



Overview of the Bonneville Power Administration's Transmission System

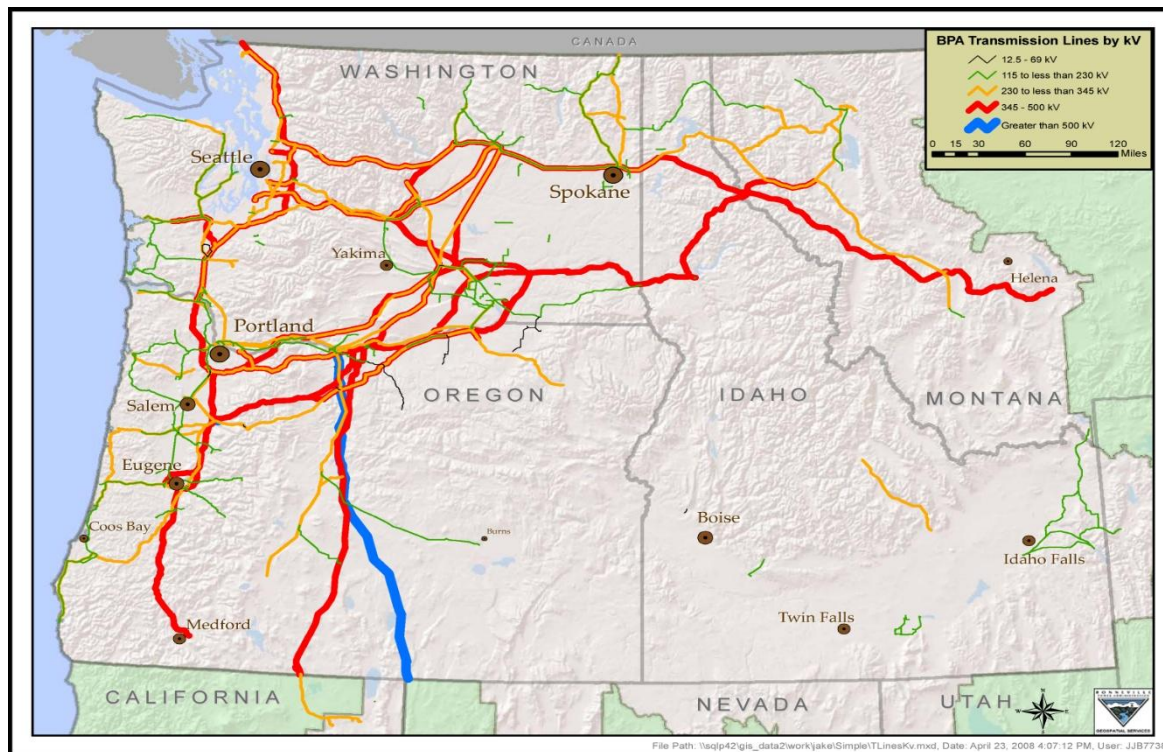
Montana Energy and Technology Interim Committee
Tuesday, September 9th, 2025



Introduction to Bonneville Transmission

- BPA owns and operates 75% of the Pacific Northwest's high voltage electrical transmission system.
- BPA's system includes more than 15,000 miles of transmission line and 259 substations.
- The Federal Columbia River Transmission System spans across 300,000 square miles in Oregon, Washington, Idaho, Montana and sections of Wyoming, Nevada, Utah and California.
- The system enables a peak loading of about 30,000 megawatts and generates almost a \$1 billion a year in revenues from transmission services.
- BPA is entirely self funded and generates all its revenue from the rates paid by its Transmission and Power customers. Non funds are appropriated from Congress
- BPA's Transmission Business Line operates under an Open Access Transmission Tariff based on FERC's pro forma tariff as a non-jurisdictional entity.

