

**GENERAL SESSION MINUTES**  
**ISO BOARD OF GOVERNORS MEETING**  
**May 18, 2009**  
**ISO Headquarters**  
**Folsom, California**

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May 18, 2009

Mason Willrich, Chair of the ISO Board of Governors, called the general session meeting to order at approximately 9:10 a.m. Roll call was taken and the presence of a quorum was established.

**ATTENDANCE**

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

Mason Willrich, Chair  
Tom Page  
Linda Capuano  
Laura Doll

The following members of the officer team were present: Yakout Mansour, Laura Manz, Steve Berberich, Jim Detmers, and Nancy Saracino.

**GENERAL SESSION**

The following agenda items were discussed in general session:

**PUBLIC COMMENT**

No public comment was offered at this time.

**DECISION ON MINUTES**

Governor Doll noted one minor correction to the minutes and then moved for the approval of the ISO Board of Governors general session minutes for March 26 - 27, 2009, as modified. The motion was seconded by Governor Capuano, and approved 4-0-0.

**CEO REPORT**

Yakout Mansour, President and CEO, provided the Board with an MRTU program update regarding *go-live* and noted that, going forward, MRTU would be referred to as “the ISO markets.” Mr. Mansour noted appreciation for the feedback of market participants regarding the functionality of the system. Mr. Mansour continued his report by providing an overview

of the 2009 annual corporate goals that included metrics associated with compliance, efficient market operations, infrastructure development, market development, customer service, people skills and financial management. Mr. Mansour concluded his report by providing an overview of the 2009 Summer Loads and Resources Assessment.

## **BRIEFING ON ISO MARKETS**

### Briefing

Steve Berberich, Vice President of Corporate Services and Interim Chief Financial Officer and Treasurer, provided the Board with an overview of the performance of the new markets since *go-live* and noted that systems had been stable and had performed much better in production than in simulation. Mr. Berberich addressed issues associated with the market cutover, including real time price volatility. Mr. Berberich reviewed the performance of the day ahead market, real time prices, the use of residual unit commitment, price corrections, and price blocking. Mr. Berberich stated that settlements had been tracked closely and credit statements had been produced on a timely basis. Mr. Berberich noted that the proactive monitoring processes had been effective in identifying potential participant issues. Mr. Berberich concluded his presentation by reviewing items that remained to be addressed. Mr. Mansour provided additional comments regarding the price volatilities. Discussion followed regarding implementation timing and forecasting.

Keith Casey, Director of Market Monitoring, stated that the new ISO markets were generally performing well. Mr. Casey noted that periodic high real time prices and lack of price convergence had been areas of particular focus for market monitoring. Mr. Casey provided an overview of day ahead prices for Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and noted that overall the monthly load aggregation point prices for April 2009 were within competitive ranges. Mr. Casey reviewed the areas of price volatility as well as load forecast and price deviation between the hour ahead scheduling process and real time dispatch. Brief discussion ensued regarding high prices and Mr. Casey noted that Market Monitoring was not seeing any manipulative or gaming behaviors and that the high prices were more of a quality of data input matter. Further discussion followed regarding price signals and Mr. Casey stated that Management would add a graph to the ISO markets status report that clearly depicted price signals to the market and would include an explanation of the price signal as well as Management's recommendation on how to address the signals. Mr. Casey provided an analysis of the April heat wave findings and recommendations and noted that the heat wave was a good test of real time market performance.

Mark Rothleder, Principal Market Developer, provided an overview of the performance of the new markets and reviewed areas and strategies for improvement. Mr. Rothleder reviewed the following improvements that are currently in progress: volatility of 5-minute real time dispatch prices, price convergence, exceptional dispatch, congestions revenue rights revenue adequacy and price transparency. Mr. Rothleder reviewed the plan for improvement of real time market performance over the near term, which addressed the following areas: transmission limit management, inaccurate load forecasts, insufficient unit

commitment of fast start resources, and low generation availability. Discussion ensued regarding these recommended improvements and Mr. Rothleder noted that certain improvements could require tariff modifications. Mr. Rothleder concluded his presentation by providing an overview of the longer-term improvement plan for real time market performance that included pursuing further refinements to the real time market optimization that would reduce extremely inefficient, but mathematically correct, dispatch.

