



California ISO

California Independent System Operator (CAISO) Introduction for Tribes

Date: November 6, 2025

Housekeeping



RAISING HAND

Raise your hand using WebEx interactivity tools



ASKING QUESTIONS

Unmute to ask verbal questions or write in the chat pod



PLEASE MUTE

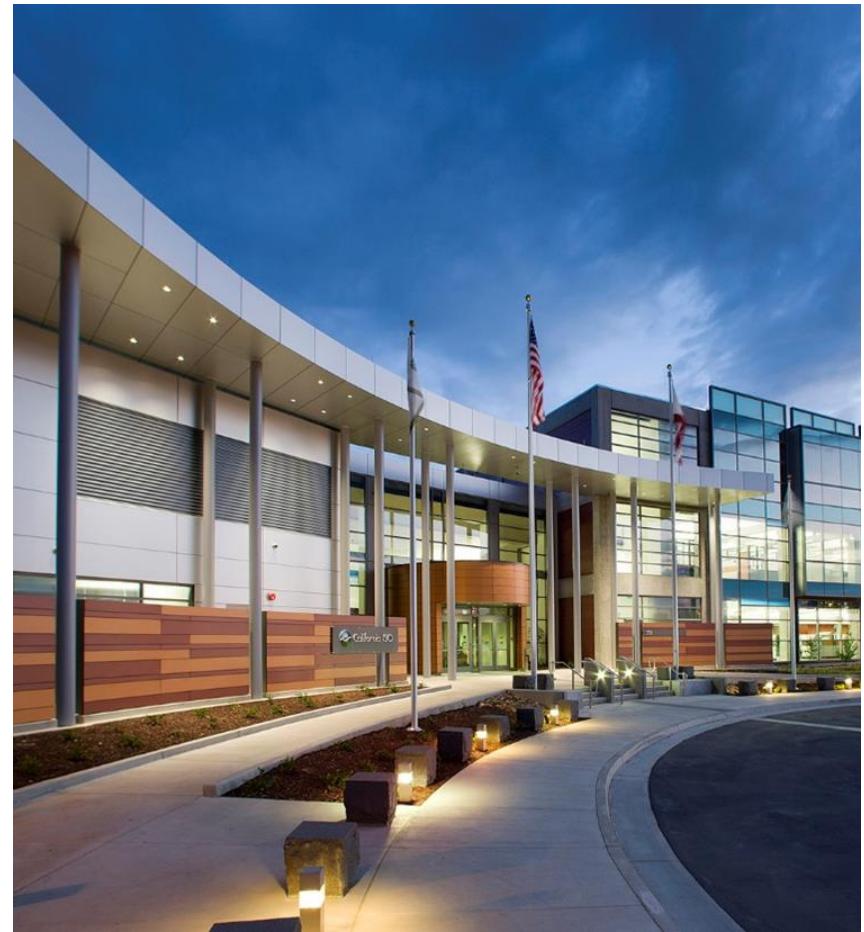
Keep yourself muted to minimize background noise

Discussion overview

- Statement of gratitude and acknowledgement of Tribal participation
- Greetings and introductions
- Overview of the CAISO
- Description of CAISO's Transmission Planning Process and FERC Order No. 1920
- Discussion and feedback
- Establish next steps

CAISO Overview

- The CAISO is a non-profit public benefit corporation that manages the flow of electricity across high-voltage power lines that make up 80 percent of California's and a small part of Nevada's grid
- CAISO is not a governmental entity
- CAISO does not own generation or transmission assets
- Based in Folsom, CA



