Northwest **Power** and **Conservation** Council

2018 OVERVIEW

Council Authorities and Responsibilities

In 1980, Congress passed the Northwest Power Act, authorizing the states of Idaho, Montana, Oregon, and Washington to form the Council, an interstate compact, giving the region a greater voice in how we plan our energy future and manage natural resources in the Columbia River Basin. The Act requires the Council to develop, with broad citizen participation, a regional power plan and fish and wildlife program. Wholesale power revenues from the Bonneville Power Administration fund the Council.

Regional Power Plan

The Council develops a 20-year plan, which it revises every five years, to ensure the Northwest of an efficient and reliable power supply. The Act directs the Council to give priority to cost-effective energy efficiency, followed by cost-effective renewable resources, when developing the plan.

It includes several key components, including an electricity demand forecast, electricity and natural gas price forecasts, an assessment of the amount of cost-effective energy efficiency that utilities can acquire over the life of the plan, and a least-cost generating resources portfolio.

The plan guides the Bonneville Power Administration's resource decision-making, and the Council is required to approve any new BPA energy resource acquisition greater than 50 average megawatts acquired for more than five years. Other federal agencies use the plan in their decisions, as well.

Columbia River Basin Fish and Wildlife Program

The Council revises its fish and wildlife program every five years as part of the power plan. The program seeks to mitigate the effects of hydropower dams on fish and wildlife and focuses on habitat restoration. It recommends projects for funding to the Bonneville Power Administration, including 14 hatchery programs with 30 projects operated by nine Indian tribes and all four state fish and wildlife agencies.

Target species include salmon, steelhead, and resident fish. It also recommends river flows at and between dams in the Columbia River system to improve fish production, migration, and survival. In 2017, program costs were $258 million in expense funding, plus obligations to capital projects of $16 million.

Energy efficiency and renewable energy are key resources in the Council's Northwest power plan

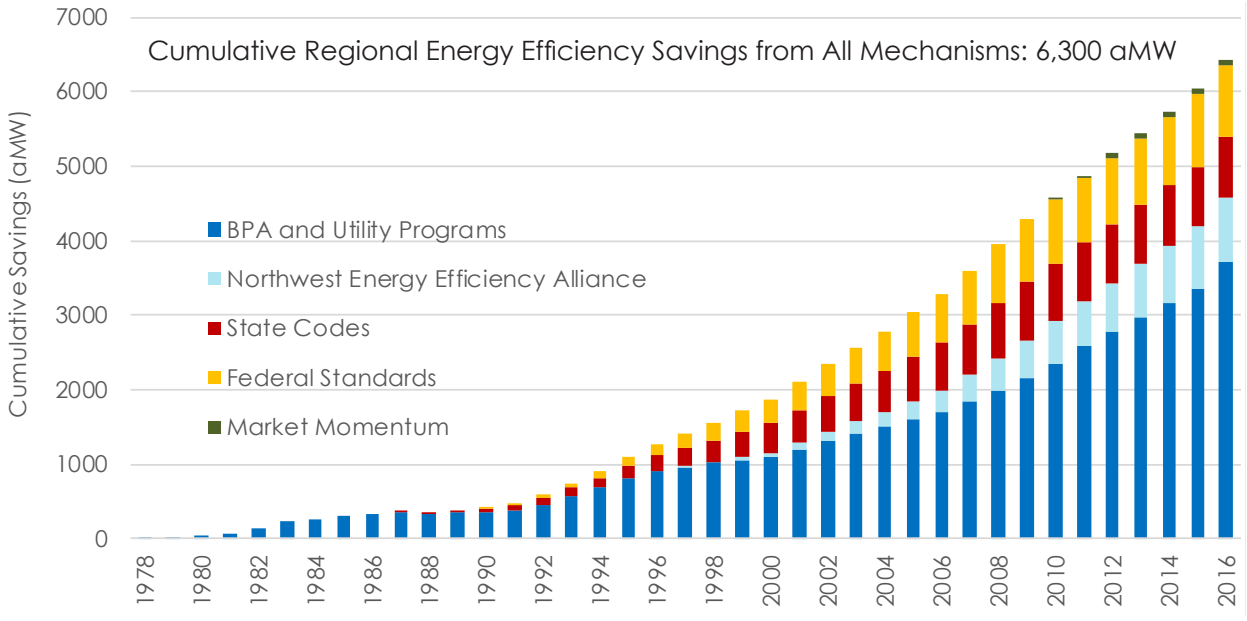
Habitat and fish-passage improvements, fish production, wildlife areas, and research are funded through the Council's fish and wildlife program

