

# WESTERN ENERGY IMBALANCE MARKET (WEIM)

## California ISO West-wide Transmission Activities

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Vice President, Infrastructure & Operations Planning

WEIM Governing Body meeting

General Session

June 20, 2024



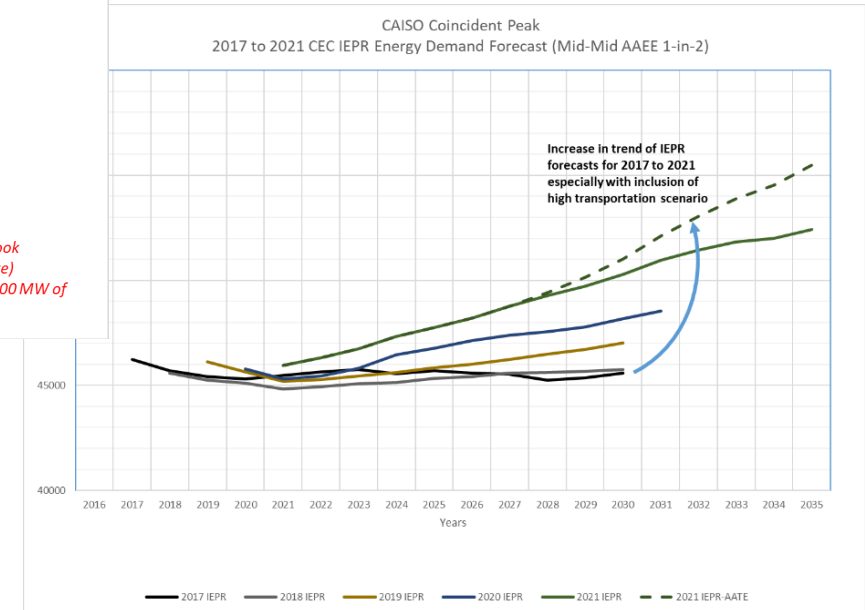
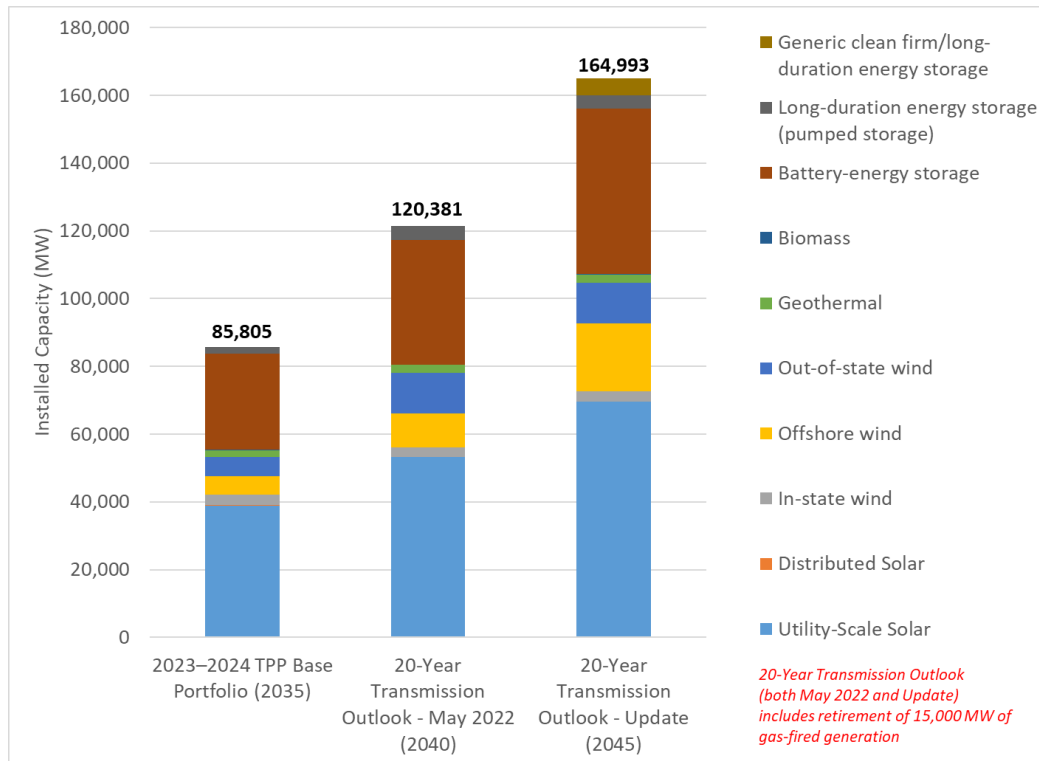
# The ISO's planning activities coordinate with the rest of the western interconnection – most of which is outside of an ISO/RTO structure

