



California ISO

Transmission Planning in the West

Jeff Billinton

Director, Transmission Infrastructure Planning

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The ISO's participation in interregional planning keys off our regional transmission planning process

- Relies upon load forecasts and resource plans from our state and local regulatory authorities
- Annual transmission plan (10-Year and 15-Year) is the formal approval document for expansion planning in our footprint
 - Responding to accelerating load growth and escalating clean energy needs
 - 2024-2025 Transmission Plan approved transmission totaling \$4.8 billion, largely load growth related.
 - Previous three transmission plans approved an average of \$5.8 billion, largely policy-driven transmission supporting access to resource basins
 - Focus on most efficient and effective long-term solutions, including grid enhancing technologies
- 20 Year Outlook assesses longer term needs
 - First prepared in 2022, updated in 2024
 - Establishes a longer-term direction and strategy
 - Provides context for nearer term decision
- FERC Order No. 1920 will require changes and add new considerations to regional transmission planning



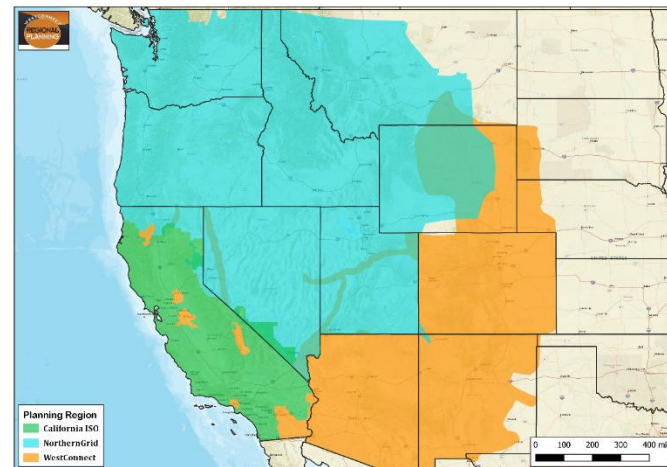
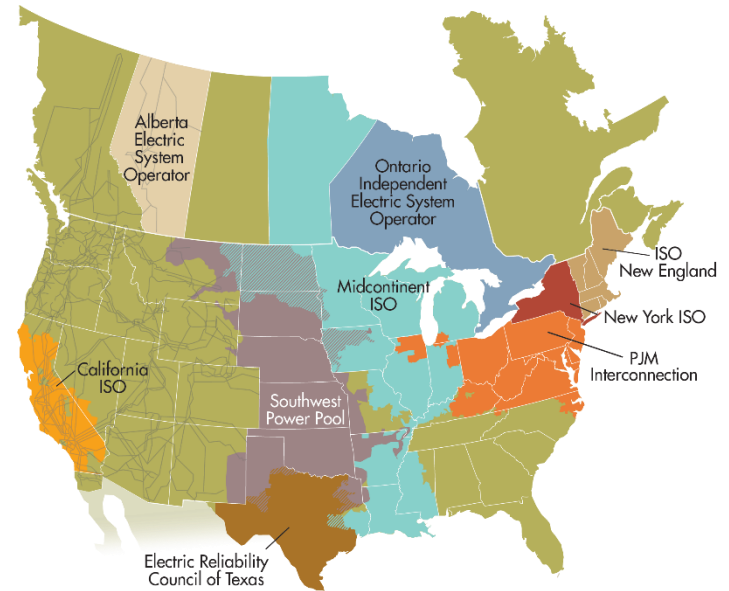
The ISO's planning activities coordinate with the rest of the western interconnection – most of which is outside of an ISO/RTO structure

The western interconnection has formed into three separate interregional planning areas pursuant to FERC Order 1000, that provides:

- Annual exchange of information
- Annual public interregional coordination meeting

As the existing interregional coordination framework approved by FERC has not been effective to date, the ISO has pursued other coordination opportunities as well

- State voluntary agreement framework
- subscriber participating transmission owner model



The ISO explores west-wide transmission planning on multiple tracks

Information-sharing to support west-wide study efforts

- FERC Order 1000 interregional coordination efforts
- FERC Order 1920 transmission planning
- DOE transmission planning and congestion studies
- WECC – model development and system planning studies
- NERC interregional transfer capability study
- Gridworks/Gridlab/PNNL Connected West initiative
- **Western Transmission Expansion Coalition (WestTEC)**
- Western States Transmission Initiative (CREPC)

Informal discussions with transmission planning peers

- Regional transmission planning discussions through a forum led by the ISO
- ESIG transmission planning task forces

