



# The Evolving Grid

## Update on the State of BPA Transmission

House Interim Committee on Climate, Energy, and  
Environment

November 6, 2023



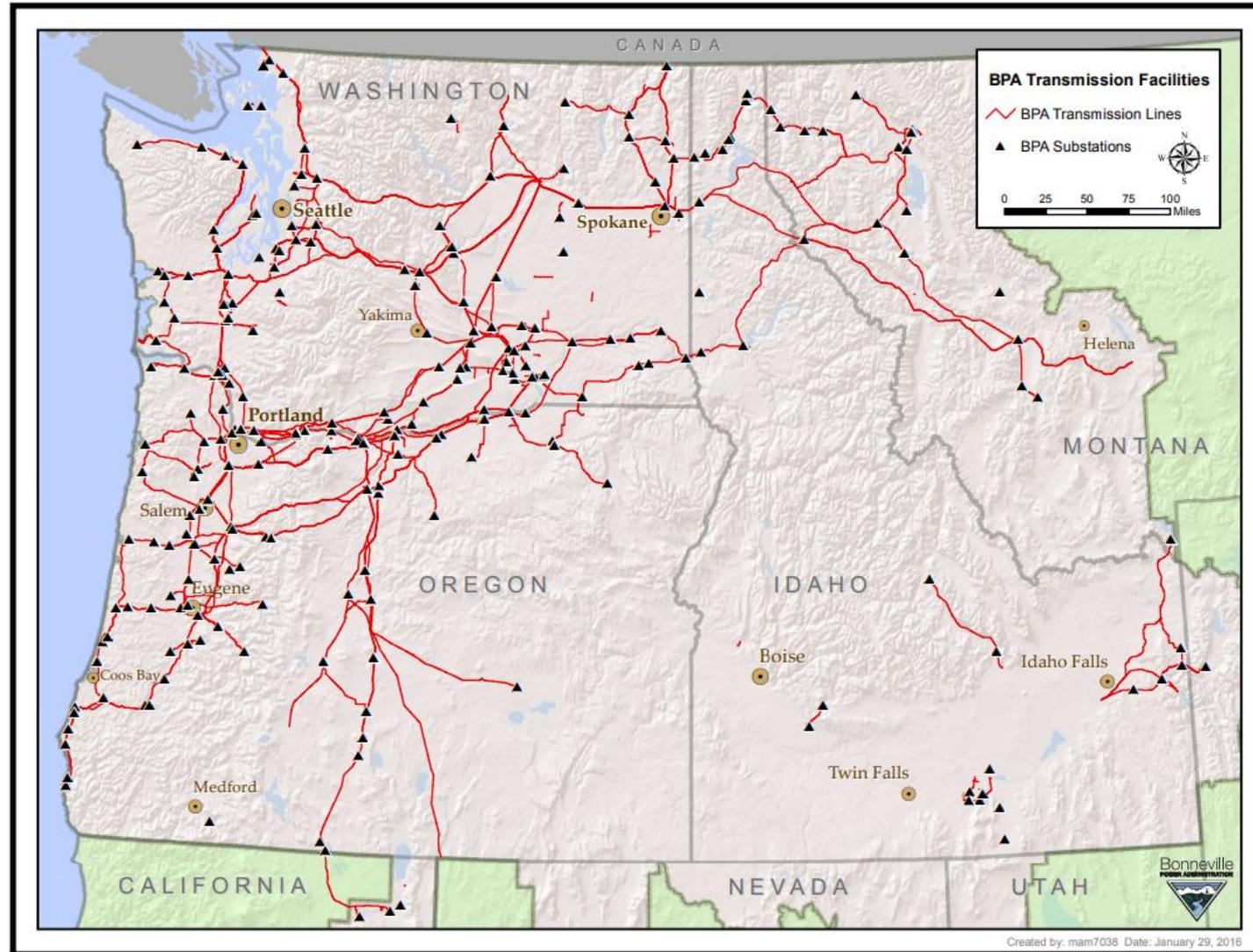
# Introduction to Bonneville

- BPA markets power from 31 Federal hydro plants, the Columbia Generating Station Nuclear Plant, and several small non-Federal power plants [BPA owns no power generators]
- BPA receives no congressional appropriations. If we are spending money, we are earning it from selling power or transmission services.
- Over 80% of the power BPA sells is hydroelectric.
- BPA accounts for about 28% of the electric power consumed within the PNW (2019 Numbers).
- About 20% of BPA's marketed power goes to Oregon.
- BPA owns and operates 15,000 miles of transmission lines = 75% of PNW transmission.

