



Memorandum

To: ISO Board of Governors and WEM Governing Body
From: Elliot Mainzer, President and Chief Executive Officer
Date: September 18, 2024
Re: CEO report

This memorandum does not require ISO Board of Governors or WEM Governing Body action.

INTRODUCTION

For my September 2024 report, I will provide an update on grid reliability during the September heat wave, the latest entities to announce they will be joining our wholesale electricity markets, approval of our proposal allowing cost-verified bidding above the soft energy bid cap, publication of the ISO's updated 2024 20-Year Transmission Outlook, the latest on our ongoing work regarding interconnection process enhancements, next steps on the West-Wide Governance Pathways Initiative, and an update on the 2024 ISO Stakeholder Symposium.

SEPTEMBER HEAT WAVE

Coming off a mild August, California began to experience another summer heat wave the first week of September with warm temperatures picking up across the state and the West after the Labor Day holiday weekend. Northern California saw high temperatures 5-11 degrees above normal through the week, while Southern California experienced high temperatures 13-23 degrees above normal. Low temperatures in Southern California ranged from 5-15 degrees above normal through the event and on Thursday, Sept. 5, the ISO had its year-to-date record peak demand with 48,323 megawatts at 4:59pm.

Just as we did during the July heat event, the ISO, in coordination with the Governor's office, load-serving entities and state agencies, including the California Energy Commission, California Public Utilities Commission, and California Department of Water Resources, executed our summer playbook, used as a guide to help manage and communicate across the event.

Thanks to strong coordination and communication with partners in California and across the broader West and the continued growth of new clean generation on the grid, our operators were able to manage the high-voltage grid reliably throughout the heat wave with no rotating outages. We also got through the early September event without having to call any Flex Alerts or Emergency Energy Alerts. The ISO has not called a Flex Alert since 2022.

While excessive heat did cause some localized distribution-level power and sub-transmission power interruptions, the ISO high-voltage grid weathered the early September heat wave well. Throughout the event, bulk grid supply remained sufficient to meet system demands and operating reserve requirements.

This was made possible through a combination of the state's accelerated pace of new resource procurement that has added significant new clean capacity to the grid, new state programs designed to provide grid support when the system is most stressed, and the continued effectiveness of the Western Energy Imbalance Market to help balance supply and demand across a wider Western footprint. Summing up grid reliability for this summer, we have maintained reliability of the high-voltage grid through weeks of triple-digit heat in July and navigated through our highest loads of the year in early September.

NEW MARKET PARTICIPANTS

I am very happy to note that since my last report, additional entities have stated their intentions to join the ISO's growing wholesale Western electricity markets. On August 28, working with Black Hills Corporation, the ISO announced that Black Hills Corporation's South Dakota and Wyoming electric utility subsidiaries will be joining the ISO's Western Energy Imbalance Market (WEIM). Right now, these subsidiaries, Black Hills Power Inc. and Cheyenne Light, Fuel and Power Company, which both do business as Black Hills Energy, receive real-time energy market services through the Southwest Power Pool's Western Energy Imbalance Service market. The implementation agreement initiates the process for these subsidiaries to move into the WEIM in 2026.

One day after that announcement, BHE Montana issued a news release about its plans to join the ISO's Extended Day-Ahead Market following BHE Montana's entry into the WEIM in 2026. Adding these utilities extends our market footprint into an additional state in South Dakota and adds more resource diversity and interconnectivity to the West as we move toward the 2026 launch of our Extended Day-Ahead Market. As we continue to attract new market participants, it makes a strong statement reinforcing the value of our market offerings and what we can achieve through solid partnerships and collaboration. At the same time, we are continuing to work on Extended Day-Ahead Market implementation with PacifiCorp and Portland General Electric in preparation for the 2026 launch.

SOFT ENERGY BID CAP APPROVAL

On July 31, two months after submitting our requested tariff provision to the Federal Energy Regulatory Commission (FERC) for approval of cost-verified bidding above the soft energy bid cap, FERC approved our request in full and it was in effect a day later.

This change, which was requested by our stakeholders on an expedited basis, will allow the ISO to accept bids above the \$1,000 soft offer cap when default energy bids are above \$1,000 as normally calculated. The change will allow hydro resources to bid above that amount when their opportunity cost-based default energy bids exceed \$1,000. Before the order, both default energy bids and bids were capped at that amount. The new market provisions also allow bids from storage resources to bid up to an estimated opportunity cost above the \$1,000 threshold.

