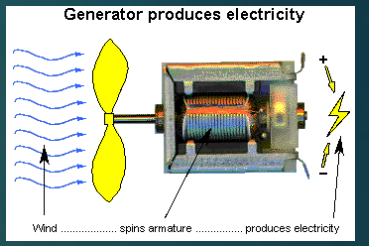
Wind Power

BY XXXXXXX & XXXXXXXX

How Is Electricity Generated By Wind Power

- The wind forces a big generator to turn which then transforms the kinetic energy into electrical energy. There are two types of ways to get electricity from wind power, the first one is the HAWT-Horizontal Axis Wind Turbines-this one has three big spokes pointing up/down/left/right, that spin in a circular motion on the front of the tower. The second one is the VAWT-Vertical Axis Wind Turbines-this one has a different design, it has three spokes that spin around in a circular motion on top of the tower.



HAWT

VAWT

What Sort Of Area Does A Wind Turbine Need To Be Located And Why

- Wind turbines need to be in a flat plain area, or a hill. They can even be located out at sea, where they cant be blocked from the wind. These areas are needed because the wind needs to turn the turbine to transform the kinetic energy into electricity. If the wind cannot get to the wind turbine then it wont spin and no electricity will be produced.




Advantages and Disadvantages of Wind Turbines

Advantages

- Renewable energy resource
- No fuel costs
- 0 harmful gases produced

Disadvantages

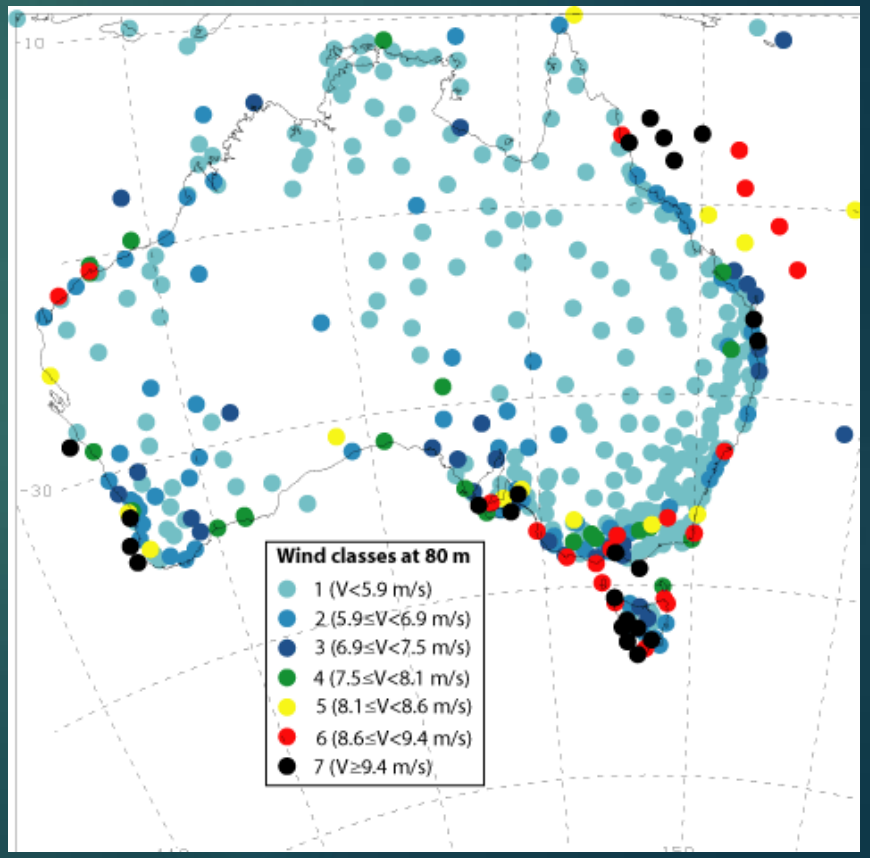
- Noise
- Spoil views
- Depends on wind strength
- No wind=no electricity

How much electricity do wind turbines produce

- The amount of electricity produced depends on the wind speed and turbine size. An average onshore wind turbine can produce over 6 million kilowatts in a year. it is enough to give 1, 500 average households electricity.

How many Wind turbine sites are in Australia

- There are currently 21 wind farms in Australia. They are:
- Boco Rock Wind Farm, New South Wales
- Capital Wind Farm, New South Wales
- Cathedral Rocks Wind Farm, South Australia
- Clements Gap Wind Farm, South Australia
- Collgar Wind Farm, Western
- Emu Downs Wind Farm, Western Australia
- Gullen Range Wind Farm, New South Wales
- Hallett Group , South Australia
- Lake Bonney Group, South Australia
- And more
- There are currently 3 under construction in Australia. These are located in:
- Bald hills, Victoria
- Taralga, New South Wales
- Hornsdale, South Australia.



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