIM also advances renewable energy integration, leading to a cleaner, greener power system.



California ISO Posts GHG Emissions Tracking Report Frequently Asked Questions for 11/14/16 Stakeholder Call

How western EIM works



Background



📆 Western EIM Participant Profiles

Western EIM stakeholder activities

- Western EIM stakeholder activities
- Western EIM implementation agreements
- Western EIM governance materials
- Western EIM Regional Issues Forum
- 🕵 Body of State Regulators (BOSR)

Technical reports and studies



- Greenhouse gas emissions tracking report This report includes an accounting of GHG emissions for the ISO balancing authority area (BAA), including ISO internal resources, net imports, and transfers from Energy Imbalance Market entities into the ISO BAA. This report alsoreflects the ISO assessment of GHG reductions associated with EIM operations
- Western EIM quarterly benefits reports 🛂 These reports quantify the estimated gross benefits from ElMoperations.

EIM Governing Body page

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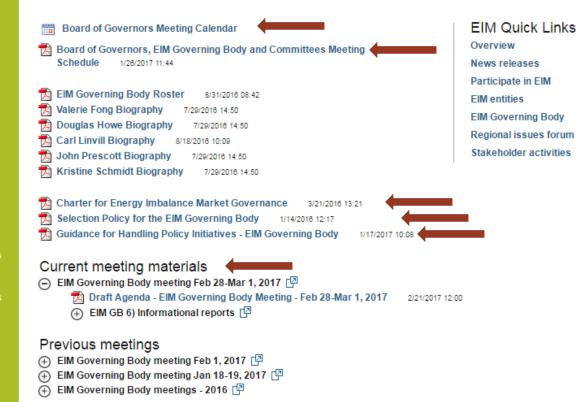
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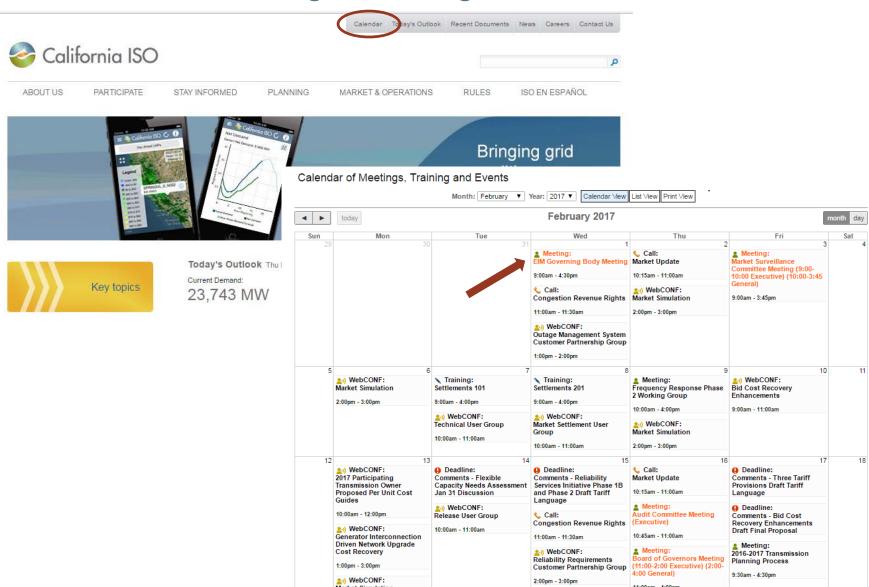
Home > Stay Informed > Board Committees > Energy Imbalance Market Governing Body

