



**Breezy Power Information Packet  
completed worksheet  
(page 1)**

Names: \_\_\_\_\_  
\_\_\_\_\_

Period: \_\_\_\_\_

1. In what 3 areas in the United States should Breezy Power consider building their wind farm?

a. North Dakota

b. Texas

c. Kansas

[http://www.awea.org/faq/tutorial/wwt\\_potential.html#How%20much%20energy](http://www.awea.org/faq/tutorial/wwt_potential.html#How%20much%20energy)

2. Why would you suggest these 3 areas?

**High amount of wind speed, open areas, mountainous areas**

<http://www.eia.doe.gov/kids/energyfacts/sources/renewable/wind.html#mechanics>

**click on Wind Power Plants**

3. What causes wind?

**Wind is the uneven heating of the earth's surface by the sun.**

<http://www.eia.doe.gov/kids/energyfacts/sources/renewable/wind.html>

4. What is the difference between a renewable resource and a nonrenewable resource?

**Renewable energy sources are those which are continually being replaced such as energy from the sun (solar) and wind. If an energy resource is being used faster than it can be replaced (for example, coal takes millions of years to form) then it will eventually run out. This is called a non-renewable energy source.**

<http://www.sustainableenergy.qld.edu.au/sources/index.html>

5. How does a wind turbine produce electricity? This is a very mechanical description

**The wind turns blades that are connected to a generator. The generator produces an electric current using magnets and coils of wire.**

<http://www.eia.doe.gov/kids/energyfacts/sources/renewable/wind.html#mechanics>

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6. What percentage of the total electricity produced in the U. S. today comes from wind turbines? **0.4 %**

<http://www.awea.org/faq/tutorial/>

7. What percentage of the United States' electrical needs could be supplied by wind energy? **20 %**

<http://www.awea.org/faq/tutorial/>

8. How does the cost of electricity produced by wind compare to the cost of using other energy sources to produce electricity?

**Wind power is very close to the same price as other energy costs.**

<http://www.awea.org/pubs/factsheets/Cost2001.PDF> - see chart

9. How would wind energy help save our natural resources?

**Wind causes no pollution and by replacing fossil fuels would help reduce smog, carbon dioxide, and acid rain.**

[http://www.awea.org/faq/tutorial/wwt\\_environment.htm](http://www.awea.org/faq/tutorial/wwt_environment.htm) click on wind and environmental benefits of wind

10. How do wind farms affect wildlife in the area?

**Wind farms can endanger migratory birds and raptors with the blades of the wind turbines**

[http://www.awea.org/faq/tutorial/wwt\\_environment.html](http://www.awea.org/faq/tutorial/wwt_environment.html) click on other environmental impacts

11. How much pollution do wind farms cause?

**Wind farms cause no pollution.**

<http://www.sustainableenergy.qld.edu.au/sources/wind.html>

12. What other good or bad points about wind energy would the customers want to know?

<http://www.sustainableenergy.qld.edu.au/sources/wind.html> - last paragraph  
**Turbines have a high-pitched hum, can interfere with TV and radio, can be unsightly.**