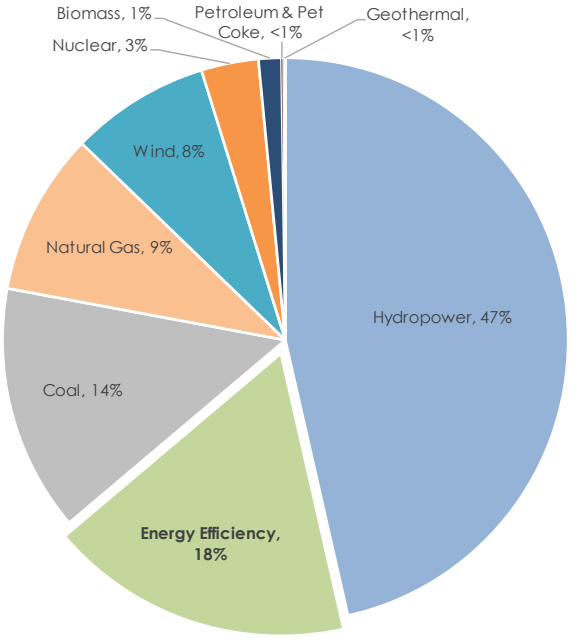
Regional Accomplishments

- Energy efficiency is the Northwest's second largest resource after hydropower. Since 1980, the region has saved 6,300 average megawatts of energy efficiency; enough power for five cities the size of Seattle
- In 2016, ratepayers spent $5 billion less for electricity; efficiency is about four times less expensive than other generation
- Regional power resources are diverse, including renewables, efficiency, and thermal plants
- Improved fish survival at dams; improved fish and wildlife habitat
- Preserved more than 400,000 acres for wildlife
- Protected fish and wildlife habitat on 44,000 miles of undammed Northwest rivers and streams

2017 Highlights

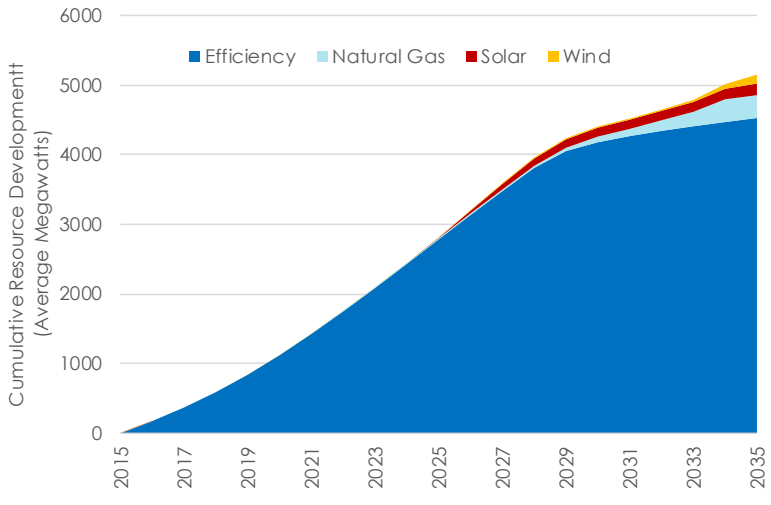
- **Seventh Power Plan:** The Council completed the seventh, five-year revision of its power plan in 2016 and continues to monitor its implementation. Key findings: 4,300 average megawatts of new energy efficiency by 2035; efficiency and demand response can meet nearly all energy and capacity needs; retiring coal plant generation can be replaced with existing and limited new natural gas-fired plants; EPA carbon rules can be met regionally.
- **Energy Efficiency:** Based on results of a regional survey, the Pacific Northwest reduced demand for electricity by 1,739 average megawatts from 2010 through 2015, enough to meet the annual power demand of 1.25 million homes and equal to the output of four new average-size natural gas-fired power plants.
- **Electricity Forecast:** Despite flat load growth in recent years, thanks largely to improved efficiency, the Council predicts that the Northwest will need to add about 400 megawatts of effective capacity by the year 2035 – generating capability that can be counted on during any shortfall hour – in order to maintain an adequate regional power supply.
- **Electric Vehicles:** A Council analysis suggests significant economic and environmental benefits to Northwest consumers and utilities from electrifying public transit vehicles and school buses. The analysis found that between 2017 and 2035, the savings could total more than $12 billion in reduced fuel costs and $4 billion in reduced maintenance costs. The region also would not emit 42 million metric tons of carbon dioxide from power plants.
- **Smart Technologies:** The Council is studying the implications of the growing digital economy and the explosion of personal electronic devices. This includes concerns about privacy, security, and standards for integration, as well as concern for the environmental impacts of battery disposal.
- **Invasive Species:** Through the Council's Fish and Wildlife Program, the Spokane and Colville tribes are working to halt the spread of invasive northern pike in Lake Roosevelt, the reservoir behind Grand Coulee Dam. The Council approved an emergency allocation to the Spokane Tribe of Indians to purchase more gill nets to broaden the reach of the tribe's research and try to remove more pike from the lake. The Council also is participating in an effort to prevent an invasion of zebra and quagga mussels into Northwest waters, including the Columbia and Snake rivers. Watercraft inspection stations, funded by the states and the U.S. Army Corps of Engineers and operated by the states, are located along roadways leading into the region. These have been effective at catching and cleaning infected watercraft.



