

GENERAL SESSION MINUTES BOARD OF GOVERNORS MEETING March 26-27, 2015 ISO Headquarters Folsom, California

March 26, 2015

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:

Richard Maullin, Chair Ash Bhagwat Angelina Galiteva Dave Olsen

The following members of the executive team were present at the meeting: Steve Berberich, Keith Casey, Petar Ristanovic, Mark Rothleder, Eric Schmitt, Karen Edson, 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 ISO Board of Governors general session minutes for the February 5-6, 2015 meeting. The motion was seconded by Governor Olsen and approved 4-0-0.

CEO REPORT; DECISION ON STRATEGIC VISION; and APPOINTMENT OF EIM TRANSITIONAL COMMITTEE MEMBER

Steve Berberich, President and CEO, provided an overview of the following sections of his CEO report: overall conditions, system impact of solar eclipses, operations backup center, and



benefits of the energy imbalance market. Mr. Berberich next informed the Board that Puget Sound Energy executed an implementation agreement to join the energy imbalance market, with an expected implementation date of October 2016. Mr. Berberich recommended that, with the addition of Puget Sound Energy, the Board appoint David Mills, a Puget executive, to the EIM Transitional Committee. Brief discussion followed.

Motion – Appointment of EIM Transitional Committee member

Governor Bhagwat:

Moved, that the ISO Board of Governors appoint David Mills to the EIM Transitional Committee who will serve on behalf of Puget Sound Energy, an EIM Entity.

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

Mariah Kennedy, on behalf of Puget Sound Energy, provided comments of appreciation to the ISO throughout the process.

Mr. Berberich continued review of his CEO report, provided an overview of the draft 2015 strategic vision, and noted his appreciation to the Board for its input throughout the drafting process, and recommended the Board approve the draft strategic vision. Discussion followed and the Board noted its appreciation of the drafting and review process.

Motion – Decision on strategic vision

Governor Galiteva:

Moved, that the ISO Board of Governors approves the ISO's 2015 strategic vision titled "Pursuing a Strategic Vision for a Sustainable Energy Future" and directs Management to proceed with implementation.

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

Mr. Berberich concluded his report and discussed renewable generation peaks.

EIM TRANSITIONAL COMMITTEE CHAIR REPORT

Rebecca Wagner, Chair of the EIM Transitional Committee, provided an overview of recent activities of the EIM Transitional Committee. Ms. Wagner provided an overview of the March 5, 2015 meeting in Portland, Oregon. She stated the committee posted the governance straw proposal on March 19, 2015 and that the stakeholder working group would present the proposal at a stakeholder meeting on March 31, 2015. Ms. Wagner provided an overview of the market design working group's recent activities, including its engagement on the ISO's EIM year 1 enhancements initiative. She stated that the committee did not oppose the year 1 enhancements proposed by ISO staff. Ms. Wagner next discussed regional outreach efforts by



the committee and concluded by discussing next steps, including a meeting at the ISO on April 30. Ms. Wagner also provided welcoming remarks to David Mills as a committee member, and recommended that the Board consider amending the EIM Transitional Committee charter to allow for additional membership to encourage further EIM Entity participation.

ENERGY IMBALANCE MARKET UPDATE

Mark Rothleder, Vice President Market Quality and Renewable Integration, provided an update on energy imbalance market operations. Mr. Rothleder stated the estimated benefits over all balancing authority areas were consistent with earlier benefit analyses. He provided an overview of a recent FERC order and stated FERC had rejected the proposed transitional period, extended the existing waiver for an additional 90 days, and convened a technical conference for April 9. He next reviewed two graphs that depicted how PacifiCorp East 5- and 15-minute performance improved in March, and how PacifiCorp West 5- and 15-minute pricing was performing well. He reviewed a graph that depicted 15-minute transfers between PacifiCorp and the ISO. Mr. Rothleder concluded his presentation by discussing NV Energy and ISO implementation efforts and stated implementation was progressing on schedule. He also discussed the successful kick-off meeting with Puget Sound Energy that occurred on March 25.

DECISION ON ENERGY IMBALANCE MARKET YEAR ONE ENHANCEMENTS PHASE 1

Don Tretheway, Lead Market Design and Regulatory Policy Developer, provided an overview of Management's proposal on the energy imbalance market year one enhancements proposal. Mr. Tretheway stated that phase 1 of the initiative addressed design changes needed for NV Energy implementation in October. He described how, as the number of EIM entities grows, modifications to the design are needed to further scalability. He noted EIM transfer limits must recognize multiple intertie scheduling paths. Mr. Tretheway described how the greenhouse gas bidding elements complied with the FERC order and provided additional flexibility in response to stakeholder feedback. He provided an overview of several proposed design changes to resolve matters identified since PacifiCorp implementation. He stated that stakeholders generally supported the proposed design changes but noted some concerns remained. He provided an overview of the remaining concerns. Discussion followed regarding the proposed greenhouse gas calculations.

