

# Pumped Storage Development: Project Updates and Status

Presented by: Preston Pierce, Erik Steimle, Ron Klawitter, and Scottie Barrentine



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# PANELISTS



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Pumped Storage Project*  
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Erik Steimle  
*Vice President of Project Development*  
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Ronald (Ron) Klawitter  
*Manager, Resource Analysis &  
Planning*  
Salt River Project (SRP)  
Speaker

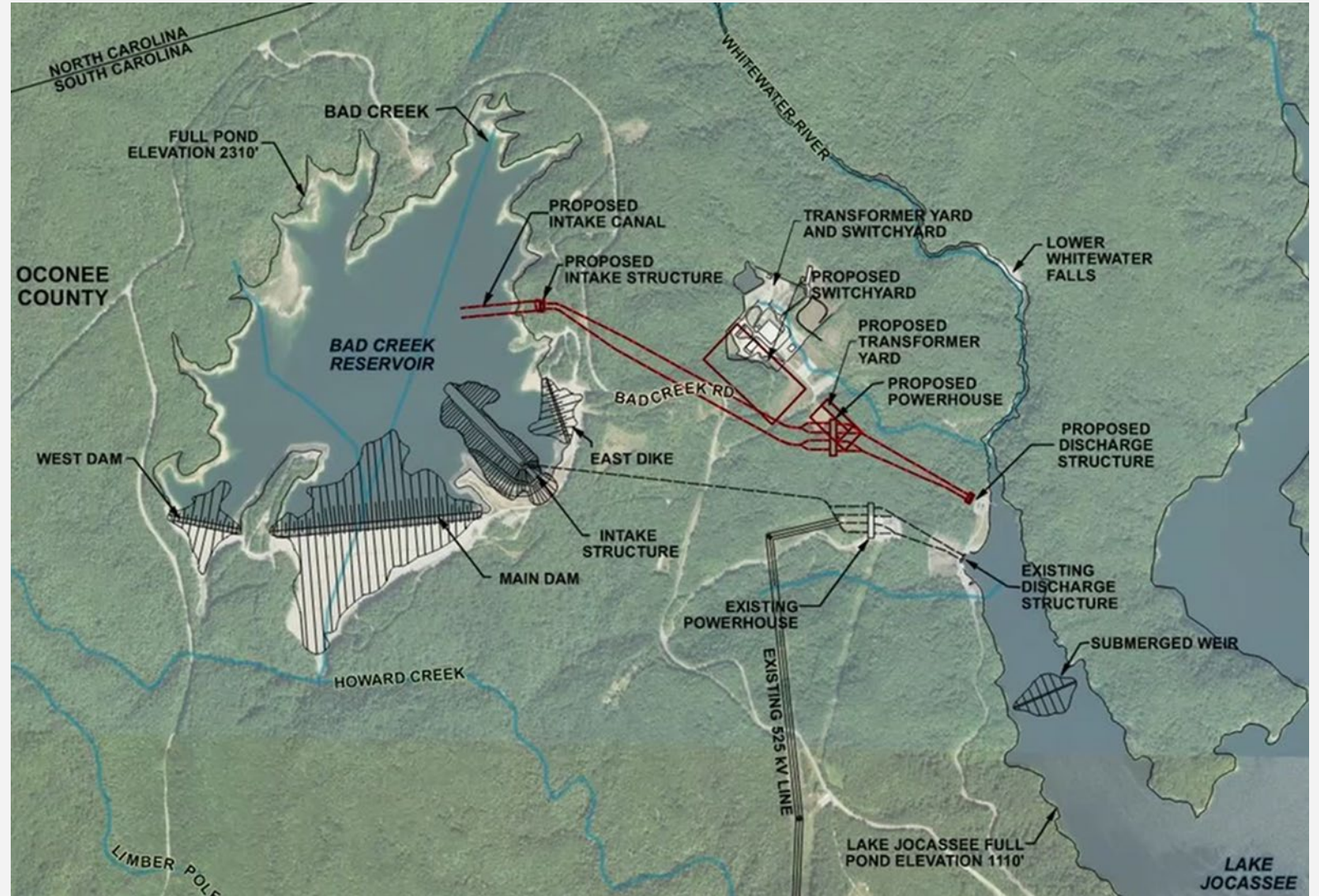


Scott Barrentine  
*Project Manager, Pumped Storage  
Initiative*  
Tennessee Valley Authority  
Speaker



