

Sayreville Energy Center

Overview

- » Located in the Borough of Sayreville, in central New Jersey
- » 290-megawatt combined cycle gas-fired power plant
- » A subsidiary of NextEra Energy Resources operates the plant and owns 145 megawatts of the facility
- » An intermediate plant, which means it is dispatched to operate approximately 16 hours a day based on seasonal demand
- » When operating at full power, the plant generates enough electricity for about 290,000 homes
- » Built by Westinghouse; began commercial operation in 1991
- » Acquired by NextEra Energy Resources in 1998



Benefits

- » Staff of 18 full-time employees
- » Annual total payroll of about \$2 million
- » Pays \$640,000 annually in property taxes
- » Contributes to the Borough of Sayreville fire and recreation departments
- » Member of Sayreville Local Emergency Planning Committee

About NextEra Energy Resources

- » A leading clean energy provider operating wind, natural gas, solar, hydroelectric and nuclear power plants across the nation
- » More than 18,000 megawatts of generating capacity in 26 states and Canada
- » The largest wind generator in North America with facilities in 17 states and Canada
- » A subsidiary of NextEra Energy, Inc., with headquarters in Juno Beach, Florida

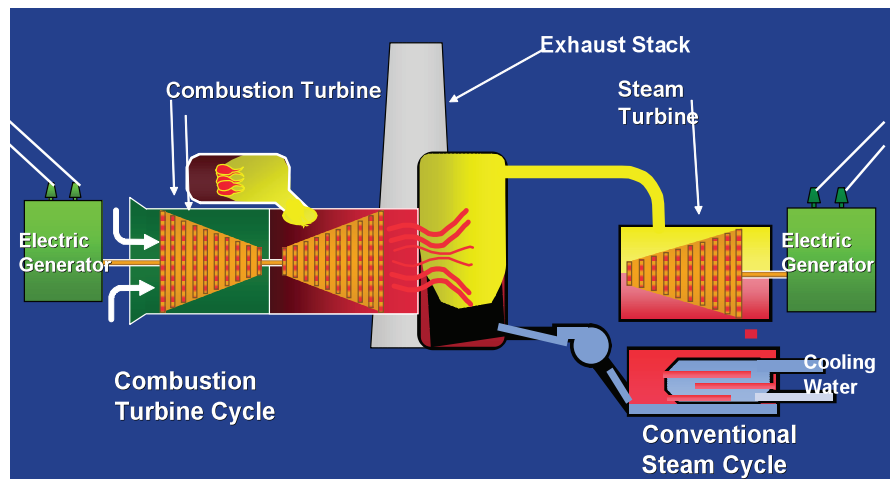
How It Works

Sayreville Energy Center is a combined cycle power plant, meaning it uses both gas and steam turbines to generate electricity.

First, natural gas is ignited inside a combustion chamber. The hot exhaust gases blow into a gas turbine, spinning the turbine blades. (All power plants have a turbine with blades that are either spun by the wind, by water, by steam or by hot gases.)

The spinning turbine is connected by a shaft to a generator. The shaft turns the generator and the generator makes electricity.

The hot exhaust gases are then used to heat water to steam and the steam is piped to a steam turbines that generate additional electricity.



After passing through the steam turbine, the cooling steam is condensed back into water, reheated to steam and used again in a continuous cycle.

A combined cycle plant is more efficient than a single cycle plant because the combination of a gas turbine and a steam turbine extracts maximum energy from the fuel used.