Public comment

Eric Little, on behalf of Southern California Edison, provided comments on Management's proposal and noted SCE's support of having large efficient markets. Mr. Little provided comments of concern related to two greenhouse gas elements in the current proposal and one greenhouse gas element in phase 2. Keith Casey, Vice President of Market and Infrastructure Policy, provided responsive comments and discussion ensued. Eric Hildebrandt, Director of Market Monitoring, stated that DMM would continue to monitor the impact of the greenhouse gas elements of the proposal.



Joe Lawlor, on behalf of Pacific Gas and Electric Company, provided congratulatory comments to Puget Sound Energy for joining the energy imbalance market and noted PG&E was looking forward to a successful launch of NV Energy's implementation in the energy imbalance market. Mr. Lawlor provided comments on Management's proposal and requested that the flexible sufficiency test be removed from the proposal. Mr. Casey and Mr. Tretheway provided responsive comments and discussion ensued.

Clay MacArthur, on behalf of Deseret Power, provided comments in support of the energy imbalance market and noted several concerns with Management's proposal related to scheduling timelines across the market footprint. Mr. Tretheway provided responsive comments and discussion ensued. Mr. Casey stated that Management was committed to looking at these issues as part of phase 2.

Christine Kirsten, on behalf of PacifiCorp, provided generally supportive comments on Management's proposal and relayed PacifiCorp's position on the elements of the proposal. Ms. Kirsten noted the importance of the ISO providing clear guidance and transparent rules to EIM Entities related to transfer costs. Mr. Tretheway provided responsive comments.

Discussion followed regarding the proposed greenhouse gas elements and the impact they could potentially have on imports of renewables. Mr. Casey stated that the ISO would be closely monitoring the proposal's impact.

<u>Motion</u>

Governor Olsen:

Moved, that the ISO Board of Governors approves phase 1 of the energy imbalance market year 1 enhancements proposal, as described in the memorandum dated March 19, 2015; 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 2014-15 TRANSMISSION PLAN

Neil Millar, Executive Director – Infrastructure Development, provided an overview of the proposed 2014-15 transmission plan. Mr. Millar noted that Board approval of the plan meant approving the determinations and recommendations contained in the plan. He provided an overview of the 2014-15 transmission planning process that began in April 2014 with the development of ISO unified planning assumptions and study plan. He provided an overview of a table that depicted how new reliability needs were reduced from prior transmission planning cycles. Mr. Millar stated that Management was recommending approval of two reliability driven



projects of more than \$50 million each. He described how five of the seven reliability-driven projects were less than \$50 million each and were approved by Management after the Board was briefed on the projects at its December 2014 meeting.

Mr. Millar next described how the L.A. Basin / San Diego area was studied to determine the effectiveness of previously approved mitigations. He stated no resource deficiencies were identified, assuming all authorized resources, all approved transmission solutions, and all forecast demand side preferred resources materialized. He described how no policy-driven requirements were identified to achieve the 33% renewables portfolio standard. He described how economic-driven solutions were also explored and, consistent with past findings, most congestion was not sufficient to warrant capital upgrades. Mr. Millar reviewed a graph that depicted the projected regional high voltage transmission access charge based on the recommended plan. He next provided an overview of stakeholder feedback that resulted in a wide range of views. Mr. Millar concluded his presentation by reviewing the benefits of the proposed plan and noted it provided for prudent and economic development of the transmission system. Brief discussion followed regarding the impact of the proposed 50% renewable portfolio standard on future transmission plans.

Public comment

Roger Collanton, Vice President, General Counsel and Chief Compliance Officer, acknowledged receipt of the following public comment letters: Nevada Hydro Company and the San Francisco Public Utilities Commission

Chris Doyle, on behalf of AltaGas-Blythe Energy, provided comments in support of the draft transmission plan and provided comments of appreciation to ISO staff on the transmission planning process.

David Kates, on behalf of Nevada Hydro, provided comments on the draft transmission plan and provided a summary overview of a comment letter dated March 3, 2015 submitted to the Board by Nevada Hydro Company. Mr. Kates requested that the Board ensure that there is clear concise and accurate treatment of all projects by the ISO. Mr. Casey provided responsive comments regarding the ISO's transmission planning process and discussion ensued.

