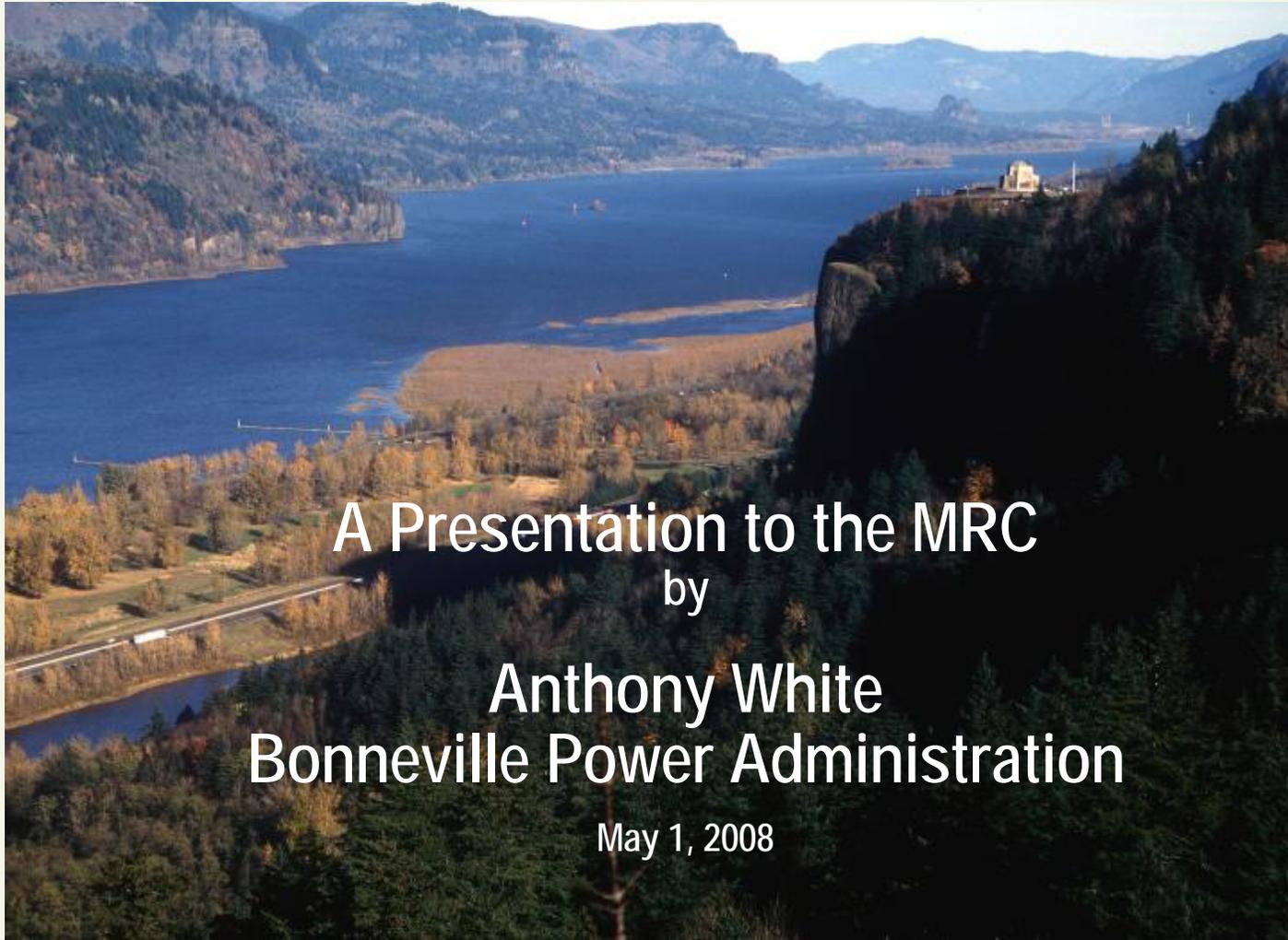


BPA Overview



A Presentation to the MRC
by

Anthony White
Bonneville Power Administration

May 1, 2008



Federal Columbia River Power System

Columbia River Basin & BPA Service Area

WHAT IS BPA?

