

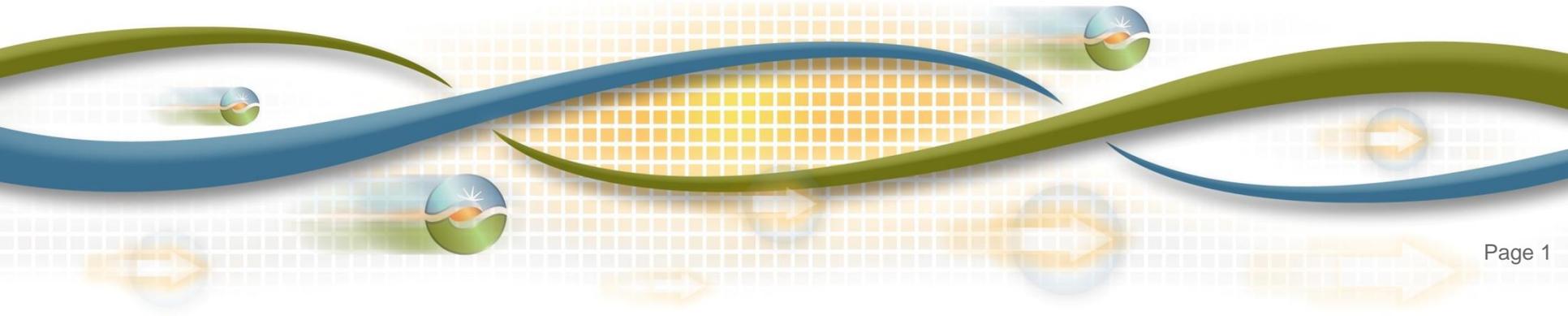


California ISO
Shaping a Renewed Future

Energy Imbalance Market governance process

Sector Conference Calls

January 22 and 23, 2014



Agenda

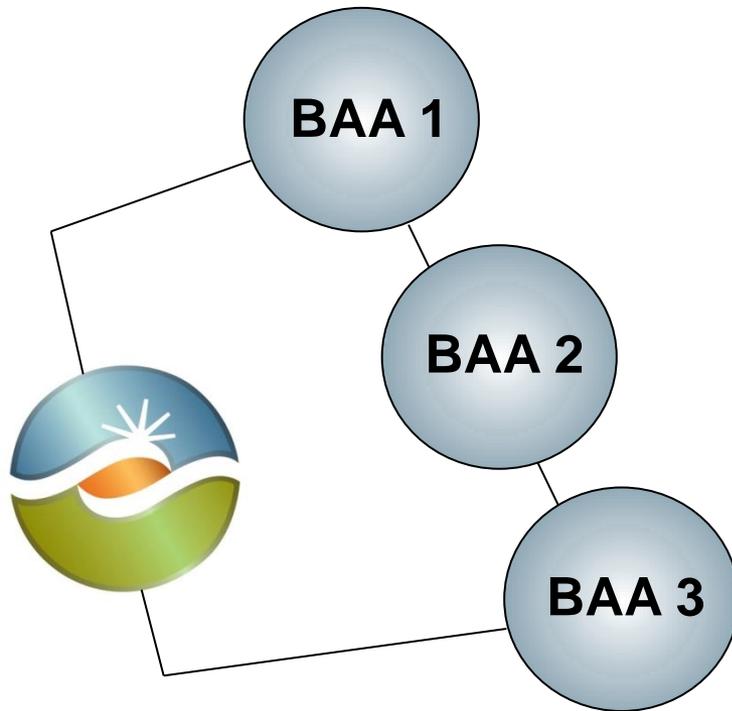
- Introductions
- General overview of Energy Imbalance Market
- Participants to select sector liaison
- Discuss schedule and structure for calls/meetings
- Consider level of ISO involvement
- Date and time of next call/meeting

The ISO's EIM

- The only real-time energy market in western US
- Advanced ISO market systems automatically balance electricity every 5 minutes,
- It chooses the least-cost resources to meet demand reliably.



