

# **Memorandum**

To: ISO Board of Governors

**From:** Steve Berberich, President and Chief Executive Officer

**Date:** March 23, 2015

Re: CEO report

This memorandum does not require Board action.

#### **OVERALL CONDITIONS**

On February 27, 2015, the ISO implemented the new outage management system. This marks the culmination of three years of commitment from a very talented cross departmental team. A well-functioning outage management system is critical to reliable operations and is highly visible, with over 1400 users representing the generation and transmission communities. This transition required migrating existing scheduled outages from the old outage management system to the new system and verifying the accuracy and data flow to other mission critical systems.

The California drought continues into its fourth year. The Sierra Nevada snowpack is 14 percent of normal. The state's two largest reservoirs are at less than 40 percent of capacity, and aquifer levels from Siskiyou County to San Diego County are in decline. These conditions are being taken into account in our summer assessment, which we will preview at this Board meeting and present in full in May.

### SYSTEM IMPACT OF SOLAR ECLIPSES

On March 20, 2015 Europe experienced a solar eclipse. The eclipse reduced solar production significantly across the continent and in Germany in particular. Despite the loss of generation, the grid operators managed through it without disruption and we look forward to any lessons learned they provide. While this solar eclipse did not affect North America, a total solar eclipse will occur August 21, 2017 between 10 a.m. and Noon, and will affect North America, specifically California. During the last partial solar eclipse that affected California, on October 23, 2014, solar production interconnected to the ISO grid dropped by approximately 1,000MW. With the expected increased solar penetration expected by August 21, 2017, the ISO may experience 5,000-7,000MW solar production reduction during the 2017 solar eclipse.

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### **OPERATIONS BACKUP CENTER**

Maintaining a well-functioning, secure backup facility is foundational to the ISO's mission critical profile. The current ISO backup facility is in Alhambra, California in a leased building on an open campus. With the lease coming to an end, we reviewed the security features of the location and concluded that it is inadequate as a business continuity center for several reasons. For example, it is a long distance from the existing operations center, making it difficult to get sufficient staff there in an emergency and complicating efforts to conduct consolidated training. In addition, it does not have a secure perimeter, and it is located in an area with significant seismic risk. After a thorough study and vetting process, a decision has been made to move the backup facility to Northern California.

The ISO has purchased a parcel of vacant land in Lincoln, California, as the site for a new backup operations and data center. It is important to note that no debt financing will be required to design and build the facility. The ISO has had a replacement backup facility in the ISO financial plans for several cycles and accumulated capital reserves to cover the cost without an impact on the ISO's grid management charge. In the long-term, we expect the move to save a modest amount of money over what it would have cost to maintain the current facility. Management will brief the Board about the project and timeline at the May Board meeting and seek final approval in late June.

### **ENERGY IMBALANCE MARKET BENEFITS**

In February, the ISO published the benefit report from the first 60 days of the energy imbalance market. The report confirms what early studies of potential benefits showed -- namely that both California and PacifiCorp electric customers would benefit from the efficient dispatch of lowest costs resources to serve load. The study shows steady flows from California into PacifiCorp as well as flows from PacifiCorp to the ISO, confirming that the most efficient dispatch is being leveraged. In summary, the report indicates benefits as described below:

BAA	November	December	Total
ISO	\$0.65	\$0.59	\$1.24
PACE	\$1.05	\$1.26	\$2.31
PACW	\$1.39	\$1.03	\$2.42
Total	\$3.09	\$2.88	\$5.97

In projecting these benefit numbers out to a full year, the benefits are clearly significant and in line with expectations.

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#### PUGET SOUND ENERGY AND EIM TRANSITION COMMITTEE APPOINTMENT

Puget Sound Energy has executed a transition agreement to join the energy imbalance market on October 1, 2016. We are pleased to have Puget as part of the expanding market and look forward to working closely with them for a successful implementation. Co-incident with Puget becoming a planned participant in the market, Management recommends that the Board appoint David Mills, a Puget executive, to the EIM Transitional Committee.

### STRATEGIC VISION

Last year, the ISO Board of Governors approved the 2014-2016 strategic plan for building a sustainable energy future. That plan provides three overarching strategies, each with a number of initiatives. In the past year, the ISO has made significant progress on the initiatives established in the strategic plan and the three strategies largely remain our top priorities in 2015 and beyond.

At the same time, the energy industry has continued to evolve. Far-reaching environmental policies, regulatory changes, shifts in economics and consumer demands, and innovative new technologies that were once on the horizon are now real. This year, we revisited our strategic plan to ensure that the organization's focus remains on the most effective strategies and initiatives to help lead the way to a sustainable energy future. Management has engaged with staff and the Board of Governors to develop the 2015 strategic vision which complements the strategic plan, but also goes a step further by more specifically identifying actions that must be taken to support the transition to a low carbon grid while still maintaining reliability. As a supplement to this year's strategic vision, the ISO has developed an infographic which helps provide a big picture explanation of the opportunities and challenges associated with managing the evolving grid.

The final strategic vision will be considered by the Board, which has been actively engaged in the planning process, following this report, and I will be seeking your formal approval.

## RENEWABLE GENERATION

A new solar generation peak of 5,812 MW was established on March 6, 2015 at 10:19 a.m. Wind generation peak remains at 4,768 MW set April 12, 2014.

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