

ROOM 7 - XII MIPA 7

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- What is Renewable Energy?

Renewable energy is an energy that is generated from sources that naturally replenish themselves and never run out.

- Source renewable energy

A renewable energy source means energy that is sustainable - something that can't run out, or is endless, like the sun. When you hear the term 'alternative energy' it's usually referring to renewable energy sources too. It means sources of energy that are alternatives to the most commonly used non-sustainable sources - like coal.

Renewable resources include **biomass energy** (such as ethanol), hydropower, geothermal power, wind energy, and solar energy.

The most popular renewable energy sources currently are:

- Solar energy.
- Wind energy.
- Hydro energy.
- Tidal energy.
- Geothermal energy.
- Biomass energy.

- Advantages and Disadvantages of Renewable Energy

Energy Resource	Advantages	Disadvantages
Fossil fuels	Reliable	Create pollution and will run out
Nuclear power	Reliable	Will run out and produce dangerous waste that is hard to dispose of
Wind turbines	Clean and cheap to run	Expensive to set up and wind does not always blow
Wave generators	Clean and cheap to run and Scotland has a lot of coastline	Expensive to set up
Tidal generators	Clean and cheap to run and produce a lot of electricity once running	Very expensive to set up and could be hazardous to local wildlife
Hydroelectric power stations	Clean and cheap to run	Expensive to set up and output could be affected by drought
Solar cells	Clean and cheap to run	Not always sunny and output does not always outweigh initial cost to set up

Advantages of Renewable Energy

Environmental and economic benefits of using renewable energy include:

- Generating energy that produces no greenhouse gas emissions from fossil fuels and reduces some types of air pollution
- Diversifying energy supply and reducing dependence on imported fuels
- Creating economic development and jobs in manufacturing, installation, and more

Disadvantages of Renewable Energy

The main disadvantages of this renewable energy are:

- The Electricity Generation Capacity is Still Not Large Enough.
- Low-efficiency Levels.
- Takes a Lot of Space to Install.