

Ensign Wind Energy Center



About NextEra Energy Resources

- » A leading clean energy provider operating wind, natural gas, solar and nuclear power plants
- » A portfolio of power generating facilities across the United States and in Canada
- » The largest wind generator in North America
- » A subsidiary of NextEra Energy, Inc., with headquarters in Juno Beach, Florida
- » More than 95 percent of our electricity comes from clean or renewable sources
- » Visit us at www.NextEraEnergyResources.com

How a wind turbine works

- 1 A computer turns the nacelle and the rotor (which consists of three blades and a hub) to face into the wind. The turbine blades turn a generator to produce electricity. For safety purposes, the turbine shuts down automatically if the wind speed exceeds 55 miles per hour.
- 2 The electricity travels down the inside of the tower through electrical cables to a transformer at the base of the wind tower.
- 3 From the transformer, the electricity flows through an underground collection cable to an on-site substation.
- 4 From the substation, overhead electrical cables take the electricity to an offsite substation and into high-voltage transmission lines.
- 5 The electricity goes from the highvoltage transmission lines into local distribution lines.
- 6 The electricity is then distributed to homes, schools, businesses and other consumers.

Overview

- » Located in Gray County, Kansas
- » Built, owned and operated by a subsidiary of NextEra Energy Resources
- » A 99-megawatt wind generation plant
- » 43 2.3-megawatt Siemens turbines that are capable of generating enough electricity to power 25,000 homes
- » Began commercial operation in 2012

Benefits

- » Provides employment opportunities
- » Adds tax base to the county
- » Delivers landowner lease payments
- » Creates no air or water pollution
- » Uses no water in power generation
- » Allows land to remain in agricultural use
- » Supports economy through purchases of regional goods and services

