Forney Energy Center

Overview

» A 1,789-megawatt combined-cycle, natural gas-fired power plant located near Forney, Texas
» A subsidiary of NextEra™ Energy Resources operates the plant, which began commercial operation in 2003.
» An intermediate plant, which means it is dispatched to operate approximately 16 hours every day
» When operating at full power, the plant generates enough electricity for more than 1.6 million homes
» Forney uses 14 million gallons of waste water a day reclaimed from the City of Garland, Texas

Benefits

» Employs a staff of 41
» Pays approximately $11 million annually in property taxes
» Supports the Forney Education Leadership Foundation, the Forney Police Department, the Forney Fire Department, the Forney Chamber of Commerce, and other community organizations and activities

How It Works

Forney 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 turbines are 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 turbines, the steam is condensed back into water, reheated to steam and used again in a continuous cycle.

This is called a combined cycle plant because it uses the combination of a gas turbine and a steam turbine to extract maximum energy out of the fuel used.

About NextEra™ Energy Resources

» A leading clean energy provider operating wind, natural gas, solar, hydroelectric and nuclear power across the nation
» Approximately 17,000 megawatts of generating capacity in 25 states and Canada
» The largest wind generator in the country with approximately 65 facilities in 16 states and Canada
» A subsidiary of FPL Group, Inc., with headquarters in Juno Beach, Florida