

THREE MAIN COMPONENTS of WIND TURBINES

GIANT BLADES + ROTOR = TURBINE

- AS wind passes by, it makes the blades spin. As a result, the blades, attached to the rotor, spin the shaft.

THE SHAFT

- A gearbox that increases the speed of the spinning blades enough to power the electricity generator.

THE GENERATOR

- converts mechanical energy of the moving wind into electrical energy.

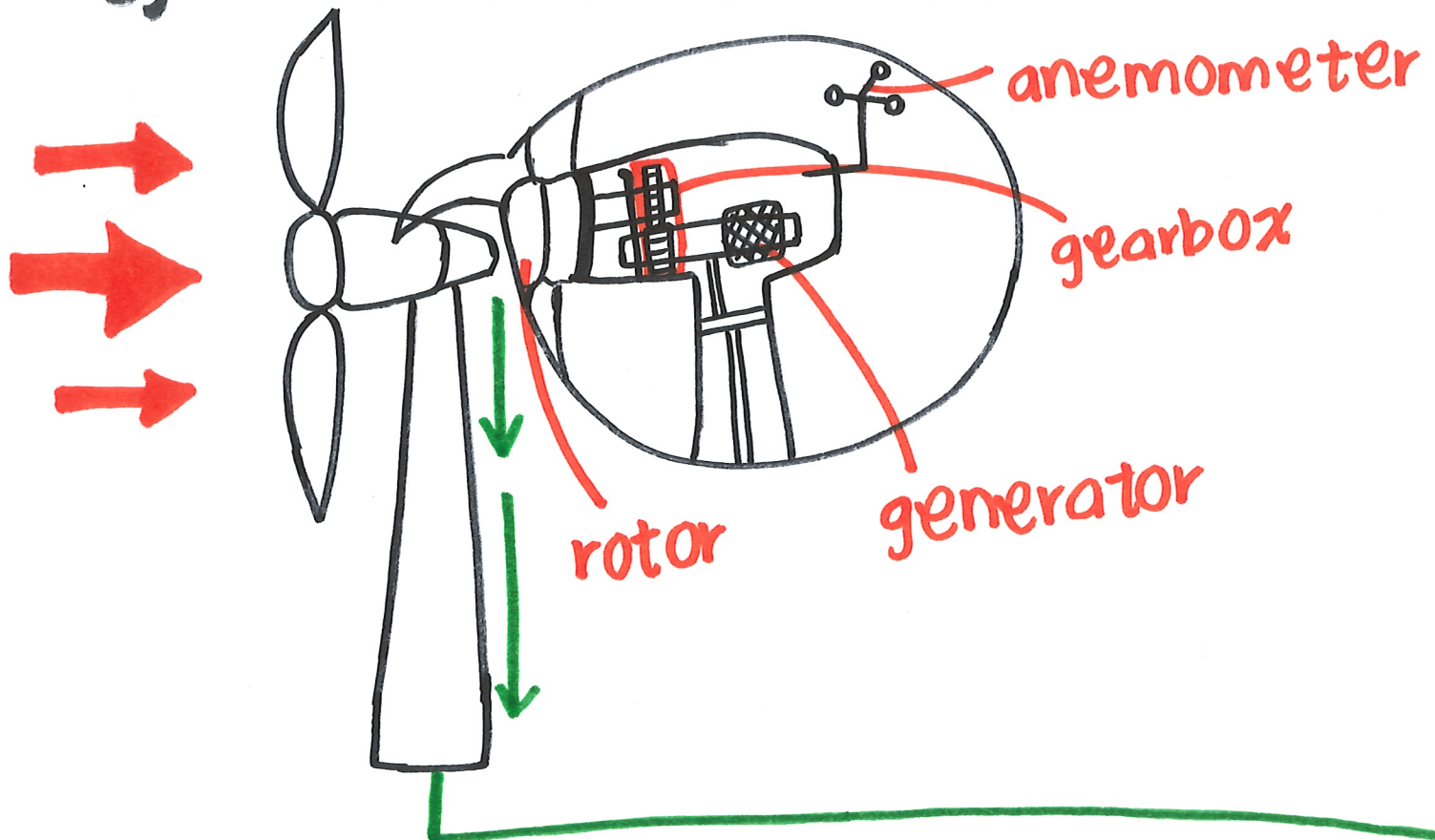
THE BIGGER THE WIND TURBINE, THE MORE ELECTRICITY THAT IS GENERATED!

WIND ENERGY

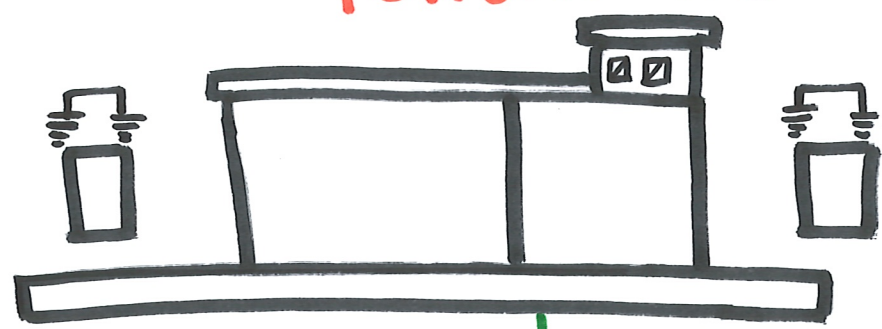
HOW DOES IT WORK?

