California Independent System Operator Corporation



Memorandum

- To: ISO Board of Governors
- From: Elliot Mainzer, President & Chief Executive Officer

Date: January 27, 2021

Re: CEO report

This memorandum does not require Board action.

INTRODUCTION

This has been an exceptionally busy start to 2021, with significant activity on multiple fronts under continued COVID work-from-home restrictions. In this report, I cover the following topics: ISO coronavirus response, Final Root Cause Analysis, Summer 2021 readiness, EIM Governance Review Committee, bond refinancing, nodal pricing model for PacifiCorp, Morongo Tribe becomes a PTO, and new settlement timeline. System operations have been relatively quiet and I have not provided any additional information on that topic in this update.

ISO'S CORONAVIRUS RESPONSE

The ISO remains in a highly restrictive building access posture and will remain in that status for the foreseeable future. We are actively working with the California Governor's Office and the California Health Authority to receive priority vaccinations for our mission critical employees and exploring other channels to secure vaccinations for our broader workforce consistent with the State's prioritization criteria.

FINAL ROOT CAUSE ANALYSIS

On January 13, the ISO, CPUC, and CEC released the final version of the Root Cause Analysis of the events of last August and September. The report largely reiterated the key findings of the Preliminary Root Cause Analysis in October but we were able to augment the final report with additional data on resource performance that was not available to us in October. It confirms that the three major factors contributing to the August outages were related to extreme weather conditions, resource adequacy and planning processes, and market practices.

The climate change-induced extreme heat wave across the western United States resulted in demand for electricity exceeding existing electricity resource adequacy and planning targets. Additional work is needed to ensure that sufficient resources are available to serve load during the net peak period and other periods of system stress. In addition, a subset of energy market practices obscured the tight physical supply conditions, which included under-scheduling of

demand in the day-ahead market and convergence bidding. A scheduling priority enhancement implemented several year ago inadvertently caused the ISO's day-ahead residual unit commitment process to fail to detect and respond to the obscuring effects of under-scheduling and convergence bidding during August's stressed operating conditions. The ISO is now actively developing solutions to these market design issues, as described below, but it should be noted that most of the day-ahead supply challenges encountered were addressed in the real-time market as a result of additional market imports, energy imbalance market transfers and other emergency purchases.

We have provided additional data on a number of fronts, including an analysis of the performance of demand response resources. We remain very focused and committed to evaluating whether there are elements of our market or policy framework which may have contributed to observed demand response performance issues and are working with demand response service providers to look for ways to enable such resources to play an important role in helping to maintain reliability in California.

The final analysis not only provides a comprehensive look at the causes of the rotating outages on August 14 and 15, and assesses how resources performed during those periods, but importantly, it sets forth important recommendations and actions that are being addressed by the ISO, CPUC and CEC. We look forward to continuing the work and coordination with them and industry partners to avoid rotating outages this summer.

We will continue to engage with and seek input from stakeholders to further refine our understanding of the key issues that contributed to the events of last summer, including relationships between temperatures and loads, planned outage management, and necessary changes to the planning reserve margin for our market footprint.

Finally, I wanted to mention that the Department of Market Monitoring conducted their own independent analysis prior to the publishing of our final analysis. They agreed with many of the key findings and recommendations of the Preliminary Root Cause Analysis and found no evidence that market results on these days were the result of market manipulation.

SUMMER 2021 READINESS

With a strong sense of urgency, we are engaged on a number of fronts to prepare for Summer 2021. A summary of our key initiatives and activities can be found at: <u>http://www.caiso.com/about/Pages/News/SummerReadiness.aspx</u>.

Our primary focus areas include: a commitment to make any necessary changes to our market processes to address lessons learned in the Root Cause Analysis; efforts to work with the battery storage industry to ensure that the battery fleet is fully charged for duty during the net peak under stressed operating conditions while also endeavoring to help the battery storage providers optimize the commercial value of their resources; refining our proposed increase to the planning reserve margin; establishing additional mechanisms to ensure rational price formation during stressed operating conditions, and planning for implementation of our system market power mitigation proposal in August 2021, subject to Board approval.

Over the course of the spring, we will be working with the CPUC, CEC, the Governor's office, utilities, CCAs, generators, demand response/distributed energy resource service providers, EIM entities and adjacent transmission operators to ensure that the power system is as healthy and well-coordinated as possible going into Summer 2021. We are also scheduling a set of table top exercises to stress-test our planning activities in early summer.

We are doing everything in our power to preserve reliability in Summer 2021 but remain concerned that the state continues to face operational risk, particularly with respect to the ability to secure firm imports from adjacent regions. We will continue to engage with the CPUC, IOUs and other stakeholders to establish clear and workable rules and policies for securing firm imports into California for this summer and beyond.

BOND REFINANCING

Thanks to Ryan Seghesio and his team from Finance and Legal, the ISO's bond refinancing in mid-January was very successful. The bonds were extremely well received by the taxable market which submitted \$2.5 billion in orders for \$175 million in bonds. Oversubscribed status across the bond deal was indication that investors value the ISO's credit even more so than the credit rating agencies. Final pricing was tightened 15-20 basis points across all maturities to reduce demand. Refinancing will result in nearly \$1.8 million in annual savings and over \$26 million in net present value savings over the life of the bonds. The unsecured and taxable structure of new bonds will also relieve the ISO of several administrative burdens.

NODAL PRICING MODEL FOR PACIFICORP

On January 14, 2021, the ISO implemented an innovative day-ahead advisory nodal pricing model (NPM) for PacifiCorp. PacifiCorp intends to use the nodal prices produced by the contracted service to calculate the net power cost for each of the six states under its service territory. The ISO's day-ahead NPM service leverages the ISO's existing day-ahead market technology platform, the ISO's full network model, and data interfaces similar to the energy imbalance market as the foundation to provide the NPM solution. This technology solution will automatically inherit all new features and day-ahead market design enhancements in any future initiative and, by providing greater visibility into PacifiCorp's day-ahead and real-time system operations, will support regional reliability.

MORONGO TRIBE BECOMES A PARTICIPATING TRANSMISSION OWNER

The Board is being asked at the February meeting to approve the ISO's acceptance of the application of Morongo Transmission LLC for participating transmission owner status. This will be the first federally-recognized American Indian tribe to become a Participating Transmission Owner (PTO). The Morongo Transmission LLC ("MT") will become a PTO with respect to its interest in the West of Devers Upgrade Project ("Project"). This interest was established by a transaction between Southern California Edison Company and MT allowing SCE to construct the Project across lands within the boundaries of the Morongo Indian Reservation, in exchange for the right for MT to participate with SCE in the financing of the Project. We want to thank both SCE and the Morongo Tribe for their creativity and flexibility in developing a win-win situation enabling this critical transmission project to proceed. I also want to thank SCE for their diligence and perseverance in bringing this project to completion.

NEW SETTLEMENT TIMELINE

The ISO began executing a new settlement timeline, beginning trade date January 1, 2021. This achievement is the result of a collaboration with market participants on policy rules, implementation details, and testing through a joint market simulation. The new timeline extends the publishing of the first settlement statement from three to nine business days after each trade date, it reduces the total number of settlement statements from nine to seven, and reduces the overall settlement time horizon from three to two years.

The new approach reduces the time obligation for market participants to consume, process, validate and store statements. The new timeline was developed to address feedback from ISO balancing authority and energy imbalance market participants, and is widely supported by the market participant community.