BPA's Transmission System

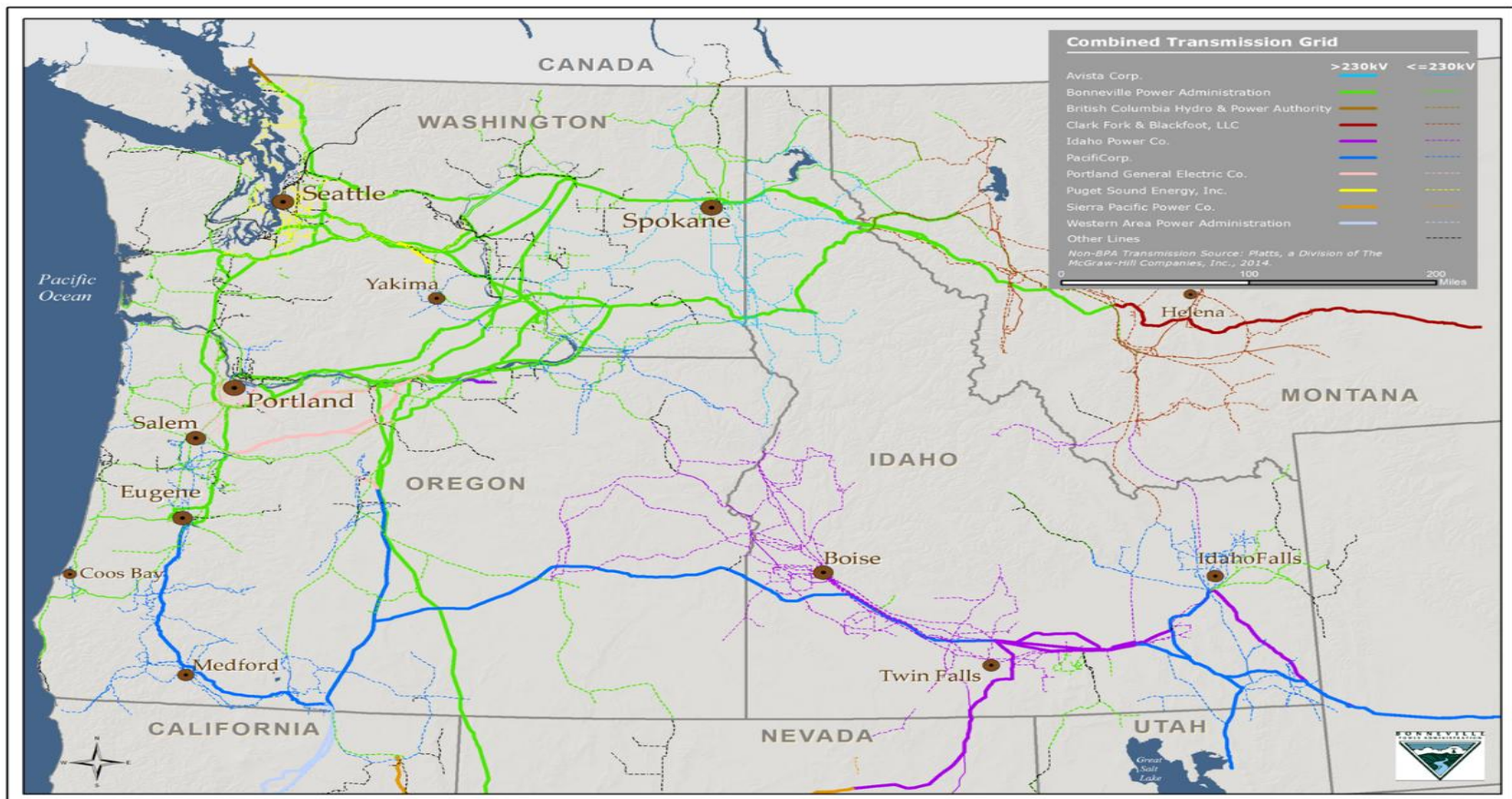


Transmission System

Operating voltage	Circuit miles
1,000 kV	
264*	
500 kV	4,860
345 kV	570
287 kV	229
230 kV	5,337
161 kV	119
138 kV	56
115 kV	3,440
below 115 kV	301
Total	15,179

*BPA's portion of the PNW/PSW direct-current intertie. The total length of this line from The Dalles, OR to Los Angeles, CA is 846 miles.

