

# BPA OVERVIEW



CORRINA IKAKOULA, TRIBAL ACCOUNT EXECUTIVE  
DOE TRIBAL ENERGY PROGRAM REVIEW





# 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 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





# Transmission System and Federal Dams





# 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.

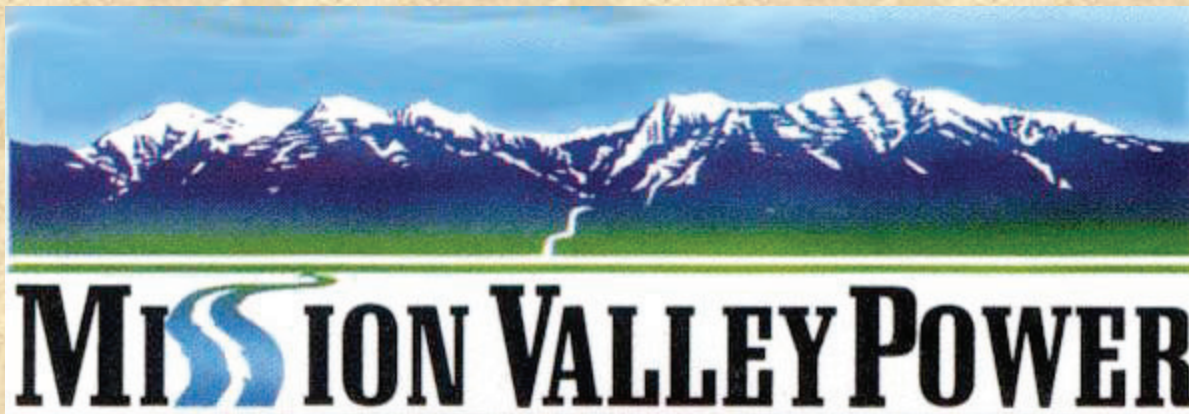


## **BPA SERVES:**

- **57 Cooperatives**
- **42 Municipalities**
- **29 Public Utility Districts**
- **7 Federal Agencies**
- **6 Investor Owned Utilities**
- **1 Port District**
- **2 Tribal Utilities**
- **Total = 148**
- **Transmissions Customers = 339**