CAISO Responsibilities

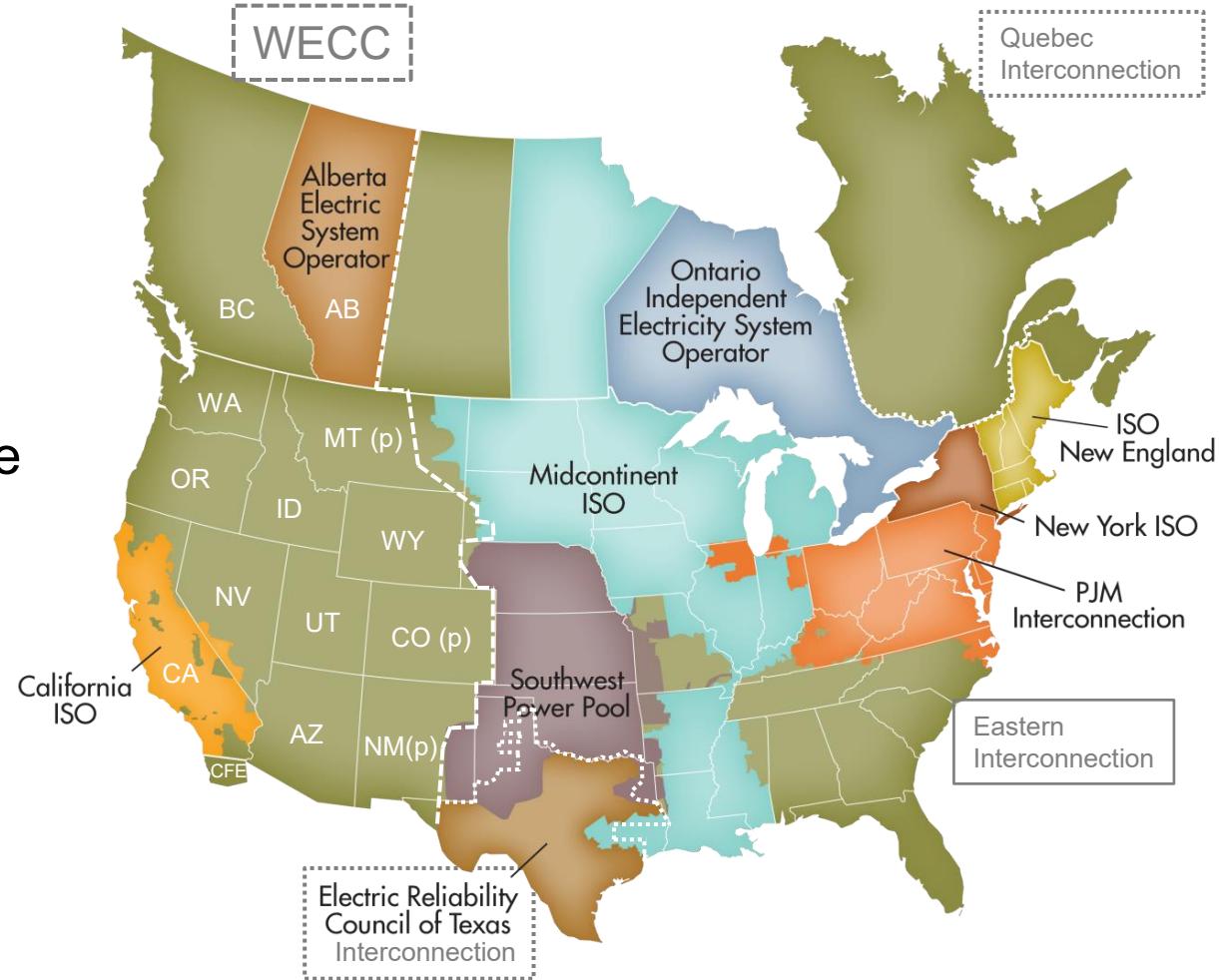
Within its balancing authority area, the CAISO:

- Maintains reliability across the grid
- Manages flow of energy across high voltage transmission
- Oversees the transmission planning process
- Operates a market for wholesale electricity



Independent System Operators (ISO)

- An ISO is a non-profit entity that manages the operation of the high-voltage electric grid within a specific region
- The CAISO is one of the nine ISOs across the North America



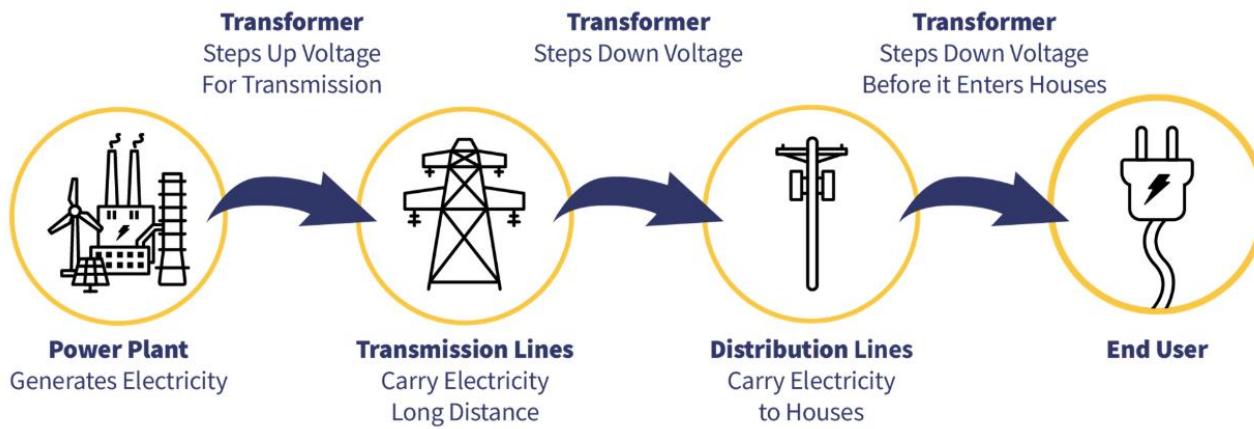
CAISO Balancing Authority (BA)

