

Blowing in the Wind Worksheet

Name: _____ **Date:** _____

Activity 2: After reading from the web page titled "Quick facts about wind energy," which is located at the URL http://www.e-marine-inc.com/products/wind_generators/wind.html, answer the following questions.

How tall are home-sized wind turbines? _____

How tall are the largest wind turbines? _____

What is the connection between size of machine and power produced? _____

What are the major advantages of wind power over conventional energy generation? _____

Specify major limitations or weaknesses, both economic and environmental, to wind power. _____

What happens to excess electricity generated by homeowners? _____

Activity 3: Refer to the DOE web page titled "Wind Energy Resource Atlas of the United States" at the URL <http://rredc.nrel.gov/wind/pubs/atlas/maps.html#2-6> to answer the following questions.

Is the northern or southern part of the United States a more likely wind power source? _____

Is the eastern or western part of the United States a more likely wind power source? _____

Now locate your state under the regional summaries and look at its wind classification on the state map. Using the key, count the sites in your state designated 3 or higher. The website is <http://rredc.nrel.gov/wind/pubs/atlas/maps.html#2-6>

Do you think your state is a good candidate for wind power production? _____

Looking at Map 2-1, what state appears to have the most wind power potential in terms of class 3 or above sites across the entire state? Check your answer from the state maps under the regional summaries. _____

Based on seasonal variations on Maps 2-2, 2-3, 2-4 and 2-5, what season appears to be best in terms of wind energy generation? _____

What season appears to be worst in wind energy generation? _____

Conclusion: By answering the previous questions you have gained a lot of useful information about wind energy. Now use this information to answer the following questions.

Does the United States appear to have good potential for wind energy generation? _____

What regions appear to have the greatest potential? _____

Why do you think there are not more wind power projects in the United States at this time? _____