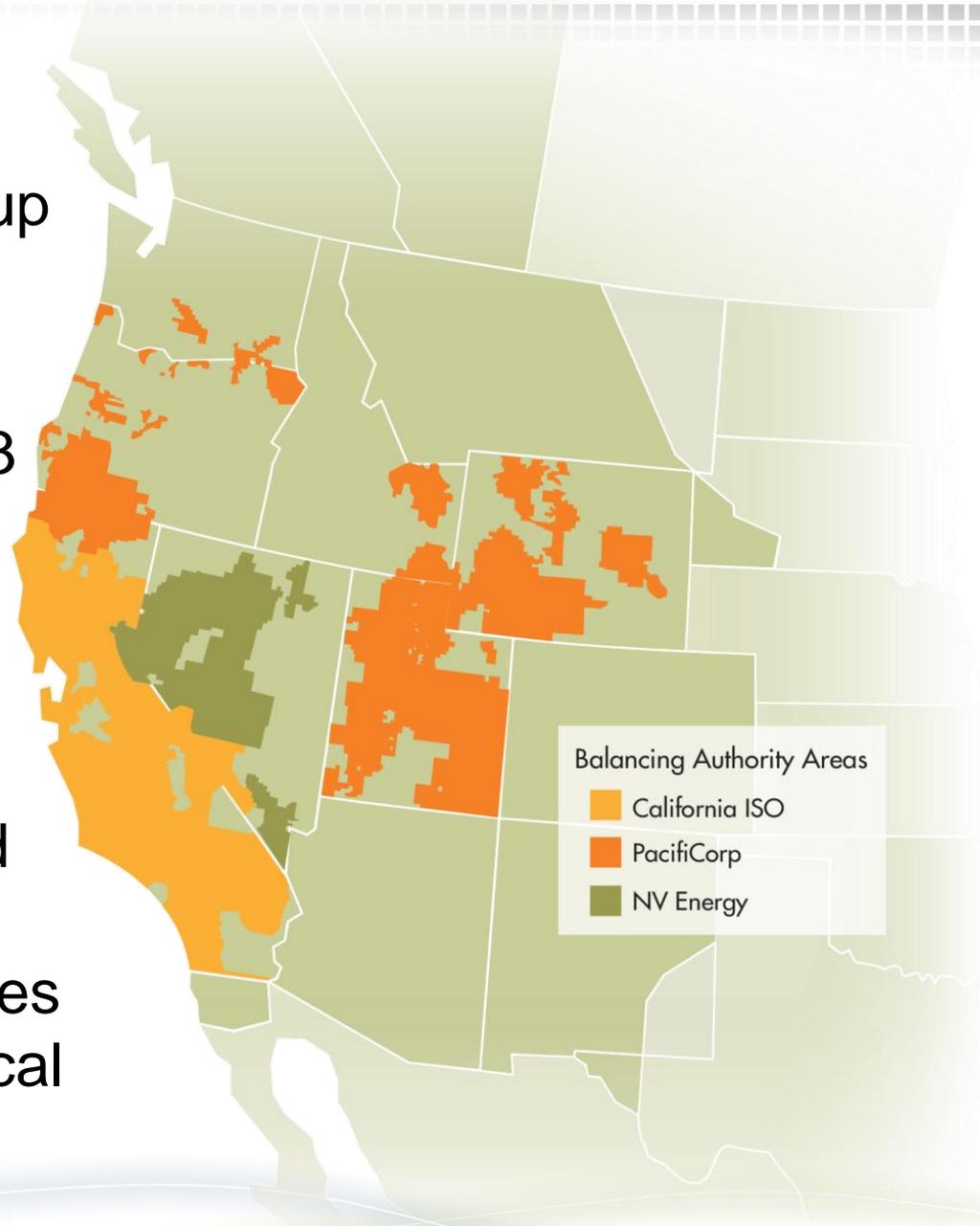
A simple, scalable approach promotes incremental participation



- No critical mass required – each participant can enter EIM when ready
- Preserves participants' autonomy and current practices
 - Balancing authorities balance and provide their own ancillary services
 - Balancing authorities can trade bilaterally
 - Participants retain all physical scheduling rights
 - Flexible modes of participation are available

The ISO's EIM

- Proposal to PUC-EIM group in March 2012
- PAC signed April 2013
- NVE announced Nov 2013
- Offering EIM services to other grid operators in the West
- Assists in integration of renewables and enhanced reliability through the sharing of diverse resources across a larger geographical area.

