



# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President, Market & Infrastructure Development

**Date:** May 11, 2011

**Re:** **Briefing on the 2011 Summer Loads and Resources Assessment**

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*This memorandum does not require Board action.*

## INTRODUCTION

The attached 2011 Summer Loads and Resources Assessment presents the expected supply and demand conditions for the 2011 summer peak demand period. This assessment helps the ISO and market participants in planning and preparing for the upcoming summer season by:

- Forecasting ISO peak demand, taking into account scenario forecasts of future economic impacts of an expected economic recovery;
- Projecting generation and imports over a range of predictable operating conditions as well as specific operating scenarios;
- Reviewing risk to the ISO system and the individual northern and southern regions under diverse operating conditions and scenarios; and
- Discussing any potential for firm load interruptions based upon the range of probable outcomes for these operating conditions.

## DISCUSSION

The ISO projects an adequate supply for summer 2011 to reliably manage a broad range of operating conditions. The operating reserve margin for summer 2011 is projected to be greater than the California Public Utilities Commission's 15% resource adequacy requirements. The probability of involuntary load curtailment is low, less than 1% for the ISO as a system for a third consecutive year. System operations could be challenging under extreme conditions, but the ISO will count on 2,357 megawatts (MW) of demand response and interruptible load programs being available when necessary. Maximizing imports into California under the extreme scenario continues to be essential for maintaining the system reliability. The extreme scenario is defined as low imports, 1-in-10 generation and transmission outages, and 1-in-10 peak demand. A 1-in-10

event means the event has a probability of occurring once in ten years. The probability of the extreme scenario is very low.

Other key findings in this year's assessment include:

- Hydropower generation conditions for 2011 have improved over recent years with the statewide average snow water content measuring at 160% of historical average as of April 4, 2011. The amount of water available during the summer for hydropower generation depends on weather conditions. There is always a risk that hot spring weather could accelerate snowpack melting leaving less water available in the early summer months for hydroelectric generation. However, having a well above normal snow pack will help mitigate this risk.
- The ISO projects that 49,599 MW of net qualifying capacity will be available for summer 2011, which is a 1,180 MW increase from June 1, 2010. The net qualifying capacity is the maximum capacity eligible and available for meeting the CPUC resource adequacy requirement counting process. The additional generation will help meet the forecasted 687 MW increase in ISO demand. The summer imports under high peak demand conditions are projected to vary from 8,500 MW to 11,400 MW for the ISO, 8,700 MW to 10,700 MW for SP26, and 1,100 MW to 3,400 MW for NP26. The NP26 zone represents the entire PG&E service territory. The SP 26 zone represents the service territories of SCE and SDG&E.
- The ISO peak demand is projected to reach 47,814 MW in summer 2011, which is 687 MW more than the actual peak 47,127 MW recorded in 2010. The 1.5% increase in ISO peak demand represents a modest economic recovery over 2010 based on Moody's economic base case forecast.

Producing this report and presenting its results to stakeholders is one of many activities the ISO undertakes each year to prepare for the summer operations. Other activities include coordinating summer preparedness meetings with the Western Electricity Coordinating Council, Cal Fire, gas companies and neighboring balancing authorities. The ongoing relationships help ensure everyone is ready to respond effectively and collaboratively during times of system stress.

The ISO continually trains its grid operators for managing system events, applying the relevant operating procedures and understanding utility practices. The ISO, in conjunction with the California Electric Training Advisory Committee, sponsors annual summer preparedness workshops to train grid operators. This year's workshop theme was communication and restoration under circumstances of a wide-spread disaster.

## **CONCLUSION**

The ISO projects an adequate supply for summer 2011 to handle a broad range of expected peak demand conditions and also projects a very low probability of involuntary load curtailments. In addition, the ISO has completed its 2011 summer operations preparedness efforts.