- Self-funding federal agency within DOE. Sets rates to recover costs.
- Markets power at cost from 31 federal dams, several small non-federal plants, and 1 nuclear plant – over one-third of electricity used in PNW
- Markets transmission services – owns 75% (15,000+ miles) of the high-voltage lines in PNW
- Protects, mitigates & enhances fish & wildlife in the Columbia River Basin
- 300,000 square mile service area – includes WA, OR, ID, and Western MT
- \$3.5 billion in annual revenues
- 3,000 employees
- Headquarters in Portland, OR
- Established in 1937



BPA Customers

- **Publicly Owned Utilities** - BPA's principal customer base consists of Northwest public utility districts (PUDs), municipalities and electric cooperatives. These entities are referred to as "preference customers" because they are entitled to a statutory preference and priority in the purchase of available federal power. Preference customers are eligible to purchase power at BPA's priority-firm (PF) rate for most of their loads.
- **Investor-owned Utilities (IOUs)** - consists of six regional IOUs. In 2001 BPA entered into agreements with these utilities in settlement of BPA's statutory obligation to provide benefits under the Residential Exchange Program through 2011.
- **Direct Service Industries (DSIs)** - consists primarily of two aluminum smelters. Under the Northwest Power Act, BPA signed long-term contracts with the DSIs in 1981, which expired in 2001. Since 2001, BPA has had varying contractual relationships with the DSIs.
- **Customers Outside the Northwest** – consists of publicly owned and investor-owned utilities in the Southwest and California. BPA sells and exchanges power via the Southern Intertie to these customers. Revenues generated by these "secondary sales" help to keep rates lower in the Pacific Northwest.



BPA's Public Responsibilities

- Assure adequate, economical, efficient, reliable power supply.
- Ensure transmission access with a high degree of safety and reliability.
- Ensure public preference and regional preference.
- Fulfill environmental and social responsibilities:
 - Mitigate impacts, protect and enhance fish & wildlife populations affected by the federal hydropower system.
 - Provide regional leadership in conservation and renewable resource development.
- Preserve and balance economic and environmental benefits of the FCRPS.
- Recover costs through rates. BPA is a self-sustaining non-profit agency.



Key Legislative History

1937 Bonneville Project Act

Created BPA to market power at cost-based rates with public preference and build transmission system to deliver power.

1961 Columbia River Treaty

Enabled 30 million acre-feet of increased water storage via three new Canadian dams and Libby Dam in Montana.

1964 Pacific Northwest Preference Act

Established regional preference while authorizing construction of California intertie and surplus power sales outside the Northwest.

1974 Federal Columbia River Transmission System Act

Placed BPA on self-financing basis (rates must recover costs) and provided limited borrowing authority from the U.S. Treasury.

1977 Department of Energy Organization Act

Transferred BPA to the DOE as “separate and distinct” agency.



Key Legislative History

1980 Pacific Northwest Electric Power Planning and Conservation Act

Assure the Pacific Northwest of adequate, efficient, economical & reliable power supply, serve net PNW loads, encourage cost-effective conservation & renewables, share benefits, protect and enhance fish & wildlife, work with new regional body.

1992 Energy Policy Act

Open transmission access for wholesale transactions to spur development of wholesale energy market.

1996 Omnibus Consolidated Recisions and Appropriations Act

Raised interest rate and adjusted principal on BPA's appropriated debt (for construction of federal power system).

2003 Omnibus Appropriations bill

Increased BPA's borrowing authority by \$700 million to a total of \$4.45 billion.

2005 National Energy Policy Act

Increased FERC jurisdiction over BPA (and publicly owned utilities) for transmission and power market sales.

