

Essential Guide: Energy

How to save money on your energy bills

3





Easy changes to use less energy

Simple steps that reduce bills and cut carbon

It does not take much effort to slash your household energy and water costs - small changes make a big difference quickly and you go on saving year after year. We've calculated that you can save £1,000s by investing in energy saving and water saving solutions.

What does the information on your energy bill mean?

Suppliers each have different designs for energy bills but they

will have the following important information to help you keep track of usage and also when you decide to switch to a new energy company.

Tariff Name: This is the tariff you're currently on.

Unit rate: Price per kWh unit for your electricity.


Standing charge: Daily charge to cover cost of supplying your property with gas and electricity.

Estimated usage in the past 12 months: Estimated usage for the past year, not actual usage.

Total kWh used: Shows what your annual consumption of electricity is - kilowatt hour (kWh) is the measure of how much energy you

“Did you know? 90% of the energy used to wash your clothes, is for heating the water.”





“You really can save energy by not pre-rinsing dishes before putting them in the dishwasher!”

use. A kilowatt hour = 1,000 watt hours. So, an oven that's rated at 3kWh, will consume 3kWh electricity in an hour.

Total Units (100s of cubic feet): Show your annual consumption of gas.

Electricity supply number: Unique to your property and it's 21 digits, also called a Meter Point Administration Number or MPAN.

Balance: Your balance shows whether you're in debit or credit. If you are continually in credit, even in winter months, then you are portably paying too much on your direct debit.

QR Code: Your bill's unique code has information on your tariff

and usage. Switching sites use this to compare current bill, to find a cheaper deal if possible.

Easy DIY ways to save energy

Lighting accounts for around 20% of electricity bills in UK homes so it's worth finding the best ways to control these costs.

The good news is that there are a few quick wins to be had, with small investment in bright technology from bulbs to dimmers and smart controls that gives quick payback on initial costs, then goes on saving money on bills year after year.

Millions of households are still using inefficient halogen, old compact fluorescent and traditional fluorescent tubes which consume a lot of unnecessary energy.

LED long life

LED bulbs use up to 80% less energy and have a far longer lifespan than traditional bulbs and if you buy the right ones they also provide a better quality of light.

Some also have smart features.

Traditional incandescent and halogen models have now been banned, so it's the best time to switch to LED – and you'll get your money back by saving energy, with payback in months.

Poor quality CFL light

There are also lower energy-use CFL bulbs. Unlike incandescent and halogens, they don't have a filament. They use an electric current to excite gases within the bulb that then cause a phosphorous coating on the inside of the bulb to glow, producing light.

Although they are more efficient than incandescent lighting, CFLs are less efficient than LED and last only 8,000 hours compared with more than 30,000 hours for a typical LED source. You will also notice that they take a while to warm up, so they are not great for bathrooms or stairways. They are also quite strangely shaped so may not fit into your light fittings very well. The quality of light is also not great.

1

Kilowatt hour (kWh) is the measure of how much energy you use.

2

Standing charge is the daily charge to cover cost of supplying your home with gas and electricity.

3

Lighting accounts for around 20% of electricity bills in UK homes!

By switching to LEDs, a household reduces demand on the energy supplier, which in turn shrinks carbon footprint and there's a big reduction in energy bills.

Savings on bills

An old-style standard 60w lightbulb running for 5 hours a day at an average of 17p electricity charge per unit would have cost £18.53 per year to run and with a working life of 2000 hours. Compare that with a quality LED bulb used for the same length of time at the same charge rate - the cost is just £3.51 a year.

This will deliver savings of £14.82 a year per bulb on household energy bills. What's more, an LED bulb will last from 20,000 to 50,000 hours, which also relieves environmental pressure on waste and potential landfill.

Dimmers and sensors

Homes can also reduce their energy consumption and carbon footprint from lighting by installing dimmer switches and automatic sensors which can offer up to 20% energy savings and lower bills as well as providing peace of mind of added security and comfort.

These lighting control solutions reduce wattage needed which means less electricity used and lower bills. They also increase the lifetime of bulbs, so they won't need replacing as often – saving more money. They also reduce carbon footprint, helping to protect the planet.