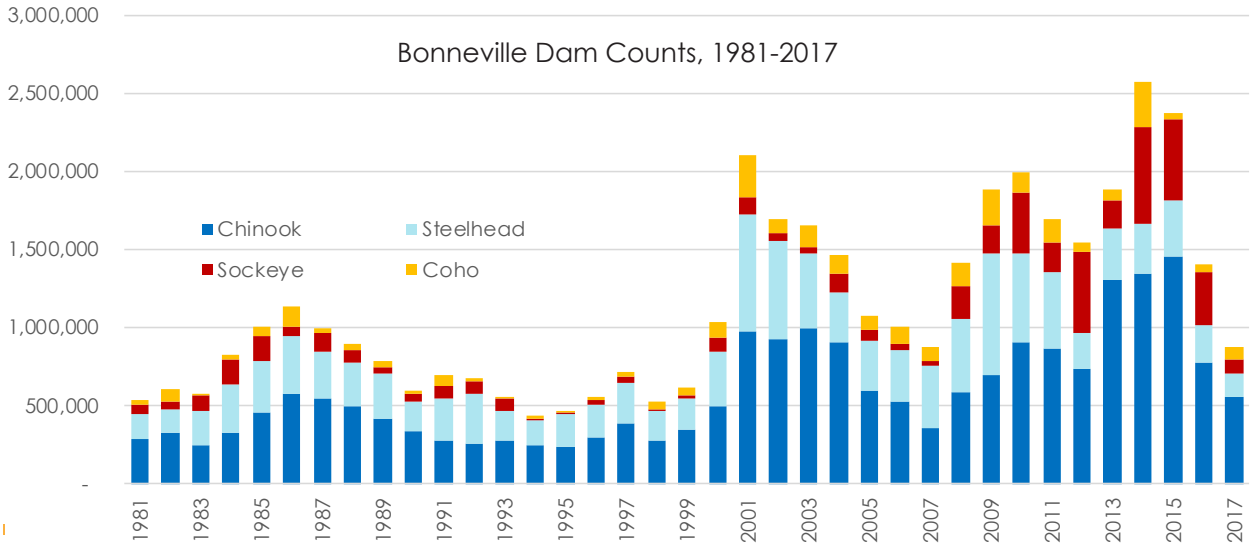


Energy Efficiency Has Been the Region's Second Largest Resource Since 2012

Energy Efficiency and Demand Response Meet Nearly All Forecast Growth, 2015-2035



Adult Salmon and Steelhead Returns to the Columbia River Basin Have Increased Over the Last 17 Years



History

Congress authorized the Council in the Northwest Power Act of 1980 during a period of uncertainty and turmoil in the region. People recognized the need to secure new energy resources for the future, reallocate the existing supply of electricity generated by the federal hydroelectric system, and address the damage to fish and wildlife by dams on the Columbia and Snake rivers.

Perhaps the most critical factor to passing the Act was the region's disastrous decision to build five nuclear power plants in the state of Washington in the 1970s. Utilities based their decision in part on inaccurate Northwest electricity load forecasts. Only one of the plants, the currently operating Columbia Generating Station, was ever completed. Due to exorbitant cost overruns, utilities abandoned or mothballed the other four plants prior to completion.

Two of the unfinished plants were responsible for one of the largest bond defaults in the history of the nation, while the Bonneville Power Administration backed the financing for the other three plants. Even today, more than 30 years after Congress enacted the Northwest Power Act, BPA pays millions of dollars a year on debt service for two of the unfinished nuclear plants. And, from 1978 to 1984, BPA was forced to raise its rates by 418 percent (adjusted for inflation) to pay for the cost of these plants.

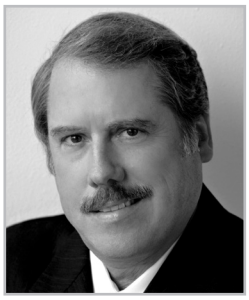
Congress concluded that an independent agency, without a stake in selling electricity, should be responsible for forecasting the region's electricity load growth and determining which resources should be built.

Energy efficiency would be the priority energy resource for meeting the region's future load growth, a visionary decision even by today's standards. For the first time in history, energy efficiency was deemed a legitimate source of energy, on par with generating resources.

The Council's fish and wildlife program is part of its power plan to ensure that the region meets its energy needs, but not at the expense of our natural resources. The program is implemented primarily by the four Northwest states, Columbia Basin tribes, and federal fish and wildlife agencies.

Members of the Council

Idaho: Bill Booth, Jim Yost




Montana: Jennifer Anders, Tim Baker


Oregon: Richard Devlin, Ted Ferrioli


Washington: Tom Karier, Guy Norman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