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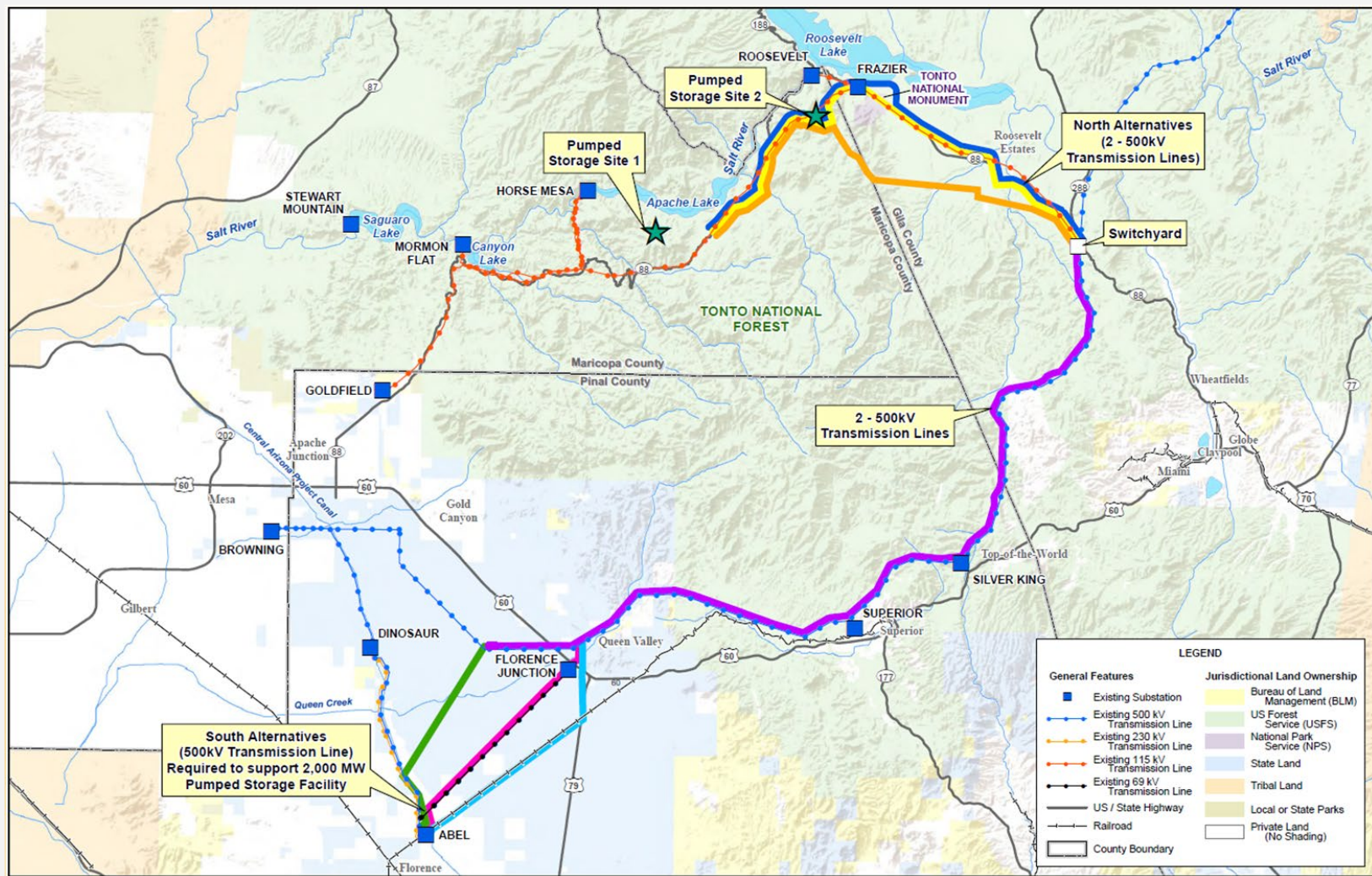
# Bad Creek II Project Overview