# BPA TRIBAL UTILITIES





# 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

---

- **1980 Pacific Northwest Electric Power Planning and Conservation Act**

**Assure the Pacific Northwest of adequate, efficient, economical and reliable power supply**

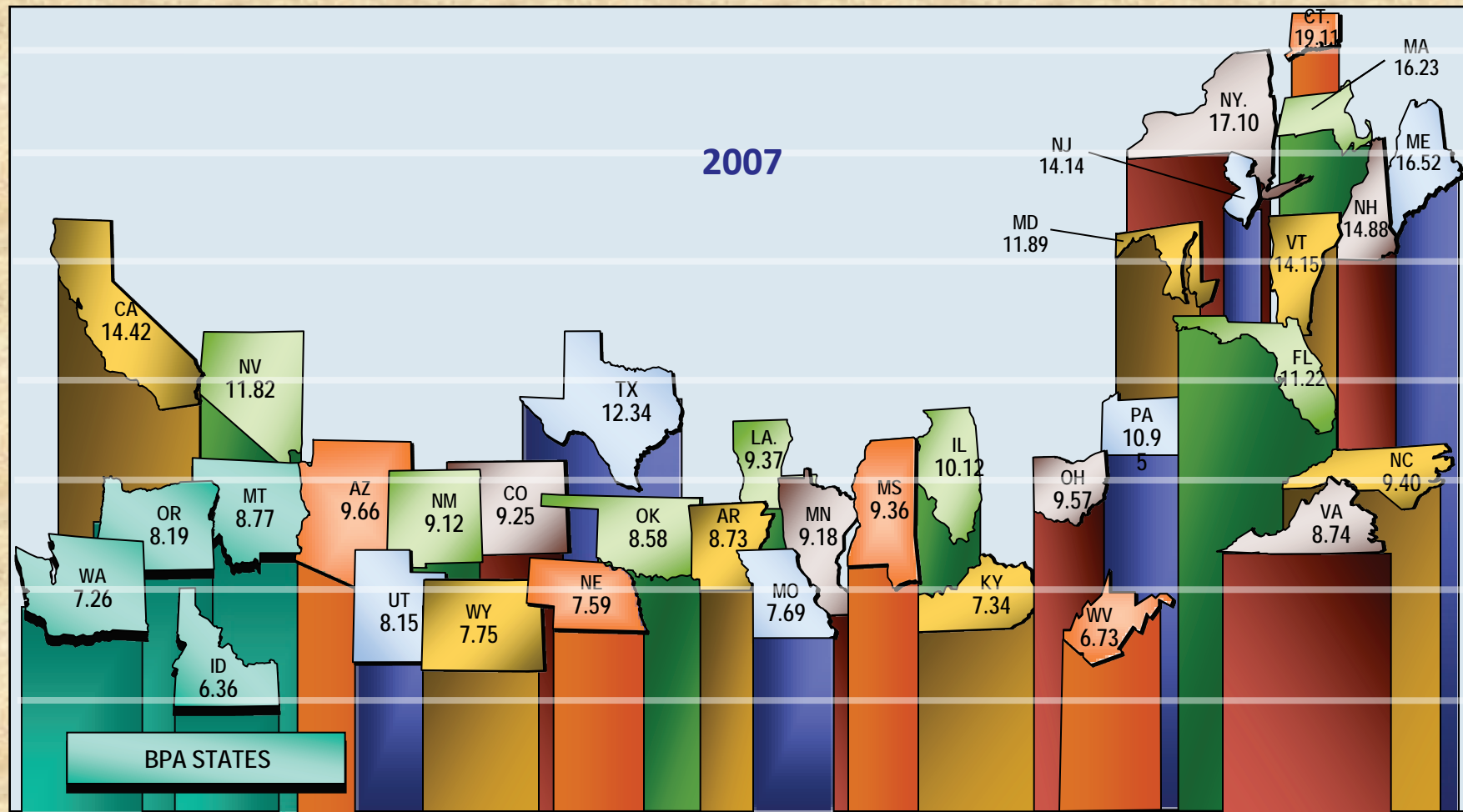
- BPA obligation to serve net load requirements of NW utilities, has authority to augment system.
- BPA to encourage conservation and renewables where cost effective
- BPA to provide benefits to residential and small farm customers of investor-owned utilities (residential exchange).
- BPA to protect, mitigate and enhance fish and wildlife affected by federal hydropower construction and operation.
- NW Power and Conservation Council to guide power and fish planning for the region.