Dimmers can provide up to 20% savings while occupancy sensors can reduce energy usage by as much as 50%.

20 more top tips for saving energy

1. Warmer fridge and freezer -

One degree warmer in your fridge and freezer will not have any effect on storage performance but will reduce your electricity use.

2. Keep freezers and fridges

fully stocked - You use less electricity when you have a full fridge-freezer as foodstuffs there maintain the temperature. But even putting a full water jug in the fridge will have a similar effect and you can also benefit by filling empty spaces in the freezer with paper.

3. Clean the coils on your

fridge - Your fridge coils, located at the rear, can get very dusty and dirty over time, which makes the fridge less efficient. Plan to give them a good clean at least once a year to save electricity and extend the working life of your appliance.

4. Defrost food in your

fridge - By defrosting your food in the fridge, the cooling effect means you use less power and it's also

“Invest in washing line to dry your laundry, instead of using the tumble dryer, the simplest sustainable swap going!”

more hygienic.

5. Buy energy efficient appliances - This should always be front-of-mind when replacing your appliances and thankfully there is a great range of energy-efficient products to choose from with a variety of prices to suit most budgets.

6. Turn down thermostat by 1 degree and cut 10% off energy used.

7. Service or replace boiler - save £250 in energy a year.

8. Use your microwave - Microwaves use far less energy than conventional heating on hobs or in ovens – and take far less time as well! Remember to use them as much as possible.

9. Cut down on extractor fan use - Simply by opening a window instead of turning on the extractor fan, you cut electricity use, have get plenty of fresh air avoid condensation.

10. Save energy used in pumping water by not pre-rinsing dishes before putting them in the dishwasher.

11. Boil the kettle with just the amount of water that you need.

12. Use a small ring with a small pan when cooking for maximum efficiency.

13. When using the oven, think about cooking batches to prepare several meals.

14. Wash at 30 degrees, using the right detergent to save a third or more on energy use as 90% is consumed in heating the water. It could add up to over £50 a year in savings.

15. Think about reducing your

washing machine use by one cycle each week.

16. Dry your laundry in the air when it's warm or windy, rather than using the tumble dryer .

17. Switch off appliances - Avoid leaving appliances on standby where possible and cut costs by £30 a year. It might be worth investing in a standby saver to turn all appliances off at the same time. But check whether your satellite and digital TV recorders need to be left on to record any programmes.

18. Utilise the sun for warmth and light - The sun is an excellent form of energy, just look at the renewable electricity we generate from it! Keeping your curtains open during the day can help bring warmth and light into your home, reducing your need for energy required to heat or light your house.

19. Go solar - Generate your own electricity. If you're really serious about saving electricity in your house, then investing in solar panels or other renewable technology is a great way of doing this. It will take a few years to break even on this investment, but you'll start saving money on your electricity bills straight away as you can use the electricity you generate rather than taking it from the grid.

20. Insulate the loft - save £140 a year.



Can smart technology really help save me money?

UK homes are becoming smarter as the technology powering the Internet of Things continues to develop rapidly.

1

One degree warmer in your fridge and freezer means less energy used and your food won't even notice!

2

Just by turning your thermostat down by 1 degree, you will use 10% less energy!

3

Use your microwave - they consume far less energy than conventional cooking – don't tell your teenagers!





“Boil the kettle
with just the
amount of water
that you need.”

People are able now to use the connective power of the internet to set up complex levels of home automation that were impossible or prohibitively expensive only a few years ago. Home automation through the Internet of Things (IoT) gives homeowners the ability to control domestic appliances through interconnected systems.

Smart bulbs

An LED is not just a piece of wire heated in a glass bulb but a complex piece of tech, built around a chip, it can be designed to be responsive and “smart”. There’s a wide range of LED smart lights and control technology available, which gives people complete control over the lighting in the home, making it even more energy-efficient, saving on bills.

People can revolutionise their homes with LED smart bulbs. These provide exciting new ways to control lighting via smart speaker, smartphone or tablet, enabling people to create the perfect environment for their home or to program routines based on lifestyle.

For example, smart spotlights can be controlled by voice via smart device, smartphone or tablet. With a wide range of settings including colour adjuster and dimming people have the power to control home lighting and create the perfect environment.

