

Regional Transmission Organization Study: Oregon Perspectives

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ENERGY

*Presentation to the
Senate Committee on Energy and Environment*



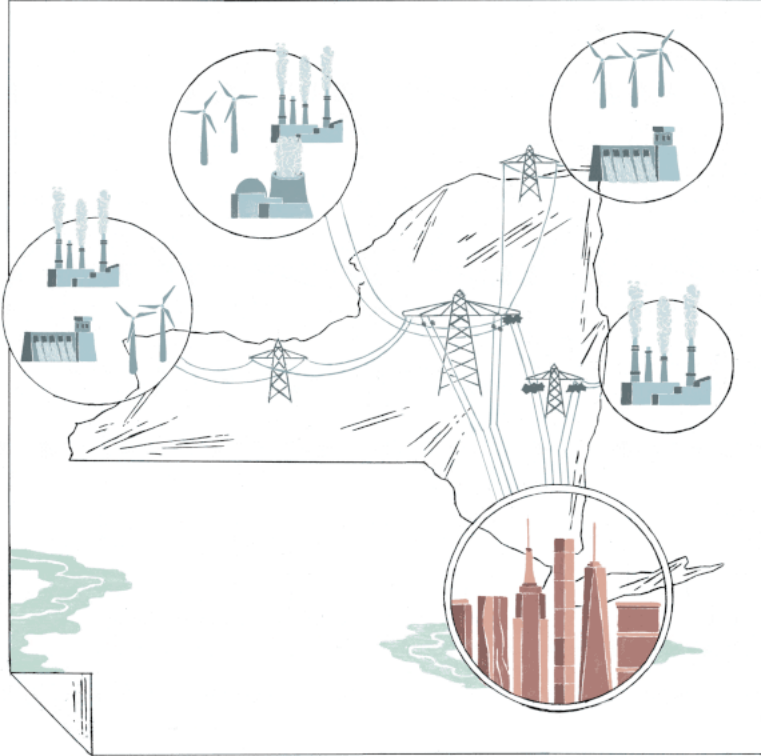
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Three Core Functions: Capacity, Transmission, and Energy