The ISO's policy team and others in the organization worked quickly in response to stakeholder feedback at the beginning of the year, particularly from our market participants in the Northwest and from the storage community affected by high prices in January. We are pleased with the FERC approval and being able to get this across the finish line in such an

expedited manner, providing additional flexibility to our partners in the WEIM, the storage community and for our grid operators.

2024 20-YEAR TRANSMISSION OUTLOOK

Also on July 31, the ISO, working closely with the California Public Utilities Commission, the California Energy Commission, and members of the energy industry, released its 2024 20-Year Transmission Outlook, which is an update of the original version published in 2022.

The 2024 Outlook extends the planning horizon and forecast period to 2045. It also considers the latest load forecast information and broader range of renewable resources needed to achieve California's energy goals – as mandated by Senate Bill 100 – to utilize 100% renewable and carbon-free energy by 2045.

It is important to note that the updated Outlook aligns with the California Energy Commission's Offshore Wind Energy Strategic Plan adopted on July 10, 2024, per the requirements of Assembly Bill 525.

The CEC, CPUC, and the ISO collaborated in developing 2045 hourly load forecasts and a 2045 resource portfolio for use by the ISO in the updated 20-Year Transmission Outlook. The 2045 peak load forecast is 77,430 megawatts (MW), an increase of 3,521 MW from the 2040 forecast of 73,909 MW that was included in the original Outlook.

The generation resource amounts assumed for study purposes also grew accordingly and – of particular note – the overall amount of offshore wind doubled from 10 gigawatts to 20 gigawatts by 2045. The increase is largely attributable to more than tripling the forecast capacity in the North Coast area, from 4,000 megawatts to 14,700 megawatts.

The anticipated load growth to 2045 and the expectation of major offshore wind generation are also driving the higher estimated cost for future transmission needs in the updated Outlook. The estimates were approximately \$30.5 billion over a 20-year timeframe in the first Outlook and are now estimated in the updated Outlook to be \$45.8 billion to \$63.2 billion over the next 20 years. The range for future project cost estimates over this timeframe varies significantly due to detailed design requirements and uncertainty in permitting timelines, routing decisions, and equipment and labor costs. Also, the high-level analysis to determine feasible transmission alternatives included a bulk system power flow assessment for a range of load and resource scenarios. These costs do not include transmission that has already been approved by the ISO and is under development but not yet in service.

INTERCONNECTION PROCESS ENHANCEMENTS

The ISO filed its proposed tariff changes at the FERC on August 1, 2024. We received 14 sets of comments, and filed an answer on September 3, 2024. We have asked the FERC for an Order by October 1 in order to re-engage with the Cluster 15 interconnection request modification window, which opens on October 1. The ISO staff is hard at work preparing new data and tools in support of the reformed process and held an interconnection fair on September 17 to prepare stakeholders for updated interconnection processes. The ISO intends to file proposed tariff changes related to contracting and queue management with the FERC in October.

At the same time, as part of our work on the interconnection process enhancements track 3 proposal, the ISO has also convened stakeholders for two working group meetings to explore changes to the transmission plan deliverability allocation process to continue the realignment of planning, interconnection, and commercial offtake in a manner that better reflects the current

development and procurement landscapes. Working group discussions have been collaborative, and stakeholders provided proposals to address current challenges. Stakeholder comments are due September 18 and the ISO expects to post a track 3 revised straw proposal in mid-to-late October. Given the breadth of challenges and stakeholder feedback, the ISO now plans to bring a final proposal to the Board of Governors in spring of 2025.

WEST-WIDE GOVERNANCE PATHWAYS INITIATIVE

The ISO continues to monitor and provide technical assistance to the West-wide Governance Pathways Initiative Launch Committee. The committee has held a number of public workshops on relevant topics and is planning to post its draft Step 2 proposal by the end of September. We look forward to hearing from the launch committee members for a briefing on their activities at the joint general session in Tempe with the Board of Governors and the Western Energy Markets Governing Body.

2024 SYMPOSIUM

We are also looking forward to the upcoming 2024 ISO Stakeholder Symposium being held in downtown Sacramento on October 29 and 30. We have a robust agenda that is now final and includes a timely segment on the Pathways Initiative, an innovative discussion on transmission development as well as market evolution in the West and the future of load flexibility.

Registration is still open and we are looking forward to bringing together and connecting with stakeholders across the West for a thought-provoking event.