## ISO coordination statistics

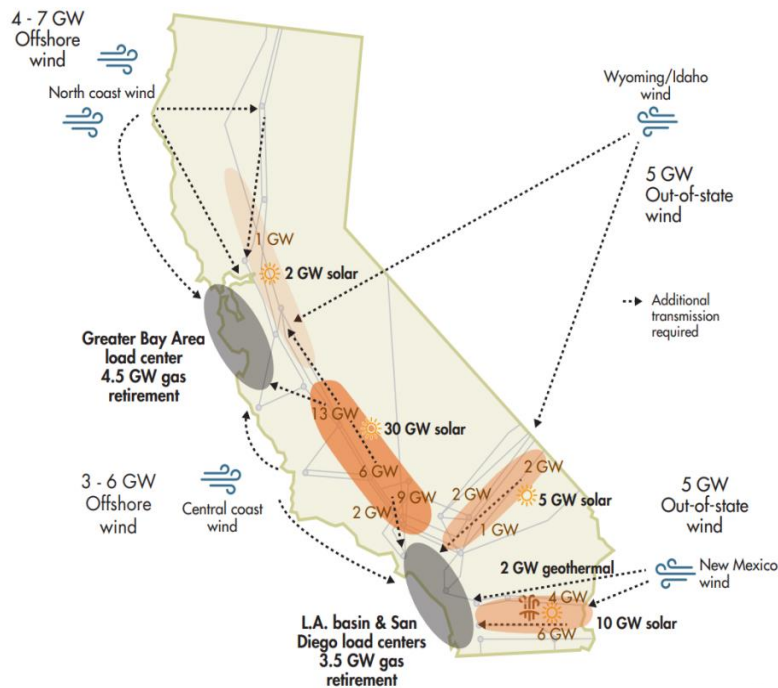
- ISO recorded peak demand: 52,061 MW
- ISO serves 80% of California load, plus parts of Nevada
- The Western Energy Imbalance Market operates in 11 states and extends into parts of Canada
- 42 balancing areas and transmission operators currently receive reliability coordinator services from ISO's RC West



# The ISO's transmission planning is coordinated with footprint-wide forecasting and resource planning



# The ISO's 20 Year Transmission Outlook sets the strategic direction for the annual planning process including the need for interregional coordination



*20-year Transmission Outlook (May 2022)  
Being Updated in June, 2024*

## 2021-2022 Transmission Plan

- 16 reliability projects totaling \$1.41 billion
- 6 policy-driven transmission projects totaling \$1.51 billion
- 1 economic-driven project totaling 40 million

## 2022-2023 Transmission Plan

- 24 reliability projects totaling \$1.76 billion
- 21 policy-driven transmission projects totaling \$5.53 billion
- SWIP North participation later approved as an extension of the plan

## 2023-2024 Transmission Plan

- 19 reliability projects totaling \$1.54 billion
- 7 policy-driven projects totaling \$4.59 billion