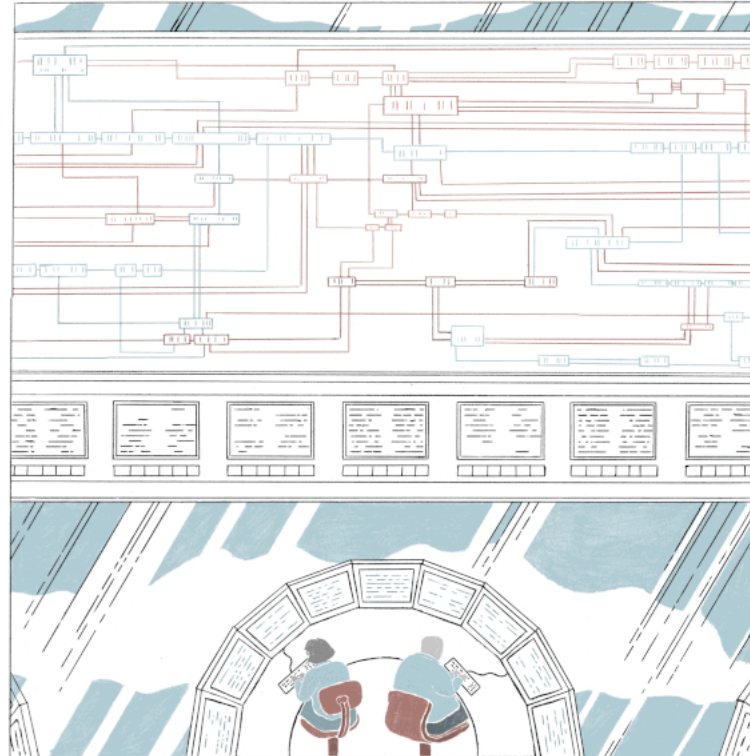
Haystack Rock, Cannon Beach

ELECTRICITY: GENERATED FOR YOU IN REAL-TIME

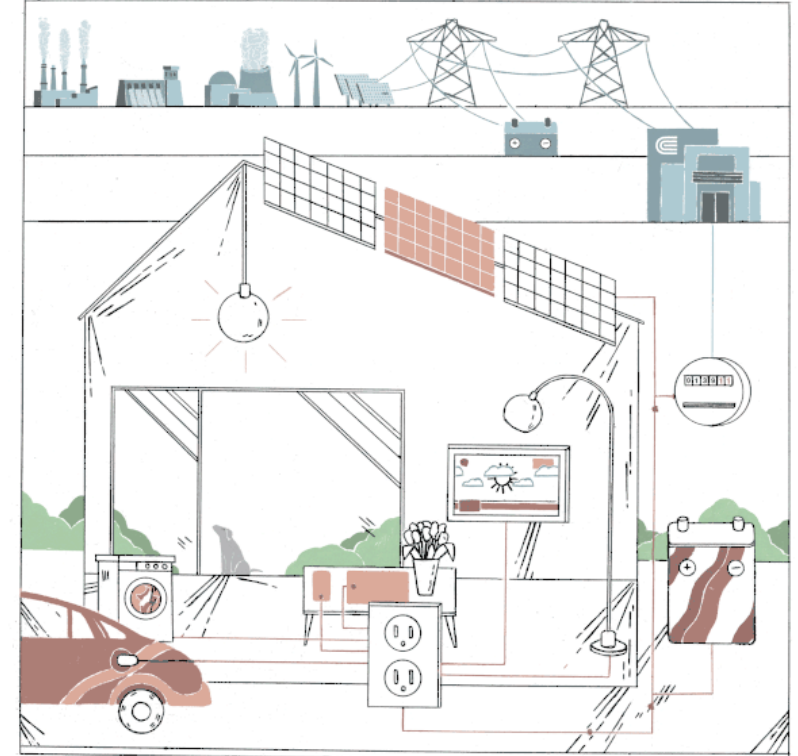
Generated by power plants



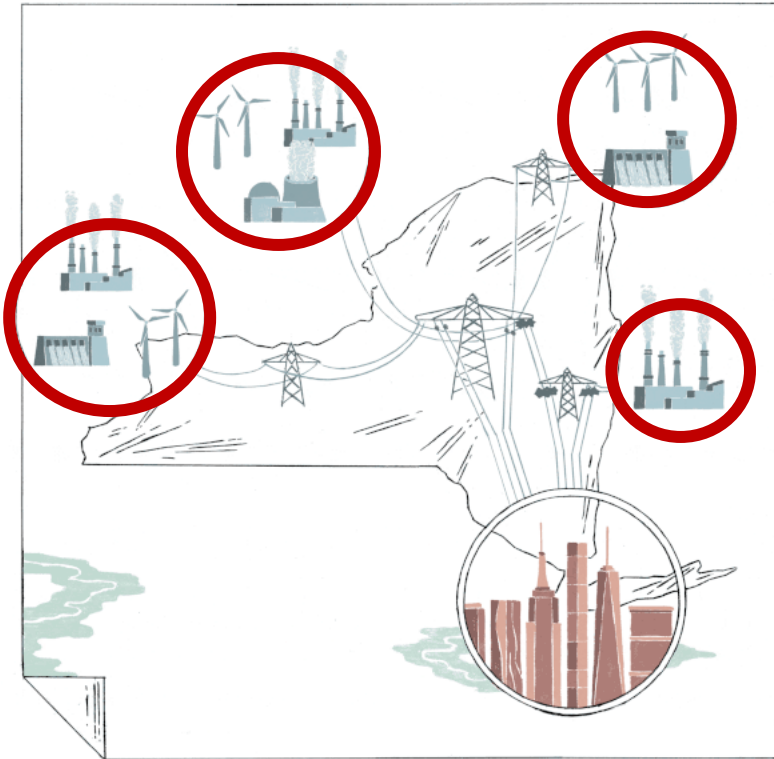
Balanced in real-time



And delivered into your home



ELECTRICITY: GENERATED FOR YOU IN REAL-TIME



Capacity:

How many power plants will we need to keep the lights on?

