California ISO
Shaping a Renewed Future

California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

From: Steve Berberich, President and Chief Executive Officer

Date: August 18, 2011

Re: **CEO Report**

This memorandum does not require Board action.

Operations Update

Summer conditions remain mild. We continue to experience abnormally low demand for the summer because of below normal temperatures. Based on long term forecasts, those conditions are expected to continue.

Renewable generation continues to grow in our footprint. We have been setting new records regularly over the summer as new resources come online. The current footprint records are 2,517 MW for wind set June 10 at 23:29 and 514 MW for solar set on July 18 at 12:21.

Valley Electric Association

We are pleased to announce that we have executed a memorandum of understanding with Valley Electric Association outlining the framework for the Nevada member-owned utility to join the ISO. Valley Electric is located in the southwest portion of Nevada adjacent to and within the eastern edge of California's Inyo County. By joining the ISO, California and Nevada solar projects located inside Valley Electric will be better positioned to deliver power to the California grid. In addition, the ISO will benefit by gaining access to additional import capability from Valley's transmission rights at the Mead Substation.

The MOU will be presented to the ISO Governing Board at this meeting. If authorized by the Board, the ISO will enter into a transition agreement based on the MOU. This agreement will then be filed with FERC for approval along with any limited waivers of the ISO tariff necessary to support the transition process. We appreciate the working relationship we have developed with Valley Electric's leadership and look forward to helping them achieve their long term goals.

Governor's Conference on Local Renewable Energy Resources

The Governor's office held a distributed generation conference at UCLA on the July 25 and 26. The ISO appreciated the opportunity to participate in this important conference. I served on a panel moderated by CEC Chairman Weisenmiller while several of you helped host the conference and moderate panels. Implementing the governor's ambitious goal of 12,000 megawatts of distributed generation was discussed at length with it being clear that work will have to take place on making the generation visible, managing the costs and strategizing how best to deploy it.

Convergence Bidding on the Ties

ISO Management is recommending that the Board of Governors eliminate convergence bidding on the interties in an action at this meeting. By way of background, the ISO imports a large amount of power from out of state resources. The scheduling of those resources is done west-wide on an hourly basis and requires administrative setup 75 minutes before real time. This results in the pricing of imports in advance of the pricing of instate resources in the five-minute real time dispatch market. As a result, differences in prices can be arbitraged through the convergence bidding process. Related costs are borne by load with no operational benefit to the ISO or its ratepayers.

Management does not make this recommendation lightly. Philosophically, we support a deep market with a variety of products, and removing functionality should always be approached with caution. In this case, however, we worked with market participants to find other ways to remove the arbitrage opportunity but were unable to find any beyond a fundamental re-design of the real time market. A re-design is under consideration, but no decision has been made. In any case, such an effort would require a major investment of staff and dollars, and could not be implemented before 2013. In the meantime, Management believes that it is necessary to eliminate the arbitrage opportunity inherent in the current market design.

Renewable Integration Needs

California's 33% renewable portfolio standard, signed into law earlier this year by Governor Brown, has led to vigorous competition among hundreds of renewable energy projects seeking to contract with the state's utilities and other load-serving entities. The ISO is actively preparing for the increased levels of renewable generation that will result from these projects and others already in development. Our immediate concerns have to do with having sufficient flexible generation available to manage the variability of weather-dependent wind and solar resources at the same time that we face the possible retirement of coastal power plants facing restrictions on the use of once-through cooling technology.

To that end, the ISO has performed extensive studies to define the system flexibility needs driven by this transformation of the state's resource mix, and has presented them in the long-term procurement proceeding pending at the California Public Utilities Commission. The ISO is presenting a memo at this Board meeting outlining our assessment. Under the ISO's preferred scenario, approximately 4,700 MW of additional flexible generation is needed before 2020, 2,000 MW of which could be provided by generation also needed to maintain local reliability. Our findings do not incorporate aggressive forecasts of new energy efficiency and demand response preferred by the CPUC. We support these policies, but are concerned about the asymmetric risk these assumptions create. The risk arises because failing to act today to initiate long-term procurement to meet needs means that we will be unable to maintain reliable electric service if energy efficiency and demand response programs fail to materialize. On the other hand, procuring more generation adds additional costs but ensures reliability.

The ISO looks forward to working with the CPUC, utilities, renewable and conventional generations, and other stakeholders in the months to come. This effort is critically important to the success of the state's policies, which depend in part on the ability of the ISO to maintain reliability.