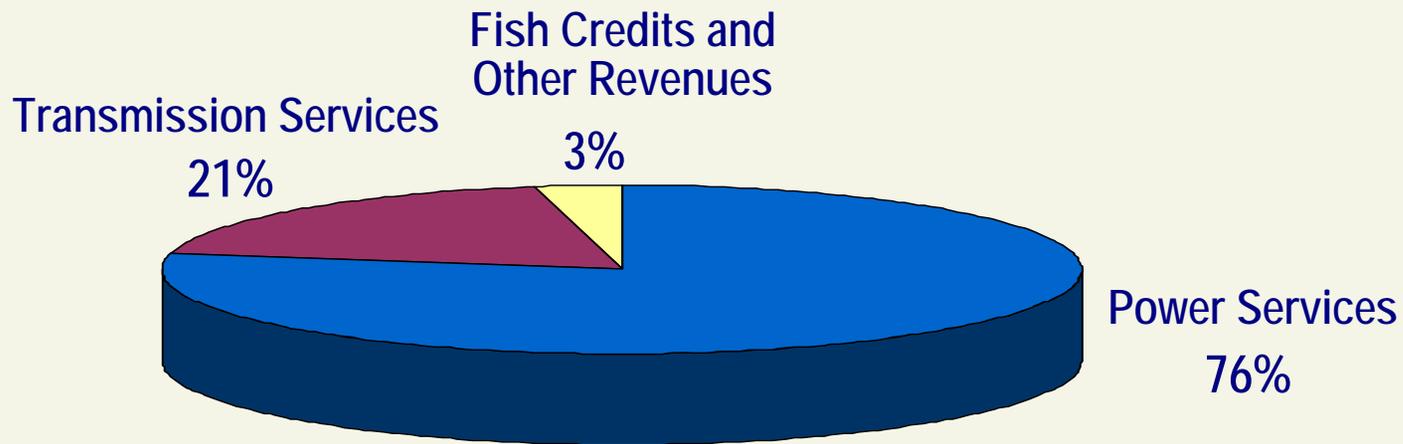
Established national Electric Reliability Organization (ERO) to establish and enforce mandatory reliability standards on all users, owners and operators of the bulk power system. FERC chose the North American Electric Reliability Council (NERC) as ERO.



Financial Structure

FCRPS Revenues by Service

FY 2007



FY 2007 FCRPS Operating Revenues
(includes interbusiness service revenues)

	Revenues (millions)	
Power Marketing Services	\$2,484	76 %
Transmission Services	\$689	21 %
Fish Credits and Other Revenues	\$95	3 %
	<u>\$3,268</u>	<u>100 %</u>

For illustrative purposes only



Columbia River Basin Hydrological Data

- Average runoff is 103 million acre feet (MAF) January through July. The historical range of January through July runoff is 54 to 156 MAF.
- The system can store 20.5 MAF in the U.S. -- 5 MAF at Libby Dam in Montana, 15.5 MAF in Canada under the Columbia River Treaty -- plus 2.25 MAF Non-Treaty Storage in Canada; it is a storage-limited system.
- FCRPS storage can hold 30% of the average annual runoff (full year runoff averages 135 MAF); the Colorado or Missouri systems can store 400% of their annual runoff.
- The Columbia River system was developed and is operated for flood control, navigation, irrigation, municipal and industrial water supply, recreation, fish and wildlife and power production.



FCRPS Hydro Project Facts

- FCRPS includes 31 hydro projects (21 Corps of Engineers projects and 10 Bureau of Reclamation projects) in Washington, Oregon, Idaho and Western Montana.
- Range of project capacity: 2 MW at Boise Diversion Dam to nearly 6,800 MW at Grand Coulee Dam.
- The median age of FCRPS hydro capacity is over 35 years.
- Annual Federal hydro generation ranges from approximately 6,800 average megawatts (aMW) to 10,600 aMW, averaging about 9,000 aMW for OY 2008.
- Major drivers of system operations are flood control and compliance with Endangered Species Act operations to protect salmon runs.
- Generation is largely driven by the need to move water for non-power purposes.
- Individual hydro projects are interdependent, affecting downstream projects.
- Eighty one percent (81%) of BPA firm power comes from hydro for OY 2008.
- Over 32 percent of the Pacific Northwest region's power comes from BPA for OY 2008.

Source: 2007 Pacific Northwest Loads and Resources Study



Promoting Renewable Generation

- BPA has made a commitment to support the development of renewable energy resources in the Northwest – in particular, wind.
- Updated energy outlooks, environmental policies and federal tax incentives have driven an exponential increase in the projected need for transmission access for wind-based generation.
- BPA has 1,380 megawatts of wind power in its balancing area with another 2,877 MW more planned by 2009.
- BPA/Council sponsored Northwest Wind Integration Action Plan examines how best to integrate up to 6,000 MW of wind. A regional steering committee is now implementing the plan's 16 action items.
- BPA has awarded almost \$2 million in FY 2007 for ocean, wave and wind integration research and development projects.

