Brady Kondek **6.08 Planning a Response**

Position:

Wind power is a highly beneficial alternative source of energy and should widely be used, however there are additional factors that need to be considered; such as the location of these turbines, and what effects they can have on their surrounding populations and ecosystems.

Body paragraph— Understand what solar power is, and what makes it stand out as compared to other forms of energy

- *Claim*: Wind energy is as powerful, if not more powerful than all other types of energy currently in dominant use.
  - Use information from Source B "How Wind Power Works"
    - Use direct quote "*On a global scale, wind turbines are currently generating about as much electricity as eight large nuclear power plants*."
    - Use direct quote "*The current total electricity generation in the United States is in the area of 3.6 trillion kWh every year. Wind has the potential to generate far more than 1 percent of that electricity*."
      - Wind power has the capacity to generate far more electricity than all other forms of energy could ever get near.

- *Claim*: Wind energy has a much higher percentage of retained energy input when compared to all other forms of energy such as coal, oil, natural gas, etc.
- Use information form Source F "What Is the Most Efficient Source of Electricity?"
  - From source: Wind has a 1,164% percentage of retained energy input, compared to 29% for coal, 31% for oil, and 38% for natural gas; thus being the most efficient form of energy out of the list.

Body paragraph— There are numerous factors that need to be taken into consideration when evaluating and deciding if wind power is the way to go

- *Claim*: The turbines that generate power from the wind can have negative effects on their surrounding environments and ecosystems.
  - Use information from Source B "How Wind Power Works"
    - Use direct quote "*…they can be hazardous to birds and bats, and in hard-packed desert areas there is a risk of land erosion if you dig up the ground to install turbines*."
      - Animals can get caught in the rotating turbines, and as well as the land is negatively affected by the installment of them, therefore disrupting the flow of the surrounding area.
  - Use information from Source C "Wind Turbines: A Different Breed of Noise?"

- Use direct quote "*The absolute noise level of the wind farm may be no more than during the day, but it can be 10-20 decibels louder than the quieter nighttime ambient sound levels. This detail has important implications for sleep disruption.*"
- Use direct quote "*Multiple recent studies, including one coauthored by Daniel Shepherd, senior lecturer at New Zealand's Auckland University of Technology, have demonstrated that sleep interference gets worse the nearer residents are to turbines*."

- *Claim*: Wind power is not always reliable, and it still may need non-renewable energy to keep itself afloat when wind power cannot be generated due to low wind speeds.
  - Use information from Source B "How Wind Power Works"
- Use direct quote "*Wind turbines can't always run at 100% power like many other types of power plants, since wind speeds fluctuate*."
  - Use direct quote "*Also, since wind is a relatively unreliable source of energy, operators of wind-power plants have to back up the system with a small amount of reliable, non-renewable energy for times when wind speeds die down."*
    - Having to use non-renewable energy for a backup completely defeats the point of trying to use renewable energy, doing the complete opposite.

Concluding thoughts—

Quote from Source D "*we're just living off the land and whatever else we can do. We're glad to have them*."

Wind power has a lot of potential, as under the right conditions it can generate more electricity than all other forms of energy and in a much more efficient manner; being better for the atmosphere and the planet itself. However, additional considerations need to be taken into play; such as the effects it can have on their surrounding environments, the fact that wind is unreliable resulting in non-renewable energy still needing to be used, and the interferences it causes to local residents. With such great possibilities, we need to make sure we take the right steps to ensure it is implemented the right way, and can be as efficient as possible without having negative impacts around it.