#### Public Comment

Mark Smith, with Calpine, provided comments on the ISO new markets since *go-live*. Mr. Smith discussed price volatility and stated that Calpine was seeing a lot of volatility in the real time market at this time. Mr. Smith also noted the importance of convergence bidding.

Chairman Willrich acknowledged the efforts from the staff and market participants since the last meeting and expressed his appreciation.

### **DECISION ON MULTI-STAGE GENERATING UNIT MODELING**

#### Proposal

Greg Cook, Market Design and Regulatory Policy Manager, provided the Board with an overview of Management's proposal to implement modeling of multi-stage generating units and noted the proposal would facilitate the efficient dispatch of generation resources with forbidden operating regions. Mr. Cook stated that more accurate modeling of multi-stage generating units would provide numerous benefits to the ISO markets as well as to the multi-stage generating units. Mr. Cook provided an overview of the inputs used to develop the proposal including the stakeholder process, benchmarking analysis of other ISOs, extensive discussions with generation unit owners, and software vendor discussions. Mr. Cook stated the proposal balanced accurate modeling of flexibility with software performance. Mr. Cook concluded his presentation by noting that late 2009 was the current implementation target, however that date was pending vendor evaluation of requirements.

Yakout Mansour, President and CEO, noted that based on lessons learned from the new ISO markets implementation, the ISO would thoroughly vet implementation readiness for both the ISO and market participants before taking it to the next step, not only on this project but also on all projects going forward.

#### Public Comment

Doug Parker, with Southern California Edison, provided generally supportive comments to Management's proposal and provided cautionary remarks regarding the timing of implementation. Mr. Parker emphasized the importance of making sure the software structure worked. Mr. Parker requested a comprehensive view of upcoming market enhancements for the next year.

Mr. Berberich noted that a comprehensive market enhancement plan would be available at the end of June.

Brian Hitson, with Pacific Gas & Electric Company, acknowledged the successful stakeholder process and noted that concerns were addressed quickly. Mr. Hitson provided supportive comments on Management's proposal and noted follow-up work continues regarding pump storage units, but that the proposal was a good compromise.

Mark Smith, with Calpine, provided comments in support of Management's proposal and acknowledged a successful stakeholder process.

Brief discussion followed.

### Board Decision

### Motion

#### **Governor Page:**

*Moved, that the ISO Board of Governors approves the policy to implement Multi-Stage Generating Unit Modeling as outlined in the memorandum dated May 8, 2009; and*

*That the ISO Board of Governors authorizes Management to make all the necessary and appropriate tariff filings with the Federal Energy Regulatory Commission to implement this policy.*

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

## **DECISION FOR CONDITIONAL APPROVAL OF THE HIGHWIND LOCATION CONSTRAINED RESOURCE INTERCONNECTION FACILITY PROJECT**

### Proposal

Gary DeShazo, Director of Regional Transmission North, provided the Board with a historical overview of the Board's prior approval of the location constrained resource interconnection (LCRI) tariff provision as an innovative means for reaching renewable generation. Mr. DeShazo stated that Highwind was the first project presented to the ISO for consideration under the LCRI tariff. Mr. DeShazo noted that Highwind will connect to the Tehachapi Renewable Transmission project that was approved by the Board in 2007. Mr. DeShazo stated that in order for the Highwind project to move forward, Tehachapi must be certified as an energy resource area. Mr. DeShazo noted that Highwind is a high voltage facility intended to connect three wind generation projects and that it meets all tariff criteria for conditional approval. Mr. DeShazo stated that following conditional approval by the Board, Southern California Edison must then meet commercial interest requirements to obtain final ISO approval.

Discussion followed regarding the use of ‘conditional approval’ in the proposed motion language. Further discussion ensued regarding the consistency of the criteria used to designate this and future projects as energy resource areas.

#### Public Comment

Susan Schneider, with CalWEA, provided supportive comments on Management’s proposal and noted it was a cost effective method. Ms. Schneider noted that for future projects, she would like to see more information earlier on in the planning process.