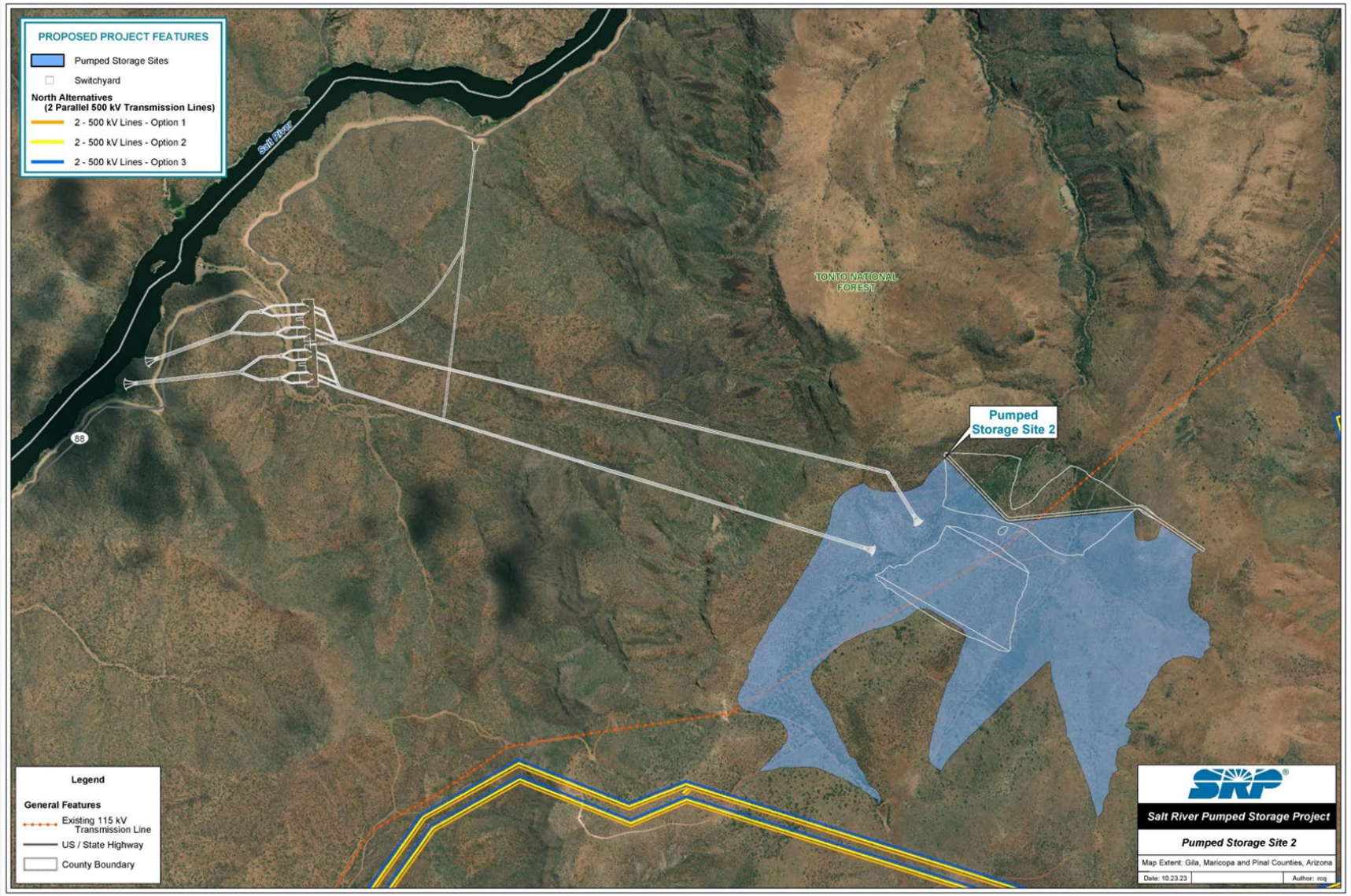
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# Pumped Storage & Transmission System Configuration