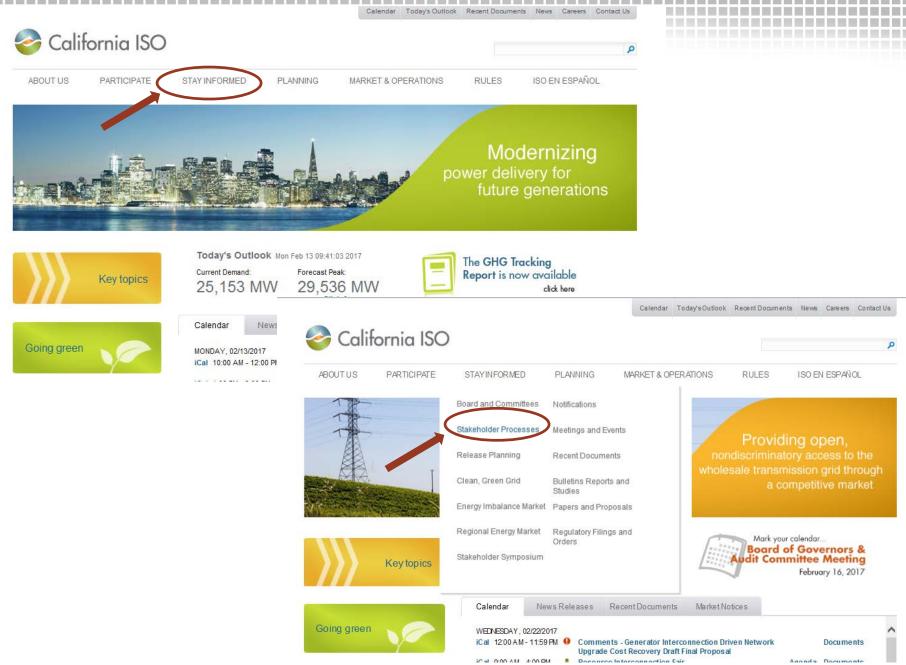
Energy Imbalance Market Governing Body

The ISO Board of Governors has delegated authority over the EIM rules to the western Energy Imbalance Market (EIM) Governing Body, as proposed by the EIM Transitional Committee. The five members of this body are financially independent from market participants and are selected by representatives of all EIM stakeholders. The Committee's Board-approved governance structure also established an advisory body comprised of regulators in states that participate in the real-time market and created a periodic stakeholder forum to discuss regional issues.



Calendar of meetings, training, and events



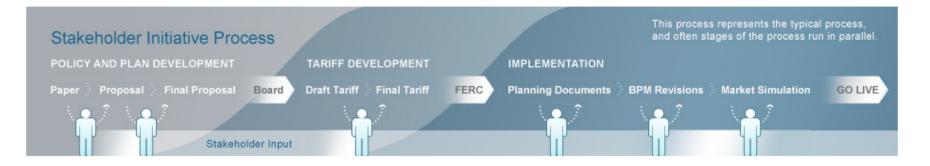




Stakeholder Processes Webpage

- > Stakeholder Initiatives Milestones
- Stakeholder Catalog and Roadmap
- > Stakeholder initiative webpages





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Stakeholder engagement opportunities

Stakeholder input is essential to ISO planning processes and for the success of new initiatives from policy development to implementation. We are committed to providing ample opportunity for stakeholder input into our market design, implementation and infrastructure planning activities. The stakeholder process will shape the market design and policies through a series of proposals, meetings and stakeholder comments.

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Stakeholder Initiative Milestones

1/18/2017 09:25

Release planning

Completed stakeholder processes

Current initiatives

Aliso Canyon gas-electric coordination

Bid cost recovery enhancements

Bidding rules enhancements

Black start and system restoration phase 2

Commitment costs

Commitment cost enhancements phase 3

Energy Imbalance Market activities

EIM Governing Body draft guidance document web conference

All active and archived EIM stakeholder activities

Regional energy market initiatives

Regional energy market

Stakeholder initiative milestones document

Stakeholders can access the ISO's stakeholder initiative milestones document, updated weekly, for any changes to initiative dates (for all ISO initiatives).

	Initiatives	Initiative Lead	Start	Discuss at MSC	EIM Category (E1-E4)	Proposed EIM Governing Body Meeting	Proposed Board Meeting	Notes	Proposed Tariff Filing Date	Publish Paper	Meeting/call	Comments Due	Training or Workshop	ISO Files Tariff Language
Recurring	ISO Board of Governors meeting		Recurring											
	Market surveillance committee meeting	B. Cooper	Recurring											
	Market performance and planning meetings	J. Morris	Recurring											
	Business practice manual change management meetings	J. Payton	Recurring											
Policy	Bid cost recovery enhancements (formerly two-tier)	P. Servedio	Q4 2015				Mar 2017			3	10	17		
	Black Start and System Restoration Phase 2	S. Vaughan	Q4 2016				May 2017			14	21	28		
	Commitment cost and Default Energy Bid Enhancements	C. Colbert	Q4 2016	Nov 18 2016	E2	Jul 2017	Nov 2017		2018					
	Contingency modeling enhancements	P. Servedio					May 2017		TBD					
	Energy storage and aggregated distributed energy resource, Phase 2	T. Flynn	Q1 2016		E2		TBD							
	Frequency response phase 2	C.Colbert	Dec 2016				Sep 2017					23	9	
	Flexible resource adequacy criteria and must run obligation phase 2	K. Meeusen	June 2015				TBD							
	Generator contingency/RAS modeling		Q2 2016		E2	Jul 2017	July 2017							
	Generation Interconnection Driven Network Upgrades Cost Recovery	S. Rutty	Q3 2016				Mar 2017			6	13	22		
	Load Serving Entity Definition Refinement	P. Servedio	Q3 2016				Oct 2016							
	Stepped Constraint Parameters	D. Tretheway	Q2 2016		E2	Apr 2017	May 2017							
Regional Integration	Regional Integration and EIM Greenhouse Gas Compliance	D. Tretheway	Q3 2016				TBD	New schedule TBD						
	Metering Rules Enhancements	T. Flynn	Mar-16				Dec 2016		Feb-17					
	Regional Resource Adequacy	C. Devon	Nov 2015				TBD	Subsequent activities on this initiative have not been planned or						
	Transmission Access Charge Options	L. Kristov	Oct 2015				TBD	Subsequent activities on this initiative have not been planned or						
			•											

