Easy ways you can stop wasting energy

- Turn your thermostat down. Reducing your room temperature by 1℃ could cut your heating bills by up to 10 percent and typically saves around £50 per year. If you have a programmer, set your heating and hot water to come on only when required rather than all the time.
- Is your water too hot? Your cylinder thermostat should be set at 60℃/140℉.
- Close your curtains at dusk to stop heat escaping through the windows and check for draughts around windows and doors
- Always turn off the lights when you leave a room.
- Don't leave appliances on standby and remember not to leave laptops and mobile phones on charge unnecessarily.
- If possible, fill up the washing machine, tumble dryer or dishwasher: one full load uses less energy than two half loads.
- Only boil as much water as you need
- A dripping hot water tap wastes energy and in one week wastes enough hot water to fill half a bath, so fix leaking taps and make sure they're fully turned off!
- Use energy saving lightbulbs. They last up to 10 times longer than ordinary bulbs, and using one can save you around £45 over the lifetime of the bulb. This saving could be around £70 over its lifetime if you're replacing a high wattage incandescent bulb, or one used for more than a few hours a day.

Ways of saving water inside the home:

- If a four person family replaces their inefficient shower head with a high flow rate to a water efficient one they could save around £50 off their gas bills and around £75 off their water bills if they have a water meter each year. That’s a total saving of £125.
- If everybody in a four person family replaces one bath a week with a 5 minute shower they can save up to £10 a year on energy bills and up to £25 on water bills if they had a water meter.
- Make sure that your dishwashers and washing machines are full before putting them on and always use the most water and energy efficient settings. When it's time to replace your appliance, look for Energy Saving Recommended logo. Products with this logo will save both energy and water.
- Using a bowl to wash up twice a day rather than leaving the hot tap running could save around £25 a year on a household's gas bill and around £25 on your water bill if you have a water meter. If you must rinse, wash up or prepare vegetables in the sink, use cold water where possible and don't keep the tap running!
- Only boil as much water as you need to avoid unnecessarily heating water you won't even use – this could save around £6 a year on energy bills. If everyone in the UK did this every time they used the kettle, we could save enough electricity in a year to power the UK's street lights for 2 months.

- A running tap wastes over 6 litres of water a minute so turn off the tap whilst brushing your teeth, shaving or washing your face and use cold water where you don't need hot.
- A dripping tap can waste over 5,500 litres of water a year so make sure your taps are properly turned off and change washers promptly when taps start dripping.
- Where possible try and reuse unused water, for example pour your left over glasses of water on houseplants and avoid wasting water from running taps whilst waiting for hot water.

Saving water outside the house

- Your roof collects tens of thousands of litres of water each year, which then just runs straight into the drains. Invest in a water butt and use the water to water your garden, houseplants and wash your car. Rainwater is better for plants than tap water as it is softer.
- Avoid jet washes and energy wasting auto car washes. Use the water (preferably from your water butt) to wash your car using a good old bucket and sponge!

The most cost effective ways of reducing energy is by fully insulating your home and by using energy efficient lighting and appliances.

Loft insulation – If you want to make an immediate energy saving, loft insulation is the place to start.

A well insulated loft will save you energy, money and help to keep your home warm. The Recommended depth for mineral wool insulation is between 270mm and 300mm.

Loft insulation is effective for at least 40 years and will pay for itself many times over. Not only that but even professionally loft insulation of up to 270mm in depth can payback your investment in as little as a year.

If you have an accessible loft with no damp or condensation problem, then loft insulation will benefit your home and pocket.
If your loft is not insulated about 25% of your home’s heat is lost.

For lofts with difficult access, blown insulation can be used. Even if you have a flat roof or use your loft for living space there is still an insulation solution for your home. Additionally, loft insulation can improve noise reduction and fire protection.

Cavity wall insulation – Quick, easy and effective for a lifetime saving.

If you home was built from the 1920's onwards, there's a good chance that the external walls having a cavity. In effect your walls are built in two layers with a gap between them.

It's important to fill this cavity because around a third of all heat lost from your home will leave via its walls. So not only will cavity wall insulation save you energy and money, it will also help to keep your home more comfortable. For an example of the cost savings available to you, an average three bedroom, gas heated, semi-detached home will save you about £160 per year. Therefore payback on your investment should take just under a year and a half.

This kind of insulation will be suitable for a home with walls that have unfilled cavities that are at least 50mm in width and masonry and brickwork are in sound condition.

This method works by forming a barrier to escaping heat. In effect it sores heat in the ' inner skin' of you walls and reduces the rate of heat loss in your living areas, giving you a much more constant temperature throughout, while enabling you to turn down your heating.

If your home was built in the last decade or so, then it's likely to already have cavity wall insulation.

