

**GENERAL SESSION MINUTES  
ISO BOARD OF GOVERNORS MEETING  
August 25-26, 2011  
ISO Headquarters  
Folsom, California**

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August 25, 2011

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:

Bob Foster, Chair  
Ashutosh Bhagwat  
Angelina Galiteva  
Richard Maullin

The following members of the officer team were present: Steve Berberich, Karen Edson, Keith Casey, Brenda Thomas and Nancy Saracino.

**GENERAL SESSION**

The following agenda items were discussed in general session:

**PUBLIC COMMENT**

Nancy Bui-Thompson, SMUD Director and Paul Lau, SMUD Assistant General Manager presented the ISO with a \$150,000 incentive check in recognition of the investments made toward creating a more energy efficient campus. Bob Foster, ISO Board Chair, and Steve Berberich, President and CEO, provided remarks in appreciation of the award and commended the entire team.

## **DECISION ON THE MINUTES**

Governor Galiteva moved to for approval of the Board of Governors general session minutes for July 13-14, 2011. The motion was seconded by Governor Bhagwat and approved 4-0-0.

## **CEO REPORT**

Steve Berberich, President and Chief Executive Officer, provided the Board with highlights of the CEO report. Mr. Berberich noted that summer conditions were expected to remain mild and that renewable resources continued to grow on the ISO footprint. Mr. Berberich provided highlights of the Valley Electric Association transition proposal. Mr. Berberich commented on the success of the Governor's conference on local renewable energy resources. Mr. Berberich provided highlights of Management's proposal to eliminate convergence bidding on the interties. Mr. Berberich concluded his report by providing an update on renewable integration needs and noted that the ISO was looking forward to working with the CPUC, utilities, renewable and conventional generations, and other stakeholders in the months to come.

## **DECISION ON VALLEY ELECTRIC ASSOCIATION TRANSITION**

Don Fuller, Director of Customer Service and Industry Affairs, provided the Board an overview of Management's proposal regarding the steps under way to support Valley Electric Association joining the California ISO.. Mr. Fuller provided the Board with an overview of Valley Electric and noted that it is a member-owned cooperative that operates currently within the NV Energy's balancing authority area. Fuller provided an overview of the scope of the memorandum of understanding and transition agreement and stated that January 1, 2013 was the scheduled transition date. Mr. Fuller described how the ISO would be merging Valley Electric's queue into the ISO's generator interconnection procedures. Mr. Fuller stated that the ISO would recognize the historic use of Valley Electric's import rights at Mead for resource adequacy and that the ISO would allocate Valley Electric congestion revenue rights. Mr. Fuller provided an overview of the stakeholder process and noted that it was a shortened engagement due to the nature and timing of the memorandum of understanding. Mr. Fuller concluded his presentation by reviewing the schedule leading up to the January 1, 2013 transition date.

### Public Comment

Tom Husted, on behalf of Valley Electric Association, provided comments in support of Management's proposal and noted that proposal benefited the ISO, Valley Electric, developers and the ratepayers. The Board expressed appreciation to Valley Electric for its efforts in the process.

Jill Horswell, on behalf of Southern California Edison, provided comments in support of Management's proposal and noted this was an encouraging sign of cooperation among neighboring states.

Arthur Haubenstock, on behalf of BrightSource Energy, provided comments in support of Management's proposal and highlighted the benefits the proposal would bring to California and Nevada.

Darius Shirmohammadi, on behalf of California Wind Energy Association, provided comments in support of Management's proposal and further discussed the reliability and cost benefits associated with the proposed expansion of the ISO footprint.

The Board commended the efforts of ISO staff and discussion followed regarding prospects of other balancing area authorities joining the ISO.

## **Motion**

### **Governor Galiteva:**

***Moved, that the ISO Board of Governors authorizes Management to enter into a transition agreement with Valley Electric Association consistent with the parties' Memorandum of Understanding dated August 1, 2011, and to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the transition agreement, as described in the memorandum dated August 18, 2011.***

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

## **DECISION ON FLEXIBLE RAMPING CONSTRAINT COMPENSATION**

Greg Cook, Director of Market and Infrastructure Policy, provided the Board with an overview of Management's proposal regarding flexible ramping constraint compensation. Mr. Cook informed the Board that the proposal would address instances of insufficient upward dispatch capability in real-time. Mr. Cook informed the Board that opportunity costs could arise for resources that provided upward dispatch capability and that the compensation mechanism was designed to recover opportunity costs. Mr. Cook noted that stakeholders generally supported the proposal and then reviewed some of the remaining stakeholder concerns. Mr. Cook concluded his presentation by providing an overview of the benefits of the proposal and noted that a comprehensive design initiative to evaluate new market products was underway. Discussion followed regarding the timeline and Mr. Cook estimated it would be one to two years before the product would be replaced.