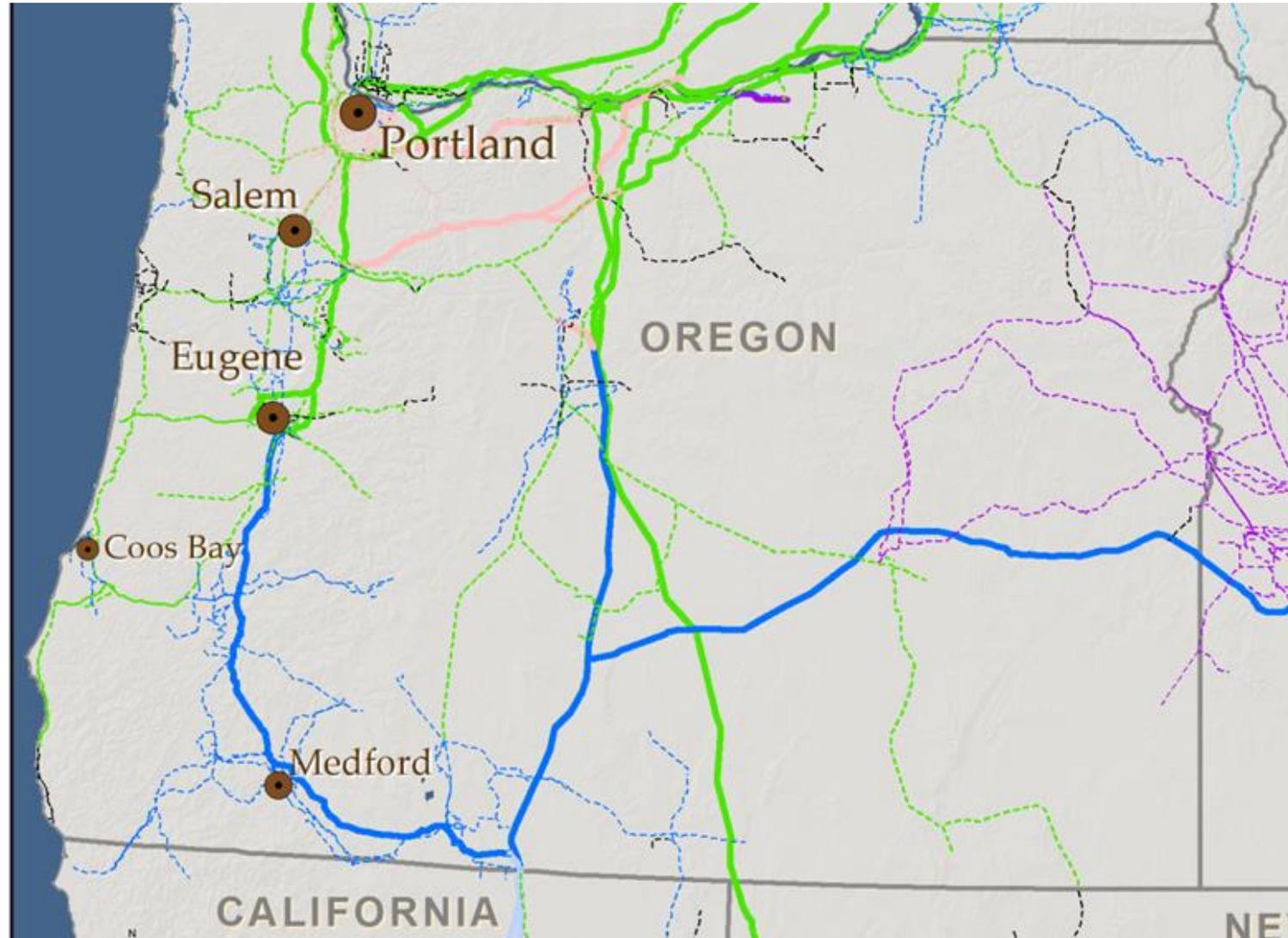
## Federal Columbia River Power System Columbia River Basin & BPA Service Area



