

WIND TURBINE



Knowledge & Hope

BLADES

Lift and rotate when hit by wind, causing the rotor to spin.

LOW-SPEED SHAFT

Spins along with the rotor and turns the high-speed shaft using a gear system.

ANEMOMETER

Measures the speed of the wind and transmits this data to the controller.

ROTOR

Combination of the blades and hub.

WIND VANE

Measures the wind's direction and communicates this to the yaw drive.

BRAKE

Stops the rotor in case of emergency or high winds.

CONTROLLER

Starts and stops the turbine from working, depending on conditions.

HIGH-SPEED SHAFT

Transfers the spin of the low-speed shaft to the generator at a much higher RPM.

GENERATOR

Produces electricity using the turning motion of the high-speed shaft and electromagnetic induction.

YAW DRIVE

Controls upwind turbines to orient them should wind direction change.

TOWER

The base of the turbine, build to support the rest of the structure.