# RANKING OF AVERAGE RETAIL ELECTRICITY RATES

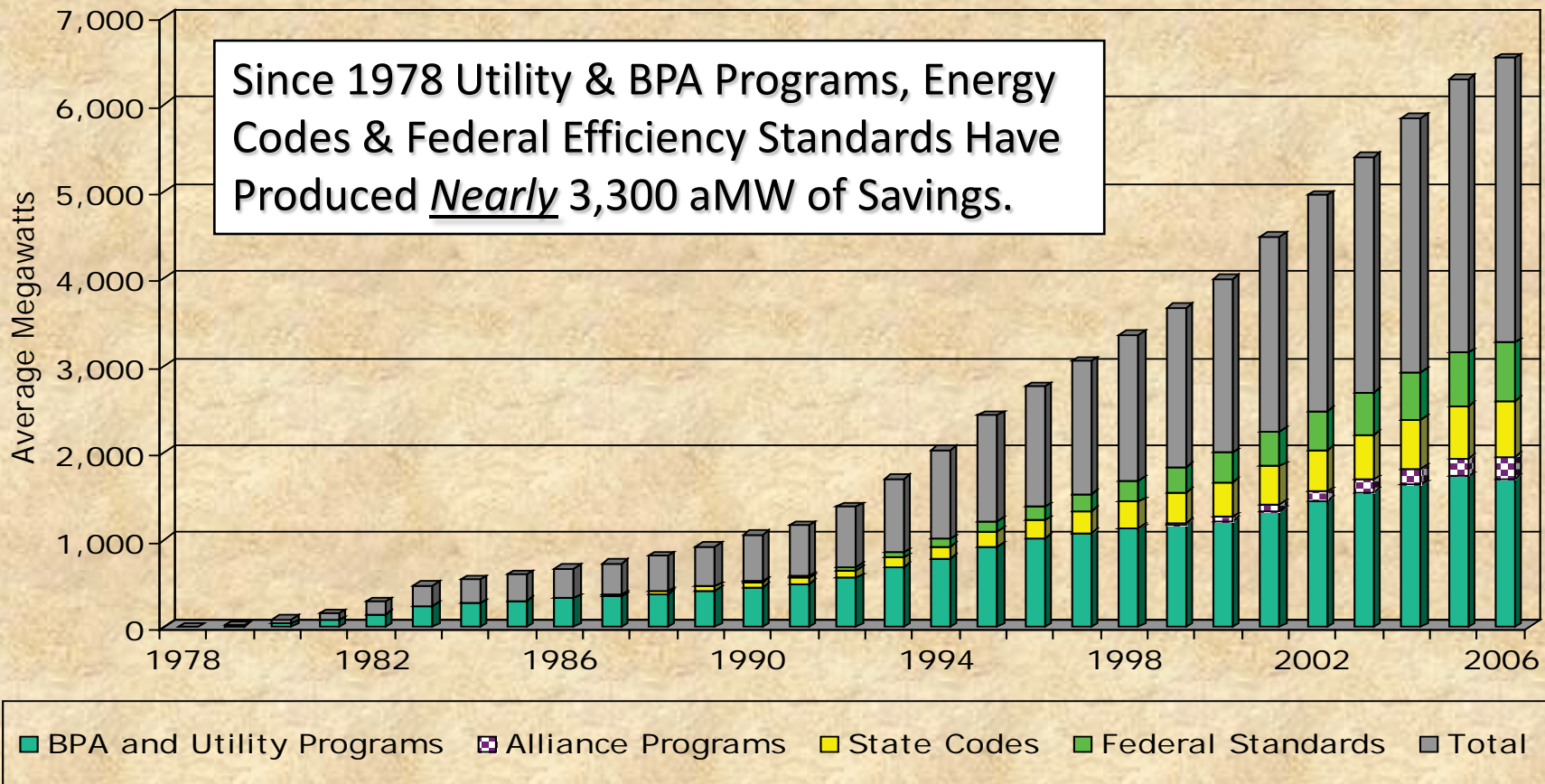
FROM EIA STATE LEVEL DATA (RATES SHOWN IN CENTS PER KILOWATT-HOUR)





# PNW ENERGY EFFICIENCY ACHIEVEMENTS

1978 - 2006





# BPA ENERGY EFFICIENCY EFFORTS

- For nearly 30 years, the Northwest has been a leader in treating energy efficiency and conservation as a power resource.
- The region learned fast that a megawatt saved is the equivalent of a megawatt produced.
- As of 2007, energy efficiency accounted for only one percent of all electricity production in the United States. But in the Northwest, it accounted for 10 percent thanks to collaboration among the Bonneville Power Administration, Northwest Power and Conservation Council, regional utilities, state agencies and environmental interests.
- In fact, energy efficiency has been BPA's biggest resource addition for more than 25 years. The agency has acquired more than 1,100 average megawatts (aMW) of savings - more energy than either The Dalles dam or Bonneville dam could produce in an entire year.
- In fiscal year 2008 alone, BPA secured 76 aMW of energy efficiency for the Northwest - the equivalent energy to power 65,000 homes for an entire year.



## TRIBAL SET-ASIDE FOR LOW-INCOME WEATHERIZATION

- **Direct funding to tribes who are served by BPA public utility customers.**
- **Funded at 500,000.00 directly to tribes a year**
- **Additional 3% of the total states budget set aside for tribes.**
- **Total of 13% a year of the BPA LIWx budget.**
- **Assists in training for BPA tribes: travel, per diem, and registration costs where necessary.**
- **Helps form partnerships with the States when desired by tribes.**







# 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.
- As of July, 2009, BPA has 2,105 megawatts of wind power in its balancing area.
- 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 committed \$2 million in FY 2009 for wind integration research and development projects.









# FISH AND WILDLIFE LEGAL MANDATES

## Northwest Power Act

“The Administrator shall use the Bonneville Power Administration Fund to protect, mitigate, and enhance fish and wildlife to the extent affected by development and operation of any hydroelectric project of the Columbia River and its tributaries.”

Non-Listed FISH and WILDLIFE

## Endangered Species Act

“Each Federal agency shall...insure that any action authorized funded, or carried out by such agency is not likely to jeopardize continued existence...of any endangered species or threatened species...”

