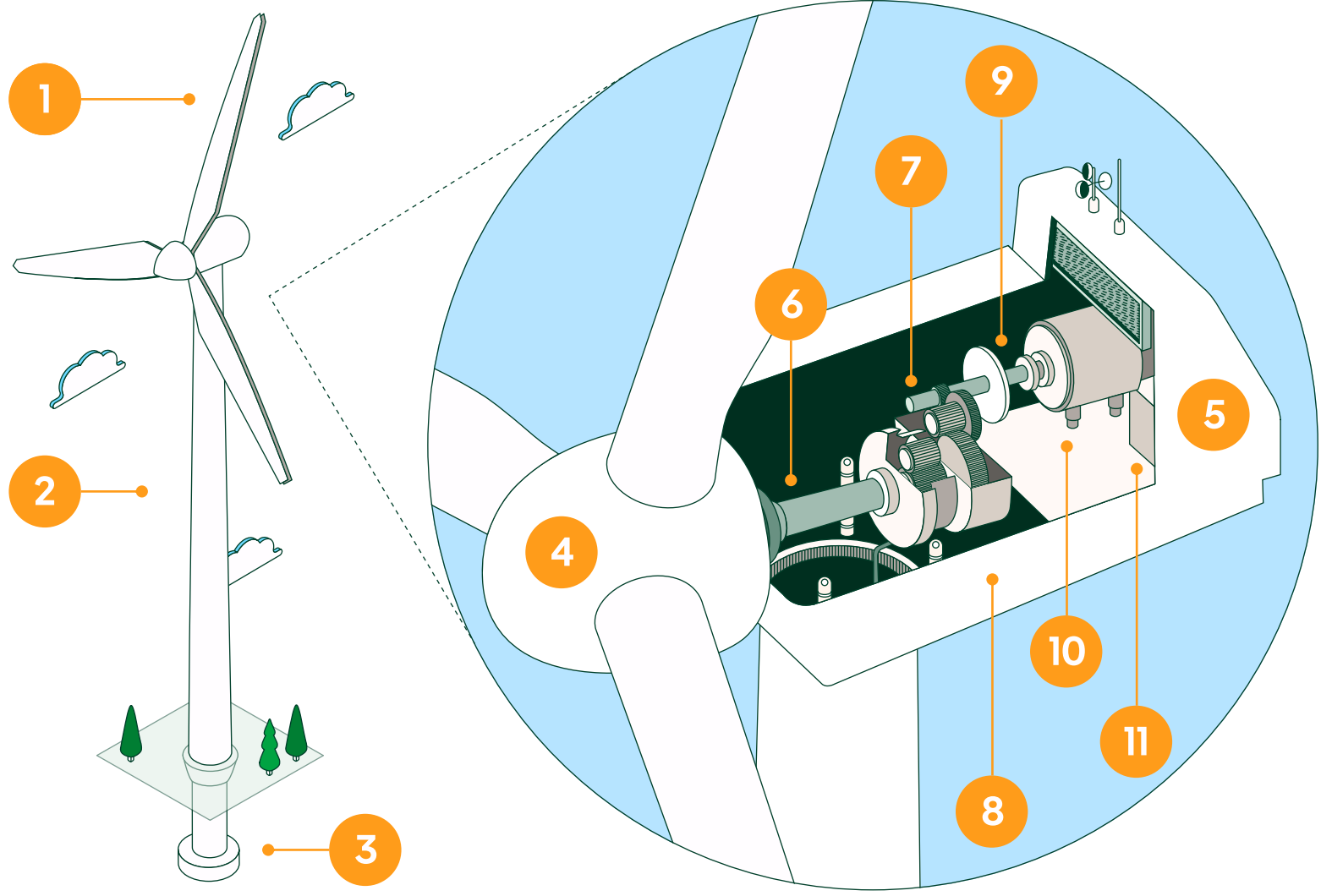
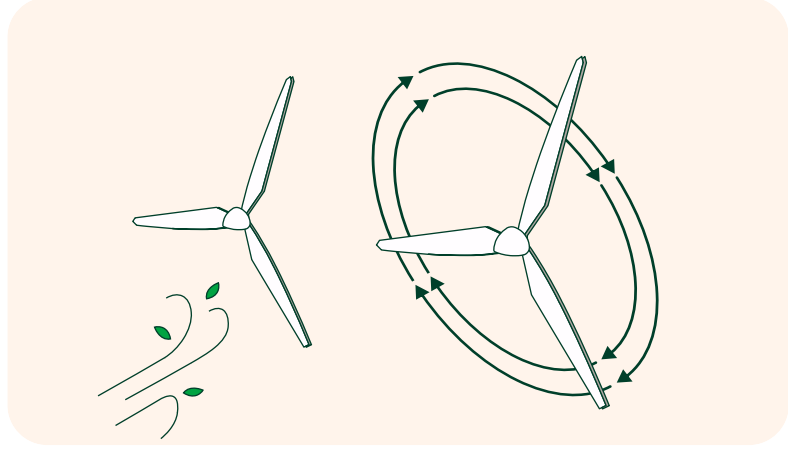