#### Board Decision

Discussion followed regarding the flow of money on LCRI projects. Further discussion ensued regarding applying the lessons learned on this project to refine the process for future projects. Further discussion followed regarding the project management and ownership. Discussion followed regarding the integration of renewables, including discussion of the Renewable Energy Transmission Initiative (RETI) process.

Discussion followed regarding the modified motion language.

#### Motion

##### **Governor Page:**

*Whereas, the ISO Board of Governors finds that the renewable generation projects proposed for interconnection to Highwind are located in the Tehachapi wind resource area, which has been recognized as a highly ranked Competitive Renewable Energy Zone (CREZ) in the California Renewable Energy Transmission Initiative Phase 1B Report; and,*

*Whereas, the Board finds that the Tehachapi wind resource area should be certified as an energy resource area consistent with the requirements of the ISO tariff;*

*Moved, that the Board provides conditional approval of the Highwind location constrained resource interconnection facility subject to demonstration of commercial interest in the line and evaluation of cost impact to the ISO transmission revenue requirement, in accordance with tariff Section 24.1.3.2, as outlined in the memorandum dated May 8, 2009.*

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

Governor Doll requested routine reports to the Board regarding the status the RETI process.

## **RECESSED**

There being additional general session items to discuss, the general session of the ISO Board of Governors meeting was recessed at approximately 12:10.

## **RECONVENED**

Mason Willrich, Chair of the ISO Board of Governors, reconvened the general session meeting at approximately 1:45 p.m. Roll call was taken and the presence of a quorum was established.

## **ATTENDANCE**

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

Mason Willrich, Chair  
Tom Page  
Linda Capuano  
Laura Doll

The following members of the officer team were present: Yakout Mansour, Laura Manz, Steve Berberich, Jim Detmers, and Nancy Saracino.

## **GENERAL SESSION**

The following agenda items were discussed in general session:

### **DECISION ON IRON POINT FACILITY – Budget and Financing**

Steve Berberich, Vice President of Corporate Services and Interim Chief Financial Officer and Treasurer, provided the Board a background overview of the ISO new facility project. Mr. Berberich stated that the current facility was inadequate and that the new facility would address space and critical security concerns. Mr. Berberich stated the new building would be a showcase for environmental stewardship with a commitment to achieve a gold level Leadership in Energy and Environmental Design (LEED) rating. Mr. Berberich noted that Management was planning to create a world-class control room that utilized the latest technologies. Mr. Berberich provided an overview of the following approvals: overall budget approval, authorization for a bond offering, resolution to allow certain cost reimbursement from bond proceeds, and authorization of several documents related to the bond offering and related mortgage. Mr. Berberich stated the overall budget for the building had been set at \$160 million and that Management intended to finance construction of the facility. Mr. Berberich noted that the grid management charge impact would be modest. Mr. Berberich concluded his presentation by stating the project would be tightly managed and that the move into the new building would begin in late 2010.



Discussion followed and the Board acknowledged its involvement throughout the process over the last few years. Further discussion ensued regarding the financing options and budget adherence.

### **Motion - Budget**

**Governor Capuano:**

*Moved, that the ISO Board of Governors approves a budget for a new facility on Iron Point Road of \$160 million. Management is authorized to execute contracts and incur expenditures within this budget subject to the established protocols and procedures for budgeting and approval of expenditures. Management is to keep the Board informed of the expenditures and progress toward the new facility.*

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

### **Motion – Bond Issuance**

**Governor Capuano:**

*MOVED, that the ISO Board of Governors approves, authorizes and directs Management in the name and on the behalf of the ISO, to perform the following actions:*

*Issue a fixed-rate bond in an amount not to exceed \$210,000,000, through the California Infrastructure and Economic Development Bank (“Bond Offering”) with a term not to exceed 30 years secured by a mortgage on the Facility to finance the design, construction, commissioning, furnishing, equipping and occupancy of the Facility, other related building infrastructure costs, capitalized interest, debt service reserve funds, and bond issuance costs.*

*Incur other obligations and guarantee the obligations of the ISO in connection with the Bond Offering and in furtherance thereof to execute and deliver from time to time any note or other instrument evidencing indebtedness or other obligations of the ISO, including related agreements and documents and guarantees of obligations or endorsements of notes, when deemed to be in the best interest of the ISO;*

