

#### WIND ENERGY



Wind is moving air. We can use the energy in wind to do work. Early Egyptians used the wind to sail ships on the Nile River. People still use wind to move sailboats. Today, we use wind to make

### **Wind Energy is Renewable**

As long as the sun shines, there will be winds on the Earth. We will never run out of wind energy. It is a renewable energy source. It is also free since no one can own the sun or the air.

## We can capture the wind

Some places have more wind than others. Areas near the water usually have a lot of wind. Flat land and mountains passes are good places to catch the wind, too.

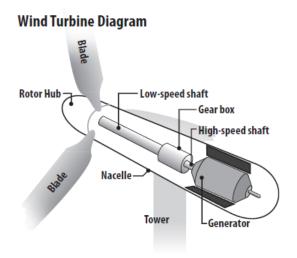
Today we use bid wind turbines to capture the wind. Sometimes, there are hundreds of wind turbines in one place. This is called a wind farm. Some wind turbines are as tall as 20-story buildings!

# **Wind can make Electricity**

When the wind blows, it pushes against the blades of the wind turbines. The blades spin around. They turn a generator to make electricity. The wind turbines don't run all the time though. Sometimes the wind doesn't blow at all. Sometimes the wind



blows too hard. Most wind turbines run about three fourths of the time.



### **Wind is Clean Energy**

In some areas, people worry about the birds and bats that may be injured by wind turbines. Some people believe wind turbines produce a lot of sound, and some think turbines affect their view of the landscape.

On the other hand, wind is a clean renewable energy source that produces no air pollution. And wind is free to use. Wind power is not the perfect answer to our electricity needs, but it is a valuable part of the solution.

Wind is a clean energy source. Wind turbines don't burn fuel, so they don't pollute the air. Wind is a renewable energy source and it is free.

# **Wind production**

One wind turbine doesn't make much electricity. Most wind farms have many wind turbines. The amount of electricity that a wind turbine produces depends on its size and the speed of the wind.



Wind turbines come in many different sizes. A small turbine may power one home. Large wind turbines can produce enough electricity to power up to 1000 homes. Large turbines are sometimes grouped together to provide power to the electricity grid. The grid is the network of power lines connected together across the entire country.



Every year, wind produces only a small amount of the electricity this country uses, but the amount is growing every year one reason wind farms don't produce more electricity is that they can only run when the wind is blowing at certain speeds. In most places with wind farms, the wind is only optimum for producing electricity about three-fourths of the time. (That means on average, most turbines run 18 out of every 24 hours.)

### **BIBLIOGRAPHY**

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