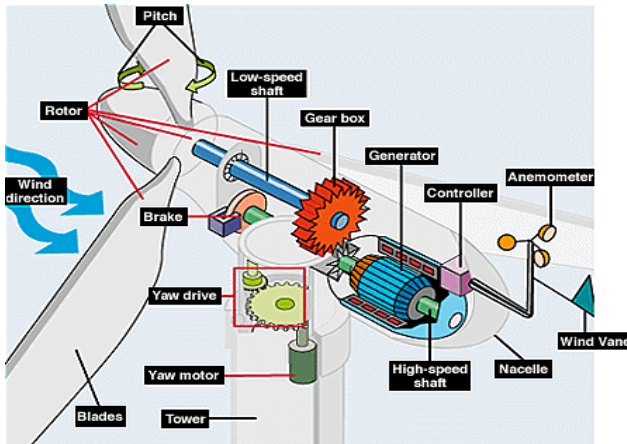


# THE BASICS OF WIND POWER

- The uneven heating of the atmosphere by the sun, irregularities of the Earth's surface and rotation of the planet creates air flow across the world. This is called wind.



- The basic structure of a wind turbine has the wind turn large fan blades, which in turn, rotates a generator, creating power.

## Green Energy: Wind Power

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## PERSONAL WIND FARMS

- Personal Wind Farms are small wind turbines that the individual person/family can install into the home power system
- These smaller turbines can be hooked up to a families home to help produce power
- The extra power reduces costs for electricity to the home



## LARGE WIND FARMS

- Large wind farms serve as a way to capture large amounts of wind energy. Higher wind speeds mean more energy and wind speeds are usually greater the higher you are.
- The average height of a wind farm turbine in the US is 450 ft tall.
- In the US there is currently only one offshore wind farm. Most offshore wind farms appear in Europe.
- In the US, Texas has the largest capacity of wind energy, capable of producing 18,000 megawatts of electricity.



## SOCIAL IMPACT OF WIND FARMS

- Wind farms have mixed views when it comes to social impacts.
- When you put a wind farm in a more populated place it tends to get a bad reputation. People believe that wind turbines can cause headaches, nausea, and dizziness, thought to be caused by the noise or the strobe effect (causes by shadow flickering.)
- Many people also believe that offshore wind farms destroy the natural beauty of shorelines.
- In Massachusetts, wind energy is projected to create close to 10,000 jobs over ten years.