- A balancing authority area is an entity responsible for maintaining the balance between electric supply (generation) and demand (load) within a specific geographic area, known as the balancing authority area
- The CAISO as a balancing authority:
 - Serves 80% of California and a small portion of Nevada
 - Manages the delivery of energy on the transmission system to load serving entities on the distribution system
 - Load serving entities include investor-owned and publicly-owned utilities, community choice aggregators, and energy service providers



What it means to operate the “high voltage electric grid” or “bulk power system”

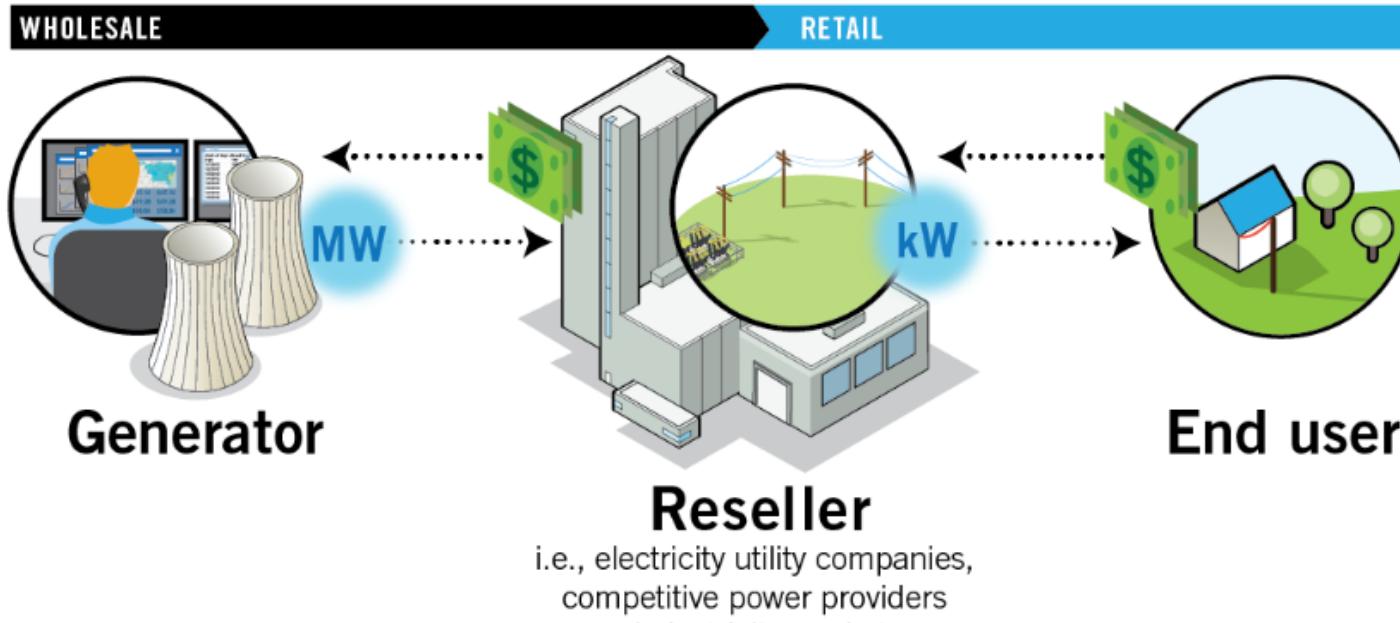
- A key distinction between transmission and distribution is voltage level, or level of “pressure” that pushes electricity from one point to another
- Distribution lines generally operate at lower voltages
- The “bulk power system” refers to the generating resources and high-voltage transmission equipment that make up the electric system networks and components that generate and deliver electricity to customers across North America



