



Memorandum

To: ISO Board of Governors and Western EIM Governing Body
From: Elliot Mainzer President and Chief Executive Officer
Date: February 3, 2022
Re: CEO report

This memorandum does not require Board of Governors or Western EIM Governing Body action.

INTRODUCTION

With this first CEO report of 2022, I focus on our EDAM progress, a status update on the wheel-through and resource sufficiency issues, latest benefits report for the Western EIM, release of our 10-Year Transmission Plan and new 20-Year Transmission Outlook, plans for summer readiness, new members of the EIM Governance Review Committee, and our latest communication to employees regarding the ISO's pandemic response.

GOOD PROGRESS ON EDAM

I am pleased to report that the strong momentum built up last fall around our EDAM Forum and subsequent public meetings with stakeholders has carried over into the New Year as our three working groups have gotten off to a quick, productive start.

The three groups focusing on supply commitment and resource sufficiency evaluation, transmission commitment and congestion rent allocation, and greenhouse gas accounting and costs have generated good stakeholder participation, with about 100 people attending each session.

In response to stakeholder feedback, however, we have temporarily adjusted the cadence of the working groups to one meeting per week for each working group, down from two meetings, over the next two weeks to allow additional opportunity for stakeholders to further coordinate, prepare examples and vet EDAM design elements discussed in the working groups within their organizations and with other stakeholders. The additional opportunity for caucusing among stakeholders will allow for continued progress in the EDAM working groups and enable stakeholders to more readily engage and share perspectives.

Additionally, the ISO has scheduled monthly EDAM working group debrief meetings for February 16 and March 17 to take stock of working group discussions and progress to date, identify interdependencies between working group topics, and to allow stakeholders to stay up to date on the discussions if they have not been able to be engaged with all three of the working groups. We remain on track to publish a straw proposal on the comprehensive market design in mid-April and to ask for comments back on that proposal by mid-May. Our

team and stakeholders continue working toward a market design that evolves through compromise and a continuing open and transparent process that will create real benefits for California and the West.

WHEEL-THROUGHS

The wheel-through issue continues to be of great interest and importance to our partners throughout the West. It is also foundational to all the work we have been doing to nurture and build on the trust essential to the success of regional markets. After both the Board of Governors and the Western EIM Governing Body approved our approach in January to extend the interim wheel-through scheduling priorities through the end of May 2024, we filed our tariff amendment with FERC on January 27 that would implement the phase 1 extension. As the filing attests, some stakeholders would prefer alternative solutions to the interim wheel-through provisions, or they maintain their original objections to them. But those stakeholders submitting comments on our Draft Final Proposal for Phase 1 of the initiative generally supported or did not oppose extending the interim wheel-through tariff provisions for an additional two years to provide market participants and the ISO with certainty about the rules for the upcoming summer seasons.

Under the tariff revisions submitted to FERC, the ISO will continue to have two categories of wheel-through self-schedule transactions – a priority wheel-through and a non-priority wheel-through. Priority wheel-through transactions will continue to have a priority equal to the ISO load and high-priority non-recallable exports in the day-ahead and real-time market optimization processes. Other wheel-through transactions will continue to have a lower priority. We are continuing to work with stakeholders on a more durable and permanent solution and plan to complete that work later this year so we can file our proposal with FERC in early 2023. That schedule will provide everyone with the necessary time to implement the rule changes.

WESTERN EIM RESOURCE SUFFICIENCY EVALUATION ENHANCEMENTS

Over the past several months, working closely and collaboratively with stakeholders, the ISO considered enhancements to improve the accuracy of the EIM resource sufficiency evaluation (RSE). The RSE is conducted hourly prior to the energy imbalance market runs to ensure a participating EIM entity brings supply sufficient to serve its demand in the applicable hour prior to engaging in mutually beneficial economic transfers among the participating EIM entities. This stakeholder engagement is part of the ISO's continued efforts to improve and evolve the performance of the Western EIM, and has produced a set of enhancements to components of the RSE to more accurately count a balancing authority area's available supply and flexible capacity, limit participation in hours that a balancing authority area is short on supply and relying on reserves, ensure more equitable balancing test revenue allocation, and also expand demand response participation. The proposed enhancements are intended to be implemented by this summer. We are also continuing to consider a change we hope to make for this summer that would limit EIM transfers during intervals that a balancing authority area is experiencing an energy emergency. We have been discussing with stakeholders the possibility of doing so when a BAA has received an emergency status rating by the Reliability Coordinator at either the EEA 2 or EEA 3 level. This issue requires further consideration of

the implications of either option. Therefore, we are taking the next few weeks to complete our evaluation and bring it to the Board of Governors and the Western EIM Governing Body in March.

