

# Lamar Energy Center

## Overview

- » Located in Paris, Texas, about 110 miles northeast of Dallas
- » Owned and operated by a subsidiary of NextEra Energy Resources
- » A 1,000-megawatt combined-cycle, natural gas-fired power plant
- » An intermediate plant, which means it is dispatched to operate approximately 16 hours every day
- » Began commercial operation in 2000
- » When operating at full power, the plant generates enough electricity for about 1 million homes

## Benefits

- » Employs a staff of 33
- » Pays approximately \$6 million in property taxes
- » Supports the Junior Livestock 4-H auction; graduation night at Chisum, North Lamar and Paris high schools; Big Brothers/Big Sisters; the YWCA; and many other school activities and community organizations

## How It Works

Lamar Power Partners 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.

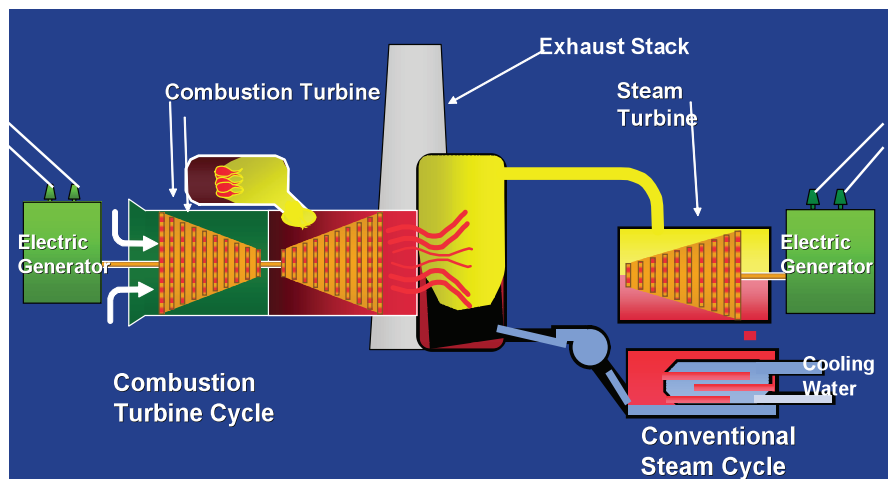
The hot exhaust gases are then used to heat water to steam and the steam is piped to a steam turbine that generates additional electricity.

After passing through the steam turbine, the cooling steam is condensed back into water, reheated to steam and used again



## 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



in a continuous process.

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.