*Procure bond insurance to secure such bonds to the extent determined advantageous by the ISO Management, and to enter into agreements related thereto; and*

*To take any and all other actions necessary to effectuate the Bond Offering.*

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

**Motion – Reimbursement**

**Governor Page:**

***RESOLUTION DECLARING OFFICIAL INTENT OF  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
TO REIMBURSE CERTAIN EXPENDITURES FROM PROCEEDS OF  
INDEBTEDNESS  
AND TO USE JUNE 2008 BORROWINGS ON AN INTERIM BASIS PRIOR TO THE  
AVAILABILITY  
OF PROCEEDS FROM SUBSEQUENT FINANCING  
ADOPTED MAY 18, 2009***

*WHEREAS, the California Independent System Operator Corporation (the “Corporation”) expects to pay certain expenditures (the “Expenditures”) in connection with its new facility program and other capital expenditures, such as software, computer equipment, construction costs and other capital costs (collectively, the “Project”) prior to and in anticipation of the issuance of indebtedness for the purpose of financing the Project on a long-term basis;*

*WHEREAS, the Corporation intends to fund such Expenditures on an interim basis with general corporate funds;*

*WHEREAS, the Corporation will issue debt obligations during 2009 and a portion of the proceeds from that debt obligation will be used to pay or reimburse general corporate funds in an amount not to exceed \$40,000,000;*

*WHEREAS, Section 1.150-2 of the Treasury Regulations requires the Corporation to declare its official intent to reimburse itself for prior expenditures for the Project with proceeds of debt obligations;*

*WHEREAS, this is an update to the previously approved reimbursement resolution;*

***NOW, THEREFORE, BE IT RESOLVED BY THE CORPORATION:***

***Section 1. The Corporation hereby declares the foregoing Recitals to be true and correct;***

***Section 2. The Corporation here declares that this Resolution shall constitute its declaration of official intent pursuant to Regulation § 1.150-2 to use proceeds of the debt incurred in 2009 to pay or reimburse its general corporate funds for the Project in an amount not to exceed \$40,000,000.***

***Section 3. This Resolution shall be in full force and effect from and after its adoption as provided by law.***

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



**Motion – Financing Agreement**

**Governor Doll:**

*Moved, that the ISO Board of Governors approves one or more Loan Agreements, Bond Purchase Agreements, Letters of Representation, the Deed of Trust, Preliminary Official Statement, one or more Indentures and any other related financing documents (collectively, the "Financing Agreements") as well as the transactions contemplated therein, in substantially the forms on file with the ISO Corporate Secretary ; provided that the Loan Agreement and the Indenture for the 2009 Bonds shall be in a form substantially similar to the Loan Agreement and the Indenture, respectively, previously executed and delivered by the ISO in connection with the issuance of the 2008 Bonds ;*

*Moved, that any of chief executive officer or chief financial officer (the "Authorized Corporation Representative"), with the advice of retained counsel or corporate counsel, is hereby authorized and directed for and in the name and on behalf of the ISO, to execute, acknowledge and deliver the Financing Agreements (other than the Indentures) in substantially such forms, with such changes therein as such Authorized Corporation Representative may require or approve, such approval to be conclusively evidenced by the execution and delivery thereof.*

*Moved, that the ISO Board of Governors approves the official statement or official statements for the Bonds, in substantially the form on file with the ISO Corporate Secretary.*

*Moved, that Any Authorized Corporation Representative, with the advice of retained counsel or corporate counsel, is hereby authorized and directed for and in the name and on behalf of the ISO, to complete, execute and deliver such official statement or official statements in final form. The Underwriters are hereby authorized to distribute a preliminary form of such official statement or official statements to prospective purchasers of the Bonds and is hereby authorized and directed to distribute a final form of such official statement or official statements to all actual purchasers of the Bonds.*

*Moved, that the ISO Board of Governors authorizes each such officer to deliver certificates confirming the accuracy of information relating to the ISO included in the bond official statement or official statements.*

*Moved, that the ISO Board of Governors authorize and direct any Authorized Corporation Representative, with the advice of retained counsel*