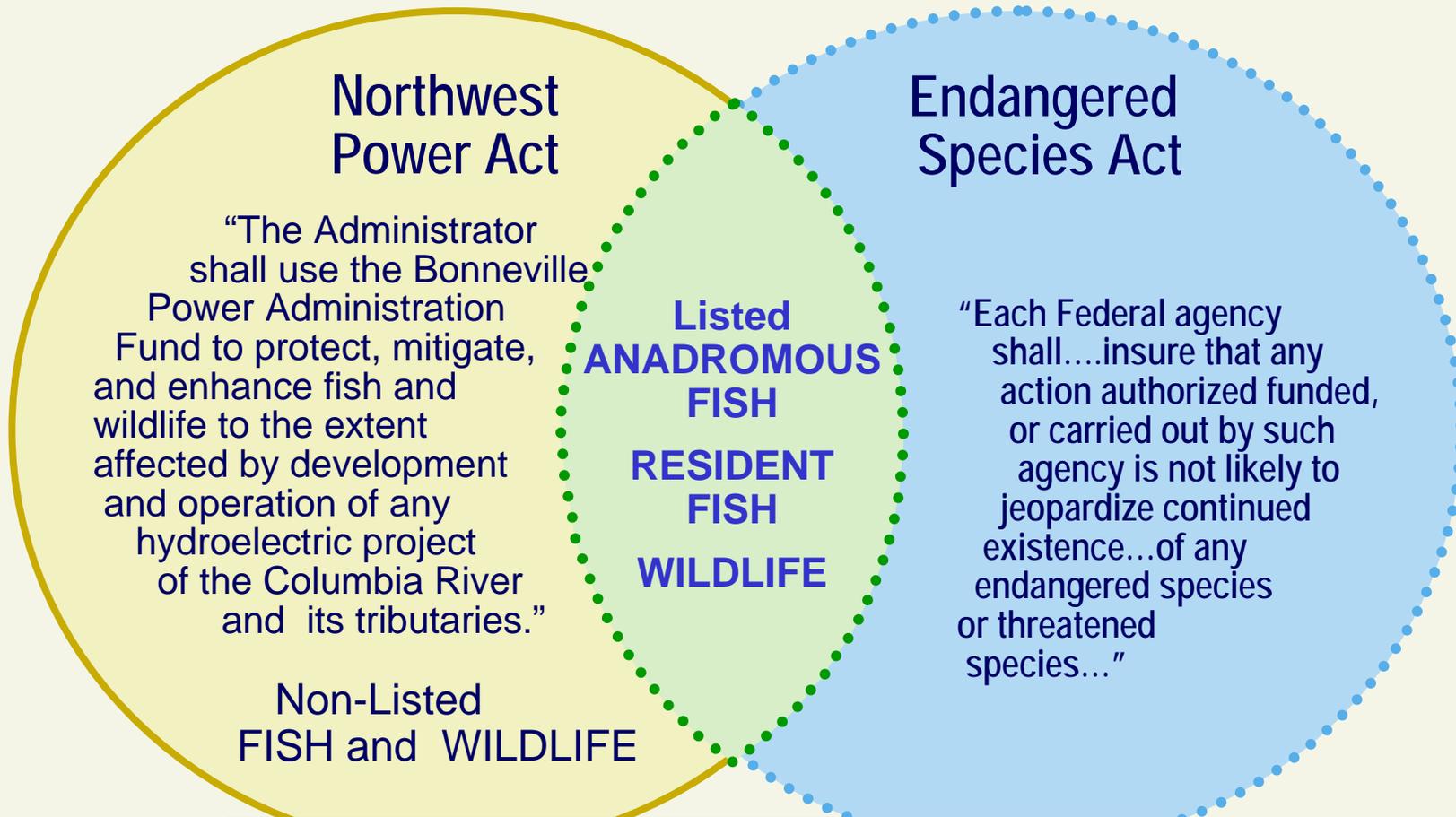


BPA's Role in Future Regional Power Supply

- Future load/resource balance – Northwest Power and Conservation Council projects the region will need additional generation by 2009.
- Regional Dialogue proposal would limit BPA sales of firm power at the lowest cost-based rates to close to the firm capability of the existing Federal System. Service beyond that capability is expected to be at a higher “tiered” rate. Utilities would meet load growth either through BPA purchases at the cost of new resources, through other power suppliers, or with their own resource additions.
- BPA has large long-term obligations that it must honor, including the return of Canadian Entitlement energy to Canada [1143 MW capacity, ~500 aMW annually], Non-Treaty Storage [refill 3.6 MAF by 2011], peaking capacity under contract [800 MW], and others. Beginning in 2014, either country can give 10 years’ notice to amend or cancel the treaty.



