



WHAT IS WIND ENERGY?

Wind is caused by convection currents (flow of air) in Earth's atmosphere. The sun produces the heat energy that produces these currents. The wind is full of kinetic energy.

Wind can be transferred into electrical energy with the help of wind turbines. A **turbine** is a machine powered by rotating blades.

The blades of a wind turbine move when there is wind. The energy is then transferred to a generator by a spinning shaft.

Windmills work the same as turbines. They are used for grinding grains or pumping water. These have been used around the world for over 1000 years.

Wind must be blowing at a rate of at least 14 miles per hour to power a turbine or windmill. Very strong winds, however, can damage these structures.

THINK AND RESPOND

What are the pros and cons of building wind turbines in Florida?

Hint: Think about the location of this state and what type of weather affects the area.

Think and respond answers will vary but should
include a pro about the ocean breeze and a con
about potential hurricanes.