Parts of a wind turbine



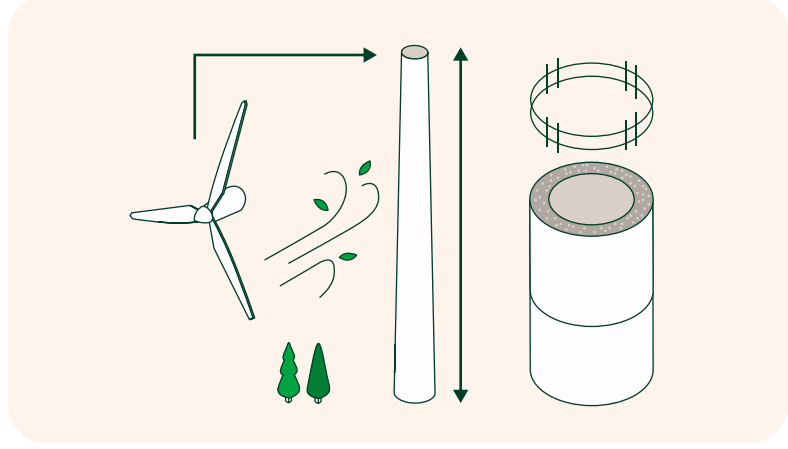
1 Blades

The most commonly used structure – and the one used by Iberdrola – has three blades moving along a horizontal axis. These rotate when pushed by the wind, transforming kinetic into mechanical energy.



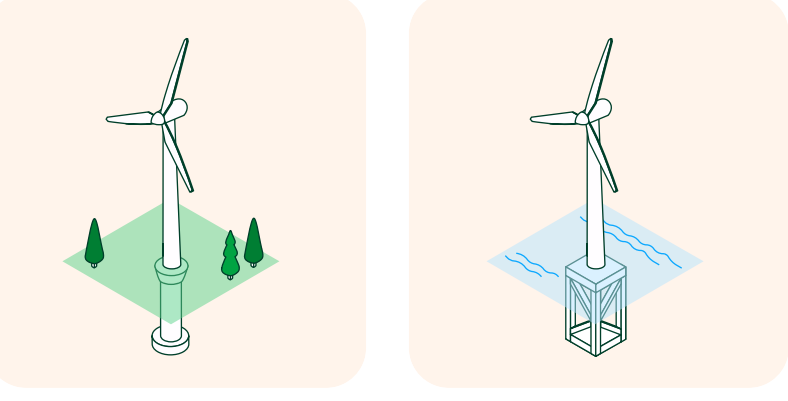
2 Tower

Supports the rotor and nacelle, keeping them high enough to catch stronger, steady winds. It can be made of steel, concrete or a combination of both.



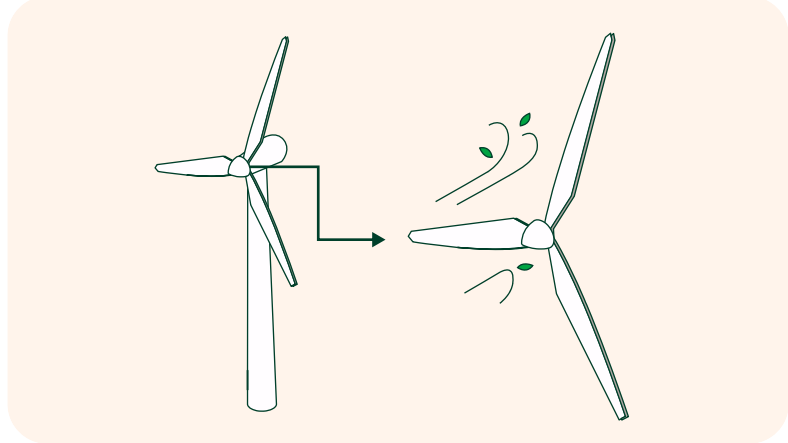
3 Base

Concrete foundation that supports the entire wind turbine. In the case of offshore wind turbines, the foundation may be underwater.