# BPA Infrastructure



# Oregon's Combined Transmission System



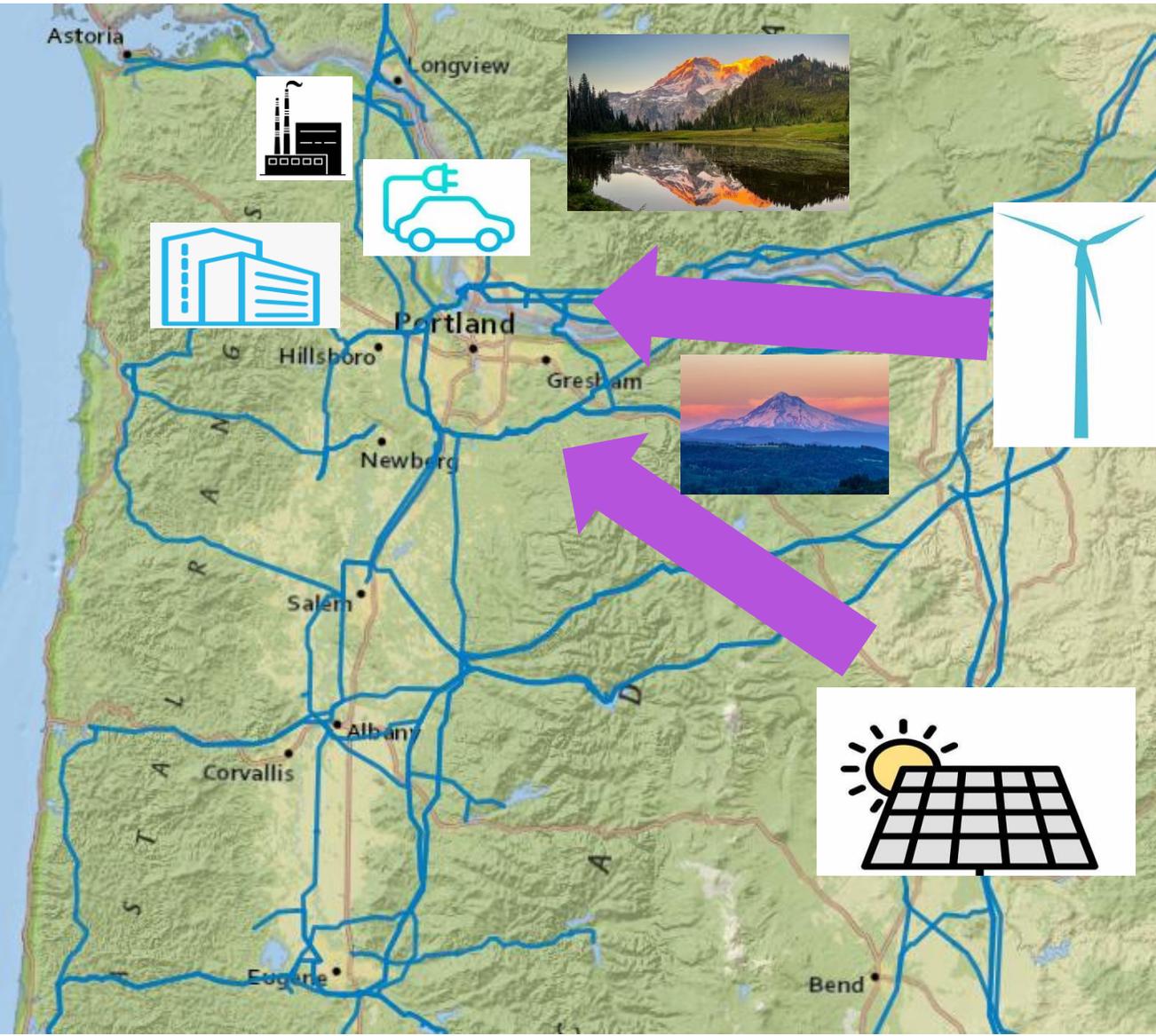
**Combined Transmission Grid**

	>230kV	<=230kV
Avista Corp.	[Solid Blue Line]	[Dashed Blue Line]
Bonneville Power Administration	[Solid Green Line]	[Dashed Green Line]
British Columbia Hydro & Power Authority	[Solid Brown Line]	[Dashed Brown Line]
Clark Fork & Blackfoot, LLC	[Solid Red Line]	[Dashed Red Line]
Idaho Power Co.	[Solid Purple Line]	[Dashed Purple Line]
PacifiCorp.	[Solid Blue Line]	[Dashed Blue Line]
Portland General Electric Co.	[Solid Pink Line]	[Dashed Pink Line]
Puget Sound Energy, Inc.	[Solid Yellow Line]	[Dashed Yellow Line]
Sierra Pacific Power Co.	[Solid Orange Line]	[Dashed Orange Line]
Western Area Power Administration	[Solid Light Blue Line]	[Dashed Light Blue Line]
Other Lines	[Dashed Black Line]	[Dashed Black Line]

*Non-BPA Transmission Source: Platts, a Division of The McGraw-Hill Companies, Inc., 2014.*