http://www.caiso.com/Documents/StakeholderInitiativeMilestones.pdf





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Frequency response phase 2

Generator contingency and remedial action scheme modeling

Generator interconnection driven network upgrade cost recovery

Load serving entity definition refinement

Local market power mitigation enhancements 2015

Metering rules enhancements

Pricing enhancements

Reactive power requirements and financial compensation

Reliability services

Revised settlement statement and dispute timeline for T+35M

Self-schedules bid cost recovery allocation and bid floor

Stepped constraint parameters

WESTERN EIM



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Stepped constraint parameters

This initiative will consider the appropriate configurations for the market scheduling and pricing parameters criteria used in the ISO market optimization. These parameters govern conditions that may set market prices and relax constraints.

Initiative status

Policy development: in progress

Stepped constraint parameters - relevant market notices



Current meeting

No meeting scheduled at this time

Policy development

Stepped constraint parameters - papers and proposals [2]

ISO Public

- Issue Paper Stepped Constraint Parameters 5/10/2016 08:42
- Policy development meetings
- 🕦 Stakeholder comments 🗗





Slide 11

5/05/2016 11:40

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Stakeholder Initiative Milestones 2/15/2017 10:06

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Bidding rules enhancements

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Commitment costs

Commitment cost enhancements phase 3

Commitment costs and default energy bid enhancements

Congestion revenue rights clawback rule modification

Contingency modeling enhancements

Demand response

Demand response net benefits test

Energy storage and distributed energy resources

- Energy storage and distributed energy resources phase 1
- Energy storage and distributed energy resources phase 2

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PacifiCorp participation study

Regional Integration and EIM Greenhouse Gas Compliance

Regional resource adequacy

Transmission access charge options

All regional integration stakeholder activities

Recurring stakeholder processes

2016-2017 transmission planning process

2017-2018 transmission planning process

Budget and grid management charge process

Flexible capacity needs technical study process

Interregional transmission coordination

Local capacity requirements process

Participating transmission owner per unit costs

Stakeholder initiatives catalog process

Tariff clarifications filing process

Initiatives in implementation phase

Frequency response



Stakeholder initiatives catalog process

The Stakeholder Initiatives Catalog contains a listing and description of ongoing and potential enhancements to the ISO market design, infrastructure planning and generation interconnection process. The discretionary initiatives listed are ranked annually through a stakeholder process. The process will determine the highest priority enhancements that provide the most benefit to the ISO market and stakeholders. The ISO is seeking stakeholder comments to identify additional initiatives for possible inclusion in the final 2017 catalog.

Outcome

🏂 Final - 2017 Stakeholder Initiatives Catalog

2017 15:43

Most recent catalog and roadmap

2017 Stakeholder initiatives catalog process - relevant market notices

Current meeting

No meeting currently scheduled

Process

- 2017 Stakeholder initiatives catalog process
 - Final 2017 Stakeholder Initiatives Catalog 1/17/2017 15:43
 - 2017 Discretionary Policy Initiatives Ranking 12/22/2018 12:18
 - Revised Draft 2017 Stakeholder Initiatives Catalog (Revised Nov 4, 2016) 11/04/2018 12:22
 - Draft 2017 Stakeholder Initiatives Catalog 9/15/2016 14:20
 - Stakeholder comments

Archive





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Related links

Miscellaneous stakeholder meetings

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2017-2018 transmission planning process

Budget and grid management charge process

Flexible capacity needs technical study process

Interregional transmission coordination

Local capacity requirements process







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EIM Online Resources

ISO Website and western EIM Homepage www.caiso.com or www.westernEIM.com

Stakeholder Processes webpage – This page includes links to all of the active ISO stakeholder initiatives and processes. http://www.caiso.com/informed/Pages/StakeholderProcesses/Default.aspx

Stakeholder Initiative Milestones – This document is linked at the top of the Stakeholder Processes webpage. http://www.caiso.com/Documents/StakeholderInitiativeMilestones.pdf

Stakeholder Initiatives Catalog and Roadmap – The ISO conducts this process annually with stakeholders to map out initiatives for the year ahead.

http://www.caiso.com/informed/Pages/StakeholderProcesses/StakeholderInitiativesCatalogProcess.aspx

Energy Imbalance Market webpage – Provides overview of the Energy Imbalance Market including CBTs, FAQs, quarterly benefits and monthly GHG tracking reports, and other related materials and helpful links. http://www.caiso.com/informed/Pages/EIMOverview/Default.aspx.

Note: The *Stakeholder Processes*, *Energy Imbalance Market* and *Notifications* webpages are all located under the "Stay Informed" tab on the ISO homepage.



