



Packwood Lake Hydroelectric Project is located in Lewis County, Wash., in the Gifford Pinchot National Forest, approximately 20 miles south of Mt. Rainier. The facility was Energy Northwest's first electric power generation project. Development began in July 1960, with commercial operation initiated in June 1964. | *continued...*



INFORMATION CONTACT

Public Information
 (509) 372-5000
 info@energy-northwest.com

TYPE

Hydroelectric

GENERATING CAPACITY

27.5 megawatts

LOCATION

5 miles east of
 Packwood, Wash.

PROJECT PARTICIPANTS

Benton County Public Utility District, Clallam County PUD, Clark County PUD, Ferry County PUD, Franklin County PUD, Kittitas County PUD, Klickitat County PUD, Lewis County PUD, Mason County PUD 3, Skamania County PUD, Snohomish County PUD, and Wahkiakum County PUD. These utilities all receive their share of the output by a percentage of ownership through an allocation.

PHASES

Construction Permits Issued	July 1960
50-year Operating License Issued	July 1960
Construction Started	Spring 1962
Project Testing and Initial Operation	June 1964
Relicensing Application Submitted	February 2008
Notice of Authorization for Continued Project Operation	March 2010



The original 50-year operating license expired in 2010. Packwood continues to operate under its original license with one-year extensions that are granted while FERC finalizes its review of the application. The continuance remains in effect until the new license is issued. Packwood's final license application was submitted in February 2008. FERC is awaiting issuance of the National Oceanic and Atmospheric Administration's biological opinion, after which FERC will complete the final license renewal documentation for the project.

The Packwood project demonstrates Energy Northwest's commitment to developing environmentally friendly, powerful solutions.

RELIABLE, AFFORDABLE, ENVIRONMENTALLY RESPONSIBLE POWER

The 27.5-megawatt hydropower project has produced clean, reliable and affordable electricity for nearly five decades.

The cost of power from Packwood Lake Hydroelectric Project is significantly less than other hydropower projects in the region and far less expensive than wind, solar and other renewable options in the Northwest. The project produces an average of 94 million kilowatt-hours of electricity each year.

Power from the Packwood project is environmentally friendly. Fish screens protect migrating fish populations and water levels in Packwood Lake and Lake Creek are closely monitored to preclude environmental impacts.

HOW IT WORKS

Packwood Lake was formed when a large mass of soil and rock slid off Snyder Mountain and dammed Lake Creek. The lake's elevation of 2,857 feet lies approximately 1,800 feet above the powerhouse. Packwood Lake and Lake Creek are bounded on the southwest by Snyder Mountain. The lake occupies approximately 450 acres.

Water from the lake enters a concrete intake structure located approximately 424 feet downstream from the lake outlet. The structure feeds water into a six-foot diameter underground pipe that carries water five miles while dropping 1,800 feet in elevation before delivering water to the powerhouse near the town of Packwood.

Water reaches the powerhouse with approximately 780 pounds per square inch of pressure at the turbine. The water spins the turbine generator at 360 revolutions per minute producing up to 27.5 megawatts of electricity.

After passing through the turbine, water is discharged to the Cowlitz River through a 6,670-foot tailrace canal. A fish screen at the entrance to the Cowlitz River prevents migrating fish from entering the Packwood facility.



ENERGY NORTHWEST

Energy Northwest develops, owns and operates a diverse mix of electricity generating resources, including hydro, solar and wind projects – and the Northwest's only nuclear power plant. These projects provide enough reliable, affordable and environmentally responsible energy to power more than a million homes each year, and that carbon-free electricity is provided at the cost of generation. As a Washington state joint operating agency, Energy Northwest comprises 27 public power member utilities from across the state serving more than 1.5 million ratepayers. The agency continually explores new generation projects to meet its members' needs. Energy Northwest – www.energy-northwest.com.