

**GENERAL SESSION MINUTES  
BOARD OF GOVERNORS MEETING  
GENERAL SESSION  
February 3, 2016  
ISO Headquarters, Folsom, CA**

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**February 3, 2016**

The ISO Board of Governors convened the general session meeting at approximately 1:00 p.m. and the presence of a quorum was established.

**ATTENDANCE**

The following members of the ISO Board of Governors were in attendance:

Ash Bhagwat, Acting Chair  
Mark Ferron  
Angelina Galiteva  
Dave Olsen

The following members of the executive team were present: Steve Berberich, Mark Rothleder, Keith Casey, Petar Ristanovic, Eric Schmitt, Karen Edson, Stacey Crowley, Tom Doughty, Roger Collanton, Ryan Seghesio and Becky Regan.

**GENERAL SESSION**

The following agenda items were discussed in general session:

**PUBLIC COMMENT**

No public comment was offered at this time.

**DECISION ON GENERAL SESSION MINUTES**

Governor Galiteva moved for approval of the Board of Governors general session minutes for the December 17-18, 2015 meeting. The motion was seconded by Governor Bhagwat and approved 4-0.

**CEO REPORT**

Steve Berberich, President and CEO, provided an overview of the following sections of his report: Aliso Canyon gas storage leak, market participation of distributed energy resources, energy management system replacement, and renewable generation. Mr. Berberich also acknowledged the April 1, 2016 retirement of Karen Edson, Vice President of Policy and Client

Services, and congratulated and commended Ms. Edson for her accomplished career and years of service at the ISO. He then discussed resulting leadership changes, and stated that, given recent developments, Ms. Edson's role had been divided into two vice president positions, which have been filled by: Stacey Crowley, Vice President – Regional Affairs, and Tom Doughty, Vice President – Customer and State Affairs. Mr. Berberich concluded his report by congratulating ISO Board members Dave Olsen and Mark Ferron on their January 12, 2016 reappointment to the ISO Board.

## **BRIEFING ON WESTERN ENERGY IMBALANCE MARKET**

Mark Rothleder, Vice President, Market Quality and Renewable Integration, provided a briefing on the energy imbalance market as well as an update on EIM implementation efforts. Mr. Rothleder informed the Board that NV Energy has been successfully participating in the EIM market since the December 1 implementation. Mr. Rothleder stated that FERC accepted Portland General Electric's implementation agreement effective January 20, 2016 for an October 2017 implementation. He also noted that Arizona Public Service and Puget Sound Energy remain on track for an October 1, 2016 implementation.

Mr. Rothleder next provided an overview of the EIM benefits study and noted that the benefits for 2015 totaled \$45.69 million. He then provided an overview of several graphs that illustrated various pricing trends related to PacifiCorp and NV Energy.

Stacey Crowley, Vice President, Regional and Federal Affairs, provided an update on EIM governance since the Board's December 2015 approval of the corporate documents to support implementation of the energy imbalance market governance proposal. She stated the nominating committee was working with an executive search firm to identify qualified candidates. She stated that following interviews and discussion, the nominating committee will present a slate of five candidates for the Board's consideration. Ms. Crowley also provided a brief update on recent activities of the Regional Issues Forum and the Body of State Regulators. She concluded her presentation by reviewing the list of nominating committee members. Brief discussion followed.

## **DECISION ON ENERGY STORAGE AND DISTRIBUTED ENERGY RESOURCES PROPOSAL**

Tom Flynn, Storage & Distributed Energy Resource Policy Manager, provided an overview of the energy storage and distributed energy resources proposal. He described how the following two proposed enhancements to the market participation model for storage would provide greater flexibility: Allow resources to submit a daily state of charge bidding parameter in the day-ahead market and allow resources to self-manage their energy limits and state of charge. Mr. Flynn provided an overview of two diagrams that depicted how demand response configurations were evolving to include behind-the-meter generation devices. He further discussed the three proposed performance evaluation methods that would support the new demand response configuration. He stated the proposal also included an adjustment to generation output to mitigate wholesale/retail overlap. Mr. Flynn next discussed the

stakeholder process and noted that stakeholders broadly supported the proposal and that the ISO committed to perform a periodic review of the enhancements and propose design enhancements as needed. He concluded by providing an overview of the proposal's benefits.

#### Public comment

Brooke Reily, on behalf of Pacific Gas and Electric Company, provided comments on Management's proposal and noted a few concerns with the proposal. Discussion followed and Management provided responsive comments and stated the ISO would continue to monitor matters, collaborate with stakeholders and provide updates to the Board.

Seyed Madaeni, on behalf of Solar City, provided comments in support of Management's proposal and noted the importance of continued collaboration with stakeholders. Brief discussion followed and Management provided responsive comments.

Irene Moosen, on behalf of Sonoma Clean Power, provided comments in support of Management's proposal.

Eric Little, on behalf of Southern California Edison, provided comments on Management's proposal and noted his appreciation for ISO's collaboration with stakeholders. Mr. Little noted a few concerns and stated SCE looked forward to continued collaboration with the ISO.

Ted Ko, on behalf of Stem, provided comments in support of Management's proposal and commended the stakeholder process.

Alex Morris, on behalf of California Energy Storage Alliance, provided comments in support of Management's proposal and requested that the ISO continue to monitor matters and collaborate with stakeholders.

