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## Wind Power Plant

Also known as a wind farm, a group of wind turbines interconnected to a common power provider system through a system of transformers, distribution lines, and (usually) one substation. Operation, control, and maintenance functions are often centralized through a network of computerized monitoring systems, supplemented by visual inspection

### **Advantages:**

- Wind energy is friendly to the surrounding environment, as no fossil fuels are burnt to generate electricity from wind energy.
- Wind turbines take up less space than the average power station. Windmills only have to occupy a few square meters for the base, this allows the land around the turbine to be used for many purposes, for example agriculture.
- Newer technologies are making the extraction of wind energy much more efficient. The wind is free, and we are able to cash in on this free source of energy.
- Wind turbines are a great resource to generate energy in remote locations, such as mountain communities and remote countryside. Wind turbines can be a range of different sizes in order to support varying population levels.
- Another advantage of wind energy is that when combined with solar electricity, this energy source is great for developed and developing countries to provide a steady, reliable supply of electricity.

**Disadvantages:**

- The main disadvantage regarding wind power is down to the winds unreliability factor. In many areas, the winds strength is too low to support a wind turbine or wind farm, and this is where the use of solar power or geothermal power could be great alternatives.
- Winds turbines generally produce allot less electricity than the average fossil fuelled power station, requiring multiple wind turbines to be built in order to make an impact.
- Wind turbine construction can be very expensive and costly to surrounding wildlife during the build process.
- The noise pollution from commercial wind turbines is sometimes similar to a small jet engine. This is fine if you live miles away, where you will hardly notice the noise, but what if you live within a few hundred meters of a turbine? This is a major disadvantage.