The Combined Northwest Transmission System



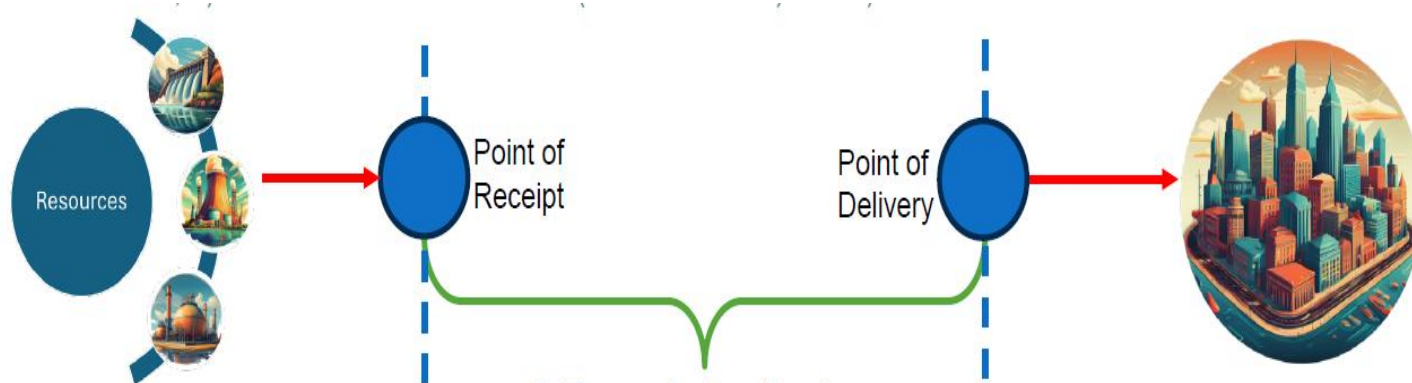
WECC Balancing Area Map



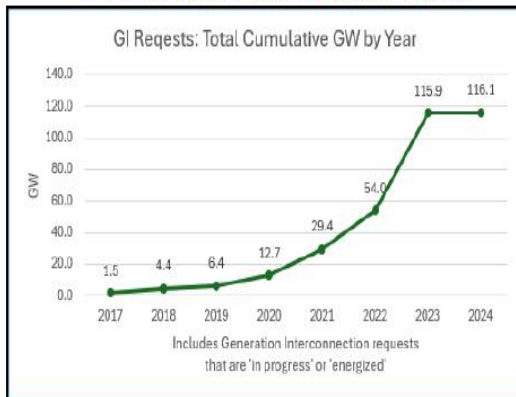
Western Interconnection Balancing Authorities (38)

AESO - Alberta Electric System Operator
 AVA - Avista Corporation
 AZPS - Arizona Public Service Company
 BANC - Balancing Authority of Northern California
 BCHA - British Columbia Hydro Authority
 BPAT - Bonneville Power Administration - Transmission
 CFE - Comision Federal de Electricidad
 CHPD - PUD No. 1 of Chelan County
 CISO - California Independent System Operator
 DEAA - Arlington Valley, LLC
 DOPD - PUD No. 1 of Douglas County
 EPE - El Paso Electric Company
 GCPD - PUD No. 2 of Grant County
 GRID - Gridforce
 GRIF - Griffith Energy, LLC
 GRMA - Sun Devil Power Holdings, LLC
 GWA - NaturEner Power Watch, LLC
 HGMA - New Harquahala Generating Company, LLC
 IID - Imperial Irrigation District
 IPSCO - Idaho Power Company
 LDWP - Los Angeles Department of Water and Power
 NEVP - Nevada Power Company
 NWMT - NorthWestern Energy
 PACE - PacifiCorp East
 PACW - PacifiCorp West
 PGE - Portland General Electric Company
 PNM - Public Service Company of New Mexico
 PSCo - Public Service Company of Colorado
 PSEI - Puget Sound Energy
 SCL - Seattle City Light
 SRP - Salt River Project
 TEPC - Tucson Electric Power Company
 TIDC - Turlock Irrigation District
 TPWR - City of Tacoma, Department of Public Utilities
 WACM - Western Area Power Administration, Colorado-Missouri Region
 WALC - Western Area Power Administration, Lower Colorado Region
 WAUW - Western Area Power Administration, Upper Great Plains West
 WWA - NaturEner Wind Watch, LLC

