NEWS RELEASE

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Board votes advance transmission projects for California and the region

2023-2024 transmission plan and SunZia subscriber model win approval

FOLSOM, Calif. – It was a big day for new transmission capacity in California and the West Wednesday, with the Independent System Operator's (ISO) Board of Governors taking two important votes to expand the region's transmission network.

In one vote, the Board approved the ISO's 2023-2024 transmission plan recommending 26 new projects to support the addition of 85 gigawatts (GW) of capacity by 2035. Projects include the first phase of development that would bring offshore wind energy from the North Coast to the California grid.

In its other transmission-related vote, the Board approved Pattern Energy's application to tie its 550-mile SunZia line into the California system. The line, which is currently under construction, would run between central New Mexico and south-central Arizona, with capacity to transport 3,000 megawatts (MW) of wind energy to California and neighboring states.

The SunZia development is the second transmission line approved by the Board within the past 18 months using an innovative Subscriber Participating Transmission Owner (SPTO) model. That approach enables new transmission lines outside the ISO balancing area to connect generation to the California grid and give the ISO operational control.

"It is truly an innovative transmission development policy that I hope gains traction around the country," said Cameron Yourkowski, Pattern Energy's director, Market and Regulatory Affairs, of the SPTO model.

Entities subscribing to use the line help finance its upfront costs without increasing the ISO's transmission access charge. Individual load-serving entities across the West would then have the opportunity to sign long-term contracts to purchase renewable energy delivered by the new infrastructure.

In December 2022, the Board approved an SPTO application from TransWest Express. Its 732-mile combined high-voltage direct and alternating current transmission line

would have the potential to bring up to 3,000 MW of clean Wyoming wind power into California and other states in the Desert Southwest as early as 2027.

“We have been working diligently to find new and creative ways to advance the transmission infrastructure we know will be needed to deliver to consumers all the additional energy coming online over the next two decades,” Elliot Mainzer, the ISO’s president and CEO, said. “With these Board votes, we are enhancing regional interconnectivity and reliability in the most cost-effective way possible for California and our partners in the region.”

The 2023-2024 Transmission Plan approved by the Board continues last year’s more synchronized and strategic approach for advancing infrastructure projects that would help meet California’s clean-energy objectives over the next decade. The plan has an estimated cost at full buildout of $6.1 billion and recommends specific transmission upgrades based on reliability, policy and economic-driven concerns. Two of the projects recommended in the plan have been identified as eligible for competitive solicitation.

Developed in close coordination with the California Energy Commission, the California Public Utilities Commission and the energy industry, the plan will enable critical resource development, including:

- Over 38 GW of solar generation distributed across the state in solar development regions that include the Westlands area in the Central Valley, Tehachapi, the Kramer area in San Bernardino County, Riverside County, and also in southern Nevada and western Arizona;
- Over 3 GW of in-state wind generation in existing wind development regions, including Tehachapi;
- Over 21 GW of geothermal development, primarily in the Imperial Valley and in southern Nevada;
- Access for battery storage projects co-located across the state with renewable generation projects, as well as stand-alone storage located closer to major load centers in the LA Basin, greater Bay Area, and San Diego;
- The import of over 5.6 GW of out-of-state wind generation from Idaho, Wyoming and New Mexico, by enhancing corridors from the ISO border in southeastern Nevada and from western Arizona into California load centers; and
- Over 4.7 GW of offshore wind with 3.1 GW in the Central Coast and 1.6 GW in the North Coast area.

Specific projects recommended in this year’s plan, most notably to integrate offshore wind from the North Coast, include:

- A new Humboldt 500kV substation complete with a 500/115kV transformer;
- A new HVDC line (approximately 260 miles), initially operated as a 500kV AC line to interconnect the new Humboldt 500 kV substation to the Collinsville 500kV substation;
- A new 500kV AC line (approximately 140 miles) to interconnect new Humboldt 500kV substation to the Fern Road 500kV substation;

- A 115kV line from the new Humboldt 500kV line to existing Humboldt 115kV substation, and a 115kV phase-shifting transformer at the Humboldt 115 kV substation; and
- A host of smaller upgrades improving supply of load and access to other smaller resource zones.

The ISO will continue to coordinate closely with regulators and industry in working through the timing and sequencing of offshore wind development to ensure reliability and affordability for electricity consumers.

On a related matter, the Board was also briefed during its May meeting on a far-reaching initiative to improve how – and how quickly – applications from energy providers are processed for connecting new resources to the grid. After additional stakeholder comments on an addendum to the Interconnection Process Enhancements Track 2 final proposal are considered, a vote is now scheduled for a special Board meeting on June 12.

In addition to the two transmission-related votes, the Board and Western Energy Imbalance Market Governing Body on May 22 also approved an important stakeholder-driven initiative that would make it feasible for resources with limited capacity such as battery storage and hydro power to bid above a soft offer cap of $1,000 per megawatt hour (MWh) that is required under the Federal Energy Regulatory Commission's Order Number 831 in 2016.

The initiative, which stakeholders and ISO staff expedited to have it take effect in time for this summer, is necessary because bids for those resources are driven primarily by opportunity costs associated with future prices. The ISO will now have a mechanism to verify costs from these resources above $1,000, which the FERC order requires.

Over the past few years, on days when prices have exceeded $1,000/MWh, grid operators have observed battery storage resources being dispatched in the middle of the day. That results in the batteries prematurely depleting their energy before the peak load hours when the sun is setting and the battery power is most needed to maintain system reliability.

With more than 8,000 megawatts of battery storage now on the grid, ISO-administered energy markets will be better able to reflect the value of energy limited resources to ensure they're used optimally. The proposal approved Wednesday, which provides an efficient way for the ISO to verify bids exceeding the soft offer cap, is designed to correct that problem.

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The California Independent System Operator (ISO) is a nonprofit public benefit corporation dedicated, with its partners, to continuous improvement and secure operation of a reliable grid operated for the benefit of consumers. It provides comprehensive grid planning, open and nondiscriminatory access to one of the largest networks of high-voltage transmission power lines in the world, and operates a $9 billion competitive electricity market. Recognizing the importance of the global climate challenge, the ISO is at the forefront of integrating renewable power and advanced technologies that will help provide a sustainable energy future efficiently and cleanly.

The Western Energy Imbalance Market (WEIM) is a real-time wholesale energy trading market that enables participants anywhere in the West to buy and sell energy when needed. The WEIM Governing Body is the governing authority designed by regional stakeholders and has shared authority with the ISO Board of Governors to resolve rules specific to participation in the WEIM.