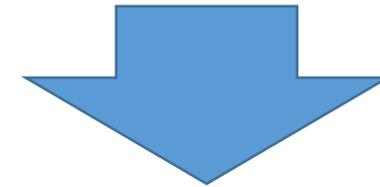
0 100 200 Miles

# PNW Landscape



## Drivers:

- Clean Energy Policies
- Electrification (transportation and buildings)
- Industrial load growth in Silicone Forest

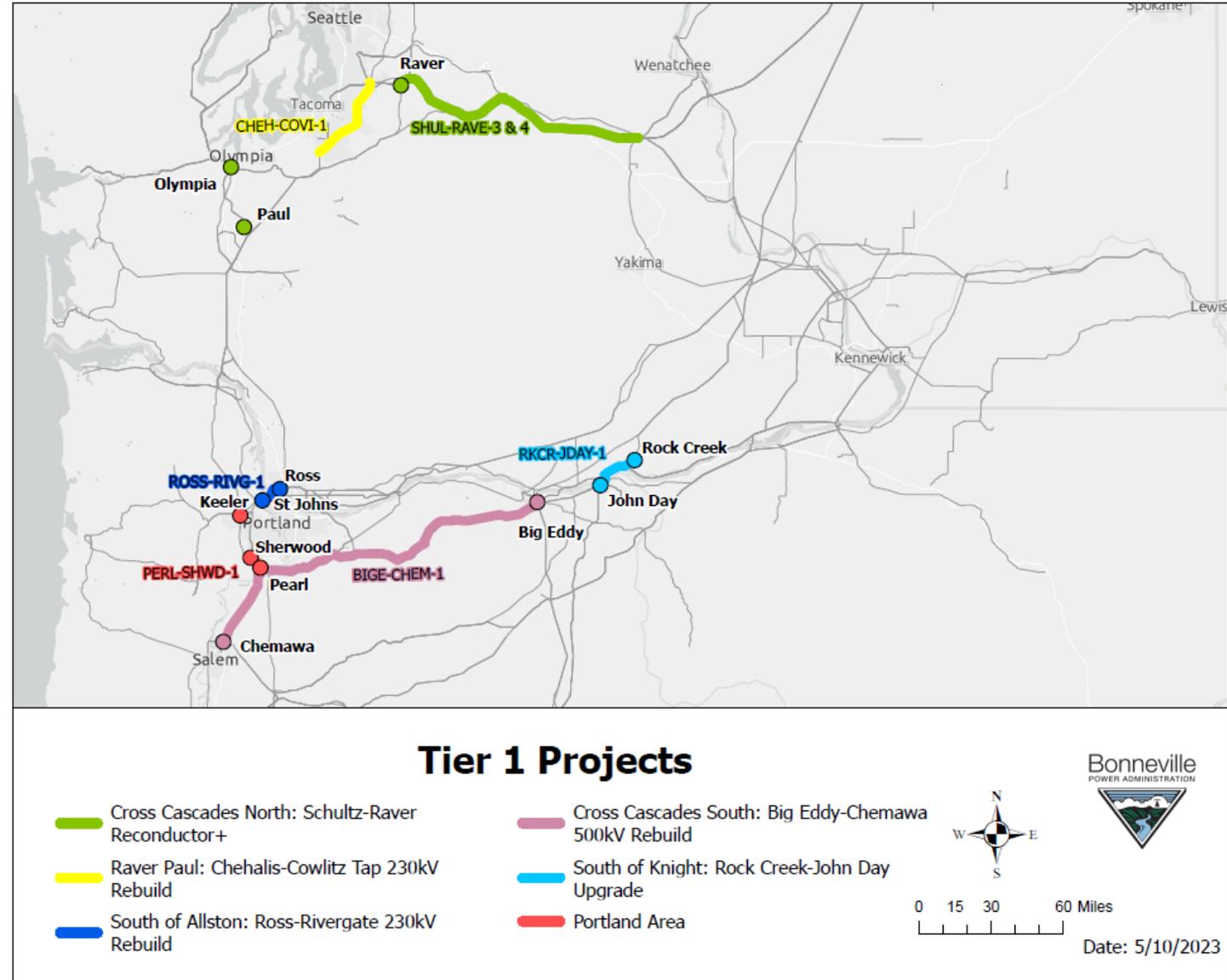


- Transmission to enable electric load growth (industrial and electrification)
- Transmission to deliver remote, clean resources to Load Centers
- Transmission to meet resiliency needs

# Evolving Grid Projects

The following projects are needed in many future scenarios for reliability, expanded load service, and as renewable resources seek delivery to load:

\* BPA has several Line and Load interconnections requests to enable economic development in the region. Additional projects will be required to enable these requests.



**Thank You**

Ravi Aggarwal [rkaggarwal@bpa.gov](mailto:rkaggarwal@bpa.gov)