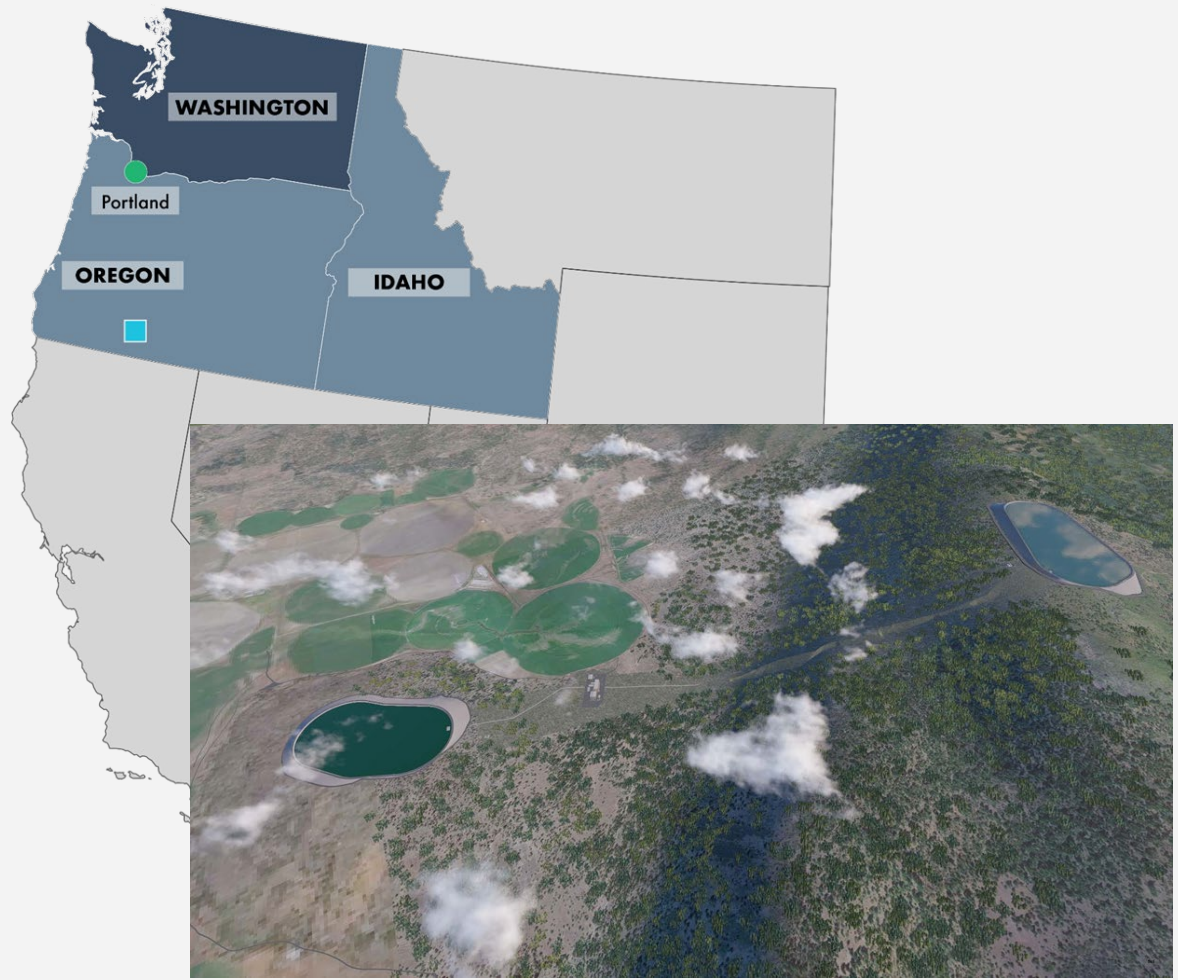


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# PNW Pumped Hydro: SWAN LAKE