Need for Transmission Reform

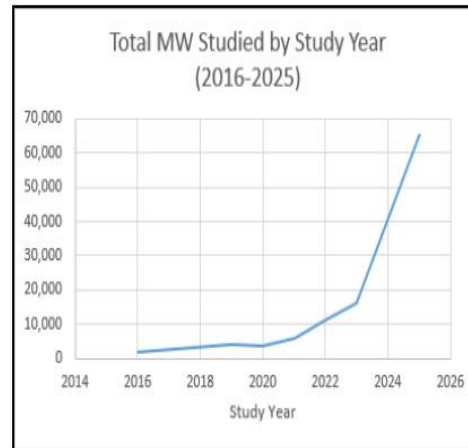


1. Generator Interconnection

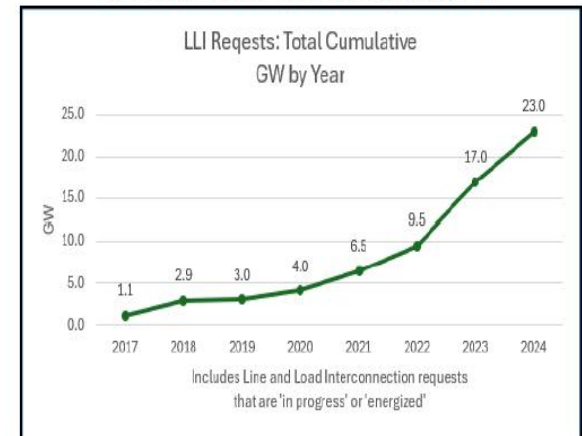


Pre-Decisional. For Discussion Purposes Only.