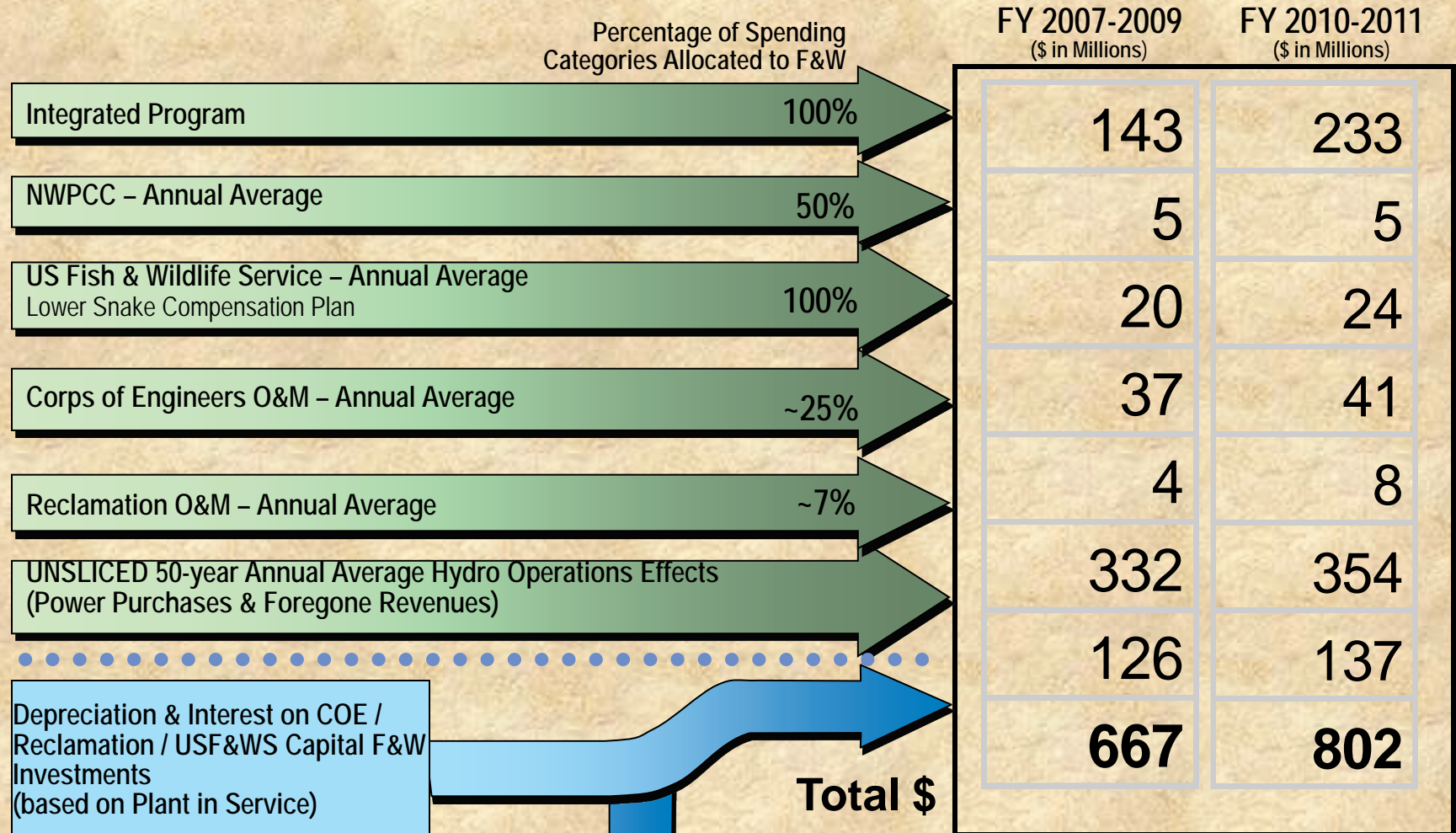
**Listed**  
**ANADROMOUS FISH**  
**RESIDENT FISH**  
**WILDLIFE**

## 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.



# Total Annual Average Cost of BPA Fish and Wildlife Actions <sup>1/</sup>



<sup>1/</sup> Based on WP-07 Power Rate Proposal 3-year average of FY 2007-2009 forecasts and Integrated Program Review for FY 2010-2011 spending forecasts





