



Section 1: Key terms

Renewable resources	Resources that will replenish themselves (made quicker than they are used). They will not run out .
Non-renewable resources	Resources in limited supply that are used quicker than they are made, so they will run out .

Section 2: Energy Resources

Our **energy demands** are met mostly by burning fossil fuels (oil, coal and gas). Fossil fuels are non-renewable and causes major environmental problems, hence there is an increasing demand for renewable resources which are less damaging to the environment.

Resource	Renewable?	Uses	Advantages	Disadvantages
Fossil Fuels	Non-Renewable	Electricity, transport, heating	Reliable – electricity can be generated all of the time. Relatively cheap way of generating electricity.	Produces carbon dioxide , a greenhouse gas that causes global warming . Can produce sulphur dioxide , a gas that causes acid rain .
Nuclear Fuel	Non-Renewable	Electricity	Produces no carbon dioxide when generating electricity. Reliable – electricity can be generated all of the time.	Produces nuclear waste that remains radioactive for thousands of years. Expensive to build and decommission power stations.
Bio Fuel	Renewable	Heating, electricity	Carbon neutral . Reliable – electricity can be generated all of the time.	Production of fuel may damage ecosystems and create a monoculture .
Wind	Renewable	Electricity	No CO₂ produced while generating electricity. Cheap to use.	Unreliable – may not produce electricity during low wind . Expensive to construct.
Hydroelectricity	Renewable	Electricity	No CO₂ produced while generating electricity. Cheap to use.	Blocks rivers stopping fish migration . Unreliable – may not produce electricity during droughts .
Geothermal	Renewable	Electricity, heating	Does not damage ecosystems . Reliable source of electricity generation. Cheap to use.	Fluids drawn from ground may contain greenhouse gases such as CO₂ and methane . These contribute to global warming .
Tidal	Renewable	Electricity	No CO₂ produced while generating electricity. Cheap to use.	Unreliable – tides vary . May damage tidal ecosystem e.g. mudflats.
Waves	Renewable	Electricity	No CO₂ produced while generating electricity. Cheap to use.	Unreliable – may not produce electricity during calm seas.
Solar	Renewable	Electricity, heating	No CO₂ produced while generating electricity. Cheap to use.	Unreliable – does not produce electricity at night . Limited production on cloudy days. Expensive to construct.