- 393 MW, 9.5 Hour Closed Loop Pumped Storage project
- Located in Klamath Falls, Oregon
- Transmission access across the WECC, including strategic interconnection at the Malin 500 substation
- Anticipated Notice to Proceed in 2024
- Uses existing groundwater wells for the initial fill of the system and operational water
- Project will be built with Organized Labor – creating 3000 family wage jobs over a 4-year construction timeline



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# Pumped Hydro Example: GOLDENDALE



- 1200 MW, 12 Hour Closed Loop Pumped Storage project
- Located in Goldendale, Washington
- Brownfield redevelopment site, utilizes existing transmission infrastructure and roads
- Full FERC license anticipated in 2024
- Will serve as the cornerstone to Washington and the Pacific Northwest's clean energy economy
- Located at the top of the DC transmission infrastructure with deliverability across multiple WECC states



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# Where does new PSH make sense?

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- Goldendale Pumped Storage Project (WA)
- Located within the Columbia Gorge Bi-State Renewable Energy Zone
- No. 1 Washington State Priority in the Mid-Columbia Economic Development District's (MCEDD) Economic Development Strategy
- Pumped storage in this location has been the goal of the community in this location for 2-decades. Entirely on private land associated with the former aluminum smelter.
- Designated a "Project of Statewide Significance" by the Washington State Legislature

# 100% Renewable Energy Mandates

- *California Sets Goal Of 100 Percent Clean Electric Power By 2045* ([NPR](#) – September 10, 2018)
- *Washington State Passes 100 Percent Clean Electricity Legislation* ([Audubon](#) – April 22, 2019)
- *Clean power is now the law; Inslee signs bill for zero-carbon electricity by 2045* ([The Seattle Times](#) – May 8, 2019)
- *Pumped-storage hydropower can help Washington meet its 100% clean-energy goal* ([The Seattle Times](#) – August 16, 2019)
- *Oregon governor signs ambitious clean energy bill* ([OPB](#) – July 27, 2021)
- *Renewable electricity powered California just shy of 100% for the first time in history* ([USA Today](#) – May 2, 2022)
- *Westerners support 100% clean energy, less oil drilling* ([Los Angeles Times](#) – February 16, 2023)


Link

**OPB**

**Northwest electricity demand is projected to increase 25% in the next decade**

By Alex Baumhardt (Oregon Capital Chronicle)  
July 9, 2023 5 a.m.

The Northwest could see record growth in electricity consumption driven largely by increased demand from industry, a trade group finds.



FILE - Transmission towers at Bonneville Power Administration's Earl D. Ostrander Substation near Eagle Creek, Jan. 5, 2023.  
Kristyna Weitz-Greif / OPB

Demand for electricity in the Northwest is expected to grow at its fastest pace in decades due to increasing industrial use, followed by the electrification of transportation, homes and businesses.

Demand for electricity in the region is projected to rise about 2.5% annually, and by nearly 25% within the next decade, according to an annual report on expected electricity demand. The report, Northwest Regional Forecast of Power Loads and Resources, is released each year by an industry trade group called the Pacific Northwest Utilities Conference Committee. For more than 70 years, the group has aggregated and analyzed annual demand projections from utilities in Oregon, Washington, Idaho and Montana to paint a larger picture of future demand for electricity throughout the region.

The largest driver of demand during the next five to 10 years will be industry, the report finds, including data centers and semiconductor manufacturing.



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