## Public Comment

Mark Smith, on behalf of Calpine, provided comments in support of Management's proposal as an interim solution but that a longer-term solution needed to be in place within a year.

Jeffrey Nelson, on behalf of Southern California Edison, provided comments in support of Management's proposal but noted concerns regarding cost allocation and how the compensation was structured.

Steve Williams, on behalf of San Diego Gas and Electric Company, provided comments in support of Management's proposal and emphasized the importance of successful implementation of the product.

Brian Theaker, on behalf of NRG Energy, commended the stakeholder process but noted concerns with Management's proposal including the timing of the longer-term solution and then commented on other potential short-term options.

Ellen Wolfe, on behalf of Western Power Trading Forum, commended the stakeholder process and echoed concerns of prior speakers. Ms. Wolfe emphasized the importance of flexibility in the grid as renewables are rolled out.

Roy Kuga, on behalf of Pacific Gas and Electric Company, provided comments on Management's proposal and reviewed four proposed conditions to the proposal and requested that the Board conditionally amend the proposed motion to address these conditions.

Mr. Casey and Mr. Cook provided comments that addressed concerns raised by the public. Discussion followed regarding the compensation structure, bid cost recovery, implementation and timing of the longer-term solution. The Board requested that Management report back to the Board in early 2012 on progress made towards a longer-term solution.

Jim Bushnell, Member of the Market Surveillance Committee, provided an overview of the Market Surveillance Committee's opinion entitled "Final Opinion on Payment for Flexible Ramping" and noted that the Committee supported Management's proposal as an interim measure to increase the supply of upward ramp in the real-time market pending market reforms that would result from the renewable integration review that would better address the fundamental issues.

Discussion followed and the proposed motion was amended in response to stakeholder comments and concerns to add a requirement that Management report

back in early 2012 on progress towards a longer-term solution and anticipated implementation dates.

### **Motion**

**Governor Bhagwat:**

***Moved, that the ISO Board of Governors approves the proposed tariff change regarding the compensation provisions of the flexible ramping constraint, as described in the memorandum dated August 18, 2011; and***

***Moved, that the ISO Board of Governors directs Management to report back by February of 2012 on progress towards a longer-term solution, including a proposed target implementation date; 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 Maullin and approved 4-0-0.

### **DECISION ON ELIMINATING CONVERGENCE BIDDING AT THE INTERTIES**

Greg Cook, Director of Market and Infrastructure Development, provided the Board with an overview of Management's proposal to eliminate convergence bidding at the interties. Mr. Cook noted that convergence bidding was implemented in February to provide market efficiency benefits but that convergence bidding on the interties was not driving the intended market efficiencies. Mr. Cook reviewed several graphs that demonstrated the impact of convergence bidding at the interties and noted that hour ahead scheduling process prices were consistently lower than day-ahead and real-time prices. Mr. Cook provided an overview of alternatives that were considered to resolve stakeholder concerns and noted that stakeholders were sharply divided on the proposal. Mr. Cook concluded his presentation by providing an overview of the benefits of the proposal.

### **Public Comment**

Jim Bushnell, Member of the Market Surveillance Committee, provided an overview of the Market Surveillance Committee's opinion entitled "Final Opinion on Intertie Convergence Bidding and the Imbalance Energy Offset" and stated that the Committee supported Management's proposal but noted that further measures could still be necessary if the real-time imbalance energy offset charges continued at high levels.

Ms. Saracino acknowledged receipt of the following public comment letters: Western Power Trading Forum, Brookfield Renewable Power and dcenergy.

Ellen Wolfe, on behalf of Western Power Trading Forum, provided comments in opposition to Management's proposal and provided highlights of the concerns addressed in the letter submitted to the Board.

Brian Theaker, on behalf of NRG Energy, provided comments in opposition to Management's proposal and further described concerns related to the hour-ahead scheduling process.

Mary Lynch, on behalf of Constellation Energy, provided comments in opposition to Management's proposal and noted that Constellation Energy was a load serving entity that did not support the proposal.

Gifford Jung, on behalf of Powerex, provided comments in support of Management's proposal but noted that the ISO need to further address the underlying root cause.

Roy Kuga, on behalf of Pacific Gas and Electric Company, commended the work of ISO staff, Mr. Hildebrandt with the Department of Market Monitoring and the Market Surveillance Committee. Mr. Kuga provided further comments in support of Management's proposal as an interim solution.

Jeffrey Nelson, on behalf of Southern California Edison, echoed the comments of Mr. Kuga and provided further remarks in support of Management's proposal and noted his appreciation to ISO staff.

Eric Hildebrandt, Director of Market Monitoring, noted that the Department of Market Monitoring supported Management's proposal as an interim step that could be implemented immediately to help reduce high real-time imbalance energy offset charges.