Fish and Wildlife Legal Mandates

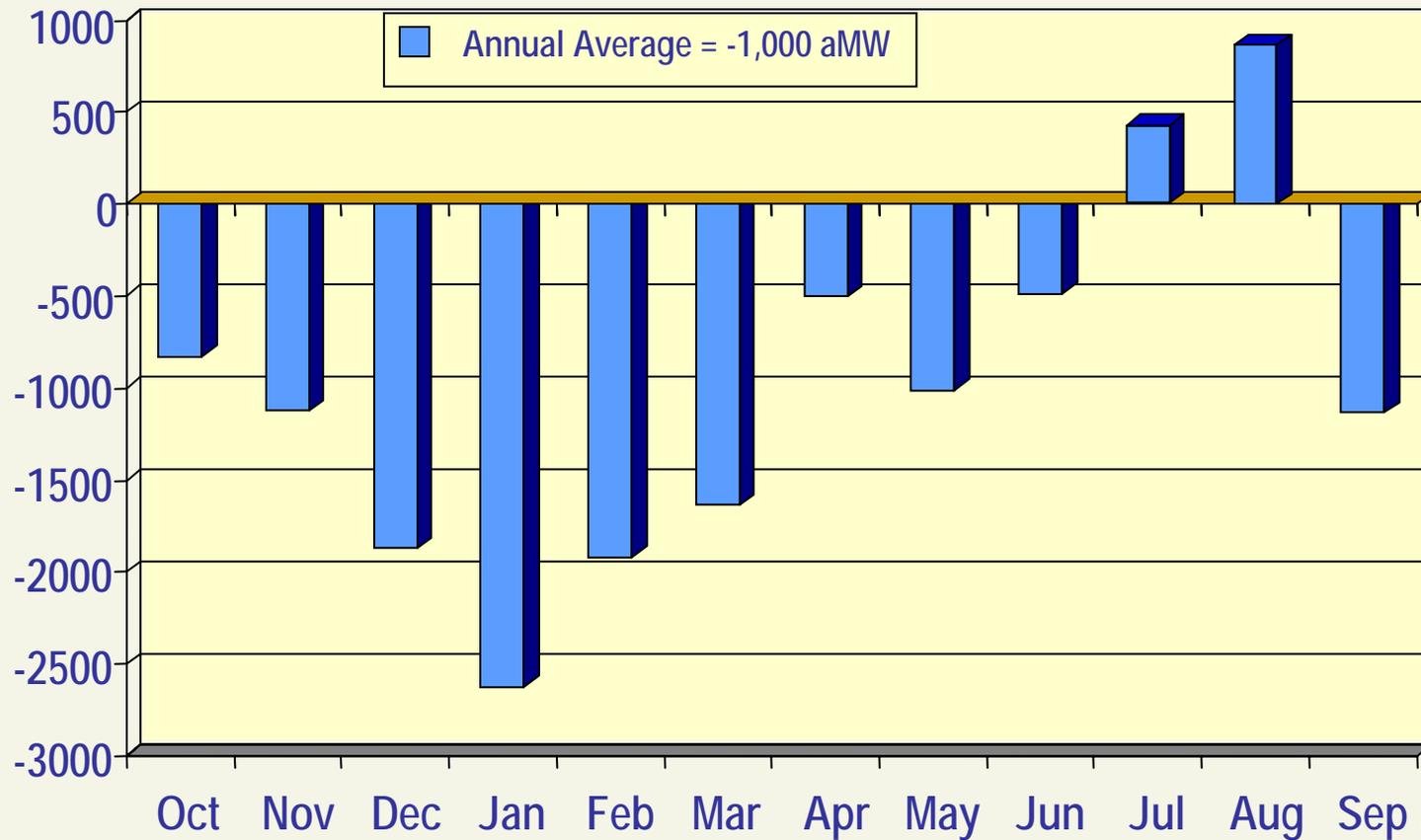


Treaty and Non-Treaty Tribal Policy
BPA will consult with the Tribal governments prior to BPA taking actions, making decisions, or implementing programs that may affect Tribal resources.