Source: FERC

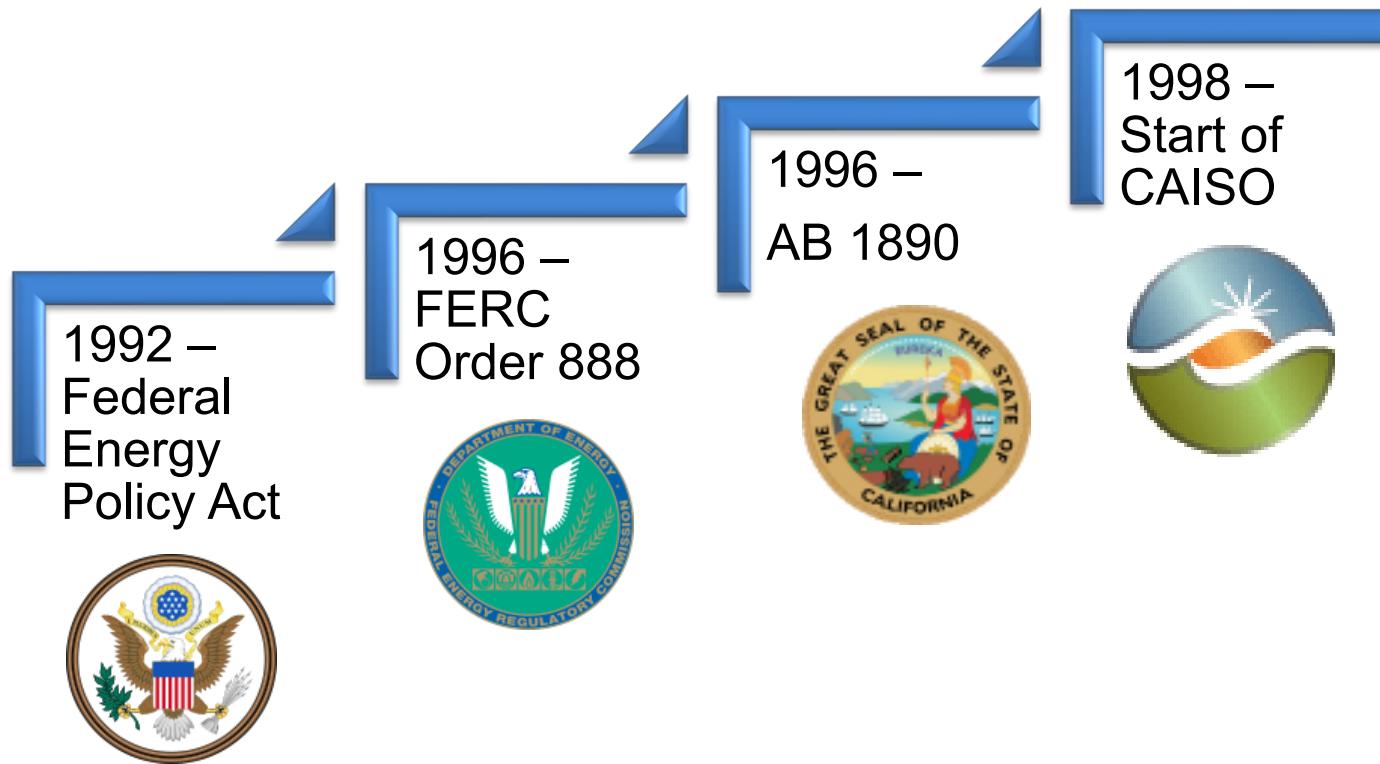
“Wholesale” versus “retail” electricity sales

- Sale from Generator to Reseller is a wholesale sale of electricity
- Sale from Local electric utility to customer residences and businesses are retail sales



Source: FERC

Start of the CAISO



CAISO oversight

Comply with

NERC

North American Electric
Reliability Corporation

Regulated by

FERC

Federal Energy
Regulatory Commission

The ISO is regulated by the federal government because management of interstate transmission lines falls under federal jurisdiction.

