

Name: _____

Exploring Wind Farms with Google Earth Field Guide

Wind is moving air. In this activity, you will use Google Earth to explore wind farms. You will

1. Explore seven existing wind farms around the world.
2. Investigate ideal features of wind farms.
3. Use the **Ruler** tool to measure the estimated perimeter of wind farms.

Read **all** instructions on your handout and answer **each** question.

Wind Farms Data Chart

Name of Wind Farm and Average Wind Speed	Estimated Perimeter	Land Cover Description (forest, desert, farm area, grass, vegetation, trees, plants, dirt, bushes)	Topography Description (hills, mountains, valleys, flat land areas, river banks)
Taff Ely _____ m/s			
Kittsee _____ m/s			
Comodoro Rivadavia _____ m/s			
McBride Lake _____ m/s			
Altamont Pass _____ m/s			
Lake Benton _____ m/s			
Muppandal _____ m/s			

Wind Power Data Chart

Wind Power Class	Wind Resource Potential	Wind Speed at 50 Meters in m/s	Wind Speed at 50 Meters in mph
3	Fair	6.4 - 7.0	14.3 – 15.7
4	Good	7.0 - 7.5	15.7 – 16.8
5	Excellent	7.5 - 8.0	16.8 – 17.9
6	Outstanding	8.0 - 8.8	17.9 – 19.7
7	Superb	8.8 -11.1	19.7 – 24.8

1. Which wind farm has the best wind resource potential?
Helpful hint: Look at the wind speeds in your **Wind Farms Data Chart** and use the **Wind Power Data Chart** above to determine your answer.

What is that wind farm's wind power class and wind resource potential?

2. Which wind farm has the **least** wind resource potential?

What is that wind farm's wind power class and wind resource potential?

3. What physical structures do wind farms have in common?

4. How are smaller wind farms different from larger wind farms?

5. Do you think **all seven** wind farms are placed in good locations?

Why or why not?

6. How would you decide the **best location** for building a wind farm?