

Memorandum

To: ISO Board of Governors
From: Steve Berberich, President and Chief Executive Officer
Date: March 17, 2016
Re: CEO report

This memorandum does not require Board action.

OVERALL CONDITIONS

Normal winter operating conditions are in effect with low loads and many maintenance outages to coordinate across the system as well as coordinating new transmission lines being added to the system. We are, however, seeing increasing challenges with managing the load and generation swings as storms roll across the coast. In many cases, the storms result in higher wind output, lower solar output and higher loads because of the diminished distributed generation output due to cloud cover. Large system swings have occurred several times since the first of the year and have forced the ISO to carry more regulation reserves to avoid leaning on the rest of the Western Interconnect.

ALISO CANYON GAS STORAGE LEAK

Collaborative studies have indicated significant electric reliability risks until gas can be reintroduced back into the Aliso canyon storage facility and be available for electric reliability. While studies have highlighted the risk, electric curtailments are not a certainty and a long list of mitigation options are being implemented to minimize any risks. Those mitigation efforts include increased demand response and efficiency opportunities, close coordination between the ISO and Los Angeles Department of Water and Power, close coordination with gas pipeline operators and potential temporary changes in the timing of our day ahead market to sync better with gas markets. Nonetheless, the public will play a crucial role by responding to calls for conservation and being aware of both their gas and electric consumption until the storage facility is back online.

2016 TRANSMISSION PLAN

Due to the considerable progress made in previous planning cycles in identifying and approving a wide array of transmission projects, the number and capital costs of recommended transmission projects in this 2015-2016 Transmission Plan is considerably lower than previous years. Moreover, the plan did not identify further additional needed reinforcements to achieve the 2020 33% renewable goal. Since necessary policy support

and renewable policy development has not occurred for the State's new 50% policy objectives, the required transmission infrastructure for that objective will be addressed in future planning cycles. In summary, the plan calls for:

- A total of 13 reliability-driven transmission projects needed to ensure compliance with NERC and ISO planning standards, representing an investment of approximately \$288 million in infrastructure additions to the ISO-controlled grid. None of the projects are eligible for the ISO's competitive solicitation process.
- One additional project involving a transmission line jointly owned with a non-ISO participating transmission owner was found to be needed, and Management intends to seek approval in the next planning cycle after coordinating with the neighboring transmission owner. (Victorville-Lugo upgrades with SCE and LADWP)
- No policy-driven transmission projects were identified as needed for meeting state policy associated with the 33% RPS objectives.
- No economically-driven transmission projects were identified as needed.

During this planning cycle, the ISO also reviewed a number of transmission projects to determine if they were still needed given changing load growth patterns. That review led to the cancellation of 13 primarily local sub-transmission projects in the PG&E service area.

Finally, the plan also included a number of special studies focusing on emerging issues as renewable generation continues to grow, including further study of the ISO's transmission system (50% energy-only studies), and studies examining frequency response, gas-electric coordination, and future potential benefits of large scale storage. These were well-received by stakeholders, and we will be continuing those efforts in the next planning cycle.

ISO GOVERNANCE

The ISO is aware of the need for changes to the ISO's governance model to make it possible to potentially evolve into a larger, regional organization. The redesign of governance does not depend on the ISO but rather on results of close collaboration among policy makers in California and other states. The ISO remains committed to public, transparent consideration of these issues and has reserved public Board meeting dates to be used, as appropriate.

RENEWABLE GENERATION

Several new solar generation peaks have occurred since the last CEO report (6,506 MW). The most recent record was 6,835 MW on March 16 at 11:11 a.m. Wind generation peak remains at 4,768 MW set April 12, 2014 at 5:48 p.m.