

## Glossary

**blade** - flat surface that rotates and pushes against air or water. Wind blowing over the blades causes the blades to lift and rotate, leading to the production of energy.

**current** - the flow of charge, usually in the form of moving electrons (electricity).

**centre of mass** - the mean (average) location of all of the mass in an object or system.

**climate change** - the steady rise in global average temperature in recent decades, which experts believe is largely caused by man-made greenhouse gas emissions.

**electromagnetic induction** - the production of voltage across a conductor situated in a changing magnetic field or the production of voltage by a conductor moving through a stationary magnetic field.

**generator** - a device that converts mechanical energy to electrical energy; the generator sets modern day windmills apart from their predecessors.

**nacelle** - the structure at the top of the wind turbine tower that houses the key components of the wind turbine, including the rotor, the shaft and the generator.

**renewable energy** - energy generated from natural resources such as sunlight, wind, rain, tides and geothermal heat, which can be replenished.

**rotor** - the rotating part of an electric motor.

**shaft** - a rounded steel rod that acts as an axis for the blades and allows them to rotate freely. One end of the shaft holds the blades and the other end connects to either the generator or the transmission.

**sustainability** - the ability to be continued for an indefinite period without damaging the environment or depleting a resource.

**tower** - the base of the windmill which gives it its elevation.

**turbine** - the component of a windmill which converts kinetic energy to electrical energy.

**voltage** - electric potential energy per a unit charge; a difference in electric potential.

**wind power** - the extraction of energy from the wind and its conversion into a useful type of energy.

**yaw** - the component of a windmill which orients the turbine towards the wind.