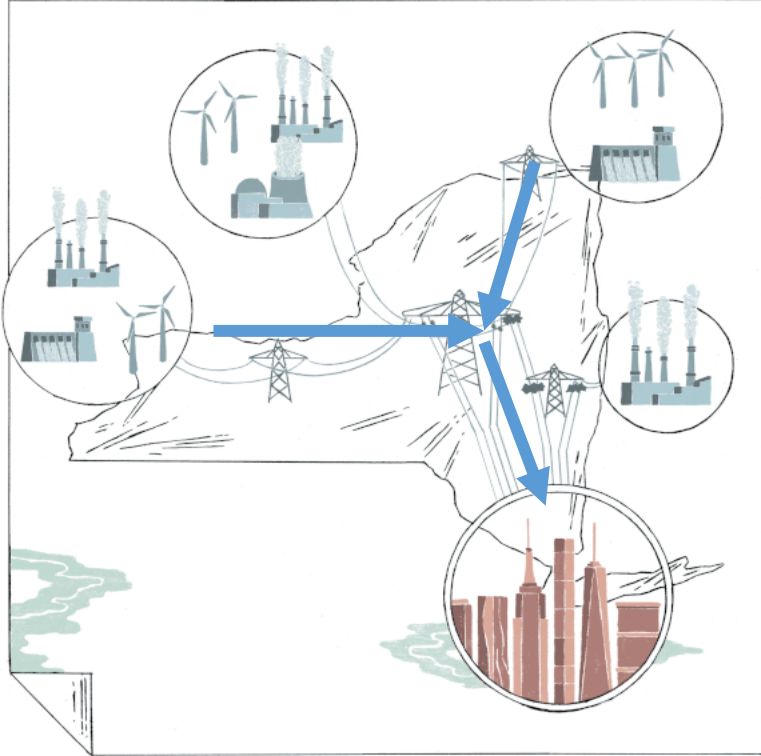
Oregon:

- Individual utilities
- Western Resource Adequacy Program (WRAP)

Regional Transmission Organization:

- Could be designed to inform capacity planning and procurement and to align with existing mechanisms (e.g., WRAP)

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Transmission:

How much transmission is needed?
How are costs allocated?
How is open access managed?

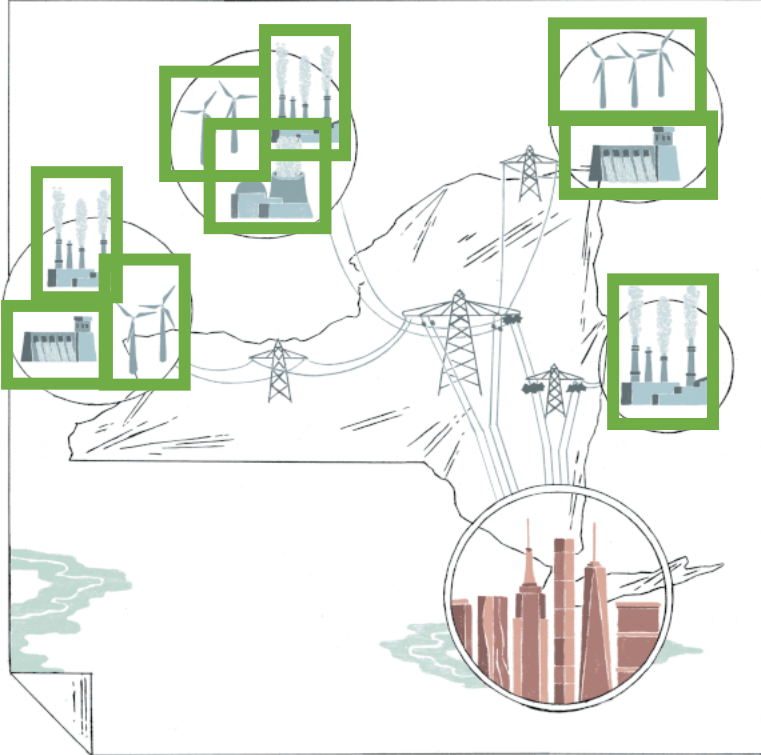
Oregon:

