

Energy



WHERE DOES ENERGY COME FROM?

WE GET OUR ENERGY FROM THE THREE FOLLOWING SOURCES:

NON RENEWABLE ENERGY

Most of the energy we use today comes from non-renewable energy sources. Fuel sources such as coal, oil and gas are burned to produce electricity in power stations which is then converted to provide heat and light in our homes or they can be burned on their own in our homes to provide heat. Burning coal, oil, and gas produces a lot of carbon dioxide.

It takes a long time to replace these type of energy sources (which are also known as fossil fuels) because they are made by dead plants and animals getting squashed under rocks for over 250 million years. It will take a very long time (millions of years) for new fossil fuels to replace the sources we are using up today.

NUCLEAR ENERGY

Nuclear power is another energy source that provides a lot of energy. The energy created when nuclear atoms are pulled apart is used to produce electricity. The electricity is then converted to heat and light our homes.

RENEWABLE ENERGY

Renewable energy sources are defined as those sources that get replaced as quickly as they can be used up. Wind, sun, and water are classed as renewables.

ENERGY AND CLIMATE CHANGE

We use gas, electricity, oil, coal or wood to heat our homes. When we burn coal, gas, and oil (otherwise known as fossil fuels) they produce lots of carbon dioxide. Carbon dioxide is thought to be collecting in the air or atmosphere and acting like a giant blanket around the earth. Thus making the earth warmer, this is known as the Green House Effect. The green house effect is thought to be causing the earth's climate to change.



To slow the rate of climate change, the government wants us to reduce CO₂ emissions by 20% by 2010. Every household in the UK can help to reach this target. Climate change is already causing freak weather conditions in the United Kingdom.

In the UK, 1998 was the warmest year since records began. Seven of the ten warmest years on record have occurred in the last decade.

Many experts agree that we need to take action now to prevent irreversible damage to our environment. We can all help to produce less carbon dioxide by reducing the amount of electricity, gas and oil we use in our homes.



HOW TO SAVE ENERGY

Producing and consuming energy causes pollution and costs money. If we use it carefully then we can help stop pollution and save money too.

Below are some tips to help you use energy wisely.

Turn your room thermostat down by 1°C instead of opening windows when you're warm; you could cut 10% off heating bills. It's best set between 19 – 21°C. (Don't turn it down if you're cold, though!)

If you use a light for around four hours per day, fit an energy-saving light. It uses only a quarter of the electricity and lasts up to ten times as long. A bright idea!

Get onto the habit of turning off lights when you leave the room.

Only use the washing machine when you have a full load, this saves electricity.

If you're buying new appliances, look for the energy label and buy one with a rating of A or B if possible, they are the most energy efficient. They are more expensive, however will save money in the long run on electric bills.

Only fill the kettle as full as you need, this will save electricity.

Take a shower instead of a bath. You get three showers for the price of one bath.

An insulating jacket for your hot water cylinder costs around £10, is easy to fit, and could save you £20 per year.

Keep lids on pans while cooking, to cut condensation and cook food faster using

less fuel. Pick the right size pan for the job, and don't use more water than you need; this wastes energy and spoils the food.

If your home is draughty, don't just draught proof doors & windows; check keyholes, letterboxes, loft hatch, and gaps around piping behind sink or in bathroom too.

Always remember to put the plug in, when you're using the sink or washbasin.

Leaving hot taps running without the plug in is wasteful and expensive. Also replace washers on dripping taps, especially hot water taps.

Don't leave TV, video, music centre etc on standby as they still use, up to 80%, electricity. You could save £7 per year per appliance.

Make sure you're getting the best out of whatever heating controls you have, by setting them correctly – boiler controls, programmers, thermostats etc.

Set the boiler to heat the hot water to 60°C, you will find that this is adequate for bathing and washing.

It is more economical to only heat rooms you are using. Turn the radiator thermostats down in unused rooms.

Energy

