

Wind Power Background Sheet

For questions 1 and 2, provide answers using information from the class discussion and your own previous knowledge.

1. Define and give examples of the following sources of energy.

Renewable:

Non-Renewable:

2. Why would the global community need to come up with alternatives to fossil fuels?

For questions 3-6, use the Web sites indicated to answer the questions.

3. Label the correct parts of the wind turbine below and describe its specific function. (Refer to the Wind Turbine Close-Up at <http://www.pbs.org/now/...> or the Crash Course in Wind Energy at <http://www.windpower.org/en/kids/index.htm>)



Tower:

Rotor:

Nacelle:

Transformer:

Foundation:

4. How do you calculate the amount of power available at a given wind speed? (See the resource at <http://www.awea.org/faq/windpower.html>)

5. Where would be a good place in the U.S. to build a wind turbine? Why? (For questions 5 and 6, see the Wind Power Map at <http://www.pbs.org/now/...> or the Wind Power Resource Atlas of the U.S. at <http://rredc.nrel.gov/wind/pubs/atlas/chp2.html>)

6. Where in the U.S. would you not want to build a wind turbine because of the lack of wind?