

# Memorandum

**To:** ISO Board of Governors  
**From:** Steve Berberich, President and Chief Executive Officer  
**Date:** June 21, 2016  
**Re:** **CEO report**

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*This memorandum does not require Board action.*

## OVERALL SYSTEM CONDITIONS

Overall, operating conditions have been normal for this time of year, with occasional periods of high heat. One notable heat wave occurred in early June, when loads reached 40,390 MW on June 3. We anticipate continued normal operating conditions and will be well positioned for the normal heavy loads of summer. It is important to note that the rapidly evolving situation with the Aliso Canyon natural gas storage facility casts a level of uncertainty over gas supplies in that region. Because Aliso Canyon may be unable to fully supply gas to parts of Southern California, gas curtailments to power generators could be called, thereby creating risks to electric reliability in the Los Angeles basin.

Potential gas shortfalls become critical when we encounter a system contingency or loads that are significantly higher than what was forecasted. Both of those circumstances are relatively common on the system. In response to the reliability risks related to Aliso Canyon, we have worked with the state agencies, SoCal Gas, and the Los Angeles Department of Water and Power on a set of mitigation measures to reduce the risk of electric interruptions due to limited gas supplies. Among the ISO-led mitigation measures are a set of market changes, which were developed in consultation with stakeholders and subsequently approved by FERC. Additional study work with the joint agency team is underway to examine the system risks under winter operating conditions.

## SUMMER RELIABILITY

Notwithstanding the Aliso Canyon situation, the ISO's annual reliability assessment indicates that we have adequate reserves on the total ISO system to meet peak summer demand. Since last year's reliability assessment was completed, a notable increase in solar generation was added to the system, both in terms of utility-grade installations and consumer owned distributed solar power. According to our participating utilities, as many as 11,000 rooftop solar installations are being deployed each month across the State, providing as much as 70 MW of new distributed solar capacity.

## **REGIONALIZING THE GRID**

Collaborative efforts continue with Western states, California governmental and regulatory entities, the Governor's office and the California legislature on exploring paths to regionalize the ISO. The value of regionalization is paramount to California's goals to de-carbonize the grid and are critical to the integration of ever-increasing amounts of renewable power. Examples of regionalization in other areas offer great insights into the opportunities and challenges facing California and help us to integrate renewables while mitigating upward pressures on costs. Among the notable case studies is the State of Iowa, which resides within the Midcontinent ISO (MISO) and has announced a goal of 85% renewables. This laudable objective is only achievable because Iowa can capitalize on the geographic and resource diversity of the MISO grid. Another case study comes from Europe, where many nations, including Norway and Germany, benefit from regional collaboration. European energy moves efficiently between countries via well-planned electric infrastructure and robust energy markets.

The ISO recently conducted a set of important studies to assess the economic and environmental benefits of a regional grid. The results are impactful and indicate that a regional grid will enable an efficient dispatch optimization across a larger geographic area. It will allow the ISO and neighboring states to make more efficient use of installed assets and reduce the need for infrastructure investments. A regional grid offers significant cost savings, both in terms of generic capacity costs and ramping capabilities, and, importantly, a regional market will enable us to market surplus renewable energy to others, thus reducing the need to curtail renewables.

The opportunity to consolidate regionally is not solely the prerogative of the California ISO. Others in the west are also undertaking efforts to consolidate grid operations across multiple states. This presents the potential for other grid operators to move into neighboring western states, thereby surrounding, or "islanding," the California ISO. Such a scenario could place California in a position of economic disadvantage, because we would not have unfettered access to the same centralized grid operations, planning and markets as the consolidated neighboring region.

To capitalize on these opportunities, we are firmly committed to contributing to a governance design that respects states' policy prerogatives, establishes a role for state regulatory authorities and is regionally inclusive. At the same time, we are committed to finding a path that is enduring, acceptable to California, and respectful of the State's clean energy objectives and economic strategies.

## **ENERGY IMBALANCE MARKET GOVERNING BODY NOMINATING COMMITTEE**

The energy imbalance market governing body nominating committee has completed its work, and has nominated five extraordinarily qualified candidates for the ISO Board of Governors to consider today to serve on the governing body. We offer our genuine thanks to the nominating committee for their diligence and hard work in identifying and interviewing a solid slate of candidates. Upon Board decision, we will be delighted to welcome the new energy imbalance

market governing body members and look forward to working with them to establish a sound governance process.

## **RENEWABLE GENERATION**

Several new solar generation peaks occurred since the last CEO report, where we reported a solar peak of 6,835MW. The most current solar peak is 7,755 MW on May 11 at 12:33 p.m. The wind generation peak remains at 4,768 MW set on April 12, 2014 at 5:48 p.m.