Part of

WECC

Western Electricity
Coordinating Council

Governed by a

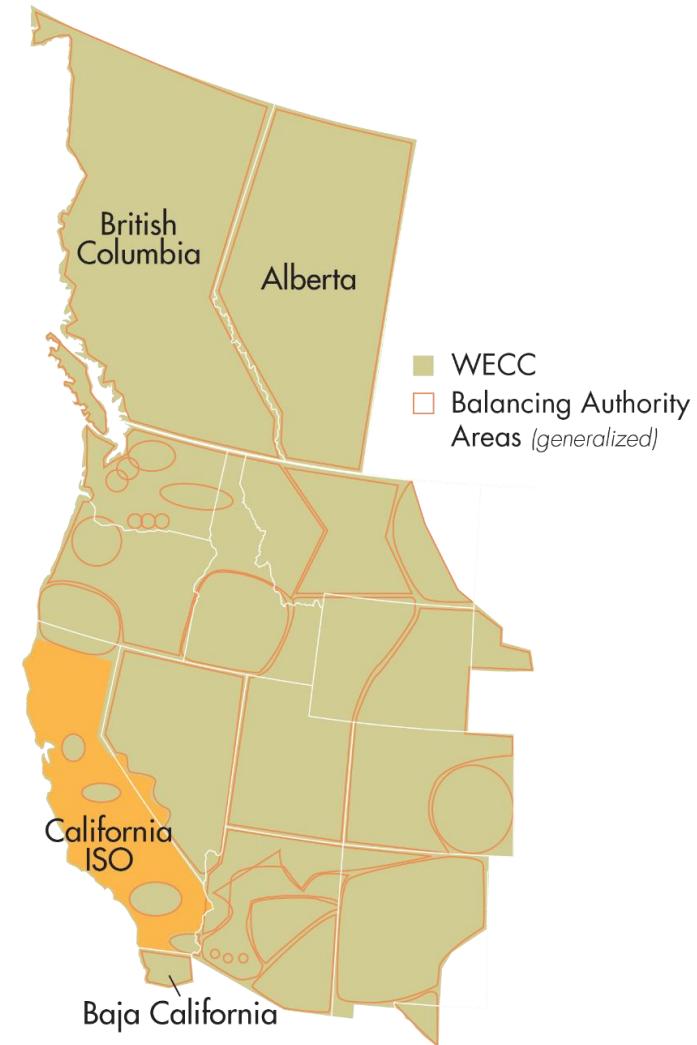
FIVE

member board
Governor appointed,
Senate confirmed

Western Electricity Coordinating Council (WECC)

WECC oversees reliability planning and assessments, and monitors and enforces compliance for the Western Interconnection, which extends from Canada to Mexico, and part of 14 western states.

- CAISO is the largest of the 38 balancing authorities within WECC's footprint



Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC)

- FERC is an independent federal agency that regulates the interstate transmission of natural gas, oil, and electricity
- Changes to CAISO's tariff are subject to FERC approval
- NERC is a non-profit organization that develops reliability standards for the electric grid, subject to FERC approval and oversight, and enforces reliability standards



CAISO Tribal Engagement

- The CAISO seeks to establish more regular opportunities for engagement with Tribes, reflecting the sovereign status of Tribal governments.
 - Seeking input on when and how Tribes would like to participate in CAISO processes.
 - Developing a Tribal Engagement Policy to establish more formal opportunities for engagement.



California ISO

Transmission Planning and Infrastructure Development

CAISO works closely with California state agencies and transmission owners on electric system planning



Participating Transmission Owners (PTOs)

- Long-term generation planning for jurisdictional load serving entities
- Permitting for construction of electrical transmission lines at or above 50 kilovolts, substations, and certain generation facilities.
- Oversees statewide electric demand forecast
- Oversees land use and environmental planning
- Opt-in permitting process for certain generation facilities
- Build, own, operate, and maintain transmission infrastructure.
- The majority of CA transmission infrastructure is owned by the three large investor-owned utilities, while the remaining transmission is owned by municipal utilities, joint powers authorities, independent transmission developers and the Western Area Power Administration.

CAISO coordinates closely with CA state energy agencies through a Memorandum of Understanding

Resource Planning

Resource planning based on CEC forecasts and led by CPUC identifies optimal areas for adding new resources.

Transmission Planning

Using CEC forecasts and CPUC resource portfolios, the ISO recommends best geographic zones for upgrades and expansion.



Interconnection Process

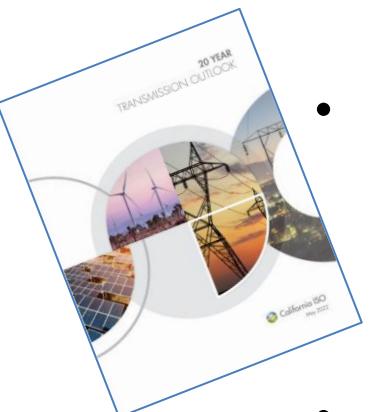
ISO interconnection process prioritizes requests in zones targeted for transmission upgrades.

