

# North Dakota Wind Energy Center



## About NextEra Energy Resources

- » A leading clean energy provider operating wind, natural gas, solar and nuclear power plants
- » A portfolio of generating assets 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 LaMoure County, North Dakota
- » Operated by a subsidiary of NextEra Energy Resources
- » A 61.5-megawatt wind generation plant
- » 41 1.5-megawatt GE turbines that are capable of generating enough electricity to power more than 24,700 homes
- » Each turbine is approximately 213 feet tall from the ground to the hub in the center of the blades
- » Began commercial operation in 2003

#### **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

