



# USEA Workshop – Wind Interconnection BPA Policy

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Photo courtesy of PPM Energy

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# Bonneville Power Administration

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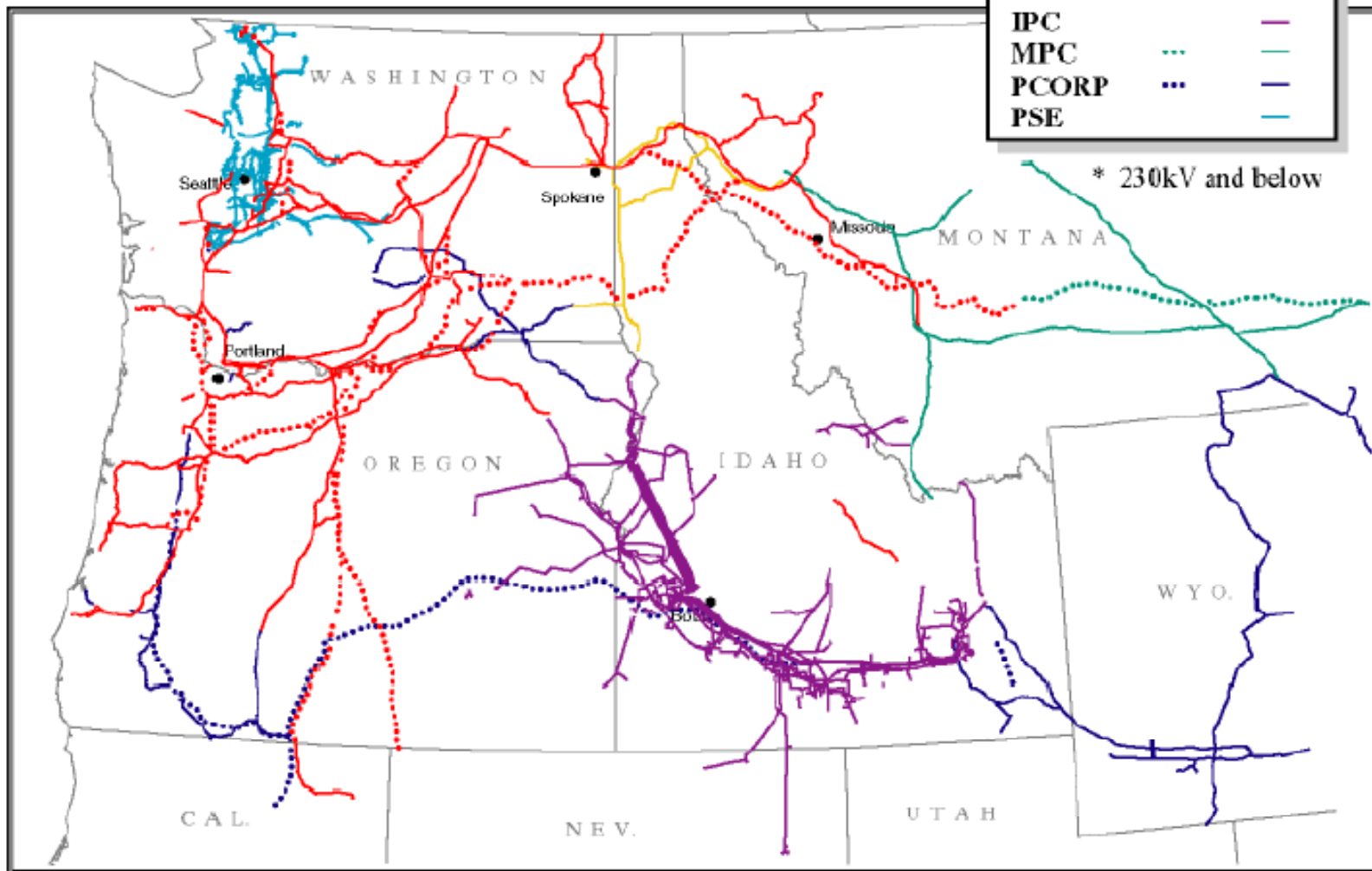
- BPA is an agency in the US Dept of Energy
- BPA owns and operates 75% of the Northwest's high voltage electric grid.
- 300,000 square miles in OR, WA, ID, MT and sections of WY, NV, UT and CA.
- 15,000 miles of transmission line, 285 substations.
- Peak load of about 30,000 megawatts.
- \$650 million a year in revenues.
- BPA voluntarily operates under FERC's Open Access Transmission Tariff.



# Combined Transmission Grid

	500kV	230kV*
AVISTA	—	—
BPA	...	—
IPC	...	—
MPC	...	—
PCORP	...	—
PSE	...	—

\* 230kV and below





# BPA Interconnection Policy

- BPA follows the FERC order 2003 (large generation) and 2006 (small generation) generation interconnection procedures
- Requires BPA to study requests within 14 months and offer standard interconnection agreement (contract)
- BPA maintains a GI queue for requests, and has over 14,000 MW of wind generation requests presently
- Wind Generation is required to follow FERC interconnection standards including Appendix G (specially for wind)
- BPA interconnection standards are also included for RAS and and Operations within Control Area



# Impact of State Renewable Requirements

- States of Montana, Washington, and Oregon have implemented Renewable Portfolio Stds (RPS)
- According to the standards: Oregon 25% by 2025, equals 1100 aMW, Washington 15% by 2020 equals 1000 aMW
- BPA estimates 1400 aMW by 2015 @ 30% equals 4700 MW peak capacity, plus exports to California of 2000 MW would be ~7,000 MW by 2015 (mostly wind generation)
- BPA has provided interconnection for 1425 MW since 2000, will interconnect 800 MW in 2008, 3000 MW total by 2009
- All wind generation project developed by Independent Power Producers or customer utilities of BPA in the NW
- NW Wind Interconnection Action Plan – 2007-8 formed in response to the Wind rapid expansion



## BPA Wind Integration Rate

- Traditionally Loads have paid for regulation and load following as generation deviations were rare – not so for wind.
- BPA held Public workshops to develop a new Wind Integration Rate for within-hour balancing. (Public review still underway).
  - Rate to be applied to Wind Generation
  - Rate will be based on installed capacity during rate period
  - Assumes up to 2880 MW in BPA Control Area
  - Estimates up to \$20M needed for FY09 rate period
- The settlement has been approved for FY09, but BPA is required to work with the Public to develop the rate for the 2010-12 rate period – so much more work this year.



B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Thank You - More Details Later