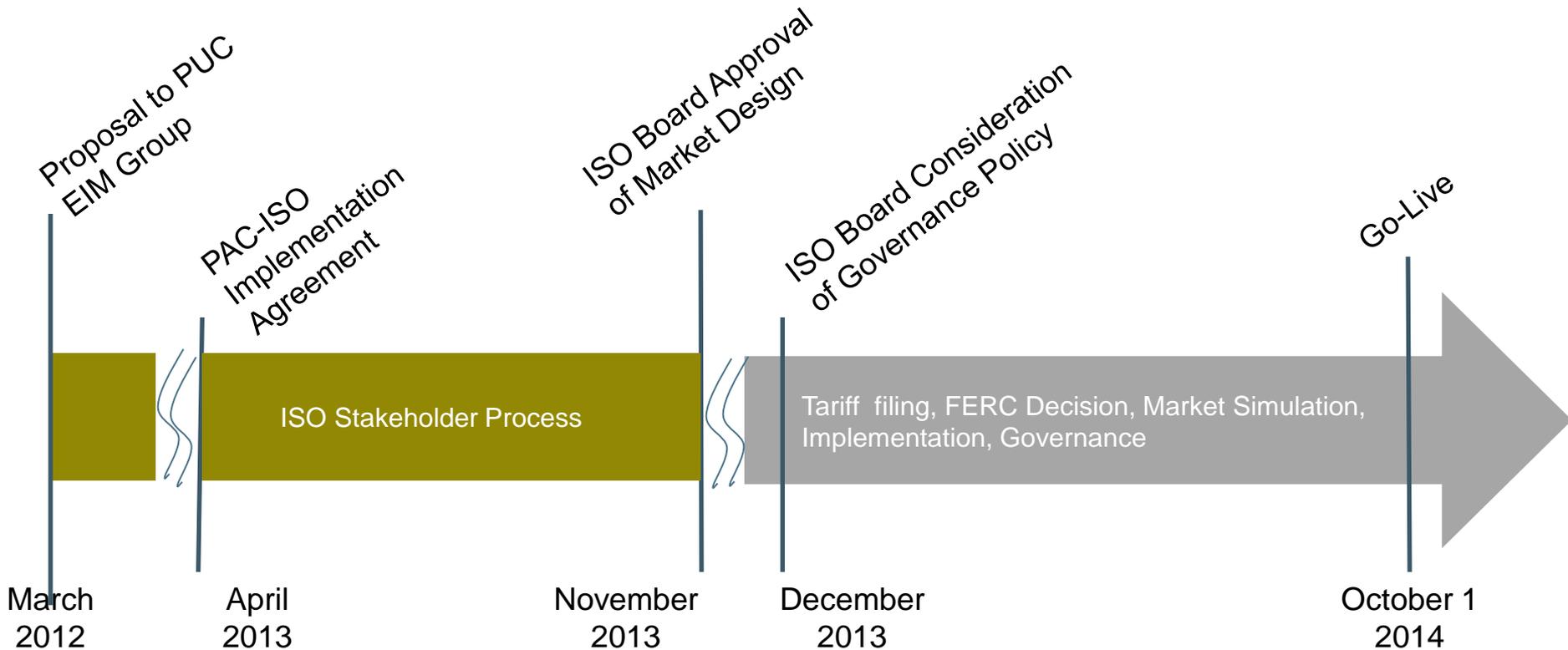


EIM basics: ISO/PAC benefits/costs

Benefits range from \$21m to \$129m per year, depending on transfer capability. Benefits primarily derive from:

- ***Reduced flexibility reserves***, by aggregating the two systems' load, wind, and solar variability and forecast errors;
- ***More efficient dispatch***, by automating dispatch every five minutes within PacifiCorp and between PacifiCorp and California ISO
- ***Reduced renewable energy curtailment***, by allowing BAs to export renewable generation or reduce imports when renewable generation

