

Memorandum

To: ISO Board of Governors
From: Elliot Mainzer, President and Chief Executive Officer
Date: January 25, 2023
Re: CEO report

This memorandum does not require ISO Board of Governors action.

INTRODUCTION

For this first CEO report of the New Year, I will touch on three inter-related decisional items coming before the Board regarding final design of our Extended Day-Ahead Market (EDAM), governance changes, and the wheel through initiative. I will also provide updates on how the grid fared during all the recent storms; our monitoring of high natural gas and electricity prices; the ISO's work on summer readiness; our new Memorandum of Understanding with the CPUC and CEC to better align procurement, forecasting and transmission planning; our 2022-2023 transmission plan; the interconnection process; breaking ground on the Ten West Link project; work responding to Assembly Concurrent Resolution 188; and the latest news regarding the Western Energy Imbalance Market (WEIM).

OVERVIEW

Let me begin by saying how much I am looking forward to this month's ISO Board of Governors and WEIM Governing Body meetings because we have several very significant and inter-related initiatives on the agenda for consideration. You will be making decisions on initiatives regarding the final design elements for EDAM, our extended day-ahead market; governance enhancements put forward by the WEIM Governance Review Committee; and the ISO's wheel-through initiative that appears on the joint general session agenda as the Transmission Service and Market Scheduling Priorities. We have decided to spend some additional time working with stakeholders to address some final specific design elements associated with our day-ahead market enhancements initiative but will also provide a briefing on that topic given its relationship to the EDAM design.

Each one of these initiatives is complex and multi-layered. We have worked with and listened carefully to the many different entities affected by these proposals. There have been a variety of different opinions, perspectives and concerns expressed, all of which need to be considered and balanced as we move forward. As I look at what has been done on each and every one of these proposals, I am very appreciative of all the hard work, robust engagement, listening, adapting and refining that have been hallmarks of these efforts.

Throughout all of this work, we have been sensitive to our responsibility to utilities in California while also recognizing our dependencies on interconnectedness and the need to put together collaborative solutions that work for our partners across the region. We feel very strongly that we have accomplished this, and that each proposal is consistent with the open access tariff rules and the policy needs of California and the needs of the many stakeholders participating in our processes. As such, we look forward to our discussions with the ISO Board of Governors and

WEIM Governing Body and are excited about the progress that has been made through these robust stakeholder initiatives.

Regarding the overall design elements of EDAM, I would add that with PacifiCorp's announcement in December of its intention to join EDAM when it goes live, we are excited to continue building momentum behind our Extended Day-Ahead Market as we now get ready to move into tariff development and developing the implementation plan. We also remain hopeful that others among our key WEIM partners will join with PacifiCorp in making EDAM the next major step in Western market integration.

STORMS AND THE BULK ELECTRIC SYSTEM

As you all know, with the persistent rain and storms we experienced up and down the state over the winter holidays and through the middle of January, this has been a challenging period for the grid. Although the bulk electric system has remained stable, there were significant outages across the state due to high winds, falling trees and the overall turbulent weather. We were vigilant in monitoring conditions closely and have been very appreciative of and sympathetic to all of the challenging work that was done by many utilities and infrastructure managers across California who have been dealing with the consequences of this long stretch of severe weather. We stayed, and continue to stay, in constant touch with them, remaining ever alert to the situation and its aftermath as we continue to work with our partners at the state and throughout California to make the grid more resilient to whatever challenges may come.

HIGH NATURAL GAS PRICES AND THEIR IMPACT

Natural gas prices and wholesale electricity costs in the West have been very high across the course of December and into the New Year. The ISO is closely monitoring natural gas prices and their impact on wholesale electricity costs, which have been significant. Members of our team have met with staff at the Federal Energy Regulatory Commission (FERC) to discuss natural gas markets in the Western United States and conditions that may be affecting natural gas prices. We also have discussed with FERC the impact high natural gas prices have had on wholesale electricity costs. We remain in touch with FERC and others in the regulatory community who have responsibility for ensuring rates remain just and reasonable. The CPUC is holding an en banc meeting on this topic on February 7 and the ISO will be participating.

SUMMER READINESS

At the same time that we have been working through these winter-related issues, we have also initiated various planning activities for summer readiness. These include the convening of another leadership roundtable, as we have done the past two summers. Our intent with the roundtable is to bring together leaders from entities across the West that have a role in maintaining reliability as we continue to coordinate and assess changes across the system since last summer. We also bring together these leaders to help anticipate any challenges we may see related to resource availability and the summer weather outlook.

Prior to every summer, we also host several operational workshops with neighboring balancing areas to prepare operations staff on emergency procedures, lessons learned and system scenarios regarding summer conditions. The planning is underway to schedule these events in the May timeframe.

At the same time, we have started our coordination with multiple agencies, including the Governor's Office, the CPUC, the CEC, the California Department of Water Resources and

others. This coordination is important to ensure we have the right emergency program activations in place with agreed-upon actions for the different programs we use when we have stressed grid conditions.

