Somerset Wind Energy Center

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 off-site substation and into high-voltage transmission lines.

5. The electricity goes from the high-voltage transmission lines into local distribution lines.

6. The electricity is then distributed to homes, schools, businesses and other consumers.

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

Overview

» Located in Somerset County, Pennsylvania

» Operated by a subsidiary of NextEra Energy Resources

» A 9-megawatt wind generation plant

» Operates six 1.5-megawatt GE turbines that are capable of generating enough electricity to power about 3,000 homes

» Each turbine is 213 feet tall from the ground to the hub in the center of the blades

» Began commercial operation in 2001

» Acquired by NextEra Energy Resources 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