1

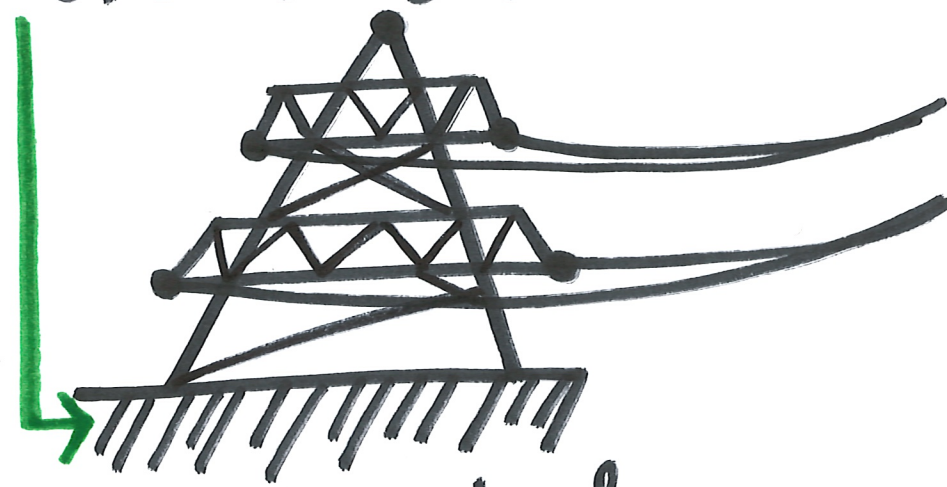
Wind turns fan blades of the wind turbine.



2 turbines turn generators, creating electricity.
— the powerhouse —



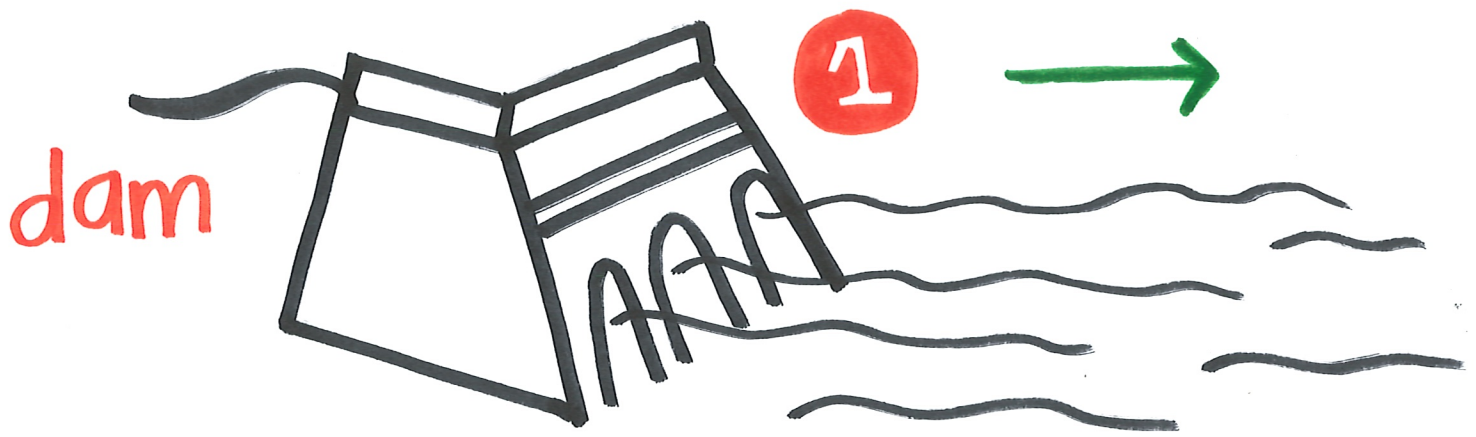
3 transformers at substations increase voltage of electricity.



4 Electricity joins grid & is distributed.

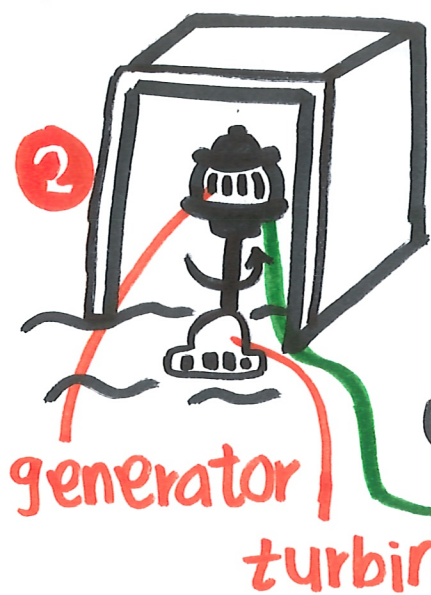
HYDRO ELECTRICITY

HOW DOES IT WORK?



1 Flowing water is directed towards & used to spin giant turbines.
MECHANICAL ENERGY
IS GENERATED! ☹️

powerhouse



2 The mechanical energy is converted to electrical energy using generators.

3 The electrical energy flows to powerlines, & from there to consumers as needed.

