

how can you save money?

A third of the UK's energy is used in our homes. With prices rising faster than ever, affording the energy we need will get harder. Half of the energy we use is actually wasted through inefficiency. Reducing this will save money, save fuel and reduce our impact on climate change. The cost of being more efficient is now less than the cost of wasting energy, so now is the time to Act on Energy in your home.

actonenergy now

quick tips that will save you money!

There are many things you can do to save energy that cost nothing:

- Don't overheat your home, turning down the thermostat by 1°C can save 10%
- Don't overheat hot water; 60°C is right for most homes
- Wash clothes at 30°C
- If you use a dish washer only switch it on when it's full
- Don't cover radiators with furniture or overhanging curtains
- Close internal doors at night and close all curtains
- Switch things off if you are not using them

Some people need more heat than others so don't do anything that will put your health at risk.

heating

A central heating system is best for whole house heating. Most homes have a gas or oil fired boiler and radiators but there are other types of heating. All boilers must be fitted by Approved Installers. High efficiency boilers are now standard but only 'A' rated boilers will have the Energy Saving Recommended logo. Call us on **0800 988 2881** for details of other heating types and a list of local installers.

gas and oil

central heating

High efficiency boilers are also known as condensing boilers and the main types are:

Standard boiler which heats radiators and water in a cylinder

System boiler which doesn't need a feed tank in the roof space

Combination boiler (Combi) which provides instant hot water and doesn't need any tanks or a cylinder.

electric heating

Electricity is one of the most expensive fuels for heating so make sure you use the best tariff for your system.

The most common electric heating uses **Storage Heaters** on an 'off-peak' tariff (Economy 7) which is less than half the cost of 'on-peak' electricity. Heat is stored in thermal blocks over night and released slowly during the day. It is important that the controls are adjusted every day to avoid excessive bills or running out of heat in the evening.

heating controls

For a boiler to be fully efficient, the heating system needs time and temperature control. This is required by Building Regulations whenever a boiler is fitted.

You will need a **Programmer** to automatically turn the heating and hot water on and off as you need it.

A **Room Thermostat** turns the heating off when the set temperature is reached and **Thermostatic Radiator Valves (TRVs)** control the temperature of individual rooms.

If you have a hot water cylinder you also need a **Cylinder Thermostat** to control its temperature, typically 60°C.



insulation

When you heat your home over half is lost through walls and roofs. Insulating these is the most cost effective thing you can do to save money on fuel bills, improve home comfort, and help with problems caused by condensation.

wall insulation

Most heat is lost through uninsulated walls, particularly if the house has solid walls. There are various methods of insulating walls that can reduce heat loss by up to 80%.

solid wall insulation

For solid walls, insulation can be applied to the inside or outside but is best done when other work is planned and can reduce heat loss by over 80%.

cavity wall insulation

Most homes built after the 1930s can have cavity wall insulation fitted.

Contractors generally use mineral fibre or bonded beads and grants and subsidies are generally available.

external/internal insulation

External insulation is fixed to the outside of the wall with a protective waterproof finish such as render or brick tiles.

Internal insulation (dry lining) can be done when renovating or a flexible insulating lining can be used when redecorating.

loft insulation

A quarter of the heat escapes through the roof so new homes have 250mm loft insulation. You can insulate a loft yourself or get a contractor to do it for you. Insulate all tanks and pipes as well as the loft hatch but don't block ventilation. Make sure you shop around for the best deals.



home energy survey

This tells you where you are losing money and energy. Energy surveys are carried out by accredited professionals who can provide an Energy Performance Certificate or check your home with a thermal imaging camera.

An **Energy Performance Certificate (EPC)** is needed whenever any house is sold or rented. It tells a buyer how much the energy bills are likely to be and what could be done to reduce them.

Thermal Imaging uses an infrared camera to see where heat is lost. This can highlight problems with insulation and damp which cannot normally be seen.

DIY Home Energy Check is a way of doing your own energy survey. It's **FREE** and available online on most energy supplier websites and the Energy Saving Trust at www.energysavingtrust.org.uk/check

Book a Home Energy Survey or for more advice call us now **FREE** on **0800 988 2881**



grants, subsidies and loans

Energy Suppliers currently provide subsidised cavity wall and loft insulation

for anyone regardless of means although prices can vary. A typical subsidy would be around 50% of the normal cost so it's well worth having.

FREE insulation for people over 70 or receiving means tested benefits may be available.

Some Local Councils have schemes for **FREE** insulation. These are usually restricted to elderly people and are first come first served.

The government Warm Front scheme provides **FREE** heating improvements and insulation measures for those on qualifying benefits. If the cost is more than the maximum grant you will be charged the extra.

Green Loans may be available from some Banks and Building Societies. These can provide funds to allow you to improve your home now and repay the loan from the savings you make on your energy bills.