2. Transmission Service



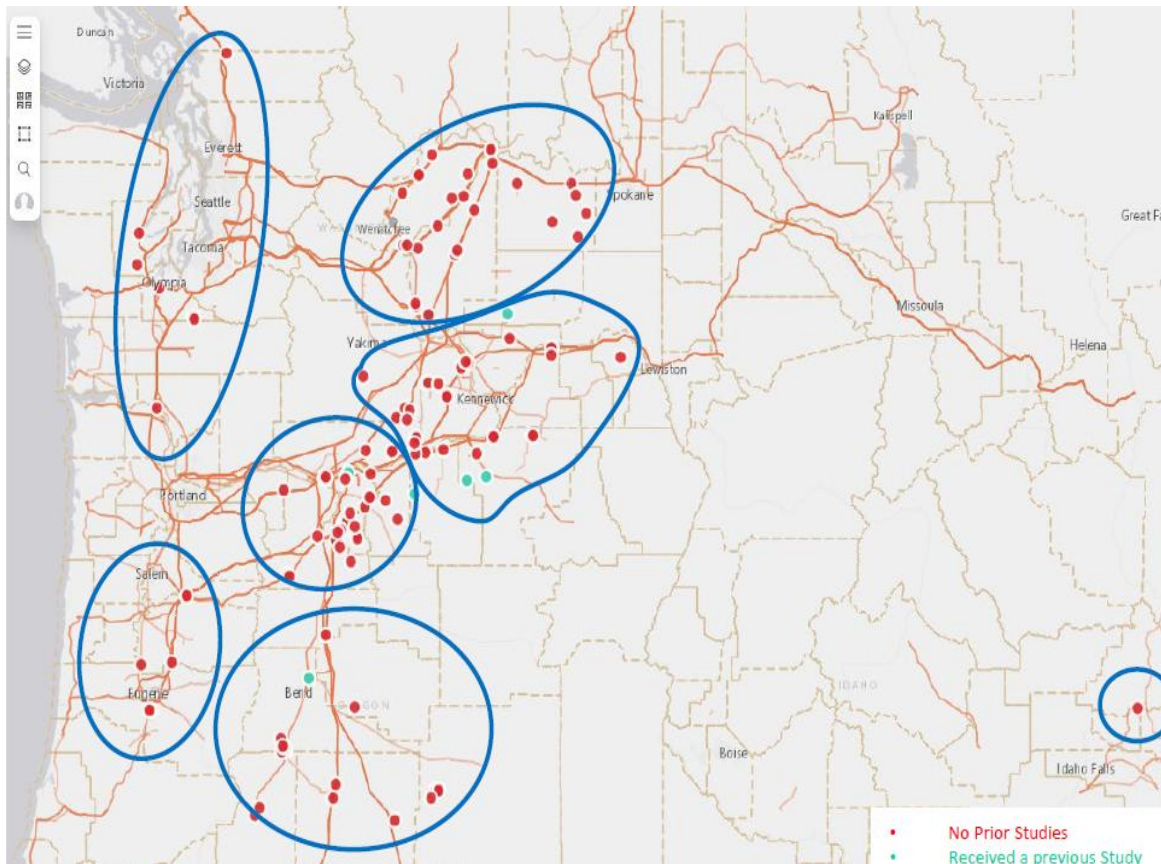
3. Line/Load Interconnection



Generator Interconnection Queue Reform

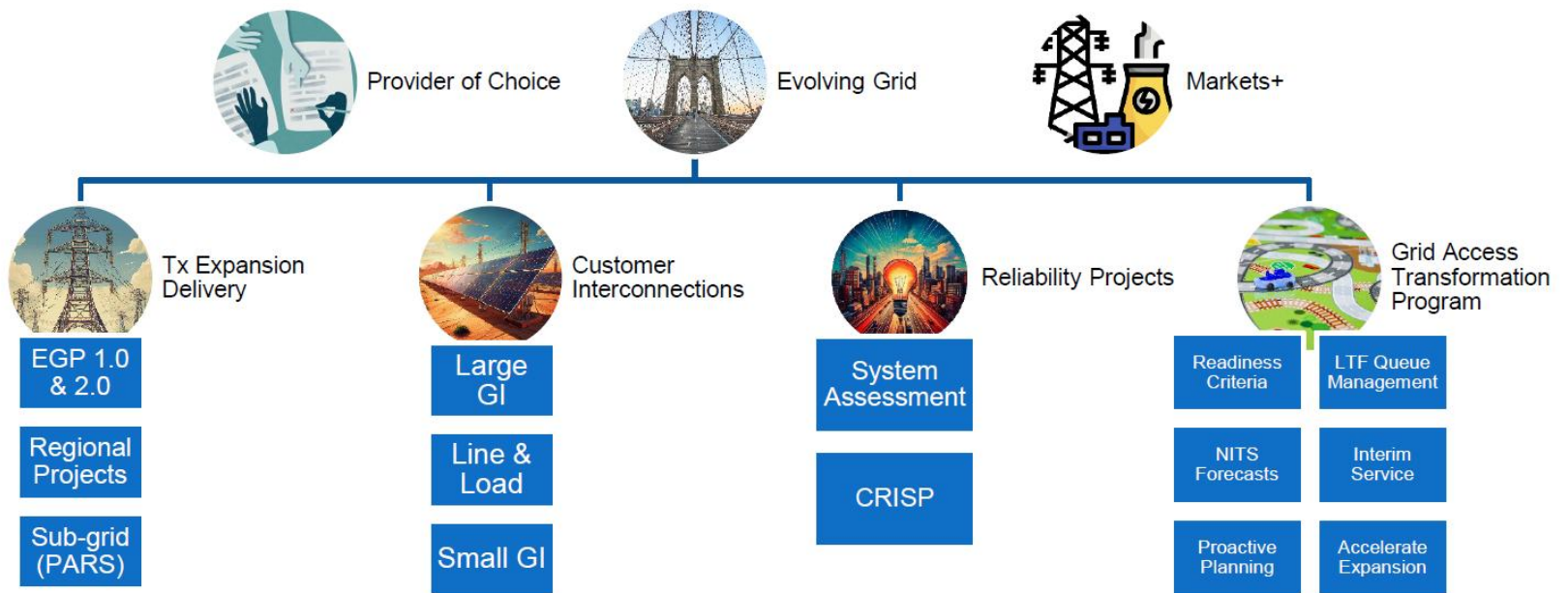
- Two-phase cluster study process
- Increased requirements for site control
- Commercial readiness requirements
- Identification of plans of service within a cluster including scalable plan blocks, where applicable
- Study deposits and costs
- Network cost allocation
- Study flexibility to allow co-location of resources
- Determination of points of interconnection
- Transition process