The ISO will continue to work collaboratively with stakeholders in the next phase of the initiative to consider further enhancements to the resource sufficiency evaluation. We will examine more closely the appropriate uncertainty measurements these tests should consider and whether load conformance provides any additional flexibility that should be considered in the tests. In addition, we will look more closely at how ISO exports cleared in the hour-ahead scheduling process are accounted for in the RSE. Finally, we will consider changes to the consequences for failure of the resource sufficiency evaluation. Before we proceed with any rule changes, we will conduct deeper data analysis to carefully evaluate the complex interactions between the test's inputs and the market outcomes. Staff has already started preparing the analysis, with some outreach to stakeholders to consider our next steps. We will soon be scheduling analysis-focused stakeholder workshops in February and based on the outcome of that effort will turn to considering any additional rule changes to enhance the effectiveness of the resource sufficiency evaluation consistent with its intended purpose.

BENEFITS FOR WESTERN EIM ARE APPROACHING \$2 BILLION AFTER A RECORD \$739 MILLION FOR 2021

We released our final Western EIM Benefits Report for 2021 and the \$204.14 million in benefits for Q4 pushed the total for the full year to a record-setting \$739 million for market participants. The numbers also pushed the cumulative benefits realized since the Western EIM was launched in 2014 to \$1.93 billion, with the expectation that we will top \$2 billion in our next quarterly report. The level of benefits for Q4 of last year is due to the addition of several new EIM entities and a higher volume of economical transfers that displaced generation that was more expensive. The Western EIM's outstanding performance for the year provides more tangible evidence of the value of broad regional market coordination and we are excited to be working with our many Western partners to build on this strong foundation and produce even more economic, environmental and reliability benefits through EDAM.

10-YEAR TRANSMISSION PLAN AND FIRST 20-YEAR TRANSMISSION OUTLOOK RELEASED

On February 1, we released both our 2021-22 10-Year Transmission Plan and our new, first-ever 20-Year Transmission Outlook. While the annual 10-year plan provides for the approval of new transmission infrastructure and triggers permitting and construction activities through a formal, tariff-based process, the 20-Year Transmission Outlook is designed to be advisory in nature, covering diverse resources, new technologies, and streamlined interconnections. It is intended to facilitate a meaningful discussion of the state's longer-term transmission strategy without developing recommendations for specific project approvals.

The Outlook establishes a long-term architecture for future transmission planning activities, and frames the scope of challenges in meeting SB 100 requirements, with the explicit

understanding that it will adapt to evolving adjustments in resource planning and procurement.

This is a significant step forward in how we plan, collaborate and strategize about our future infrastructure needs so that we can be more proactive about what is necessary to accommodate the influx of new clean-energy resources coming to the grid over the next two decades. In 2021 alone, California added 85 clean projects to the grid, the most in a single year; 48 were storage, 16 solar and 21 wind. Our improved transmission planning and coordination with regulatory agencies and other partners will help ensure that California can sustain and even exceed that pace and meet the challenge of achieving a reliable clean-energy system.

I want to highlight the very close collaboration throughout this process with the CEC and the CPUC, and we are committed to working with both agencies, other regulatory authorities, utilities and other stakeholders to further improve the coordination and synchronization of transmission and power resource planning, resource procurement and interconnection queuing in 2022.

The 10-year plan recommends approval of \$2.9 billion in projects to improve reliability and access to renewable generation in the next decade, and we anticipate seeking Board of Governors approval for that plan in March.

The 20-Year-Transmission Outlook identifies about \$30 billion that will be needed for transmission additions and upgrades over the next two decades, but these figures will be refined over time as we evaluate specific projects and continue to drive for the most cost-effective solutions.

SUMMER RELIABILITY

We have been again working closely with the CPUC, CEC and others to coordinate efforts and planning around summer reliability and expect to head into this summer with a little more optimism than last year.

