

# Memorandum

**To:** ISO Board of Governors  
**From:** Steve Berberich, President and Chief Executive Officer  
**Date:** December 11, 2019  
**Re:** **CEO report**

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*This memorandum does not require Board action.*

## OVERALL SYSTEM CONDITIONS

Overall operating conditions are normal for this time of the year with significant generation and transmission maintenance outages across the system. Fire season is now behind us with welcome rains arriving, loads are relatively low and no major unforced outages have occurred.

Several Public Safety Power Shutoffs (PSPS) occurred across the system since the last Board meeting but none of the magnitude of those implemented earlier in the season. We coordinated closely with utilities to ensure no secondary load impacts from the PSPS outages.

Note that Diablo Canyon unit 2 is offline for refueling with an expected return on December 16, 2019. Also, for the year, the peak load of 44,301 occurred on August 15, 2019 at 4:50 p.m.

## RELIABILITY COORDINATOR CONDITIONS

CEO reports will now include a section for reliability coordinator (RC) conditions and issues across the grid overseen by RC West.

Like our own footprint, operating conditions for RC West have been stable and consistent for this time of the year. There have been no load concerns nor forced outages impacting the system. There were also no level 3 Electric Emergency Alerts that would indicate an imminent load shed or need to restore reserves.

Peak Reliability, the former reliability coordinator for the Western Grid, has ceased operations as of December 3.

## **REGIONAL DAY-AHEAD MARKET**

Stakeholder processes have begun for the design of a regional day-ahead market with the issuance of a white paper outlining the broad issues to be addressed. The policy team will focus on the larger and more controversial issues first to gain an early consensus on design parameters.

In parallel, the EIM Governance Review Committee has begun its work to examine governance options for a regional day-ahead market that balances all stakeholders' and potential participants' concerns. The ISO is very appreciative of all the committee members for their willingness to participate on this very important committee.

## **POLICY INITIATIVES ROADMAP**

At this meeting, Management will provide a briefing on our policy outlook for the next three years with a specific focus on 2020. We are aware that this roadmap is full and aggressive, but we also recognize that the industry is rapidly changing and we must keep adapting. In particular, we will be pursuing evolution of our ramping product, additional opportunities for batteries and distributed generation to participate in our market, and furthering strategies for making renewables an essential part of our market. Finally, we expect to further develop our day-ahead market and a potential expansion of that market to the region.

## **POST-2020 GRID OPERATIONAL CHALLENGES**

At a previous Board meeting, we briefed the Board about the predicted looming capacity shortfall. Subsequently, we worked with the California Public Utilities Commission to address that shortfall through an expedited procurement ordered by the Commission. While the Commission's order did not address the shortfall in its entirety, it is a good start.

We believe there are additional significant reliability challenges that have to be addressed in the coming months and years. First, the ramping challenge is becoming more and more pronounced each year. That ramp and the subsequent net peak is now met with mostly natural gas-based generation which is not consistent with policy objectives to decarbonize the grid. Further, with additions of more central and distributed solar generation in California and the region, we risk the potential that our fleet plus imports cannot meet the extended ramps.

The final operating challenge we are highlighting is that associated with the presumed likelihood of multiple cloudy days over the solar facilities. With the addition of storage to meet the ramp challenge, it is critical to recognize that long periods of cloudiness will impact solar generation to directly serve load but also to charge batteries. Extended periods of cloudiness are not uncommon and must be planned for.

## **2020 ISO BUDGET**

At this meeting, Management will be requesting approval of our final 2020 budget, grid management charge and resulting revenue requirement. The revenue requirement is a

culmination of many months of internal work and includes input from our stakeholders. We are proud to note that our 2020 revenue requirement is the lowest since 2006. As a result of a lower revenue requirement, the 2020 grid management charge rates will be lower than 2019 rates. The ISO is able to achieve this due to disciplined fiscal management and diversified revenues.

## **RENEWABLE ENERGY PRODUCTION**

No new renewable production nor renewable penetration records have been set since the November CEO report. The most recent solar peak of 11,473 MW occurred on July 2, 2019 at 12:52 p.m. The most recent wind generation peak of 5,309 MW was set on May 8, 2019 at 3:50 a.m. The most recent renewable generation penetration peak was recorded on May 5, 2019 at 2:45 p.m. with 80.3% of load served by all renewables. For only wind and solar, the instantaneous peak load served was 70.4% also on May 5, 2019 at 2:46 p.m. For solar, the peak of 58.6% of load was on March 17, 2019 at 11:00 p.m., while wind was 26.4% on May 8, 2019 3:21 a.m.

## **PERSONNEL**

At the last Board meeting, it was noted that Dr. Keith Casey will be retiring from the ISO in January 2020. Consistent with that, this is the last Board meeting that he will attend as an ISO officer. All of his ISO family wish him the very best in retirement and in his future endeavors. He will be missed.

Nancy Traweek, the Executive Director of Grid Operations has also announced her retirement in January 2020. Nancy has been a major contributor at the ISO for a number of years and we also wish her the very best in her retirement. Nancy has been a valued member of the ISO team for over 20 years and her contributions have been immense.