*or corporate counsel, to do any and all things and to execute and deliver the Indenture and the Financing Agreements and any and all additional agreements, instruments, certificates and documents which they may deem necessary or advisable in order to consummate the issuance of the Bonds and the acquisition and financing of the Facility and otherwise to effectuate the purposes of this resolution, including but not limited to a tax certificate, a continuing disclosure agreement and control account agreements, rebate consultant agreements or investment agreements.*

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

#### **DECISION ON IRON POINT FACILITY – Special Delegation of Authority**

Steve Berberich, Vice President of Corporate Services and Interim Chief Financial Officer and Treasurer, informed the Board that in order to maintain the schedule on the Iron Point project, Management was also requesting a special delegation limit of \$10 million. Mr. Berberich stated that along with the overall building contract, several companion contracts were anticipated that would exceed \$2 million and that Management would like the authorization to execute those contracts within the overall budget authorization. Mr. Berberich stated that Management would keep the Board fully updated on the budget status as well as the status of contracts executed pursuant to the requested special delegation.

Discussion ensued and Mr. Berberich stated that future Board briefings would include budget and delegation authority updates. Ms. Saracino read the revised motion language for the record.

#### **Motion – Special Delegation of Authority**

**Governor Capuano:**

*Whereas, the ISO Board of Governors has delegated authority to approve and execute financial commitments to the ISO's Chief Executive Officer in an amount up to \$2 million; and*

*Whereas, constructing the new facility on Iron Point Road will require the ISO to enter into contracts in amounts greater than \$2 million; and*

*Whereas, the Board has found that it is in the best interest of the ISO to ensure that the new facility project remains on schedule; and*

*Whereas, the Board has set a budget for the over all Iron Point facility project; Moved, that the Board hereby authorizes the CEO or his delegate to approve and execute financial commitments in an amount up to \$10 million for the Iron Point facility project, as long as the contracts are within the Board-approved budget for the project. Management shall report to the Board on all contracts entered into pursuant to this special delegation.*

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

## **BRIEFING ON 2009 SUMMER LOADS AND RESOURCES OPERATIONS PREPAREDNESS ASSESSMENT**

Bob Emmert, Senior Loads & Resources Engineer, provided the Board with a briefing on the 2009 summer loads and resources operations preparedness assessment. Mr. Emmert informed the Board that the ongoing California drought impact was offset by the reduced peak demand. Mr. Emmert stated that the 2009 water conditions had improved since February as similar to what had occurred in 2008. Mr. Emmert provided an overview of the hydro capacity derate scenario that had been developed for 2009. Mr. Emmert stated that the 2009 summer planning reserve margins were more than adequate and that the deterministic results indicated no firm load shedding would occur in the scenarios. Mr. Emmert stated that the 2009 probabilistic results showed lower probability of shedding firm load in comparison to 2008. Mr. Emmert concluded his presentation by reviewing the focus of 2009 preparations noting that the overall situation was manageable.

Discussion ensued regarding the impact of aging infrastructure on the assessment as well as the impact of the forecast on the grid management charge.

## **DEPARTMENT OF MARKET MONITORING BRIEFING ON ANNUAL REPORT HIGHLIGHTS**

Jeff McDonald, Monitoring and Reporting Manager, provided the Board with overview of the highlights from the 2008 Annual Report on Market Issues and Performance. Mr. McDonald stated that wholesale markets were stable and competitive and that the total wholesale costs, reliability costs and inter-zonal congestion costs had increased in 2008. Mr. McDonald provided an overview of the cumulative new generation investment and noted that while it was significant, there remained little net gain in the south. Mr. McDonald provided an overview of major 2008 market and grid operation events, including the June California wildfires and heat wave. Mr. McDonald stated that the rise and fall of natural gas prices was a big driver in 2008 market performance. Mr. McDonald noted that two consecutive years of below normal California snow packs limited hydroelectric supplies and that 2008 was the lowest ISO hydroelectric production in the past eight years.

Discussion followed regarding the impact of integration of renewables. The Board acknowledged the positive trend of the reports and commended the 2008 annual report. Discussion followed.

## **INFORMATIONAL REPORTS**

There were no comments regarding the informational reports.

## **ADJOURNED**

There being no additional general session items to discuss, the general session of the ISO Board of Governors meeting was adjourned at approximately 3:00 p.m.