We have considerably more capacity this year than last, including more than 2,500 MW of battery storage resources on our grid. When we look at all the new resources brought onto the grid last year, our numbers as of January 20, 2022 reflect the following:

- For 2021, we added 2,200 MW of storage, 1,400 MW of solar, 1,200 MW of wind, 195 MW of natural gas, 20 MW of biofuel and 20 MW of hydro, totaling 5,035 MW, of which about 2,435 MW is available at net peak.
- By June 1, 2022, we are anticipating an additional 2,100 of MW storage, 1,200 MW of solar, 200 MW of wind, 40 MW of hydro, 30 MW of natural gas and 11 MW of biofuel, totaling 3,581 MW, of which about 2,181 MW will be available at net peak.

Hydro conditions are expected to be improved, thanks to some of the good precipitation we had throughout the West in December. But we have been experiencing very dry conditions again in recent weeks, so we will of course be watching this very closely.

Based on the most recent stack analysis prepared by the CEC, September remains the month with the highest probability of stressed grid conditions during net peak hours for the upcoming summer.

ANOTHER SUMMER READINESS ROUNDTABLE AND OTHER ACTIONS

As our summer readiness activities continue to ramp up, we are also again looking forward to our customary operational workshops and stakeholder meetings to ensure communication and operations protocols are refreshed between the ISO and its partners and that we share our outlook for the summer. We are also excited to be collaborating with our colleagues across the West as we did last year with a Summer Readiness Leadership Roundtable which we are now planning for April to ensure that we are doing everything we can to ensure reliability this summer. It is also part of being transparent about how we see summer conditions and operations evolving, as well as sharing all the steps we and our energy partners at the state agencies have been taking to maintain reliability throughout the challenging summer months ahead.

We have also been very busy with a number of important activities related to summer readiness and better coordination, planning, communications and overall preparedness. Those include our annual Reliability Coordinator System Restoration drills and participation from our grid operators in Joint Emergency Training Sessions with Southern California entities. We have begun planning for our annual Summer Outlook meetings for the ISO balancing authorities and Reliability Coordinator West. We will also continue the practice from last year of holding monthly meetings with the Emergency Load Reduction Program Board and monthly meetings from April to October with the Investor-Owned Utility Grid Control Center and demand response program representatives. We have attendees at those meetings from the Real-Time Operations, Operational Readiness, Regulatory Affairs and Policy teams.

We will also be communicating through these forums and more the redesign of our emergency declaration levels. We started to raise awareness in preparation for summer 2021 that the ISO would be moving away from the “AWEs” to the “EEAs” by summer 2022. ISO’s alert warning emergency levels were defined in 1998, before the NERC standards had defined the energy emergency alert levels. This change should provide more consistency and eliminate some of the confusion we experienced in the summer of 2021 in communicating with other balancing authorities about these alerts.

NEW MEMBERS OF THE WESTERN EIM GOVERNANCE REVIEW COMMITTEE

On January 20, we announced the selection by the ISO Board of Governors and the Western EIM Governing Body of three members to the EIM Governance Review Committee, ensuring the GRC represents a full complement of regional partners well-suited to consider important governance issues that will support extension of the day-ahead market to Western EIM

participants. Michele Beck, Executive Director of the Utah Office of Consumer Services; and Amanda Ormond, Principal of the Ormond Group LLC, are filling two previously vacant Public Interest and Consumer Advocate seats. Pam Sporborg, Market Analytics and Performance manager for Portland General Electric, is filling the previously vacant Western EIM entity sector seat. All three are great additions to the GRC and I am also very pleased that Therese Hampton will continue to serve as chair.

PANDEMIC RESPONSE UPDATE

On Friday, January 28, after meeting a day earlier with our officer team, I sent a message to all ISO employees with an update on our pandemic response and return-to-building status.

The spike in employee cases that we saw in early January, which was classified as a multiple outbreak because we had more than three cases, has passed, so we notified employees that they could voluntarily resume returning to the office starting on February 7. I also told our employees that we still expect an official return to office by mid-March but that we continue to evaluate developing circumstances and will make a final decision around the middle of this month.

Lastly, I notified employees that we do not intend to mandate vaccines, but will instead require testing for some or all of our population, and that the scope of that testing requirement will be determined by the epidemiology and regulatory requirements in place when we return to the building on a more regular basis. As I said in my weekly message, this has been one of the most challenging time periods of our lives and I am tremendously thankful to our entire ISO workforce for their resilience and patience. All of the decisions we have faced during the pandemic are complicated, but we will continue to always keep personal safety as the foundation of our decisions.