Natural Gas Generation

PacifiCorp
Pacific Power
Rocky Mountain Power
PacifiCorp Energy

Chehalis Generation Facility

More than 3,100 megawatts of electricity fueled by natural gas helps PacifiCorp continue to meet our customers' growing needs while maintaining our record for being among the lowest-cost energy producers in the nation. Moreover, natural gas-fueled plants have the advantage of producing about 40-60 percent less carbon dioxide per megawatt-hour generated than coal-fueled plants.

Another significant benefit of using natural gas as a fuel is the flexibility to match generation with our customers' needs. Simple-cycle and combined-cycle combustion units are capable of gearing up from a cold start to full load in about two hours, substantially less time than turbine plants that use other fuels. Gas-fueled steam units also start turning turbine rotors more quickly than other fuels.

That's important when our customers' needs increase sharply or our other resources dip. It allows us to balance our valuable – but more intermittent – renewable generation plants that we have incorporated into our resource portfolio, namely wind and solar.

Gas-fueled power plants belong to one of three varieties. We have a mix of all three:

- **Traditional steam turbines** rely on boilers that burn natural gas to heat the water that creates the steam that spins the steam turbine. This technology is in use on Units 1, 2 and 3 at our Gadsby Plant in Utah.
- **Simple-cycle combustion** is similar to a jet engine and uses a gas turbine to convert the heat energy of combustion into mechanical energy, which then operates an electrical generator. This technology is in use on Units 4, 5 and 6 at Gadsby.
- **Combined-cycle combustion** features heat recovery boilers that take the exhaust heat at approximately 1,100 degrees Fahrenheit from a gas turbine and converts it to steam. That steam goes through conventional steam turbines to generate more electricity, which creates additional efficiencies compared to simple-cycle combustion turbines and conventional steam power plants. This technology is in use at our Currant Creek and Lake Side plants in Utah, Chehalis Generating Facility in Washington state, and at merchant generator Hermiston Power Project in Oregon, which sells its entire output to us.

There are also advantages to the number of different power output options provided to us by the configuration at our Currant Creek and Lake Side plants. Either can run with one of its gas turbines and the steam turbine only, or with both gas turbines. The heat-recovery boilers also are fitted with supplemental duct firing, which can provide additional power output.

Our 3,100 megawatts of natural gas-fired generation comes from these facilities:

FACILITY	STATE	INSTALLED/ ACQUIRED	NET MW CAPACITY	NET MW OWNED
Chehalis	Washington	2008	518	518
Lake Side 1	Utah	2007	558	558
Lake Side 2	Utah	2014	645	645
Currant Creek	Utah	2005	550	550
Hermiston	Oregon	1996	474	237
Gadsby steam	Utah	1951	237.5	237.5
Gadsby simple-cycle	Utah	2002	120	120

We burn tens of billions of cubic feet of gas in our generation facilities each year. The price, like most commodities, varies seasonally and at times can be volatile. A portfolio of purchase contracts helps us manage the risk of fuel price changes and matches fuel purchases to our plants' needs.

PacifiCorp is one of the lowest-cost electricity producers in the United States, providing approximately 1.8 million customers in the West with reliable, efficient energy. We operate as Rocky Mountain Power in Utah, Wyoming and Idaho, and as Pacific Power in Oregon, Washington and California. PacifiCorp's electric generation, commercial and energy trading, and mining functions are operated as PacifiCorp Energy.

Lake Side 1 and Lake Side 2 Generation Facilities