Discussion followed and Mr. Casey addressed concerns raised by the public including alternatives that were explored, timing issues and the underlying market design issues. Discussion followed and the Board requested that Management report back to the Board in early 2012 on progress made to solve the underlying market design issues. The proposed motion was amended to reflect the Board's request for a future briefing.

### **Motion**

**Governor Bhagwat:**

***Moved, that the ISO Board of Governors approves the proposed tariff change regarding removing inerties as eligible convergence bidding nodes, as described in the memorandum dated August 18, 2011; and***

***Moved, that the ISO Board of Governors directs Management to update the Board on progress towards a solution to the underlying market design issues by February of 2012; 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 4-0-0.**

## **DECISION ON GENERATOR INTERCONNECTION PROCEDURES**

Keith Johnson, Manager of Infrastructure Policy and Contracts, provided the Board with an overview of Management's proposal on generator interconnection procedures phase two. Mr. Johnson stated that the industry was continuing to change and emphasized the ISO's commitment to constant improvement of its interconnection procedures. Mr. Johnson informed the Board that the ISO led a collaborative stakeholder process over the last seven months to explore issues and develop solutions and noted that the final proposal balanced diverse stakeholder interests. Mr. Johnson stated that the eighteen proposed changes added improvements to many aspects of the interconnection process including clarifying existing practices, streamlining processes and providing greater flexibility to customers. Mr. Johnson provided an overview of remaining stakeholder concerns but noted that stakeholders supported the major aspects of the proposal. Mr. Johnson concluded his presentation by providing an overview of the benefits of the proposal and noted the ISO would continue to address remaining issues in phase three.

The following public comment letters were submitted: Ormat and Large-Scale Solar Association

### Public Comment

Eric Leuze, on behalf of GenOn Energy, acknowledged the efforts of the ISO team and provided comments in support Management's proposal.

Doug Davie, on behalf of Wellhead Renewable, provided generally supportive comments on Management's proposal but noted opposition to certain aspects of the proposal pertaining to generation disconnection. Discussion ensued and Mr. Johnson provided comments in response to Mr. Davie and further described the circumstances surrounding when a project would need be downsized.

Robert Jenkins, on behalf of First Solar, acknowledged the efforts of the ISO team and provided generally supportive comments on Management's proposal but noted concern regarding the piece pertaining to refund of network upgrades. Discussion ensued and Mr. Johnson provided comments in response to Mr. Jenkins concerns

regarding repayment. Discussion followed regarding the impact to multi-phase projects. Bill Di Capo, Senior Counsel provided further comments regarding repayment stream.

Jason Yan, on behalf of Pacific Gas and Electric Company, provided comments in support of Management's proposal and emphasized the importance of future enhancements.

Jill Horswell, on behalf of Southern California Edison, provided comments in support of Management's proposal and emphasized the importance of the abandoned plant provisions.

### **Motion**

**Governor Galiteva:**

***Moved, that the ISO Board of Governors approves the proposed tariff change regarding the generator interconnection procedures, as described in the memorandum dated August 18, 2011 and Attachment 1 thereto; 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 Foster and approved 4-0-0.**

### **BRIEFING ON RENEWABLE INTEGRATION**

Mark Rothleder, Director – Market Analysis and Development, provided the Board with an update on renewable integration studies. Mr. Rothleder stated that supply variability and uncertainty was increasing while the flexible capability of the fleet was decreasing. Mr. Rothleder noted that the renewable integration study process quantified operational requirements and evaluated the fleet's ability to meet operating requirements. Mr. Rothleder provided an overview of the 33% renewable portfolio standard scenarios in 2020 and noted they covered a range of renewable and load conditions. Mr. Rothleder stated that out of approximately 3,500 MW of downward balancing requirements, some hours of potential shortages were observed. Mr. Rothleder noted that development of new generation infrastructure had significant lead time and provided an overview of four areas that Management was going to be focusing on in the future.

Discussion ensued regarding integration costs, environmental impacts and the importance of related proceedings at the California Public Utilities Commission. Mr. Rothleder acknowledged the efforts of key external players in the process. Discussion ensued regarding next steps and the Board commended staff of the presentation and requested future briefings on the topic.

### Public Comment

Janice Frazier–Hampton, on behalf of Pacific Gas and Electric Company, provided comments regarding PG&E’s engagement in the 33% renewable portfolio standard study in the long-term procurement proceeding at the California Public Utilities Commission, noted there was still a lot of work to be done and applauded the coordination efforts.

Dariush Shirmohammadi, on behalf of California Wind Energy Association, commended the efforts of ISO staff to develop the presentation and noted a few differences of opinion that CalWEA had with the findings, including the modeling approach.