Ken Lounsbery, on behalf of Anza Borrego Foundation and Tubb Canyon Desert Conservancy, provided comments on the draft transmission plan and provided a summary overview of a stakeholder comment letter dated March 3, 2015 by the Tubb Canyon Desert Conservancy and the Anza Borrego Foundation. Mr. Lounsbery acknowledged the efforts of ISO staff throughout the process and provided a copy of the March 3 letter to incorporate as part of the meeting record.

Pat Hogan, on behalf of Pacific Gas and Electric Company, provided comments in support of the draft transmission plan and acknowledged ISO staff for their efforts throughout the process. Discussion followed regarding reinforcements to the peninsula and Mr. Berberich provided



remarks in appreciation to PG&E and ISO staff for their collaboration on this issue.

<u>Motion</u>

Governor Galiteva:

Moved, that the ISO Board of Governors approves the ISO 2014-2015 transmission plan attached to the memorandum dated March 19, 2015.

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

DECISION ON RELIABILITY SERVICES PROPOSAL PHASE 1

Greg Cook, Director – Market and Infrastructure Policy, provided an overview of Management's reliability services proposal. Mr. Cook stated the reliability services initiative is a two-phase multi-year effort to evolve resource adequacy rules to meet the needs of an increasingly dynamic grid. He described how the proposal aligned default eligibility and offer obligation rules for preferred resources with the rules of the CPUC. Mr. Cook described how the availability incentive mechanism assesses availability based on market offers. He noted that wind, solar, combined heat and power, and grandfathered resources are exempt from the availability incentive mechanism. Mr. Cook described how the proposal will allow additional flexibility for use-limited resources until the opportunity cost methodology is developed. He stated the proposal will include enhanced forced and planned outage rules. He discussed the stakeholder process, noting there is general support of the proposal, and then provided an overview of the remaining concerns. Mr. Cook concluded his presentation by reviewing the benefits of the proposal.

Public comment

Jacqueline DeRosa, on behalf of the California Energy Storage Alliance, acknowledged ISO staff and the stakeholder process and provided comments in support of Management's proposal.

Peter Griffes, on behalf of Pacific Gas and Electric Company, acknowledged the stakeholder process and provided generally supportive comments. Mr. Griffes discussed a few remaining concerns related to the resource adequacy incentive mechanism and the proposal to cap a load serving entity's resource adequacy requirement at its system requirement. Mr. Casey, Mr. Hildebrandt and Mr. Cook provided responsive comments and discussion ensued. At the Board's request, Mr. Casey committed to providing periodic reports to the Board regarding the resource adequacy incentive mechanism.

Eric Little, on behalf of Southern California Edison, acknowledged the stakeholder process, provided comments on Management's proposal, and noted SCE's concerns about the consistency of the resource adequacy program. Mr. Little provided additional comments and



questioned whether there should be a must-offer obligation as proposed, and requested that the Board direct Management to conduct a study to determine why self-scheduling was occurring. Keith Casey and Mark Rothleder provided responsive comments and discussion ensued regarding a FERC order that directed the ISO to conduct a study pertaining to variable energy resources.

Pamela Mills, on behalf of San Diego Gas and Electric Company, acknowledged the efforts of ISO staff, provided generally supportive comments on Management's proposal, and noted that SDG&E's support was contingent upon the CPUC adopting the ISO's resource adequacy proposal. Ms. Mills provided further comments and requested that the Board direct Management to remove the exemption on wind, solar and combined heat and power resources and to continue to exempt the lack of fuel justification. Mr. Mills requested that Management provide periodic updates pertaining to proxy demand response resources. Mr. Casey and Mr. Cook provided responsive comments, committed to provide periodic updates to the Board, and noted that Management would look at providing some mitigation efforts in the FERC filing.

Mr. Cook provided an overview of the stakeholder process, noting it was an extensive process lasting over a year, and involved separate working groups.

Market Surveillance Committee comment

Dr. Shmuel Oren, member of the Market Surveillance Committee, provided an overview of the committee's opinion titled "Opinion on Reliability Services Phase 1 and Commitment Costs Enhancements Phase 2." Mr. Berberich provided remarks in appreciation to Dr. Oren for his work on the Market Surveillance Committee as Mr. Oren's term concluded at the end of the month.