GI Cluster Study Size and Map

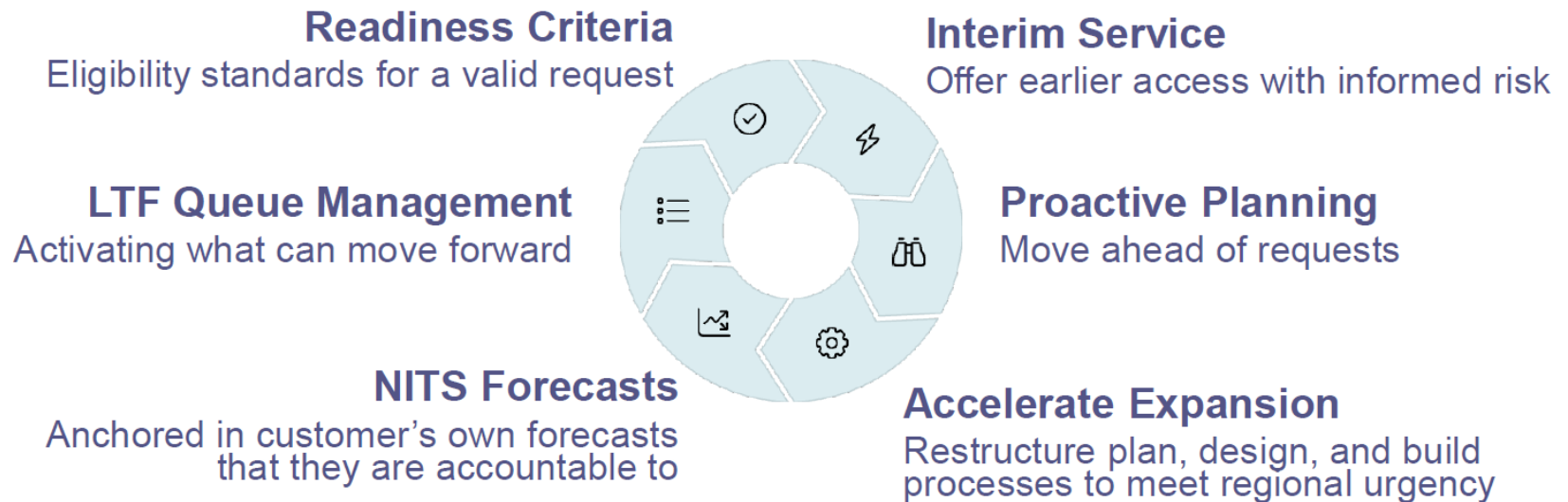


- 134 Interconnection Requests
- 73.8 GW Nameplate
- ~50 GW Requested Interconnection Service Level
- BPA Facilities are shown in Orange
- Dots are Interconnection Request location

Transmission Planning Reform



Six-Point Solution Framework



Montana Projects

- Hot Springs – Rattlesnake – Garrison line rebuild
 - Appx 100 miles of new poles and conductor
- New Flathead – Hot Springs No. 2 line
 - Needed for load growth in Flathead Valley area
- New Libby – Trego line (Trego Loop)
 - Reliability project for customers of Lincoln Electric
- Montana-to-Washington (M2W) project
- Path 8 (Montana to Northwest) line rerating