

PSE's POWER GENERATING PORTFOLIO

Puget Sound Energy strives to hold down its customers' energy costs by maintaining a balanced power-supply portfolio containing a diversified mix of cost-effective resources.

Approximately one-third of the electricity PSE customers use comes from the utility's own power plants. Together, these plants have more than 2,400 megawatts of power-generating capacity. PSE purchases the rest of its power supply, mostly under long-term contracts, from a variety of other utilities, independent power producers, and energy marketers across the western United States and Canada.

Low-cost hydropower accounts for the single largest share of PSE's power portfolio. The utility owns and operates three hydropower projects, all in Western Washington. In addition, PSE buys a substantial amount of hydroelectric power, much of it from central Washington public utility districts with large Columbia River dams.

PSE also generates a substantial amount of electricity with its own thermal assets. The utility has shared ownership of four large coal-fired power plants in eastern Montana, and owns several gas-fired power plants in the Puget Sound region, as well.

In addition, clean, renewable energy resources have a prominent role in PSE's varied menu of power supplies. The utility owns and operates two large wind farms in Eastern Washington. These facilities make PSE the largest producer of renewable energy in the Pacific Northwest.

Baker River Hydroelectric Project:

PSE's largest hydropower facility is the Baker River Hydroelectric Project. Located on a tributary of the Skagit River in northwest Washington, the project has two dams, each with its own powerhouse. The dams' reservoirs, Baker Lake and Lake Shannon, are fed by runoff from the flanks of Mount Baker and Mount Shuksan.

Lower Baker Dam, completed in 1925, is a 285-foot-high concrete structure with 70 megawatts of power-generating capacity. The 312-foot-high Upper Baker Dam, completed in 1959, has a generating capacity of 105 megawatts. The power project contains extensive salmon-propagation facilities, including a new, innovative fish-transport system.

Upper Baker Dam's new "Floating Surface Collector"

The project also provides numerous amenities for public recreation and flood control for communities in the Skagit River Valley. PSE is seeking a new, long-term for the project.

Snoqualmie Falls Hydroelectric Project:

The Snoqualmie Falls Hydroelectric Project is located about 25 miles east of Seattle on the Cascade Mountains' western slope. The project consists of a small diversion dam just upstream from Snoqualmie Falls, and two powerhouses. The first powerhouse, encased in bedrock 270 feet beneath the surface, was the world's first completely underground power plant. Built in 1898, it also was the Northwest's first large hydropower plant. The project's second generating plant, located a quarter-mile downstream from the falls, was built in 1910 and expanded in 1957. Together, the two power plants have 44 megawatts of generating capacity. The project received a new, 40-year federal operating license in 2004.

Electron Hydroelectric Project:

Located about 25 miles southeast of Tacoma in the western foothills of Mount Rainier, the Electron Hydroelectric Project has a 26-megawatt generating capacity. Completed in 1904, the project draws water from the Puyallup River, then funnels it to the Electron power plant via a 10-mile span of wooden flume running through the winding river valley. A small rail line that sits atop the flume to shuttle maintenance workers and equipment is known as "the crookedest railway in the world."

Solar Power:

Puget Sound Energy is the largest utility producer of renewable electricity in the Pacific Northwest – including the largest solar facility in the region, located at PSE's Wild Horse Wind Facility in Kittitas County.

With output of up to 500 kilowatts, the Wild Horse solar project demonstrates the potential for solar power generation in Washington state.

PSE's largest generating plant Montana's Colstrip Power Project (Coal):

While hydroelectricity comprises the largest share of Puget Sound Energy's total power supply, electricity from natural gas- and coal-fired power plants also represents a substantial portion of PSE's supply portfolio.

Eastern Montana's Colstrip Power Project is the single largest power-generating facility PSE owns. The utility's shared ownership in Colstrip's four coal-fired power plants provides PSE approximately 700 megawatts of generating capacity.

Natural-gas-Fired Power Plants :

PSE owns a half dozen efficient, cost-effective natural-gas-fired power plants within its service area. The newest of these, acquired in 2007, is the 277-megawatt Goldendale Generating Station in south central Washington. PSE's six gas-fired plants have a combined generating capacity of nearly 1,200 megawatts.

Wind Power:

Clean, renewable energy is becoming a core part of Puget Sound Energy's power supply. PSE's goal is to meet up to 10 percent of its customers' total electricity need with cost-effective renewable resources by 2013. A major step in that direction is PSE's ownership and operation of two large wind farms in Washington state.

PSE's first wind farm, the Hopkins Ridge Wind Facility, is in Columbia County. The second, and largest, is the Wild Horse Wind Facility in Kittitas County. Together they produce enough electricity to serve nearly 100,000 households. Hopkins Ridge and Wild Horse make PSE the first and, so far, the only Northwest utility to solely own and operate large wind-powered facilities. PSE is exploring the acquisition of additional wind-power resources.