- Individual transmission providers (utilities + BPA) operate and manage the system
- NorthernGrid facilitates regional planning

Regional Transmission Organization:

- Centrally operates and manages system on behalf of transmission owners
- Central role in transmission planning and allocating costs

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Energy Dispatch:

Which power plant is needed to meet demand at a given moment?

Oregon:

- Vertically integrated utilities dispatch generating resources to meet demand
- Bilateral contracts used to acquire resources to fill deficits

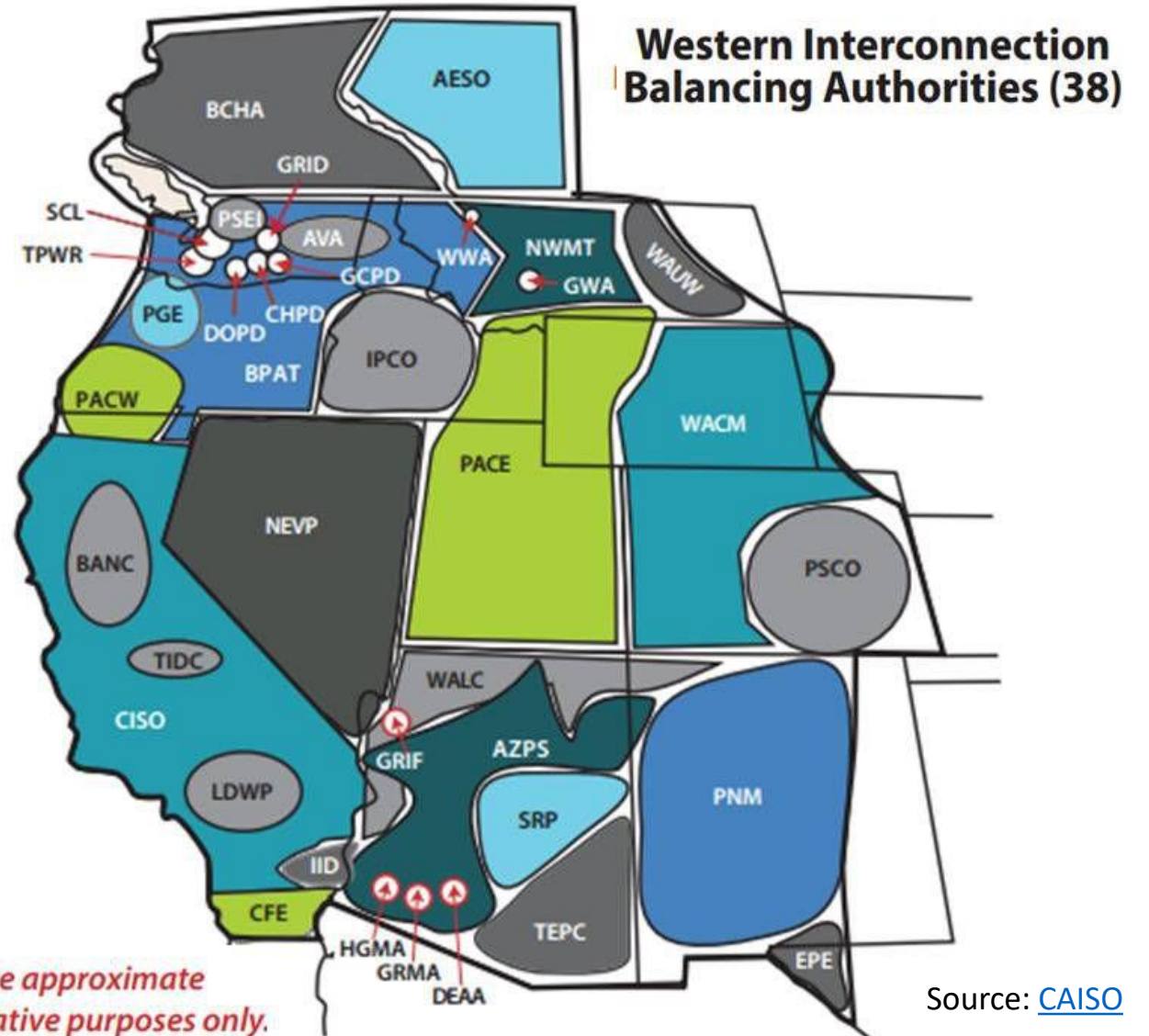
Regional Transmission Organization:

- Centralized security constrained economic dispatch to optimize supply and demand
- Day-Ahead + Real-time Dispatch

Balancing Authorities in the West

Responsibility of each Balancing Authority:

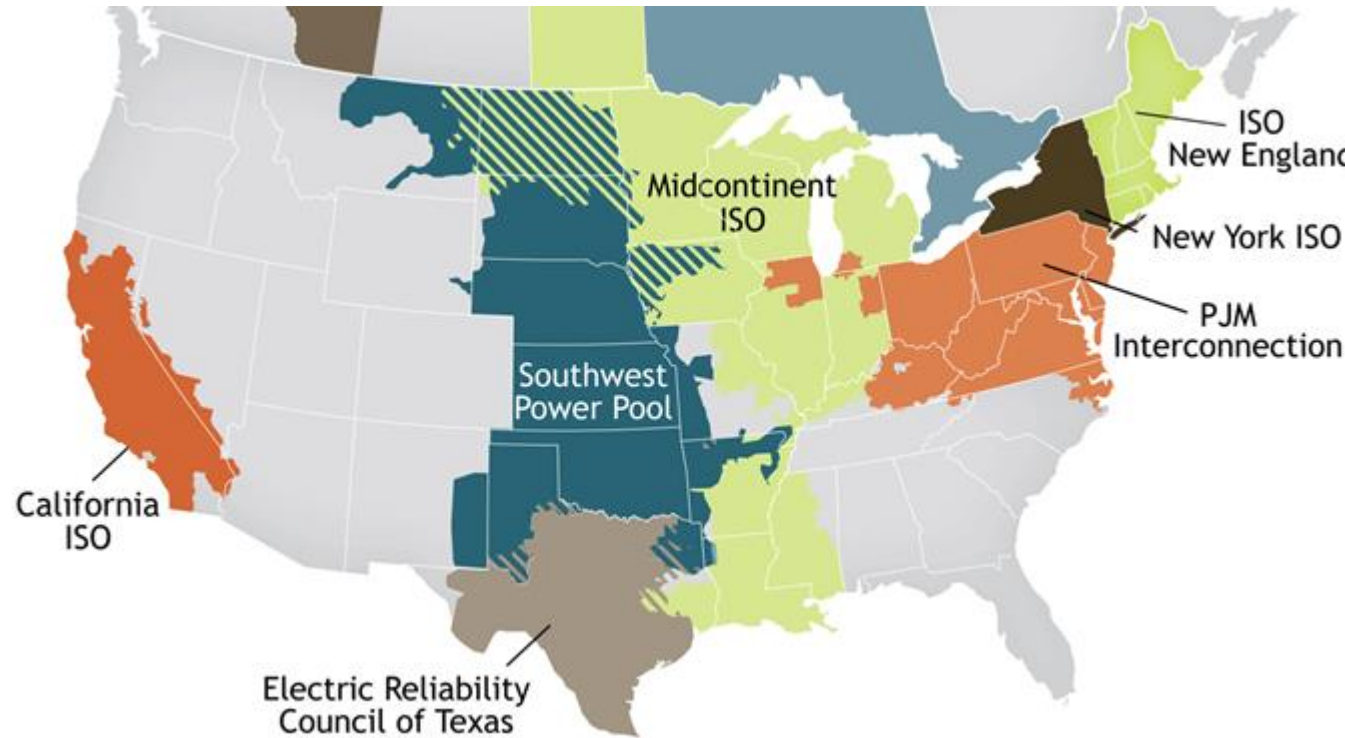
- Reliably planning and operating the high-voltage grid
- Matching generation with demand in real-time
- Managing imports and exports



