Other sources of energy

Hydroelectric power stations do not burn fuel. They use water falling from great heights (movement energy) to turn the large vanes of water turbines connected to a generator.

Wind turbines use the movement energy of the wind to turn their huge turbines connected to a generator.

Solar panels generate electricity without turbines. Light energy from the Sun falls on special cells on the panels. These transform the light energy into electrical energy.

Batteries do not use turbines either; they directly transform certain types of chemical energy into electrical energy once they are connected in a circuit.

The energy challenge

Most homes rely on electrical energy provided from power stations. Every time you plug something into a power point, the energy you are using probably came from a lump of coal, some gas or some moving water from a long way away!

Fossil fuels won't last forever (they are non-renewable), and burning them can produce waste products that can damage the environment. Renewable sources of energy, such as water, wind and solar, can present new issues, such as high costs and requiring large areas of land. The challenge for the future is to find a way to meet our electrical energy needs which is both friendly on our environment and is at an affordable price.