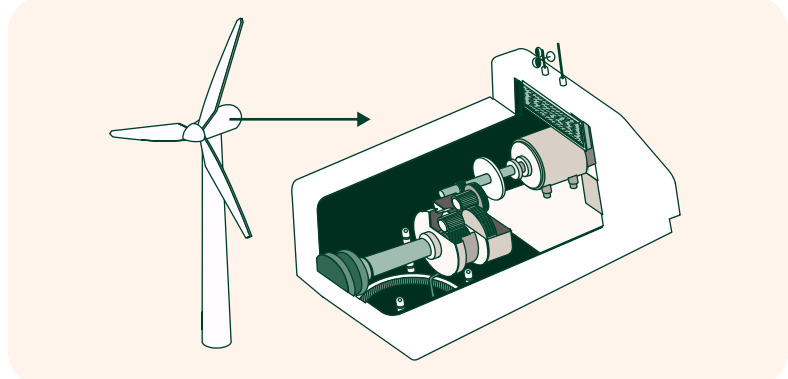
4 Rotor

Composed of the blades and the hub. It is the part responsible for capturing the wind's kinetic energy.



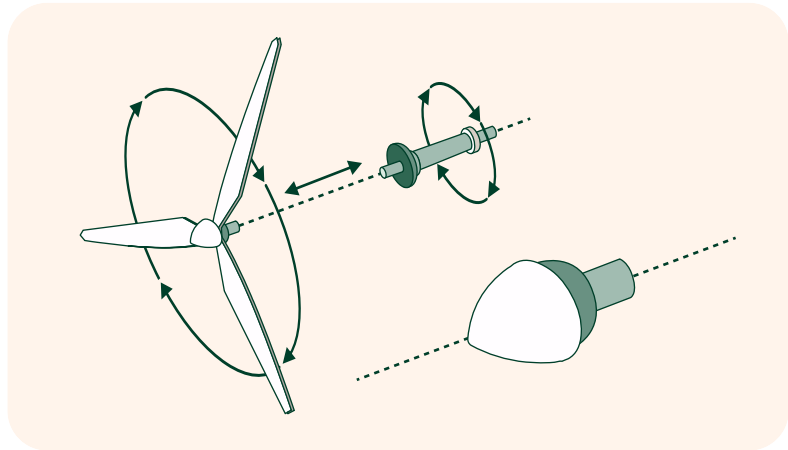
5 Nacelles

The casing at the top of the tower that contains all the mechanical and electrical parts, including the generator, gearbox and control system.



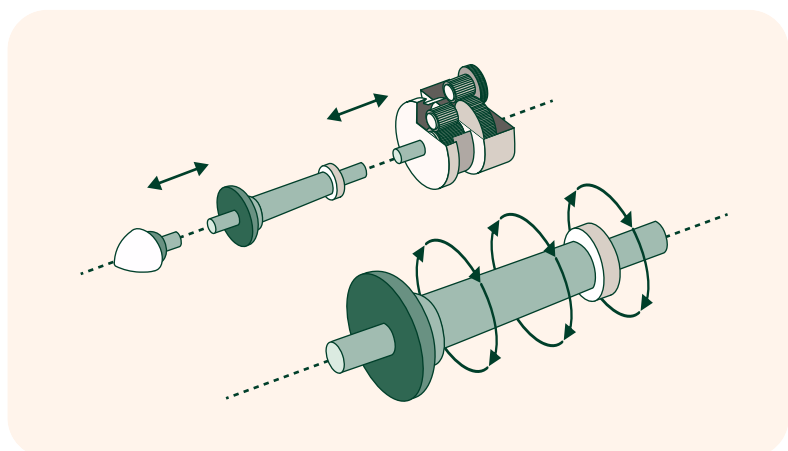
6 Rotor hub

This is the central part of the rotor the blades are attached to. It transmits the mechanical energy generated by the movement of the blades to the low-speed shaft.