Another important summer readiness activity has to do with reviewing our summer playbook and taking stock of lessons learned from last year to improve where necessary. Last year, we transitioned to the Energy Emergency Alert (EEA) North American Electric Reliability Corporation (NERC) standard to better align our emergency conditions with the NERC protocols. We are working on a refresh of the communications regarding the transition to ensure everyone is clear about the expectations for each alert level and what actions they trigger for the grid and for keeping supply and demand balanced.

UPDATED MOU WITH THE CPUC AND CEC

In December, the ISO signed a new Memorandum of Understanding (MOU) with the CPUC and the CEC. The new agreement seeks to better align state resource planning, ISO transmission planning, procurement processes, and the interconnection process.

The MOU, which is posted on the transmission planning page of the ISO's website, provides a crucial cornerstone in reinforcing the cooperation and collaboration of the three parties in the timely development of resources needed to achieve the state's clean energy goals reliably and economically. The agreement focuses on establishing or reaffirming linkages between the CEC's Integrated Energy Policy Report and SB 100 activities, the CPUC's Integrated Resource Planning process and the ISO's 20-Year transmission Outlook and annual transmission planning and approval process. The MOU supersedes and replaces a similar but less expansive 2010 MOU between the CPUC and the ISO regarding transmission planning. We anticipate that the updated document adding the CEC will provide invaluable guidance and direction in the planning and procurement proceedings and processes conducted by the three parties.

2022-2023 TRANSMISSION PLAN

Just a brief note here to say that we are also excited about the final stages of analysis for the 2022-2023 transmission plan that are underway. We are looking forward to coming back to the Board in May for your consideration of that plan.

INTERCONNECTIONS

I also I want to provide an update on the generation interconnection application process. You may recall that in April 2021, the ISO received 373 interconnection request applications totaling more than 50 gigawatts (GW) of renewable generation and more than 100 GW of energy storage in the Cluster 14 application window. This was more than three times the average of 113 applications over the last decade, and more than double the previous high of 155. Because of the challenge for the transmission owners and the ISO to process that many applications, the ISO extended the phase 1 study process by a full year. Those interconnection customers received their study results in December, and were obliged to withdraw or post security to move into the phase 2 study process. We have at least 160 of these applications moving into the phase 2 study process and that number may yet grow to more than 200 projects representing more than 67 GW, since a number of interconnection customers are still in the final validation process.

The ISO also informally surveyed the resource development community late last year, and anticipate that we could see in the neighborhood of 300 new applications in Cluster 15 this April. These levels far exceed the amount of resource development actually needed in the years

for which the interconnections are being sought. This excessive number of active applications creates another burden on already strained planning staff of transmission owners and of the ISO. The excessive number of applications also provides even more impetus to move forward with overhauling our interconnection process in keeping with the objectives of the recently signed MOU with the CPUC and the CEC to focus on prioritization through alignment of state resource planning, ISO transmission planning, procurement processes, and the interconnection process.

TEN WEST LINK

On another noteworthy piece of transmission news, I was honored on January 19 to attend and provide brief remarks at the groundbreaking in Tonopah, Arizona for the Ten West Link transmission project. Vice President Kamala Harris, Energy Secretary Jennifer Granholm, Interior Secretary Deb Haaland, Arizona Governor Katie Hobbs, other dignitaries and members of the Ten West Link team all participated. It was a good day for California and our partners in Arizona and the desert southwest. This project has been a long time coming. It represents a major step forward for California meeting its renewable generation goals reliably and efficiently and is particularly significant because of the strong collaboration it took with our neighbors in the desert southwest to bring it to fruition.

In 2014, when the ISO approved the project and it was called the Delaney Colorado River Transmission Line, the focus was on improving transfer capabilities and achieving economic efficiencies. Since that time, the benefits have grown, with the Ten West Link project now also providing critical access to renewable generation in Arizona and California, and supporting an incremental 1000 MW of deliverability for resources to provide capacity in times of system stress.

Assembly Concurrent Resolution (ACR) 188 REPORT

On January 13, the ISO posted on our website's regional solutions page the initial draft of the report we were asked to prepare for the Legislature on the potential impacts on California of increased regional coordination following the passage last session of ACR 188. This continues to be a work in progress. The draft represents the first major deliverable from our consultant, the National Renewable Energy Laboratory, in the form of a synthesis of the many studies and reports that are at play on this topic. We are currently in the process of working with stakeholders to revise and complete the report so it can be submitted to the Legislature by the February 28, 2023, deadline established in the resolution and in anticipation of an important conversation at the state Capitol later this summer.

WEIM BENEFITS FOR Q4 OF 2022

Our Q4 benefits report for the Western Energy Imbalance Market (WEIM) scheduled to be released on January 31 will show cumulative benefits since the market's launch in 2014 of more than \$3 billion. That is another big milestone for the WEIM. It also illustrates just some of the kinds of benefits enhanced regional cooperation can bring to market participants and the public.

In a few months, we will have some additional WEIM news when Avangrid, WAPA Desert Southwest and El Paso Electric formally begin their participation. They are all currently in market simulation and scheduled to transition to parallel operations on February 2, 2023. The go-live is scheduled for April 5, 2023, increasing the number of WEIM entities to 23, serving 80 percent of demand in the Western Electricity Coordinating Council (WECC).