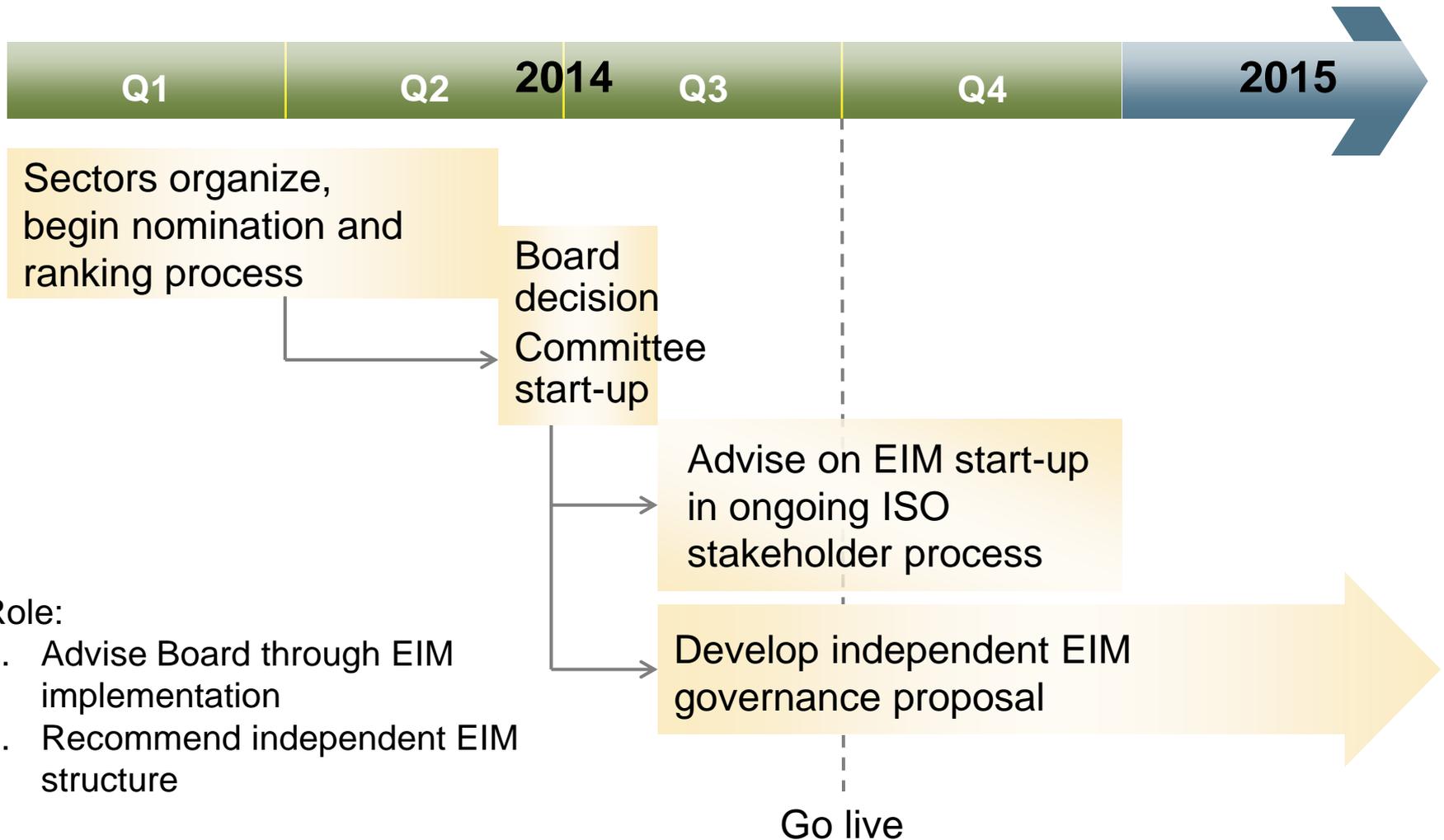
The EIM design is complete and implementation work is underway.