Discussion followed regarding the proposal, including the net benefits test, and Management committed to providing the Board periodic updates on the initiative.

#### Motion

**Governor Ferron:**

***Moved, that the ISO Board of Governors approves the proposal for the non-generator resources model and demand response performance measures, as described in the memorandum dated January 27, 2016; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

**The motion was seconded by Governor Galiteva and approved 4-0.**

## DECISION ON FLEXIBLE RAMPING PRODUCT PROPOSAL

Don Tretheway, Senior Advisor – Market Design and Regulatory Policy, provided an overview of Management’s flexible ramping product proposal and discussed how the flexible ramping product makes important changes to the real-time market. He described how the flexible ramping product efficiently manages resources to meet a range of expected load conditions. Mr. Tretheway stated that resources that reduce a forecasted ramp requirement are paid by those resources that increase the ramp requirement. He noted that uncertainty occurs when the prior advisory interval net load is different than when it is financially binding. He discussed how the flexible ramping product would address aspects of the energy imbalance market. Mr. Tretheway provided an overview of the stakeholder process and noted that while there was broad support for the proposal, some residual concerns remained. Discussion followed regarding the residual concerns. Mr. Tretheway concluded his presentation by providing a high-level overview of the proposal’s benefits.

### Public comment

Roger Collanton, Vice President, General Counsel and Chief Compliance Officer, acknowledged receipt of the following public comment letter: Powerex.

Eric Little, on behalf of Southern California Edison, provided comments in support of Management’s proposal and commended the stakeholder process. Mr. Little noted a few concerns and requested that the ISO continue to monitor matters and continue collaboration with stakeholders.

Alex Morris, on behalf of California Energy Storage Alliance, provided comments in support of Management’s proposal and commended the stakeholder process.

Mark Smith, on behalf of Calpine, provided congratulatory remarks to Ms. Edson, Ms. Crowley and Mr. Doughty regarding the ISO leadership changes. Mr. Smith provided comments in support of Management’s proposal and commended the stakeholder process.

### Market Surveillance Committee comment

Jim Bushnell, member of the Market Surveillance Committee, provided an overview of the January 26, 2016 Market Surveillance Committee opinion titled “Flexible Ramping Product.”

Discussion followed and the Board commended the work of the ISO in collaboration with stakeholders on achievement of such a successful outcome.

### Motion

**Governor Bhagwat:**

***Moved, that the ISO Board of Governors approves the flexible ramping product proposal, as described in the memorandum dated January 27, 2016; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

The motion was seconded by Governor Olsen and approved 4-0.

## **DECISION ON ACCOUNTING OF MINIMUM LOAD COSTS PROPOSAL**

Greg Cook, Director – Market & Infrastructure Policy, provided the Board an overview of Management’s accounting of minimum load costs proposal. He discussed various inefficiencies in the current market when a generator’s minimum operating level is increased due to ambient, environmental or mechanical reasons. Mr. Cook reviewed two graphs that illustrated outage use for temperature impacts on multistate generator output levels. He described how adjusting minimum load costs for minimum operating level changes will improve commitment decisions. Mr. Cook discussed the stakeholder process and stated that stakeholders support modifying minimum load costs, but noted that some would prefer scaling minimum load costs as opposed to using a default energy bid. Discussion followed. Mr. Cook concluded his presentation by providing an overview of the proposal’s benefits.

Eric Hildebrandt, Director of Market Monitoring, informed the Board that the Market Monitoring department worked closely with Management on the development of the proposal and supported the proposed approach.

There was no public comment on this item.

### **Motion**

**Governor Galiteva:**

***Moved, that the ISO Board of Governors approves the improved accounting of minimum load cost proposal, as described in the memorandum dated January 27, 2016; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

The motion was seconded by Governor Ferron and approved 4-0.

## **DECISION ON ENERGY MANAGEMENT SYSTEM REPLACEMENT PROJECT BUDGET**

Petar Ristanovic, Vice President – Technology, informed the Board that the ISO was in the process of replacing the aging energy management system. Mr. Ristanovic described how the energy management system was a mission critical grid operations decision support monitoring and control system. He described how the ISO’s information system requirements continue to evolve for emergency management system application architecture robustness, security, flexibility and manageability. Mr. Ristanovic described how the new system would support the

ISO's Strategic Vision through enhanced scalability, performance and robustness. He concluded his presentation by describing how the advance user interface will improve situational awareness for operations.

Ryan Seghesio, Chief Financial Officer, described how the requested amount encompassed the full project cost and noted the project will be a separate stand-alone capital project outside of the annual capital project expenditures.

There was no public comment on this item.

### **Motion**

**Governor Ferron:**

***Moved that the ISO Board of Governors approves the capital project budget of \$13.5 million for the energy management system replacement project, as described in the memorandum dated January 27, 2016.***

**The motion was seconded by Governor Bhagwat and approved 4-0.**

### **INFORMATIONAL REPORTS**

There were no questions on the following informational reports: regulatory update, state, regional and federal affairs update, business practice manual change management report, Department of Market Monitoring update, Market Surveillance Committee update, master stakeholder engagement and release plans, market performance report, and quarterly financial report.

### **ADJOURNED**

There being no additional general session matters to discuss, the general session was adjourned at approximately 3:15 p.m.