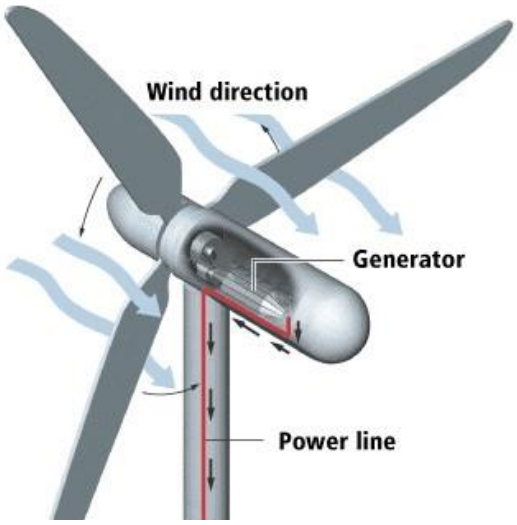
Wind Energy Exercise



In this activity, you will measure the Kinetic Energy into the wind turbine and power produced by the wind turbine.

Remember:

1. This is a team project
2. Take proper care of the materials provided
3. Ask questions
4. Have fun ☺

- Check that the wind turbine works properly. Spin the turbine, does the LED light up?

  - Why does the LED light up only when spun in one direction?

- If the air velocity is 6 m/s and flow is 3.7 kg/s how much Kinetic Energy is going into the wind turbine? Show your calculation below:

- What type of energy is coming out of the system?

- How much energy is coming out? Using the voltmeter find the Voltage and Current that the turbine produces. How much power is produced? Remember Power = Voltage x Current

- Compare the energy in and the energy out of the system. Which one is bigger?

- Why is it that one of the energies is bigger than the other? Where did the energy difference go?