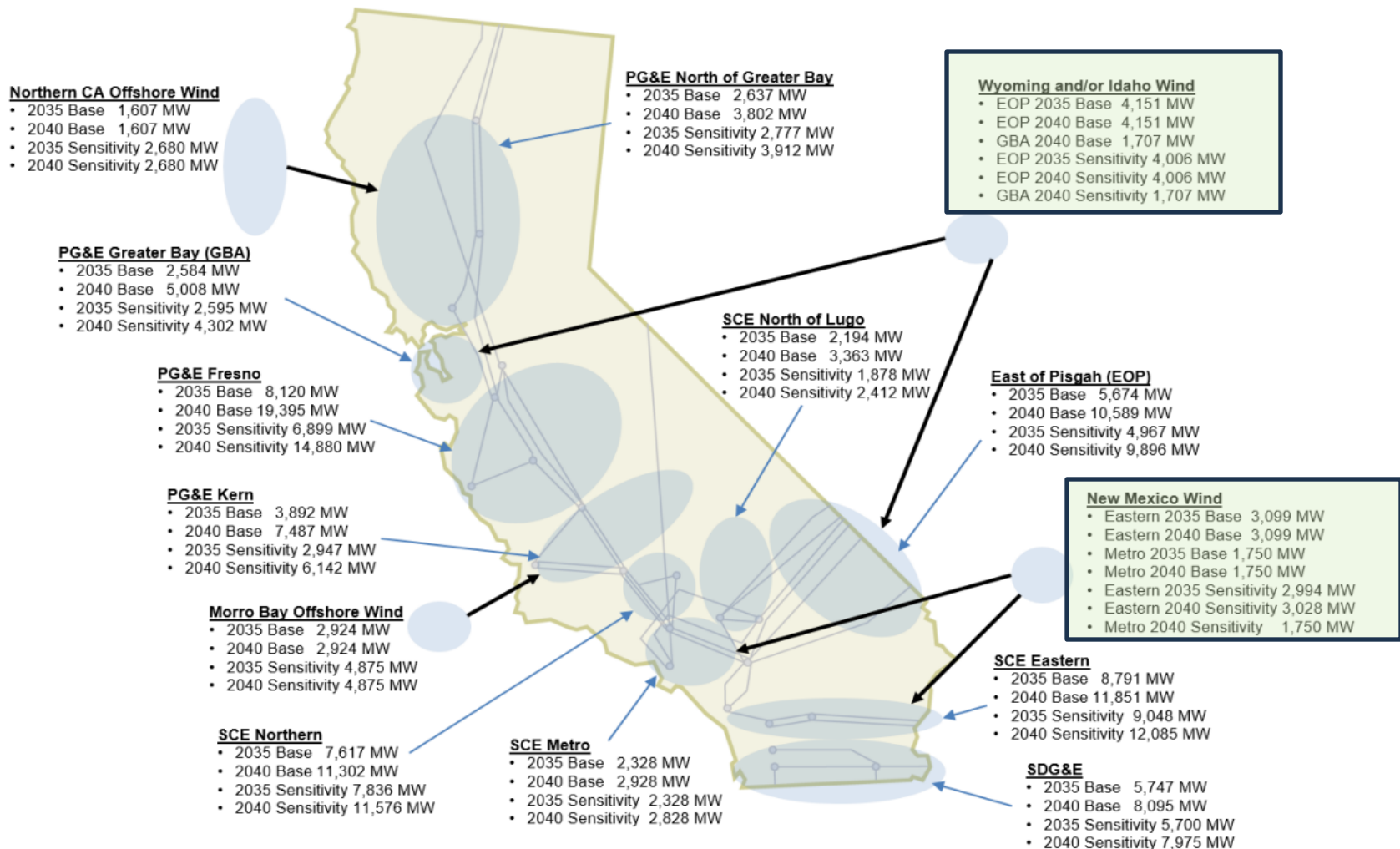
Creative bilateral efforts to advance projects

- Subscriber PTO approach
- Bilateral arrangements through FERC's voluntary framework agreement approach