To find out about grants call us **FREE** on **0800 988 2881** or visit www.actonenergy.org.uk

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Save money on heating call us **FREE** on **0800 988 2881** or visit www.actonenergy.org.uk

Save money with insulation call **FREE** on **0800 988 2881** or visit www.actonenergy.org.uk

appliances and lighting

Appliances can consume 35% of the total home energy bill. When buying new appliances choose an 'A' rated one. The most efficient appliances have the Energy Saving Recommended logo.

Appliances should be switched off when not in use. Stand-by still uses energy so switch them off at the wall if necessary, including digital TV boxes, PCs and internet routers. If plugs are out of reach use adaptors which can be switched off using a remote control.

Lighting uses more energy than you think. The most efficient types for homes are compact fluorescent lamps (CFL) and light emitting diodes (LED).

A 100W tungsten bulb will use £20 of electricity in its 1,000hr life. The CFL equivalent will use £4 and **save nearly £200** in its 12,000 hour life.

Most styles of lamp and connection are now available. If your local store doesn't have the one you want ask them to order it for you.



transport

Smarter driving could **save you up to £220** a year in petrol or diesel and with fuel prices rising all the time, will save you even more in the future when you remember to:

- Change gear before 2,500 rpm (2,000 for diesel)
- Slow down, faster speeds will always consume more fuel
- Remove roof racks when not in use. They cause drag which uses more fuel
- Drive smoothly and anticipate traffic conditions to avoid heavy acceleration and braking
- Avoid short journeys which use twice as much fuel when the engine is cold
- Use air conditioning sparingly; it can increase fuel consumption by 10%
- Plan journeys to avoid congestion which wastes time and fuel
- Check tyre pressures regularly as underinflated tyres use more fuel
- Drive away immediately from cold. Waiting for the car to warm up wastes fuel and causes engine wear
- If you are in a hold up for more than a couple of minutes, turn off your engine

renewable energy

Energy is called renewable when it comes from sources which can't be depleted such as the sun or wind or can easily be replaced such as from crops.

Photovoltaic cells convert solar radiation directly into electricity which is fed through an inverter into the home. Any excess can be sold to an energy supplier.

Wind Turbines larger turbines can provide enough electricity for several homes but turbines mounted on a house are unlikely to produce much energy due to wind turbulence.

Small Scale Hydro needs a river or stream with a fall of 2-3 metres and enough flow to turn a turbine.

Biomass uses wood chip or pellets made from plant material in a room heater or a boiler.

Solar Thermal Panels use the sun's energy to heat water for hot taps. This can provide about 50% of your hot water needs for a year.

Heat Pumps use a refrigeration technique to extract heat from the ground or from the air. They can produce up to 4kWh of heat energy from each kWh of electricity.

If you can't make it yourself, you can buy electricity from a renewable source. Just ask your energy supplier about Green Electricity tariffs.

renewable energy grants

The Low Carbon Buildings Programme provides grants to support the cost of investing in renewable technology. Only products and installers accredited under the scheme can be used and your house will need to have the main energy efficiency measures installed. **For full details visit www.lowcarbonbuildings.org.uk**

Some local councils also provide limited grants for renewable technologies and some manufacturers and energy suppliers have teamed up to provide cost effective packages. Green Loans can also be used to instal renewable technology.

For renewable energy help call **FREE** on **0800 988 2881** or visit **www.actonenergy.org.uk**

actonenergy

Act on Energy is an independent organisation based in Warwickshire, dedicated to educating the public in the problems associated with climate change and other energy issues. We also provide householders and small businesses in the surrounding region with realistic solutions to reduce energy use.

Act on Energy was established in 1998 as Warwickshire Energy Efficiency Advice Centre, a charitable company, to support Local Authorities and the Energy Saving Trust. The organisation was renamed Act on Energy in 2008.

Act on Energy provides free advice and delivers community based projects through exhibitions and talks to local groups and schools.

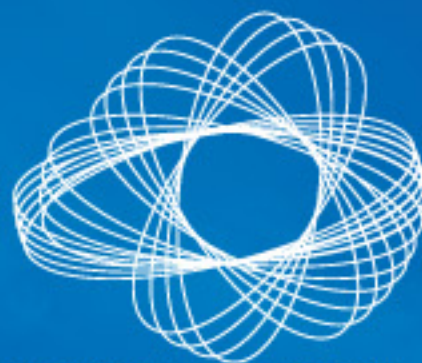
We also work with large companies to encourage energy efficiency by employees and provide training in energy efficiency techniques.

We plan and manage grant schemes for Local Authorities and have accredited assessors who provide Energy Performance Certificates for private and social housing. We also carry out thermal imaging surveys.

Save money and the environment

contact us now!

advice line: **0800 988 2881**
email: advice@actonenergy.org.uk
website: www.actonenergy.org.uk



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your guide to an energy efficient home



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