What's a Regional Transmission Organization (RTO)?

RTO Background:

- Seven RTOs across USA, optimizing supply & demand over large geographic areas
- **Energy.** Centralized day-ahead and real-time energy markets
- **Transmission.** Centrally operate & optimize transmission + ensure open access
- **Capacity.** Variation in RTO involvement in capacity planning, procurement, and Resource Adequacy



Source: [FERC](#)

- **Other Key Functions:** Market monitoring and oversight; Outage management; Network modeling and planning

What's a Regional Transmission Organization (RTO)?

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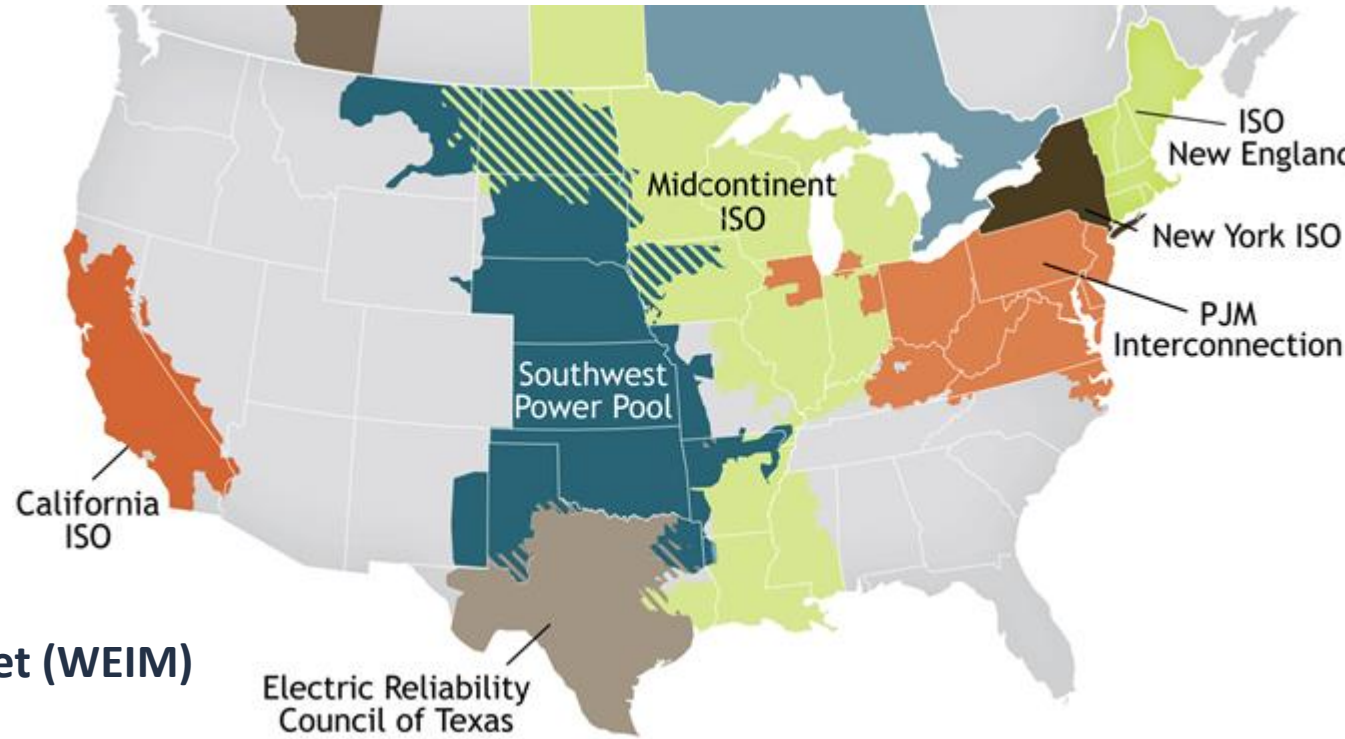