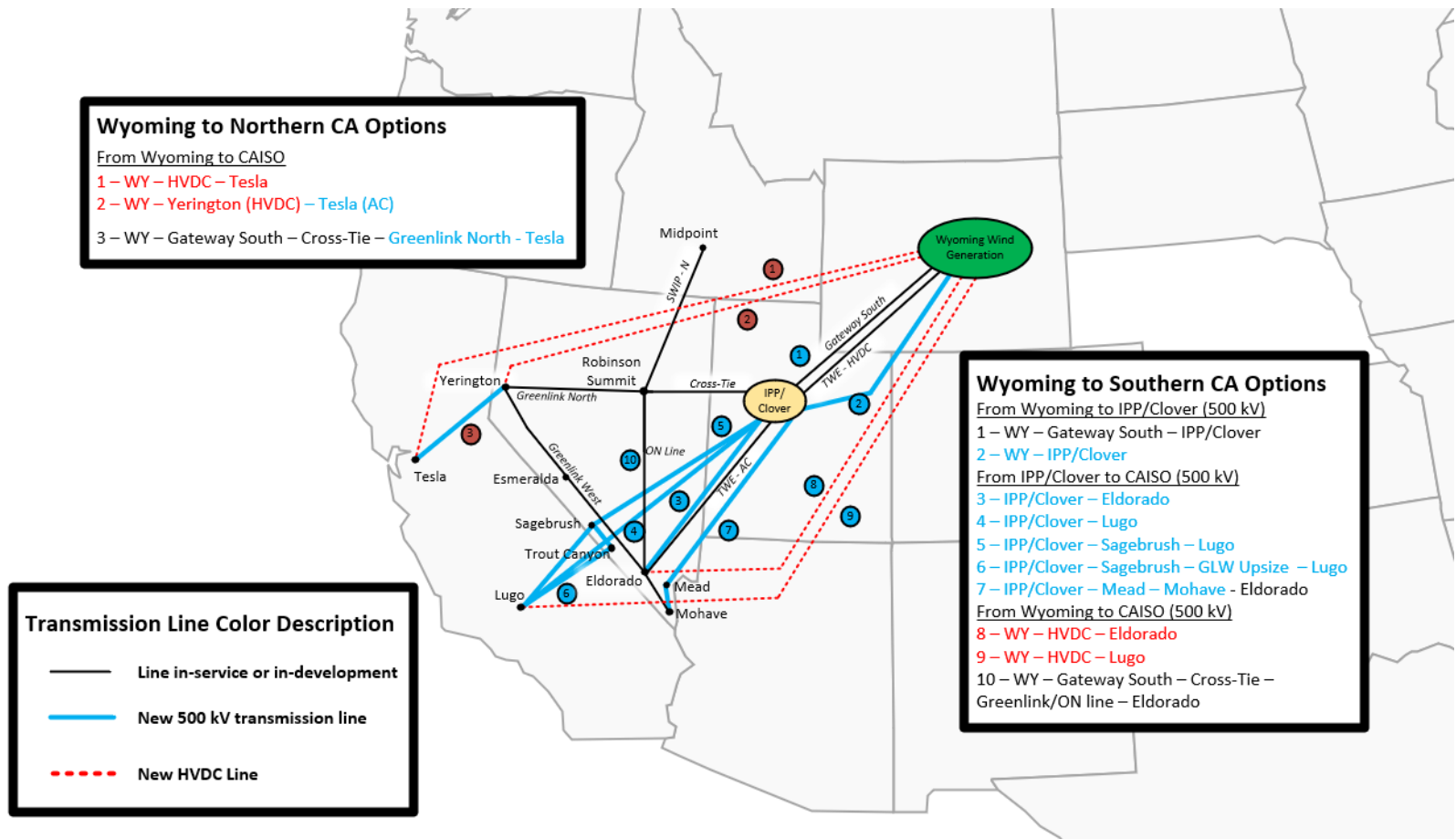
Monitor and engage in process reform

- WEM education and engagement on transmission planning efforts
- FERC technical conferences
- Comments on FERC NOPRs
- Department of Energy National Interest Electricity Transmission Corridor (NIETC) designations

The 2025-2026 transmission plan continues to rely on accessing out of state resources, particularly wind



The ISO is exploring transmission solutions to integrate wind resources from Wyoming



The ISO is also exploring transmission solutions to integrate wind resources from New Mexico

New Mexico Wind Options

From NM to APS (500 kV)

- 1 – RioSol – Pinal Central
- 2 – Southline transmission – APS System at Tucson




From APS to CAISO (500 kV)

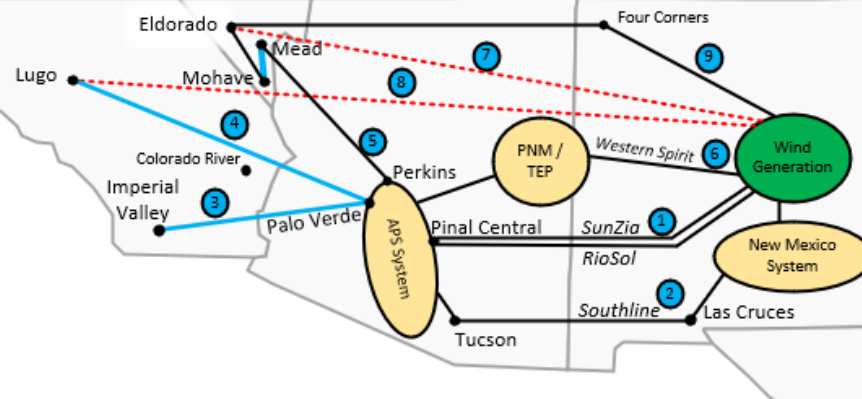
- 3 – Palo Verde – Imperial Valley
- 4 – Palo Verde – Lugo
- 5 – Perkins – Mead – Mohave - Eldorado

From NM to CAISO (500 kV)

- 6 – Western Spirit – PNM/TEP - Palo Verde
- 7 – HVDC to Eldorado
- 8 – HVDC to Lugo
- 9 – NM Wind – Four Corners - Eldorado

Transmission Line Color Description

-  Line in-service or in-development
-  New 500 kV transmission line
-  New HVDC Line



The ISO will continue to engage on integrating out-of-state resources

- The ISO will look for collaborative opportunities to work with interested stakeholders to advance beneficial transmission projects consistent with CPUC resource portfolios for integrating OOS resources
- The ISO will continue to engage transmission providers in the West in addition to interregional coordination efforts with NorthernGrid and WestConnect
- The ISO will continue to support interregional west-wide planning efforts including the Western Transmission Expansion Coalition (WestTEC) effort
 - Mutually beneficial interregional transmission solutions