<u>Motion</u>

Governor Bhagwat:

Moved, that the ISO Board of Governors approves the phase 1 of the reliability services proposal, as described in the memorandum dated March 19, 2015; 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 COMMITMENT COST ENHANCEMENTS PHASE 2

Greg Cook, Director – Market and Infrastructure Policy, provided an overview of Management's commitment cost enhancements proposal. Mr. Cook described how the commitment cost enhancements was a three-phased initiative to improve market efficiency and reliability. He



provided an overview of the proposed changes and clarifications to the "use-limited resource" definition and noted that current use-limited resources, such as hydro, participating load, and demand response, will continue to be deemed use-limited. Mr. Cook described how the ISO's market rules accommodated use-limited resources' limited availability. He reviewed Management's proposed enhancements to the calculation of transition costs. He discussed the stakeholder process, noting there is general support of the proposal, and then provided an overview of the remaining concerns. Mr. Cook concluded his presentation by reviewing the benefits of the proposal.

Public comment

Michele Kito, on behalf of the California Public Utilities Commission, acknowledged the efforts of ISO staff and provided generally supportive comments on Management's proposal. Ms. Kito provided additional comments and described remaining concerns related to non-economic use limitations. Mr. Casey provided responsive comments.

Victor Kruger, on behalf of San Diego Gas and Electric Company, provided generally supportive comments on Management's proposal but noted remaining concerns associated with the ISO interpretation of use limitations never including contract limitations. Mr. Casey provided responsive comments and clarified that the proposal was not changing current tariff provisions that have been in place since 2009. Discussion followed and Mr. Casey suggested that Mr. Kruger work with DMM pertaining to maintenance adder matters. Mr. Cook provided additional responsive comments.

Eric Little, on behalf of Southern California Edison Company, provided comments on Management's proposal and noted concerns associated with use limitations not including contract limitations. Mr. Little provided further comments and requested that the ISO take these issues back to the stakeholder process. Mr. Cook and Mr. Casey provided responsive comments and discussion ensued. Mr. Casey explained that Management was not changing the existing definition, but was merely clarifying what has been in the tariff since 2009. Mr. Cook noted there were two upcoming initiatives that would address some of the issues raised by stakeholders.

Market Surveillance Committee comment

Dr. Shmuel Oren referred to his earlier comments on the committee's opinion titled "Opinion on Reliability Services Phase 1 and Commitment Costs Enhancements Phase 2."

Department of Market Monitoring comment

Eric Hildebrandt, Director of Market Monitoring, provided comments on Management's commitment costs enhancements phase 2 proposal. Mr. Hildebrandt provided supportive comments on the transition costs enhancements and clarifications to the use-limited status provision. He further discussed potential refinements associated with the major maintenance adders process. Mr. Hildebrandt stated that DMM was disappointed that the



opportunity costs component was not included in the current proposal and noted it needed to remain on track for Board decision in September.

<u>Motion</u>

Governor Olsen:

Moved, that the ISO Board of Governors approves phase 2 of the commitment cost enhancements proposal, as described in the memorandum dated March 19, 2015; 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 Bhagwat and approved 4-0-0.

BRIEFING ON PRELIMINARY 2015 SUMMER LOADS AND RESOURCES ASSESSMENT

Robert Emmert, Manager – Interconnection Resources, provided an overview of the preliminary 2015 Summer Loads and Resources Assessment and noted it included the following: forecasts of ISO system and northern and southern California zones; reliability concerns related to the ongoing drought; and system and northern and southern California zone capacity adequacy. Mr. Emmert reviewed key findings of the assessment. He reviewed a graph that depicted how the ISO's projected operating reserve margin was trending up as California progressed to a 33% renewables portfolio standard. He stated that normal and extreme scenario operating reserve margins were adequate.

Mr. Emmert described how the continuation of drought conditions would further limit the availability of hydroelectric generation in the summer. He provided an overview of the major reservoir storage and snowpack levels in California. He described how solar production significantly reduces the need for conventional resources on peak demand days. He stated the ISO's 2015 peak demand is forecasted at 47,188 MW and stated that system and zonal normal-scenarios for operating reserve margins showed adequate margins for 2015. Mr. Emmert concluded his presentation by describing an extreme scenario where the ISO's system operating reserve margin would be greater than 10%. Discussion followed regarding forecasting, and Mr. Emmert noted that the ISO was continuing work with the California Energy Commission in this area.

Mr. Casey stated that the 2015 Summer Loads and Resources Assessment will be published at the end of April and that the Board will be briefed on the final report at its May meeting. Discussion followed and the Board requested periodic updates throughout the summer.



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, Market Surveillance Committee update, Department of Market Monitoring update, master stakeholder engagement and release plans, market performance update, Transmission Maintenance Coordination Committee update, and the 2014 annual investment report.

ADJOURNED

There being no additional general session matters to discuss, the general session was adjourned at approximately 5:45 p.m.