- **Transmission.** Centrally operate & optimize transmission on an open access basis

Extended Day-Ahead Market (EDAM)

Western Energy Imbalance Market (WEIM)

- **Capacity.** Variation in RTO involvement in capacity planning, procurement, and Resource Adequacy



Source: [FERC](#)

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SB 589: Regional Transmission Organization Study

Trillium Lake, Mt. Hood

Oregon RTO Advisory Committee

Senator Kathleen Taylor

Commissioner Letha Tawney, Oregon Public Utility Commission

Scott Coe, Emerald People's Utility District

Robert Echenrode, Umatilla Electric Cooperative

Sarah Edmonds, Portland General Electric

Travis Eri, International Brotherhood of Electrical Workers Local 125

Spencer Gray, Northwest & Intermountain Power Producers Coalition

Ex Officio Members:

Ravi Aggarwal, Bonneville Power Administration

Kathy Anderson, Idaho Power

Mike Goetz, Oregon Citizens' Utility Board

Representative Pam Marsh

Kristen Sheeran, Governor's Office

Amira Streeter, Governor's Office

Nicole Hughes, Renewable Northwest

Frank Lawson, Eugene Water & Electric Board

Oriana Magnera, Verde

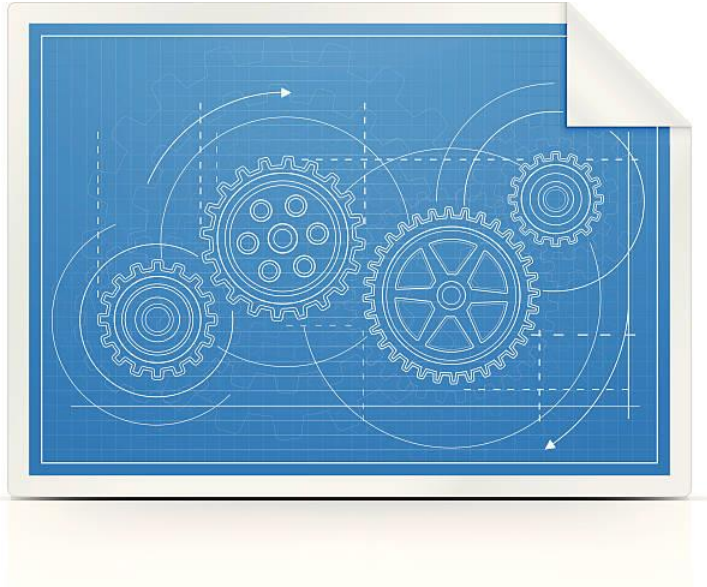
Lindsey Schlekeway, PacifiCorp

Fred Heutte, Northwest Energy Coalition

Ben Kujala, Northwest Power Council

Mary Pleasant, Oregon Department of Environmental Quality

General Feedback



Lack of Specific Design:

- Difficult to provide feedback about RTO formation in the abstract—so many consequential design variables
- Oregon-specific analysis of the costs and benefits is unnecessary absent a specific RTO proposal

State role in the meantime:

- Support the interests of stakeholders by understanding and representing their perspectives in regional forums

Building on Momentum

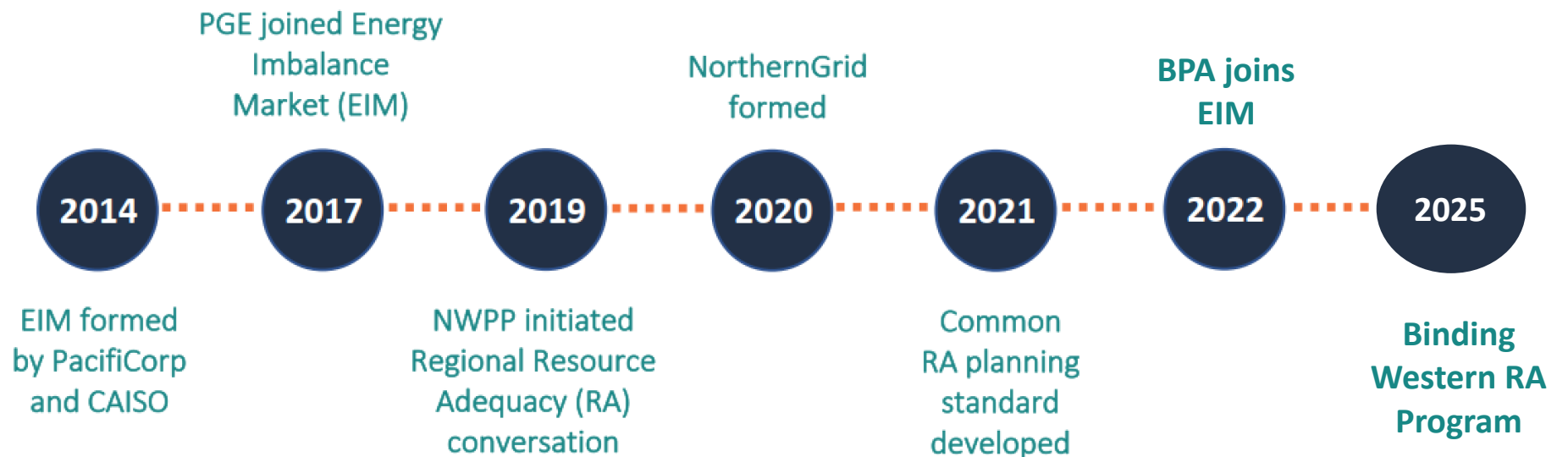
Is this time different?

- Previous efforts to form an RTO in the northwest have failed
- Unique drive and urgency today, occurring amidst real regional momentum

Building on momentum:

- Varied perspectives on how to build upon momentum + ultimate end goal for Oregon
- But wide agreement that regionalization can help state achieve its climate goals

Recent Milestones



Widespread Agreement

Potential Benefits of RTO Formation:

- Identified widespread – but not universal – agreement that RTO formation could deliver substantial economic benefits to Oregonians

Balance competing interests:

- Coordination needed to delicately balance interests among utilities, state and federal entities, multiple states, and other stakeholders

RTOs are not a Universal Problem-Solver:

- Benefits could be significant, but important to acknowledge the issues an RTO would not solve, such as siting/permitting challenges and crowded interconnection queues



Challenges: Governance & Market Design

Challenges:

- Focus of our discussions less about specific benefits and more about the challenges and barriers to RTO formation

Not One Size Fits All:

- Each RTO is unique, resulting from intentional compromise and negotiation among its members

Governance:

- Designing balanced governance perhaps the biggest challenge, which increases in complexity as the geographic footprint of an RTO increases

Other Important Design Questions:

- How to assure meaningful role for diverse voices? Address BPA's unique statutory considerations? Align RTO with existing regulatory mechanisms and state policy? Incorporate state objectives around equity, environmental justice, and resilience? Accommodate legacy transmission contracts?





Thank you!

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