Smart lighting control

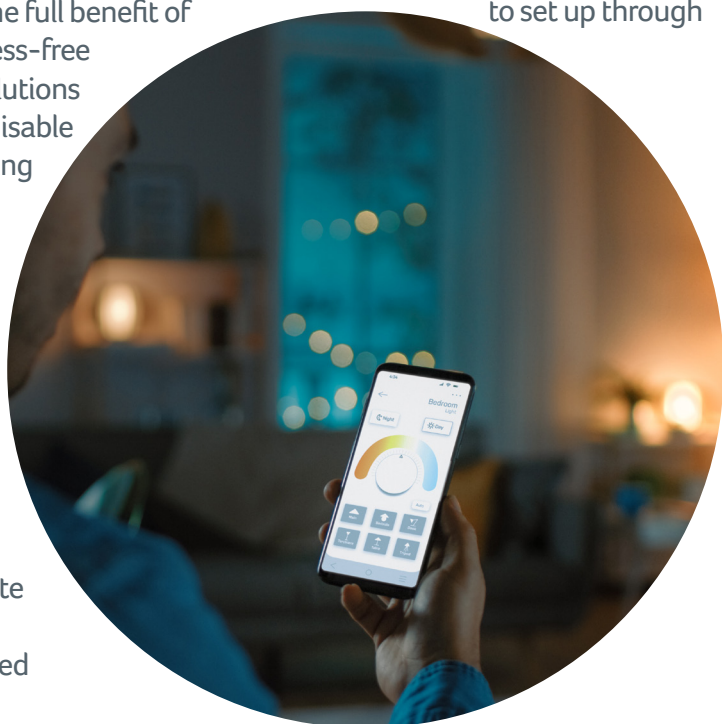
Smart lighting control systems make it easy to know the lights are only on when they’re needed, giving homes the full benefit of savings and stress-free security. The solutions are fully customisable to suit any lighting needs.

For example, Lutron RA2 Select provides personalised smart lighting and blind control for any home, any budget. It ensures complete control when it’s needed, added

convenience, more comfort and peace of mind.

The RA2 Select main repeater gives a homeowner control lights and blinds via smartphone or tablet, from anywhere in the world using the free Lutron App. Versatile Pico remote is also available for control throughout the home. The Pico is available as a keypad, for scene control, or as a remote, for individual light and blind control.

The RA2 Select system is easy to set up through



the Lutron App that automatically configures light and blind levels for typical activities. The pre-engraved Pico scene keypad guarantees every scene keypad in the home has an intuitive scene icon, for pre-set light and blind levels.

The main repeater supports up to 100 devices and Lutron's patented Clear Connect RF technology sets the bar for reliability, precision and accuracy, free from interference with other frequency bands.

Smart kitchen taps

Smart Taps make any kitchen fully connected and they help protect the environment. The UK consumes around 2.8 billion litres of bottled water each year, installing a smart filtered water tap can reduce a home's CO₂ emissions by 61%.

Smart taps from Grohe produce the perfect tasting water, as the system can be adapted to the hardness of your water supply.

Smart plugs

UK homes are full of electrical appliances and up until recently,

people have not given too much thought to how energy-efficient they are. But with heavily-used favourites like TVs, games consoles, and laptops, it's useful to have smart plugs that allow them to be turned off easily and not have them consuming energy needlessly on standby.

There are smart plugs now that effectively make appliances more energy-efficient, and they can be controlled from smartphone or tablet. They're a snap to set up and are compatible with most smart home hubs as well. People can now control their appliances even when they are away from home.

Smart radiator valves

It's also easy to make a home more energy-efficient by fitting smart Thermostatic Radiator Valves (TRV). Two thirds of energy used in UK homes is for space heating and this accounts for half of bills so it makes sense to get control of those costs, which are going to continue rising in the coming decade.

Smart TRVs learn how and when a room is used and adjust the temperature of a radiator to ensure warmth when occupied but reduced when vacant. Every 1°C reduction in temperature can save up to 10% on heating bills. They are easy to install and need no maintenance – a brilliantly simple “install, set and forget.” product.



Had a lightbulb moment about energy savings and need more advice?

Drop your Carbon Mentor a message.