Resource Procurement

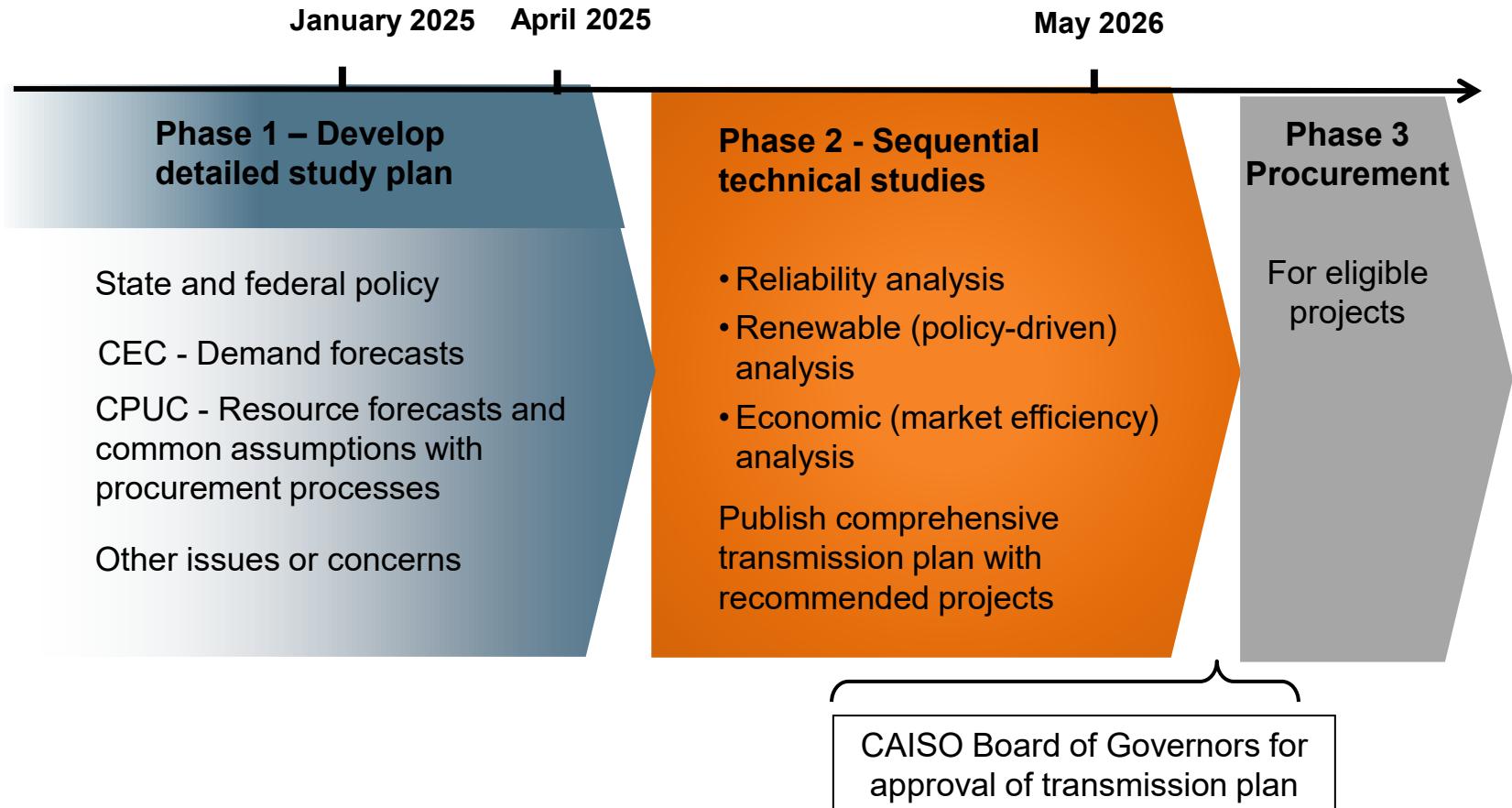
Load-serving entities focus on areas where transmission capacity exists or is being developed.

The CAISO leads the transmission planning process for our footprint, coordinated with CA state energy agencies.

