



Sumas Generating Station

Ensuring reliable electric service

Puget Sound Energy strives to ensure reliable electric service at a reasonable cost by acquiring power supplies from a variety of different sources, both PSE-generated and acquired from other suppliers. These sources primarily are hydropower, wind power, natural gas-fired generation, and coal-fired power from Montana. This diversified-portfolio strategy minimizes risk—and costs—in the event that an unforeseen circumstance (a drought, for example) causes regional shortages in one form of power and, in turn, drives up wholesale power prices. While hydroelectricity comprises the single largest share of PSE’s power-supply mix, electricity from clean-burning natural gas-fired facilities also makes up a significant share—about one-fifth of PSE’s total.

Power output

Sumas can produce 125 megawatts of electricity when operating at maximum capacity. That is enough power to meet the electricity needs of about 94,000 households.

Location

Sumas is located 115 miles north of Seattle in Sumas, Wash., just south of the U.S.-Canadian border.

Facility profile

Built in 1993, the power plant employs modern, “combined-cycle combustion turbine” technology that allows it to generate electricity using both a natural gas cycle and, from the exhaust heat of its power-generating turbines, a steam cycle. The two-stage process boosts operating efficiency, lowers fuel costs, and cuts air emissions. Combined-cycle plants like Sumas operate more efficiently than single-cycle gas-fired plants. The latter typically run only to help meet daily or seasonal peaks in customers’ power usage, while combined-cycle plants often operate to help meet utility customers’ base power requirements. They also complement hydro and wind-powered generation because gas-fired plants can operate on a firm schedule while power generation from hydro and wind-generating facilities is dependent upon Mother Nature.

Sumas includes partial PSE ownership of a 3.7 mile long pipeline that brings natural gas to the plant from the Westcoast Energy Station in Huntingdon, B.C., which is the main Canadian gas transmission supply point in to Washington State.

Personnel

Sixteen full-time PSE employees operate and maintain the Sumas facility.

Tax benefits to public

Property taxes levied on PSE’s Whatcom County facilities, including Sumas, provide significant revenues for local schools, county roads, and other public services.