Mr. Berberich provided closing remarks and emphasized the importance of this matter and how the ISO would be working closely with the California Public Utilities Commission and others on these issues.

### **RECESSED**

There being additional general session items to discuss, the general session of the ISO Board of Governors was recessed at approximately 5:15 p.m.

August 26, 2011

### **RECONVENED**

The ISO Board of Governors reconvened the general session meeting at approximately 9:10 a.m. and the presence of a quorum was established.

### **ATTENDANCE**

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

Bob Foster, Chair  
Ashutosh Bhagwat  
Angelina Galiteva  
Richard Maullin

The following members of the officer team were present: Steve Berberich, Karen Edson, Keith Casey, Brenda Thomas and Nancy Saracino.

## **GENERAL SESSION**

The following agenda items were discussed in general session:

### **PUBLIC COMMENT**

Hal Dittmer, on behalf of Wellhead Renewable, provided comments regarding the ISO's transmission planning process and commended the work of ISO staff. Mr. Dittmer provided cautionary remarks regarding the planning process in relation to procurement decisions. Keith Casey, Vice President of Market and Infrastructure Development, provided comments in response and assured Mr. Dittmer that the ISO would be working closely with the California Public Utilities Commission as part of the planning process.

### **DECISION ON CONDITIONAL APPROVAL TO EXTEND EXISTING RELIABILITY MUST-RUN CONTRACTS FOR 2012**

Neil Millar, Executive Director of Infrastructure Development, provided the Board with an overview of Management's proposal to extend existing reliability must-run contracts for 2012. Mr. Millar stated that reliability must-run contracts ensured local reliability requirements were met and that required services not covered by the resource adequacy contracts were retained. Mr. Millar concluded his presentation by reviewing the resource adequacy process timeline and noted that letters to reliability must-run for extensions or terminations would be sent to resource owners on October 1, 2011. Mr. Millar stated that Management would brief the Board at its October meeting on the results of the reliability must-run designation process. Brief discussion followed.

There was no public comment.

### **Motion**

**Governor Galiteva:**

***Moved, that the ISO Board of Governors authorizes Management to extend the reliability must-run contracts for any of the reliability must-run units listed on Attachment 1, consistent with the criteria described in the memorandum dated August 18, 2011.***

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

### **ACCEPTANCE OF AUDIT OF ISO RETIREMENT SAVINGS BENEFITS PLAN**

Ryan Seghesio, Chief Financial Officer and Treasurer, provided the Board with an overview of the retirement savings benefits plan audit for 2010 and 2009. Mr. Seghesio informed the Board that the U.S. Department of Labor required companies

with employee benefit plans to file audited financial statements. Mr. Seghesio reviewed the plan assets and noted there was a net increase of \$19M in 2010. Margaret Lundberg with PricewaterhouseCoopers then provided the Board with an overview of the auditor communications required as part of the rules of professional conduct. Ms. Lundberg concluded by noting the audit was completed on time and expressed her appreciation to ISO staff for their high level of commitment and cooperation. Brief discussion followed.

There was no public comment.

### **Motion**

**Governor Bhagwat:**

***MOVED, that the ISO Board of Governors accepts the financial statements and supplemental schedule of the California ISO Retirement Savings Benefits Plan for the years ended December 31, 2010 and 2009, as audited by PricewaterhouseCoopers LLP and as attached to the memorandum dated August 24, 2011.***

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

### **QUARTERLY BRIEFING ON MARKET PERFORMANCE**

Mark Rothleder, Director – Market Analysis and Development, provided the Board a briefing on market performance and noted that market performance had showed moderate improvements since the last quarterly report. Mr. Rothleder informed the Board that while daily average price convergence improved, prices did diverge in June and July during off-peak and on-peak hours. Mr. Rothleder noted that the real-time imbalance energy offset moderated in May but was otherwise high. Mr. Rothleder stated that day-ahead bid cost recovery costs reduced in July after the ISO filed its bid cost recovery tariff amendment. Mr. Rothleder concluded his presentation by reviewing the planned future market enhancements. Brief discussion followed.

### **INFORMATIONAL REORTS**

Ms. Saracino, Vice President, General Counsel and Chief Administrative Officer, provided the Board with highlights of the regulatory report pertaining to FERC Order 1000 regarding transmission planning and cost allocation.

Ms. Edson, Vice President of Policy and Client Services, provided the Board with highlights of the legislative report including an update on progress being made in the demand response proceeding at the CPUC.

There were no additional questions regarding the following informational reports: operations report, financial report, market performance report, business practice manuals change management report, market surveillance committee update, market monitoring update, and market initiatives release plan update.

## **ADJOURNED**

There being no additional general session items to discuss, the general session of the ISO Board of Governors was adjourned at approximately 9:15 a.m.