

WASHINGTON UTILITIES AND	)	
TRANSPORTATION COMMISSION	)	
	)	
Complainant,	)	Docket No. UE-070565
	)	
v.	)	
	)	
PUGET SOUND ENERGY, INC.	)	
	)	
Respondent.	)	
_____	)	

EXHIBIT NO. ____ (DWS-11)
ELECTRICITY GENERATION
FOR THE PACIFIC NORTHWEST
JUNE 2006

June 25, 2007

Electricity Generation for the Pacific Northwest June 2006



Major Power Plants of the Pacific Northwest

From the late 1800s, when the first hydropower turbines were installed on Columbia River tributaries, into the 1960s water power from dams in the Columbia River Basin provided most of the electricity in the Pacific Northwest. Then, as population increased and the regional economy grew, demand for electricity surpassed the output of the dams. Other types of power plants were built, steadily adding to the region's electricity supply. Primarily these were baseload coal and nuclear steam-electric plants and small peaking combustion turbines fueled by natural gas. Later, the system was further expanded by the addition of highly efficient natural gas combined-cycle plants. Recently, large numbers of wind turbine generators have been added to the system.

Electricity in the Northwest still is dominated by hydropower, which accounts for about 64 percent of the supply capacity. The amount of hydropower varies with water conditions. Most of the region's hydropower is generated on the Columbia River and its tributaries, but there also are dams on other rivers, particularly those that empty into Puget Sound. In years when precipitation

In this publication, the output of power plants is expressed in megawatts of capacity. Capacity is the maximum power that can be produced by a power plant at specified times under specified conditions. One average megawatt is enough electricity to power approximately 700 homes for one year.

and runoff are normal, the region's hydroelectric system can provide about 16,000 average megawatts of electricity (an average megawatt is one million watts supplied continuously for a period of one year). The amount can be as much as 20,000 in a wet year or as little as 12,000 in a dry year. About 14 percent of the region's electricity capacity comes from plants that burn coal, with plants that burn natural gas providing a similar amount. The region's single operating nuclear plant, located in eastern Washington, accounts for about 2 percent of the region's capacity. In all, the region's power supply capacity totals about 53,000 megawatts.

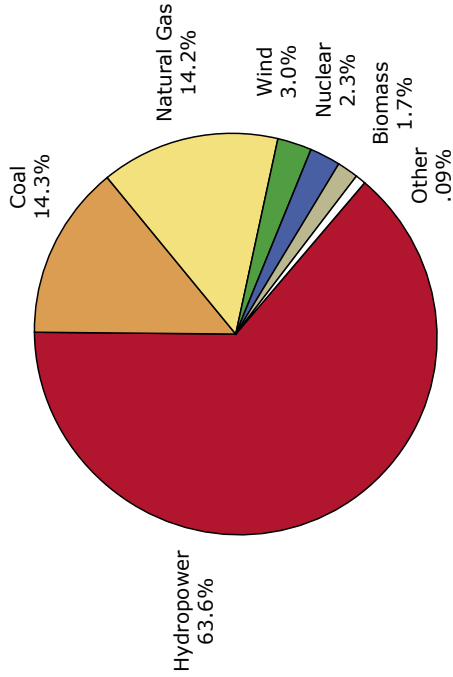
The map in this brochure shows the diversity of the modern power supply in the Northwest, but not all of the power plants. The smallest plants are not shown because there are so many. The map also doesn't depict the most important resource to the Power and Conservation Council — energy conservation. Consistent with the Northwest Power Act of 1980, the federal law that authorized the four Northwest states to create the Council, energy conservation gets planning preference over all other sources of electricity to meet future demand for power. At a cost that is less than the cost of building new generating plants, measures can be implemented to improve energy efficiency — insulation, double-paned windows, compact fluorescent light bulbs, low-wattage traffic lights and energy-efficient industrial motors, for example. Between 1983, when the Council completed its first Northwest Power Plan, and 2004 more than 2,900 megawatts of conservation have been achieved in the Northwest. Expressed as energy generation, that is more than enough power for two cities the size of Seattle.

Northwest Power Supply Capacity by Fuel Type*

Type of Fuel	Capacity in Megawatts	Percentage of Total Supply
 Hydropower	33,562	63.6%
 Coal	7,505	14.3%
 Natural Gas	7,562	14.2%
 Wind	895	3.0%
 Nuclear	1,588	2.3%
 Biomass	1,200	1.7%
 Other	486	0.9%
Totals	52,798	100%

* June 2006

Percentage of Total Supply Capacity





Coal Facilities

Number	Project Name	Capacity	Owner
1	Boardman	560.5	PGE (65%); GE Credit Corp (15%); Idaho Power (10%); Pac NW Generating Coop (10%)
2	Centralia 1	729.99	TransAlta
3	Centralia 2	729.99	TransAlta
4	Colstrip 1	358.4	PPL Montana (50%); Puget Sound (50%)
5	Colstrip 2	358.4	PPL Montana (50%); Puget Sound (50%)
6	Colstrip 3	778	PPL Montana (30%); Puget Sound (25%); PGE (20%), Avista (20%); PacifiCorp (10%)
7	Colstrip 4	778	NorthWestern (30%) (lease); PSE (25%); PGE (20%), Avista (20%); PacifiCorp (10%)
8	J.E. Corette	191	PPL Montana
9	Jim Bridger 1	577.875	PacifiCorp (66.7%); Idaho Power (33%)
10	Jim Bridger 2	577.875	PacifiCorp (66.7%); Idaho Power (33%)
11	Jim Bridger 3	577.875	PacifiCorp (66.7%); Idaho Power (33%)
12	Jim Bridger 4	577.875	PacifiCorp (66.7%); Idaho Power (33%)
13	Montana One (Colstrip Energy)	43.7	Colstrip Energy, LP
14	Rocky Mountain Power Plant	113	Centennial Energy Resources (MDU Resources) d.b.a. Rocky Mountain Power, Inc.
15	Valmy 1	254.26	Sierra Pacific Power (50%); Idaho Power (50%)
16	Valmy 2	267	Sierra Pacific Power (50%); Idaho Power (50%)



Photo: PPL Montana

Colstrip power plant, Billings, Montana