

Regional Transmission

House Interim Committee on
Climate, Energy and Environment

Megan Decker, PUC Chair
Nov 6, 2023



Oregonians face increased costs to serve growing electricity loads reliably, reduce emissions, and adapt to climate change.

The PUC is active in promoting well-designed regional coordination to lower costs for consumers.

Economic regulator of investor-owned utilities. Three-member Commission uses transparent, inclusive process to reach decisions in rate cases, rulemakings, and policy implementation dockets, with support from expert staff.

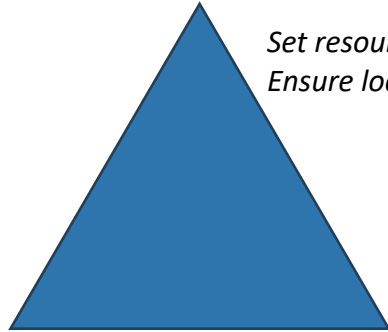
Our mission is to ensure Oregonians have access to safe, reliable and fairly priced utility services that advance state policy and promote the public interest.

Our vision is to improve the lives of Oregonians through effective utility regulation and leadership in the utility sector.

COORDINATING ELECTRICITY SYSTEMS

All 3 may be coordinated in an RTO/ISO, or pursued separately

Reliability



*Set resource capacity needed to meet expected load
Ensure load-resource balance is maintained in real time*

Energy Markets

Efficiently serve load using lowest-cost energy from wide area

Transmission

*Plan optimal infrastructure for footprint
Operate centrally for better access, fewer constraints*



ACTIVE FORUMS FOR WESTERN COORDINATION

High level of activity and momentum toward coordination in all 3 areas, plus action to develop a pathway to independent, west-wide governance.

Reliability

- Western Resource Adequacy Program - WPP

Energy Markets

- Broad participation in Western EIM
- Advancing day-ahead markets (CAISO EDAM and SPP Markets+)

Transmission

- CREPC's Western States Transmission Initiative
- Western Transmission Expansion Coalition - WPP

NEED FOR TRANSMISSION EXPANSION

Widely shared view that much more transmission will be needed

Why Does the West Need More Transmission Capacity?

Reliability threats

- Accelerated generation retirements
- Increased reliance on intermittent resources
- Extreme weather

Expectations for substantially higher electricity demand

- Electrification
- Data centers

Accessing renewable resources to satisfy clean energy targets

DOE [National Transmission Needs Study](#) draft suggests substantial new transmission capacity needed in West to meet state public policy goals

WECC [State of the Interconnection Report](#)

- "WECC studies show a growing risk associated with transmission availability, particularly regarding growing resource adequacy risks."

CAISO [20-Year Transmission Outlook](#)

- Calls for significant new additions of high voltage AC and HVDC lines



Transmission Studies:

All



<https://www.westernenergyboard.org/wp-content/uploads/KeeganMoyer.pdf>

OVERCOMING BARRIERS

Barriers to transmission expansion - the 3 P's

- Planning
- Permitting
- Paying

Planning is a threshold barrier

- High costs, high land and community impacts
- Need to have confidence it's the right transmission
 - objective analysis
 - all state policies
 - full diversity of region
- Confidence in *planning* helps overcome barriers to *permitting* and *paying*

COLLECTIVE STATE ACTION

Committee on Regional Electric Power Cooperation (CREPC)

- Goals
 - Build understanding
 - Identify actionable steps
- Recommendations for state action
 - Ongoing state working group (PUCs, EOs)
 - Study to identify high value regional projects
 - Education on sharing costs among states
- Western Transmission Expansion Coalition
 - Aligned sense of urgency to identify actionable regional transmission portfolio

What is the Western States Transmission Initiative?

Collaboration between Gridworks and CREPC

Focus on transmission planning and cost allocation

- Is the current approach to transmission planning and cost allocation sufficient in the West?
- What changes might be helpful?
- What is the appropriate role for state regulators and energy officials?

Interviews with state officials, utilities, NGOs, tribes, and others throughout the West

Three background webinars

- July 20: *Transmission planning*
- July 27: *Is more transmission necessary for the West? What are the barriers to development?*
- August 16: *Transmission cost allocation*

Transmission planning and cost allocation recommendations to be developed with Working Group of CREPC members

Discussion of recommendations with all of CREPC at fall meeting in Seattle

For further questions, contact:

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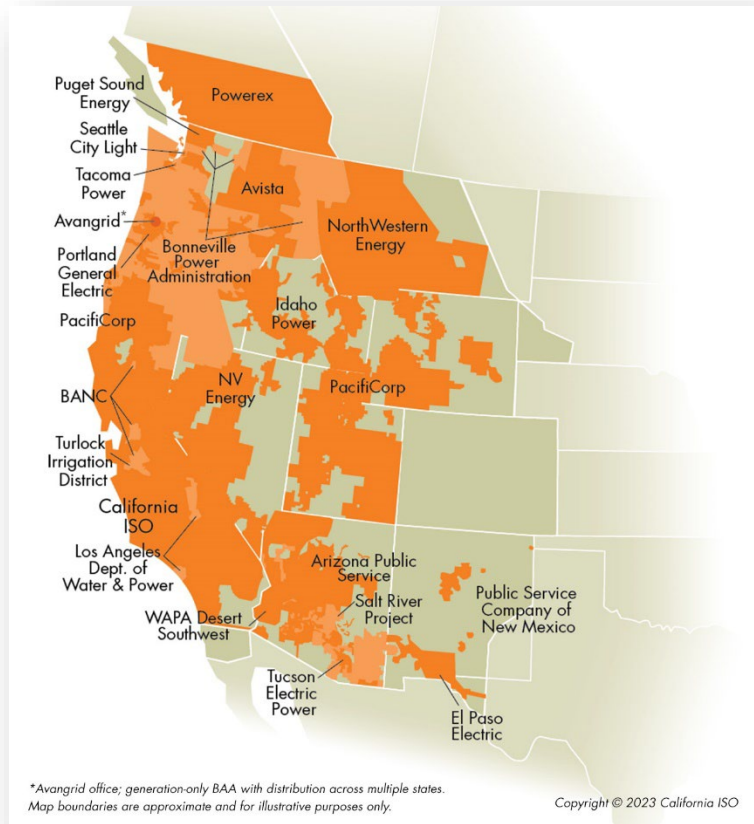
APPENDIX and LINKS

ENERGY MARKETS

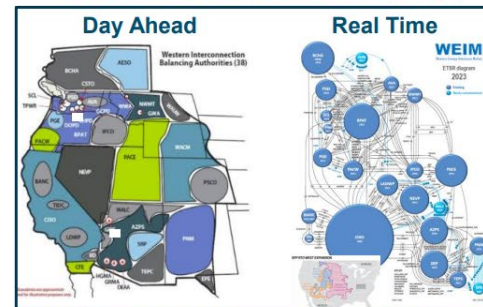
Today: CAISO Western EIM

Next step: CAISO and SPP competing to attract utilities to day-ahead markets

- Working groups developing design of SPP Markets+, refining CAISO EDAM
 - PacifiCorp committed to CAISO EDAM – 2026 launch
 - BPA holding public workshops toward early 2024 decision
 - *Joint Oregon and Washington agency letters*
 - Other utilities watching, actively studying
- West-wide Governance Pathway Initiative



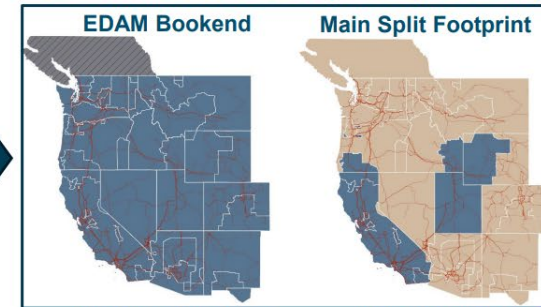
Current Western Market (BAU)



The **BAU DA** world: "bilateral" trading with transmission wheeling charges & transactional friction on trades crossing BAA boundaries using transmission reservations

The **BAU RT Case** allows optimized trading within the existing EIM and EIS footprints (with no wheeling charges or transactional friction)

Potential Future Footprints (DA & RT)



EDAM Bookend: a single DA and RT market covering the entire WECC excluding Alberta and BC

Main Split: two DA and RT footprints:
EDAM: PacifiCorp, CAISO LADWP, BANC, LADWP, TIDC, and IID;
Markets+: Rest of WECC (except AB)

Map Legend

■ EDAM

■ Markets+ (M+)

Credit: Greg MacDonald, PSE

*Note: A subset of members opted for modeling extra market cases of additional footprints

TRANSMISSION REGULATION

- PUC – [Integrated Resource Plans](#), RFPs
- ODOE – [Permitting transmission](#)
- ODOE/PUC – Regional planning ([NorthernGrid](#))
- PUC – [CPCN for eminent domain](#)
- Rate cases for transmission costs
 - PUC – capital cost of utility-developed lines
 - BPA – rates for service on BPA lines
 - FERC – interconnection, rates and terms for all other transmission service, federal backstop siting authority



ACTIVE FORUMS FOR WESTERN COORDINATION

- **Energy Markets**
 - CAISO – [Western Energy Imbalance Market](#)
 - CAISO – [Extended Day-Ahead Market](#)
 - Southwest Power Pool – [Markets+ Day-Ahead Market](#)
 - [BPA day-ahead market participation evaluation](#)
 - [Joint state agency comments to BPA 10/18/23](#)
- **Transmission**
 - Western Power Pool – [Western Transmission Expansion Coalition \(WTEC\)](#)
 - [Western States Transmission Initiatives recommendations](#)
- **Reliability**
 - Western Power Pool – [Western Resource Adequacy Program \(WRAP\)](#)
- **Governance**
 - [West-wide Governance Pathways Initiative](#)
 - [Letter from regulators calling for West-wide market](#)
 - [Phase One straw proposal](#)

BACKGROUND: TRANSMISSION AND MARKETS

- ODOE: [Regional Transmission Organization Study](#) (2021):
- California ISO: [CAISO explainer](#)
- FERC: [RTOs and ISOs explainer](#)
- Western Electricity Coordinating Council: [State of the Western Interconnection](#) (2023)
- Gridworks: [Transmission and Cost Allocation in the West](#) (2023)
- OPUC: [Transmission Planning Workshops](#) (2019)