Changes in FCRPS Hydro Generation due to Fish Requirements

(Average of 50 water conditions)

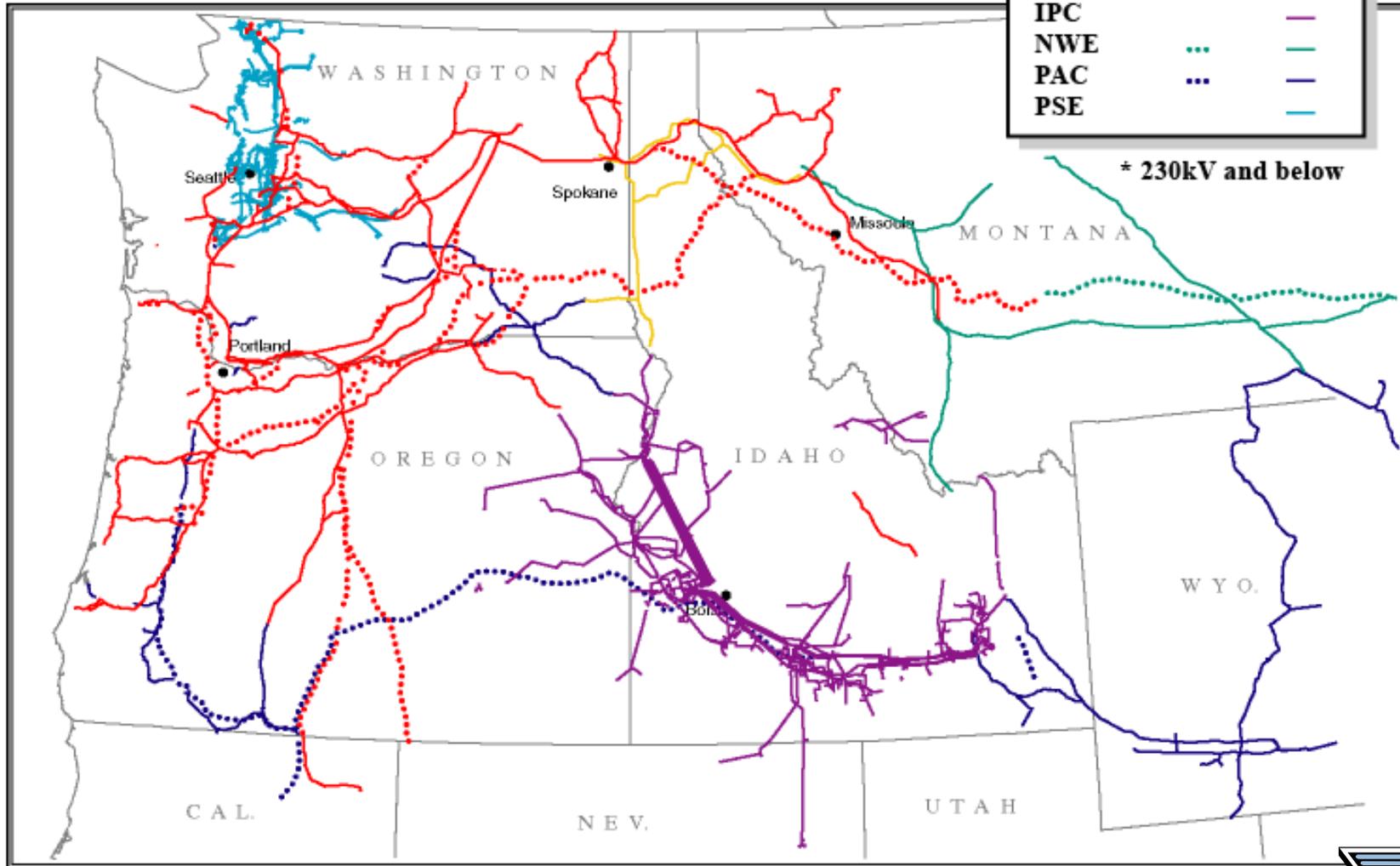


Federal Columbia River Transmission System

- BPA owns and operates 75% of the Pacific Northwest's high voltage electrical transmission system.
- The system includes more than 15,000 miles of transmission line and more than 200 substations.
- The system networks 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 about \$650 million a year in revenues from transmission services.
- BPA's Transmission Services operate under an Open Access Transmission Tariff based on FERC's pro forma tariff as a non-jurisdictional entity.



Combined NW Transmission Grid



Key issues

- Regional Dialogue/20-year power sales contracts.
 - Resolve residential exchange benefits.
- 2004 Biological Opinion remand/fish requirements.
- Achieve Northwest one-utility transmission planning and operation.
- Achieve and adhere to regional resource and transmission adequacy standards.
- Address competing water uses/climate change impacts on hydroelectric resources.
- Integrate large amounts of wind into the grid.

