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 purchased from other suppliers. These sources are primarily 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 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 total power-supply mix, electricity from efficient, clean-burning natural gas-fired facilities also makes up a significant share—about one-fifth of PSE’s total.

Power output

The Fredonia Generating Station can produce up to 316 megawatts of electricity when running at maximum capacity. That is enough power to meet the electricity needs of about 235,000 households.

Location

The Fredonia Generating Station is located 75 miles north of Seattle, or about seven miles northwest of Mount Vernon in Skagit County.

Facility profile

PSE employs the Fredonia facility primarily to provide back-up “peaking” energy for the utility’s power system during daily or seasonal spikes in customers’ power usage. The natural-gas-fired station contains four separate “single-cycle” (also called “simple-cycle”) generating units. The first two, installed in the early 1980’s can each generate up to 104 MW of power. The other two turbine generators, installed in 2001, each has a 54-MW generating capacity.

Personnel

Five full-time PSE employees operate and maintain the Fredonia Generating Station.

Tax benefits to public

Property taxes levied on PSE’s Skagit County facilities, including the Fredonia Generating Station, provide significant revenue for local schools, county roads and other public services.