# The ISO is working bilaterally as well as through established processes to explore transmission opportunities

## Significant Transmission Projects in the Western Interconnection moving forward

1

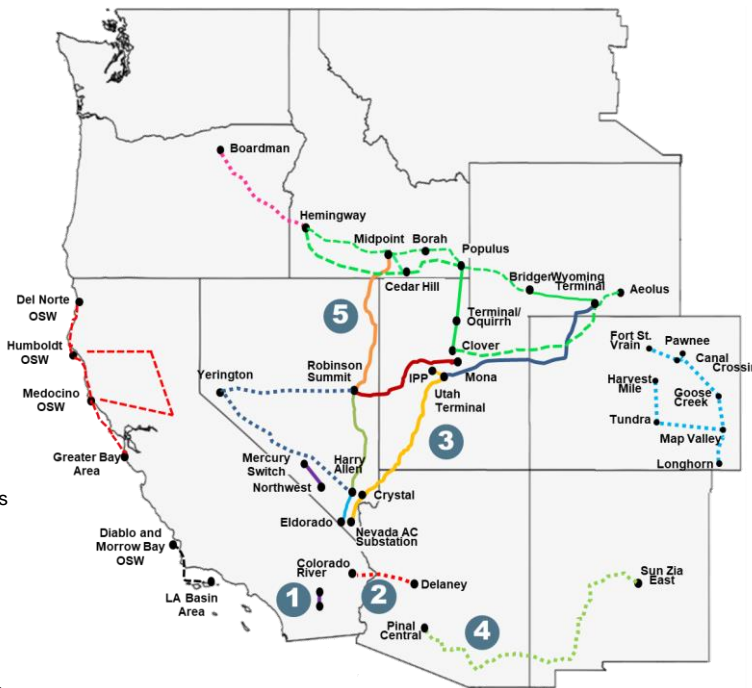
### S-Line Project

- **Developer:** IID and Citizens Energy
- **Status:** Under construction
- **Expected In-Service Date:** 2024
- **Financing:** CAISO High Voltage Transmission Access Charge rate based
- **Generation Enabled:** Reduces deliverability limitations in addition to economic benefits
- **CAISO Engagement:** Approved as economic-driven transmission project in 2018
- **Partnership/Benefits:** Enables increased bi-directional delivery of supply to IID as well as renewable supply from IID to CAISO. Decreases local requirements in San Diego / Imperial Valley area.

2

### Ten West Project

- **Developer:** Lotus Infrastructure Partners
- **Status:** Under construction
- **Expected In-Service Date:** May 2024
- **Financing:** CAISO High Voltage Transmission Access Charge rate-based
- **Generation Enabled:** 1000MW of renewables in Imperial Valley, Palo Verde trading hub
- **CAISO Engagement:** Approved by CAISO Board in 2014 as part of 2013-2014 TPP. Transmission inside CAISO BA.
- **Partnership/Benefits:** Enables additional renewables from Southwest to CAISO as well as increased export capability to the Southwest



3

### TransWest Express

- **Developer:** TransWest Express LLC, subsidiary of Anschutz Corp.
- **Status:** Construction started Sept. 2023
- **Expected In-Service Date:** 2027
- **Financing:** Subscriber funded
- **Generation Enabled:** 3000MW of Wyoming wind resources
- **CAISO Engagement:** Line will be in the CAISO BAA and operate under Subscriber Participating Transmission Owner (SPTO) tariff mechanism
- **Partnership/Benefits:** Enables partnership with entities engaged with west-wide development/procurement activity.

4

### Sunzia

- **Developer:** Pattern Energy
- **Status:** Construction started July 2023
- **Expected In-Service Date:** 2026
- **Financing:** Merchant subscriber transmission development
- **Generation Enabled:** 3,500MW of New Mexico wind
- **CAISO Engagement:** Submitted application to become subscriber participating transmission owner in January 2024
- **Partnership/Benefits:** Enables access to New Mexico wind by CA and SW load serving entities.

5

### Southwest Intertie Project – North (SWIP-N)

- **Developer:** LS Power
- **Status:** Conditionally approved as addendum to 2022-2023 Transmission Plan by CAISO Board Dec. 2023
- **Expected In-Service Date:** End of 2026
- **Financing:** Cost of service rate recovery shared between CAISO and Idaho Power
- **Generation Enabled:** 2000MW of Idaho wind resources
- **CAISO Engagement:** Monitoring requirements of conditions included in the approved addendum to 2022-2023 CAISO Transmission Plan.
- **Partnership/Benefits:** Enables partnership providing mutual benefits to and from Idaho and California while also providing additional transfer capability from Northwest to Southwest entities.