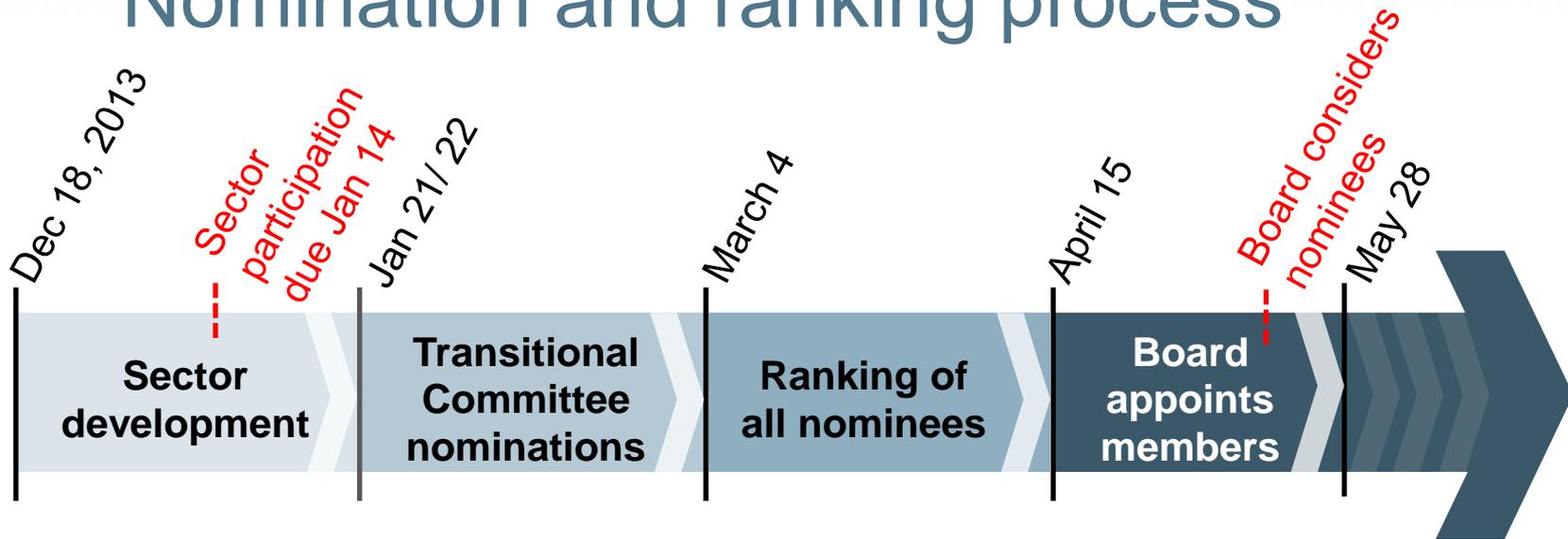
EIM Governance proposal

- The goal is to provide a meaningful voice to in-state and out-of-state entities during the implementation of EIM and the design of an “Independent EIM Structure.”
- The “Transitional Committee”, scheduled to be appointed by the board in the spring of 2014, will be an advisory committee of the Board.
- The Transitional Committee will work on developing recommendations on independent EIM structure over the next few years and will go to the Board for its consideration

The Transitional Committee work begins in mid-2014



Nomination and ranking process



Summary of sector participation

Sectors	Sector Participants
Investor owned utilities	7
Publicly owned utilities	16
Generators and marketers	10
Alternative energy providers	8
EIM participants	3
Government agencies	6
Public interest entities*	11
TOTAL	61

* 2 people signed up to represent same organization

Transitional Committee qualities to consider

- Proven leadership skills on diverse and complex issues;
- Understanding of regional issues;
- Ability and willingness to consider and represent broad range of perspectives;
- General industry experience;
- Support for the success of EIM; and
- Availability to participate in Transitional Committee on an ongoing basis.

Long term independent structure

Items to consider:

- Independent membership
- Specific delegated authority
- Transitional Committee will propose details of:
 - Structure
 - Number & qualifications of members
 - Membership term
 - Selection process
 - Decision process

General operation

- Open meetings with stakeholder comment and review
- ISO staff support
- No compensation or reimbursement

Questions?

Please see the links below for more information

EIM Transitional Committee Charter

<http://www.caiso.com/Documents/FinalTransitionalCommitteeCharter-EnergyImbalanceMarket.pdf>

EIM governance proposal

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