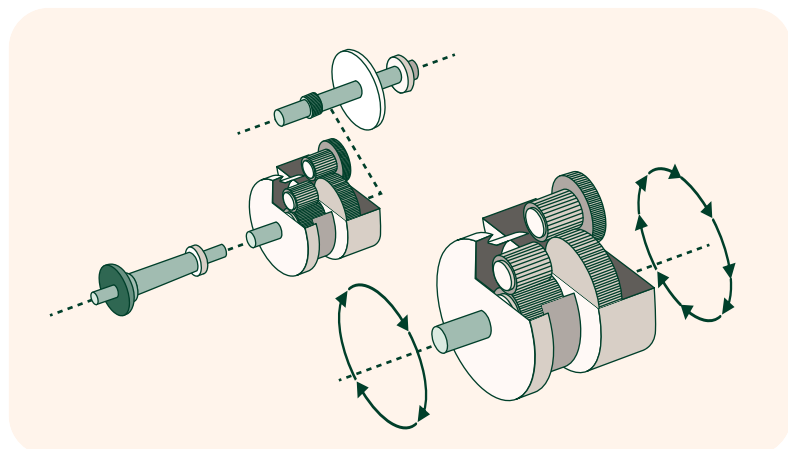
7 Low-speed shaft

Connects the rotor to the gearbox and rotates at the same speed as it does.



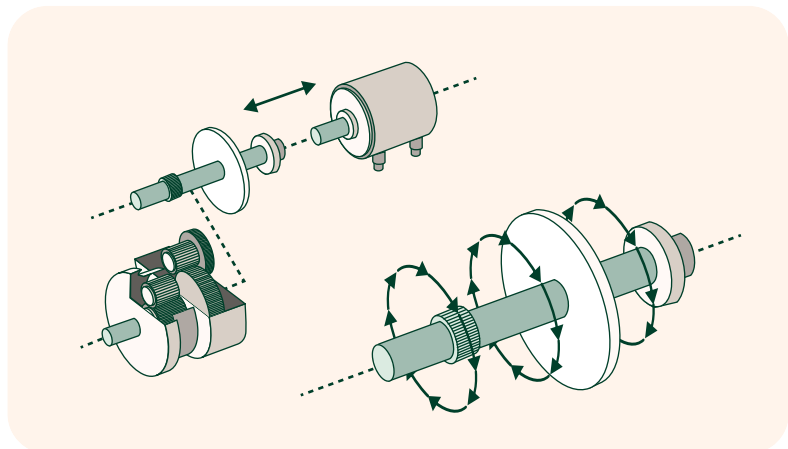
8 Gearbox

Raises the shaft's rotational speed and rotates at a speed that allows the generator to operate.



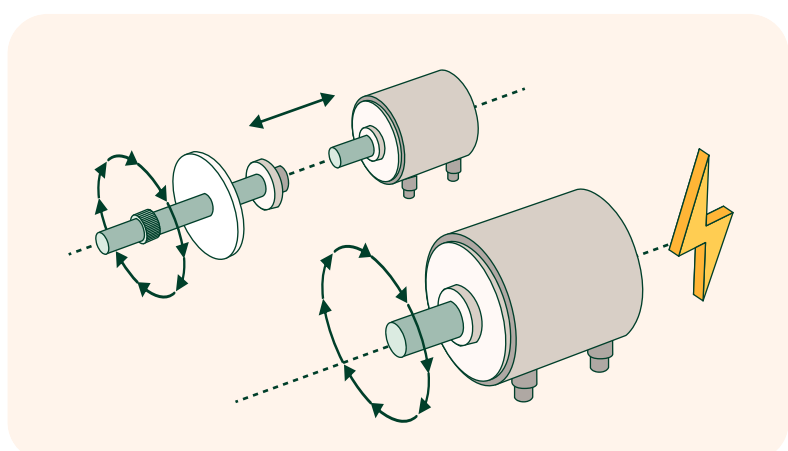
9 High-speed shaft

Connects the gearbox to the generator and rotates at a speed that allows the generator to operate.



10 Generator

Converts mechanical energy into electricity. Its design may vary depending on the type of wind turbine.



11 Control system

Allows the wind turbine to be monitored and regulated to optimise energy production and ensure safety. It includes a series of sensors that collect and send data over a communications line.