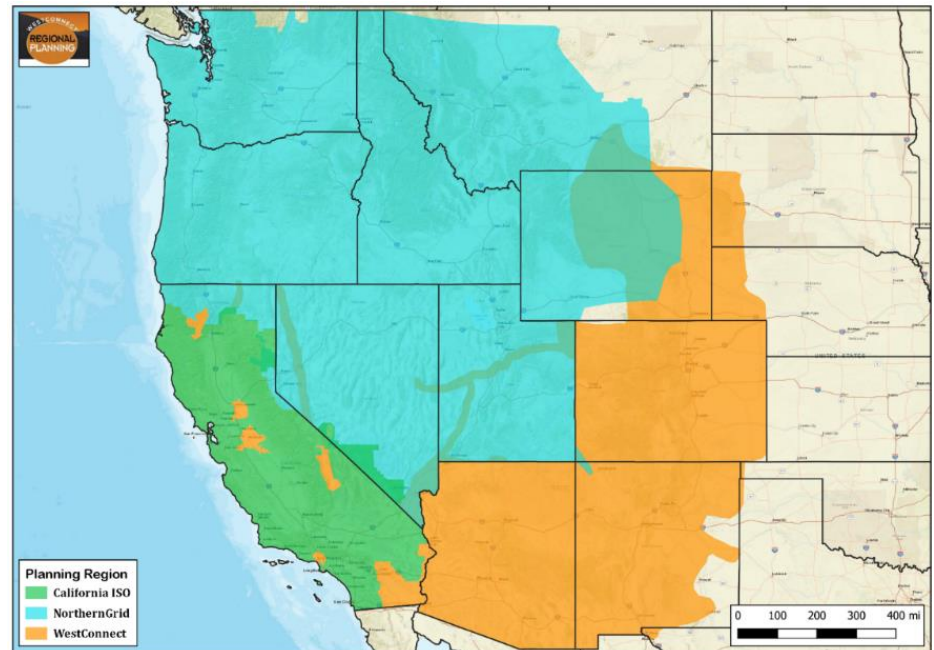
# ISO and our neighbors have an interregional coordination framework approved by FERC

## Interregional coordination

- Annual exchange of information
- Annual public interregional coordination meeting
- WestConnect's and Northern Grid's biennial processes have been coordinated with two cycles of the ISO's annual process

## Interregional cost allocation

- Interregional projects only considered if comparing favorably to a regional solution to a regional need
- Costs shared in proportion to each region's share of total benefits (not capacity)



# We coordinate west-wide transmission planning on multiple tracks.

## Information-sharing to support west-wide study efforts

- FERC Order 1000 interregional coordination planning
- FERC Order 1920 – transmission planning and cost allocation
- DOE - congestion study, long term planning study, West Coast Offshore Wind transmission study
- WECC system planning studies
- NERC interregional transfer capability study
- Gridworks/Gridlab/PNNL Connected West initiative
- Western Transmission Expansion Coalition
- Western States Transmission Initiative (CREPC)

## Informal discussions with transmission planning peers

- Regional transmission planning discussions

## Creative bilateral efforts to advance projects

- Subscriber PTO approach
- Other bilateral arrangements

## Monitor and engage in process reform

- WEIM education and engagement on transmission planning efforts
- FERC technical conferences
- Comments on FERC NOPRs
- DOE National Interest Electricity Transmission Corridor (NIETC) comments
- DOE Grid Deployment Office (GDO) loan program support

# Regional and interregional transmission - opportunities and challenges

- Coordinate and collaborate to identify the most effective solutions
  - Effective dialogue is critical
  - Interregional transmission planning needs to be coordinated with resource planning – we cannot wait until resources are developed and then look for opportunities
  - We continue to tighten the linkages between procurement processes and interconnection and planning processes for regional and interregional transmission
- Explore funding options to lower the delivered cost of electricity to consumers
  - The ISO has had ample investor interest in competitively procured transmission
- Be creative and flexible
  - Develop and support options like the subscriber transmission owner model