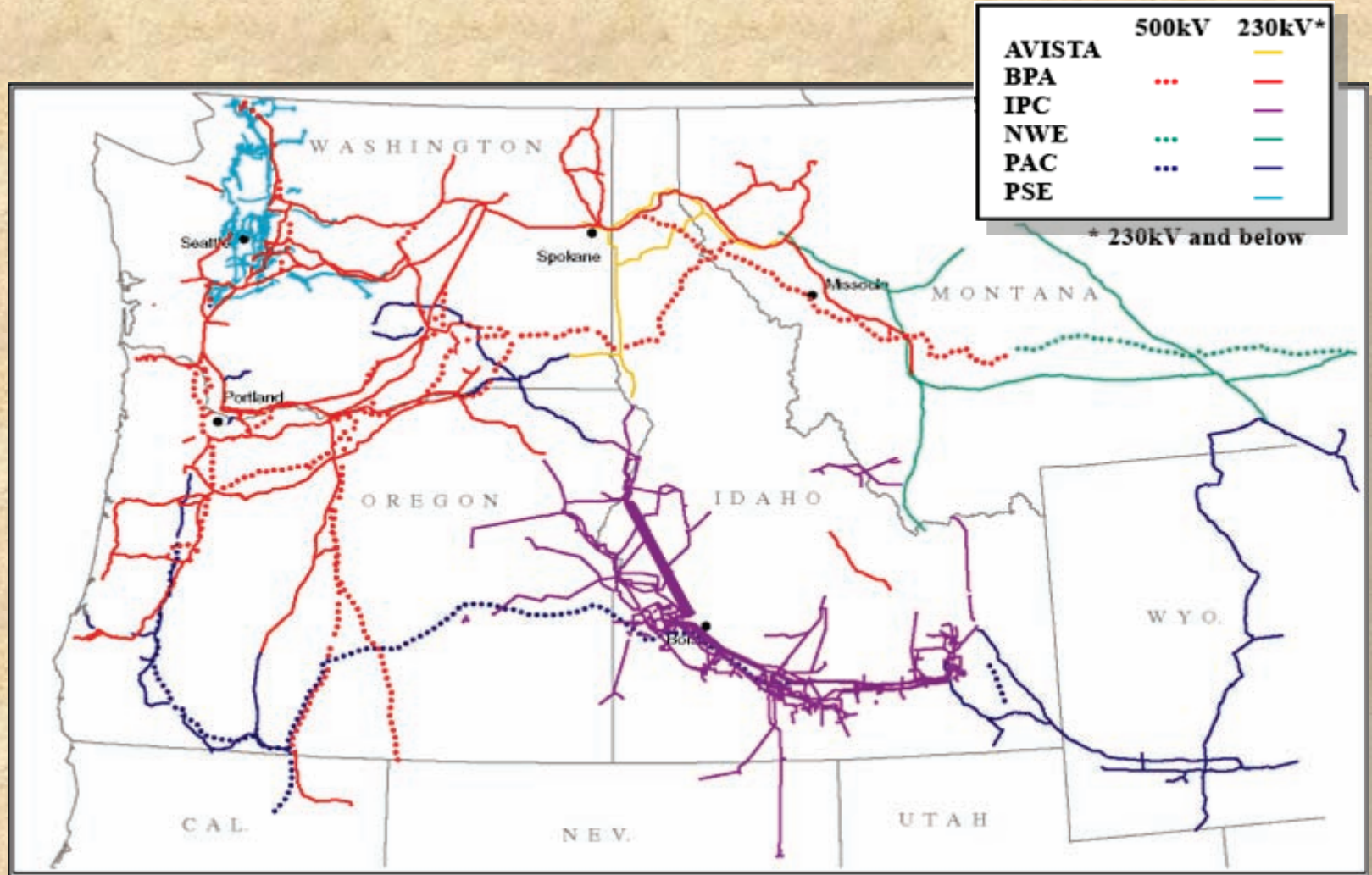
## FEDERAL COLUMBIA RIVER TRANSMISSION SYSTEM

---

- 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





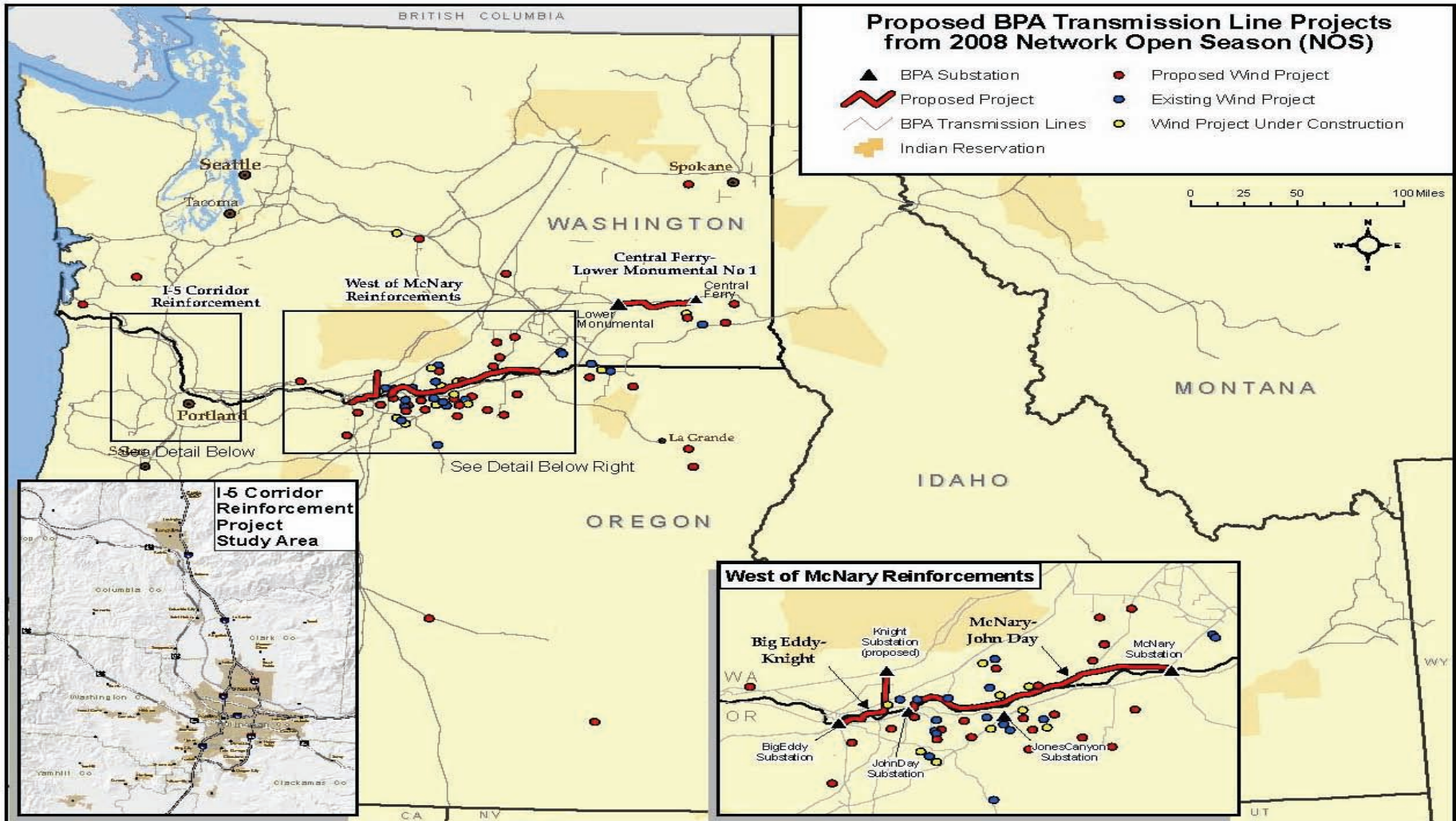
# INFRASTRUCTURE PROGRAM

---

- **To address the region's transmission needs, BPA developed a transmission infrastructure program in 2001 to:**
  - Maintain reliable transmission service to population centers.
  - Restore or enhance transfer capability across key paths.
- **Infrastructure accomplishment so far:**
  - Three 500-KV lines completed
  - Modernized the nation's largest direct current terminal (Celilo Converter – 3100MW)
  - Invested more than \$1 billion over four years
- **Current infrastructure program continue to address region's transmission needs to:**
  - Maintain reliable transmission service to population centers.
  - Integrate renewable resources such as wind generation
  - Reinforce transmission system to provide transmission service to population centers from renewable resources.



# TRANSMISSION INFRASTRUCTURE PROJECTS





# CONSTRAINED PATHS - NOW

