

WIND POWER

Practical ACTION



Practical ACTION

Wind Power uses turbines to changes the kinetic energy of the wind into electrical energy.

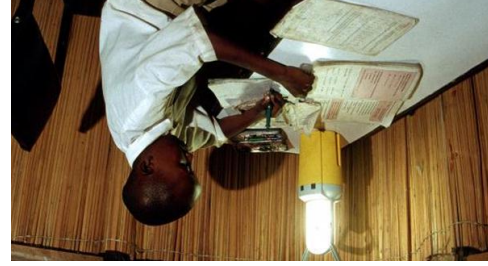
No emissions are produced from the wind turbine itself only during its manufacture.

In the UK there are now many large scale wind farms, they provide a source of renewable energy for the National Grid.

In developing countries many small scale wind farms are used, they can produce up to 10 kilowatts.

SOLAR POWER

Practical ACTION



Practical ACTION

Solar panels change light energy into electrical energy.

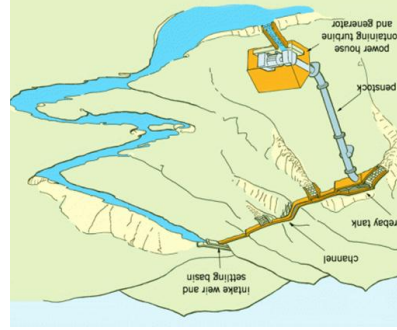
Solar power is a form of renewable energy as it uses light from the sun which means no greenhouse gasses are made during electric production.

In the UK solar panels are popular and are often placed on house roofs and energy is fed back into the national grid.

In developing countries solar lanterns are very popular as they give off light at night allowing children to study at home they produce up to 4 watts a night.

HYDROPOWER

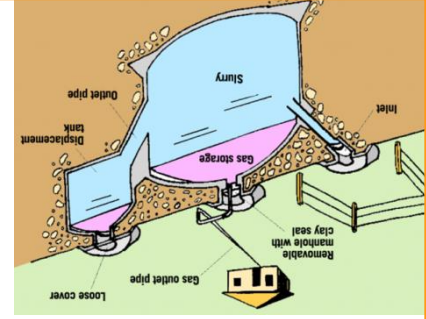
Practical ACTION



Hydropower changes kinetic energy of the water flow to electrical energy. Water is diverted from a river or stream and passes through turbines, which drive a generator and produces energy. The UK has a few large scale hydro plants each can produce more than 5 megawatts. Micro-Hydras are now used by many developing countries to supply small villages with electric, they can produce up to 500 kilowatts.

BIOGAS

Practical ACTION



Bio gas is produced from faeces like cow dung, mixed with water and left to ferment. It is broken down naturally by bacteria to produce methane. Methane can be used for cooking and lighting. Methane is used a lot in the UK yet using bio gas is a new and upcoming method for methane production. In developing countries bio gas is a great source of energy as it is simple to produce.

Practical ACTION

Practical ACTION

BIOMASS ENERGY

Practical ACTION



This is using recently living things to produce energy, most commonly wood is burnt to produce energy. It converts chemical energy into thermal energy when burnt, to heat water and this turns turbines then changing the energy into kinetic then finally electrical energy.
Burning wood for energy is very common and is used in many different ways in all countries.

Practical ACTION

LAW OF CONSERVATION OF ENERGY

Practical ACTION



Energy cannot be created or destroyed. It can only be transferred from one form to another or moved.
To produce electricity, energy needs to be transferred from a different form of energy, for example in a wind turbine the energy is changed from kinetic to electrical.

Practical ACTION

POWER

Practical ACTION



Practical ACTION

ENERGY EFFICIENCY

Practical ACTION



Practical ACTION