Solid wall insulation – solid walls lose even more heat than cavity walls, the only way to reduce this heat loss is to insulate them on the inside or the outside.

External insulation:

Insulating your solid walls will help stop heat being lost from your home and help prevent condensation on the walls and ceilings. It's not cheap, but you will soon see the benefits to your heating bill and it's another way of playing your part in reducing $C0_2$ emissions. There are two types of solid wall insulation: External and internal.

How external wall insulation works:

This involves adding a decorative weather-proof insulating treatment to the outside of your wall. The thickness of the insulation needs to be between 50 and 100mm and is usually installed where there are severe heating problems or the exterior of the building requires some form of other repair work providing the opportunity of adding insulation.

The savings

Even though external wall insulation is more expensive than cavity wall insulation, it can save you around £400 a year on your energy bills every year.

For example a three bedroom semi-detached house could save around 2.1 tonnes of $C0_2$ a year.
If you are going to be renovating or repairing the exterior or repairing the exterior walls of your house then it would be a very good time to consider installing solid wall insulation. In this case, the marginal cost of external solid wall insulation (i.e. the material costs and labour when other wall repairs are being undertaken) will be lower than the full cost of installation.

Internal insulation:

Solid walls can also be insulted by applying internal wall insulation. Types include ready made insulation/plaster board laminates or wooden battens in-filled with insulation.

How internal wall insulation works
Insulation/plaster board laminates usually consist of plasterboard backed with insulating material, typically to a total thickness of up to 90mm.The construction of the laminates reduces the amount of heat which would otherwise pass through into the wall and outside.

How it is installed:

The boards are fitted directly to the inside of the wall. The thicker the board is, the better the insulation will be. You can also attach wooden battens in-filled with insulation to a wall. This involves attaching battens to the wall, filling the spaces between the battens with insulation and then covering them using a plasterboard finish.

The savings:
Internal wall insulation can be cheaper than external wall insulation and you could save around £380 a year on your energy bill. For example a three bedroom semi-detached house could save around 2 tonnes of $C0_2$ a year.

Lighting – is a fast and efficient way to make a difference.

A 100w light bulb left on for just 1 hour creates enough $C0_2$ to fill a party balloon.
UK households spend around £2.4 billion every year on electricity to power their lighting.

How these can be resolved:

By using an energy saving light bulbs which uses different technology, it enables them to produce highly efficient and compact light , with using only a fraction of the energy.
If you buy an energy efficient light bulb rather than the other alternatives, you can cut energy wastage by over three quarters. That’s a saving of £3 a year

for an average bulb or up to £6 for brighter bulbs or those used for more hours a day.
Replacing all the remaining traditional inefficient light bulbs in your house could save you around £50 and 170kg $C0_2$ a year or 3 tonnes of $C0_2$ over the lifetime of the bulbs.
Energy efficient bulbs last around 10 times longer than their inefficient counterparts.

The statistics:

- If everyone in the UK switched all their remaining traditional inefficient light bulbs to energy saving light bulbs, the electricity saved in just one year would run the UK's street lighting for over 5 years or provide electricity for every house in London for 11 months
- If every UK household installed just one extra energy saving light bulb in their house, the CO_2 saved would be equivalent to taking 93,000 cars off the UK's roads.

Boilers

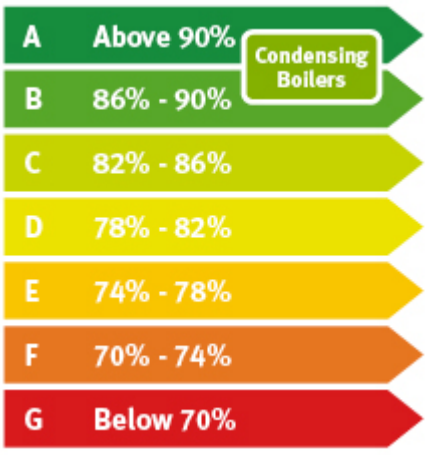
All new gas and oil central heating boilers fitted in the UK must now be condensing boilers by law.
Condensing boilers can be easily fitted to most new and old heating systems. But what makes them better than older, non-condensing boilers is their efficiency: they waste far less energy.

Poor old non-condensing boilers convert just 60% of their fuel into heat, the efficiency rate of modern A-rated condensing boilers is at least 90%.

An A-rated condensing boiler will also use a third less fuel than an older boiler to provide the same amount of heat - potentially cutting heating bills and CO2 emissions by a third too. All of which makes condensing boilers the most efficient boilers on the market.

How efficient are condensing boilers?

Obviously the ratings can vary between models, but the high efficiency condensing boilers are usually within the A and B tiers of the energy efficiency chart below.



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