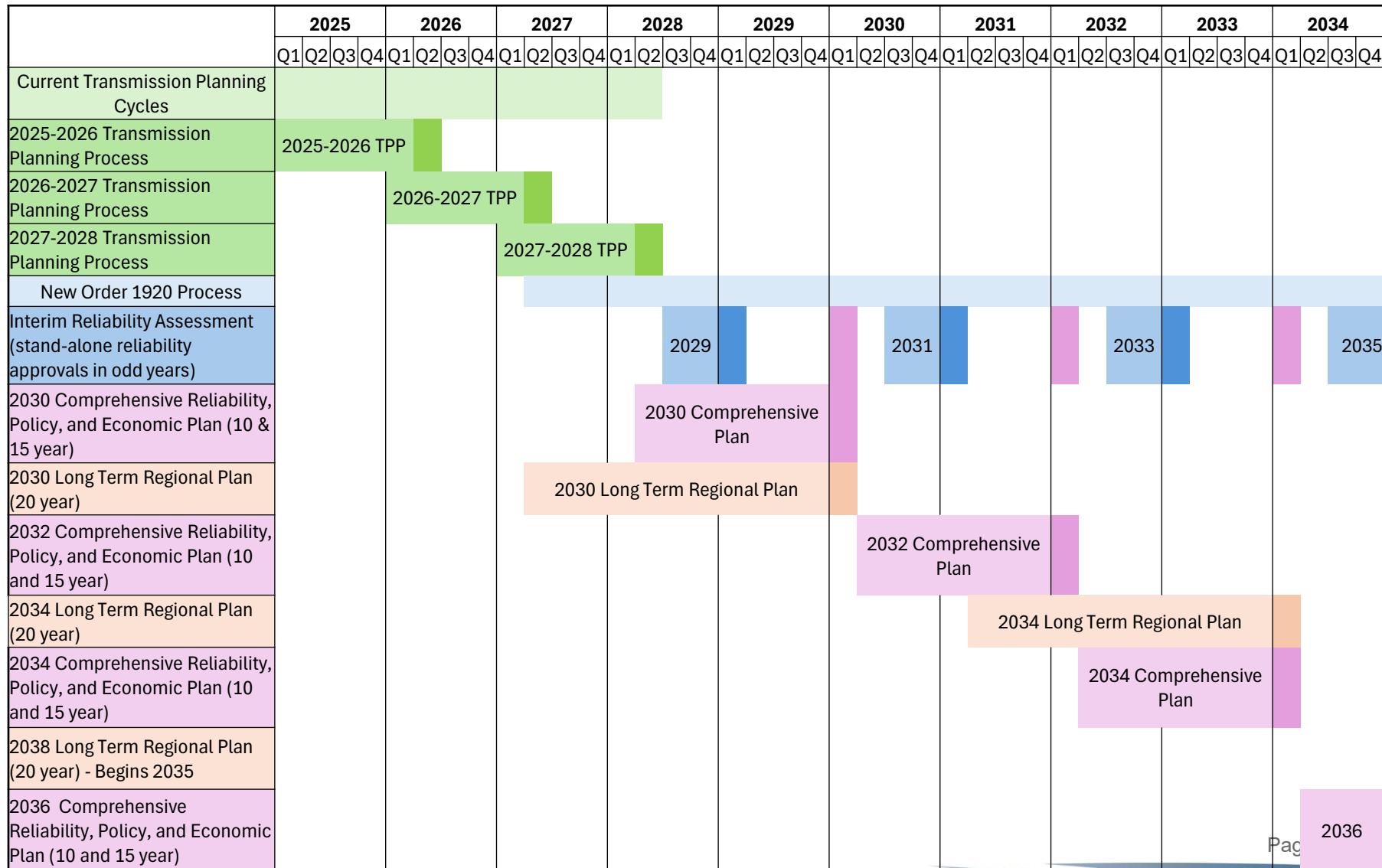
- Annual 10-year transmission plan is the formal approval document for expansion planning in our footprint
 - Responds to accelerating load growth, escalating renewable energy needs, and state and local resource planning portfolios
 - Focuses on most efficient and effective long-term solutions, including Grid Enhancing Technologies and non-wires solutions
- 20 Year Outlook assesses longer term needs
 - Establishes a longer-term direction and strategy
 - Provides context for nearer-term decisions
 - Informs future resource planning decisions
- FERC Order No. 1920 will necessitate changes to the ISO's transmission planning processes.



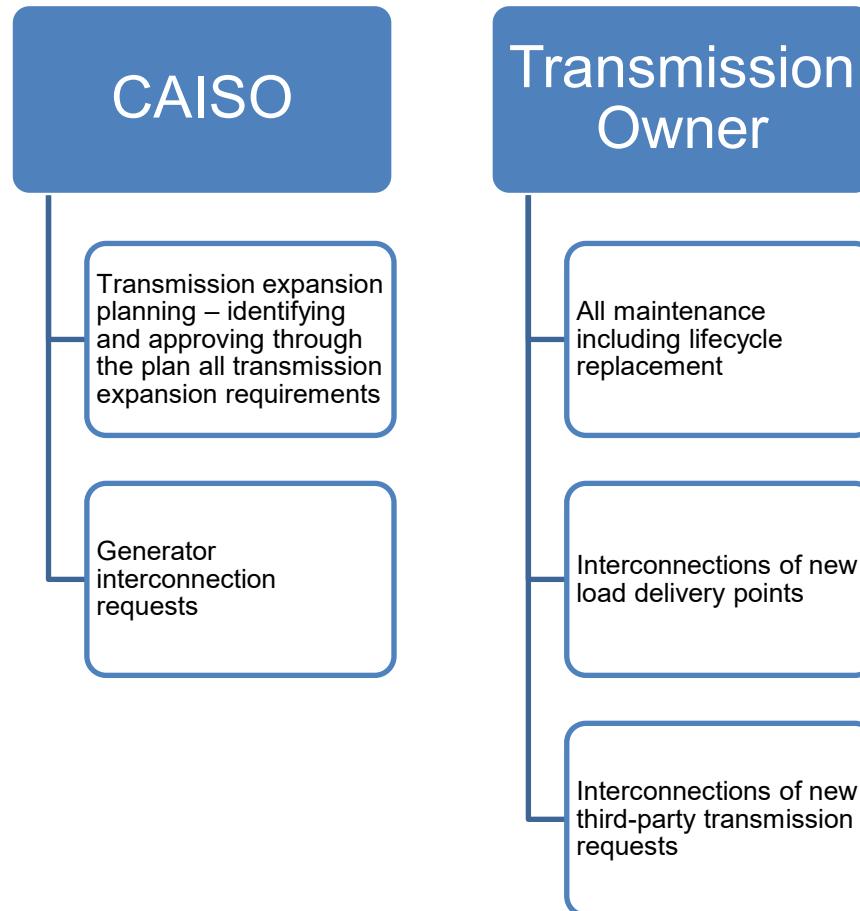
CAISO annual transmission planning process – current process and timelines



Proposed FERC Order No. 1000 and Order No. 1920 Planning Cycles (2025-2034)



Transmission and distribution roles and responsibilities



Both parties have roles in the processes led by the other party.



California ISO

FERC Order 1920

Background: FERC addresses long-term transmission needs

- FERC issued **Order No. 1920** on May 13, 2024 to address long-term transmission planning and associated cost allocation processes
 - Builds on previous orders including Order No. 1000
 - Ensures consistent approach to developing long-term transmission plans resulting in efficient and cost-effective transmission solutions
- **Order No. 1920-A** issued on November 21, 2024
 - Largely sustains Order 1920 requirements
 - Further enhances the role of Relevant State Entities
- **Order No. 1920-B** issued on April 11, 2025
 - Affirms many of the requirements of Order No. 1920 and 1920-A

FERC Order No. 1920 requires deeper coordination with Tribes on long-term transmission planning

Transmission providers such as the CAISO are required to consider seven factors, including the following:

- federal, federally-recognized Tribal, state, and local laws and regulations affecting the resource mix and demand.
- federal, federally-recognized Tribal, state, and local laws and regulations on decarbonization and electrification.
- utility and corporate commitments and federal, federally-recognized Tribal, state, and local policy goals that affect Long-Term Transmission Needs.

The CAISO seeks feedback on how to better incorporate Tribal considerations.

Summary of FERC Order No. 1920

- Requires transmission providers to conduct long-term planning for regional transmission facilities over a 20-year time horizon to anticipate future needs and to determine how to pay for those transmission facilities
 - Order identifies factors for consideration for development of scenarios and benefits criteria for determining long-term transmission solutions
 - 3 plausible and diverse scenarios must be studied with each scenario stress tested to account for extreme weather as a sensitivity
 - Transmission providers to develop 20-year plans at least every 5 years
 - Update interregional coordination processes for sharing of information and the identification and joint evaluation of long-term interregional transmission facilities

Summary of FERC Order No. 1920

- Enhances the role of state regulators in the long-term regional transmission planning process, especially in shaping scenario development and cost allocation
- Requires local transmission planning inputs in the regional transmission planning process to enhance transparency and right-size facilities
- Requires addressing generation-interconnection-related needs that have arisen multiple times but have not yet been resolved
- Requires the consideration of the use of grid-enhancing technologies (GETs)

CAISO compliance with FERC Order No. 1920

- The CAISO plans to submit its compliance filing in November.
- The CAISO compliance filing will adhere to the framework contemplated by Order No. 1920, particularly as it relates to incorporating Tribal laws and regulations in development of scenarios for long-term regional transmission planning.
- The CAISO proposes to implement FERC Order No. 1920 beginning in 2027.
 - The ISO will engage with Tribes prior to implementation to establish regular opportunities to incorporate Tribal considerations into transmission planning efforts.
- The CAISO is open to exploring other opportunities for enhanced engagement with Tribes.

Features of the CAISO's Compliance Filing

- Current transmission planning process will move to a biennial cycle with an interim reliability assessment
 - Current transmission planning cycles will continue through approval of the 2027-2028 Transmission Plan.
 - Transition to the new process will begin in 2027 with first transmission plans issued in 2030
- New long-term regional transmission planning cycle will be integrated with existing comprehensive reliability, economic, and policy assessment
- The evaluation process will remain fundamentally unchanged but incorporate enhancements from the Order
- No proposed changes to cost allocation methodology, following consultation with Relevant State Entities
- Continued alignment with neighboring planning regions



California ISO

Discussion and next steps

Questions for participants

- What is the best timing and format for the next meeting between CAISO and Tribes?
- What is an ideal cadence for discussions between Tribes and the CAISO as we work to establish new processes and opportunities for coordination?
- CAISO seeks feedback on best points of contact within your Tribe for communications with CAISO.
- What questions/feedback do you have for the CAISO?

Please direct any feedback, questions, and comments to
TribalAffairs@caiso.com

The CAISO seeks input on when and how best to engage with Tribes on infrastructure development

- The CAISO is building considerations of Tribal policies into our transmission planning process as we revise our processes to comply with FERC Order No. 1920.
- The CAISO aims to improve Tribal outreach and engagement.
- CAISO next steps:
 - Meetings to develop Tribal Engagement Policy
 - Meetings to define details re: FERC Order No. 1920 coordination and input
 - Responses to questions from Tribes