

# Carbonbusting: appliances

Energy use for appliances has tripled in 40 years (to 2013). In 1970 less than 5% was for powering appliances, now it's nearly 14%. There are more electric gadgets in homes than ever before, use of them has increased, and there is a greater number of cold appliances to store food as freezers and large fridges are now commonplace. Between them, these appliances are responsible for more than a quarter of CO<sub>2</sub> emissions in the UK each year.

## TAKE ACTION

### Be mean – stop wasting energy

Say bye bye to standby: individually, a single appliance left on standby may not use noticeable amounts of energy – but added together across UK homes, standby mode is estimated to account for more than 10% of domestic use of energy. Many appliances continue to use electricity even when we've flicked the off switch and on average, UK households spend £30 a year powering appliances left in standby mode. So, when possible, turn unused appliances off at the wall.

### Be lean – use electricity more efficiently

**'Wet appliances'** such as washing machines and dishwashers account for approx. 14% of household electricity. To save energy, you can wash at lower temperatures, use the 'Eco' setting and only wash full loads.

**'Cold Appliances'** such as fridges and freezers have seen major improvements in their energy efficiency, with the best fridge-freezers using less than half the average electricity these appliances used ten years ago. However, although they are more efficient, they also tend to be larger and some, e.g. American style fridges, can use huge amounts of energy. Typically choosing an A+++ fridge freezer over an A+ unit will save you about £255 in energy bills over the lifetime of the product. Positioning your fridge in a cool area in your home can still save more than 30% of energy use.

**Lightbulbs** are becoming increasingly energy efficient with the advance in technology of LED lights in particular. Switching to LED lights could save an average of £35 a year.

**Home entertainment** devices have hugely increased in use in households with the use of laptops, computers, tablets, televisions, games consoles, digital recorders etc. Laptops typically use 85% less energy than over a year than desktop computers. Televisions can be hugely power hungry and the larger a television is, the more energy it will consume despite its energy rating.

**Labelling** Many electrical appliances carry the EU Energy Label. This rates products on their energy usages from A+++ (most efficient) to G (least efficient). Keep an eye out for these when looking for a new appliance. Another energy rating mark to watch for is The Energy Saving Trust Recommended logo. This endorses products such as boilers, glazing and water softeners. The website [toptenuk.org](http://toptenuk.org) lists and ranks the energy efficiency of a range of appliances.

### Be green – switch to renewable energy

As well as doing everything you can to reduce your electricity consumption, you can also switch to a green energy electricity provider. However, the green energy market is complex and not all green energy tariffs are the same! The Big Clean Switch is a national campaign to encourage people to switch to clean energy provider. They only list tariffs where the supplier can guarantee that 100% of the electricity sold is matched by energy from renewables – sun, wind, water and biofuels. Oxford has its own website for the campaign which, for each switch, gives money to local community projects. Find out more at <https://bigcleanswitch.org/oxford/>.

You can also look at the Energy Saving Trust information on switching utilities.

## HELP AVAILABLE TO YOU

You can borrow a real time energy display and single appliance energy meters from the LCWO eco-library to help you get a better picture of the energy consumption of your home and specific appliances.

## YOUR QUESTIONS ANSWERED

### **Is it better to run a full dishwasher than to wash up manually?**

Probably – in relation to both power and water consumption. However, it's a close call and depends very much on how you stack the appliance, how energy efficient your dishwasher is and your washing up method, so don't rush out to buy a dishwasher if you don't already have one. You can save water and energy by saving your hand washing for big batches rather than doing bits through the day. Also, don't keep the tap running whilst washing your dishes! And if you do have a dishwasher, make sure you fill it before turning it on.

### **Do phone chargers continue to use power once a phone is charged?**

In general, the answer is 'yes, but not very much'. However, with 92 million live mobile phone contracts in the UK, the annual average of 8kWh per charger mounts up. Look for so-called 'intelligent' chargers – labelled 'dV' – that reduce their energy consumption once an appliance is charged. And remember to switch phone chargers off at the wall when they're not in use.

### **Does leaving your entertainment equipment on standby use the same electricity as using it?**

Although appliances on standby usually use less energy than when they are on, some equipment uses almost the same amount of power on standby. Any equipment with a transformer, such as many radios, printers and PCs will also be drawing power even if the appliance is switched off – so always turn them off at the wall.

### **Just how bad is running my tumble dryer?**

Line drying outside is always the best option. However, on wet days, drying clothes over radiators has a cooling effect, and if you then use the iron rather than tumble out creases, the energy savings versus using a tumble dryer can be minimal. It's still sensible to use the tumble dryer only when line drying is not an option but remember to look for a good energy efficiency rating for your tumble dryer.

## MYTHBUSTING

### **Appliances with the top 'A' rating always use less energy than those with lower ratings.**

Not necessarily. Appliances are awarded their rating for energy usage relating to a single standard programme, eg washing machines are rated purely on the energy used for a 60°C cotton cycle of 6kg washing, so other programmes may be less efficient. The most accurate guide is to compare the actual energy consumption for the appliance functions you are likely to use. This is especially true in the case of cold appliances, as the rating is calculated on energy consumption per volume of fridge/freezer. So, an energy guzzling American-style fridge-freezer can get a better rating than a small fridge, despite using far more energy overall.

### **When I buy green energy, more renewable energy is generated to match my use.**

False. Most green energy tariffs will claim to supply 100% green energy – but this doesn't mean that your supplier is doing any more than meeting its current legal obligation to purchase green energy, and then apportion it to you. Some green energy companies, such as Good Energy, do focus on creating new demand by selling 100% renewable to all its customers; others, such as Ecotricity, focus on increasing supply by investing in green energy generation.

### **It's better, in energy terms, to run an old appliance than replace it with a new one.**

Partly true. Every product we buy has an 'embedded' (or 'embodied') energy – ie the energy required to produce it, including raw materials used, manufacturing processes and transportation. Whether it's worth chucking out your current appliance is a balance between the embedded energy already invested in it, and the potential reductions in power to operate a new one. For some appliances, it's better to keep your current appliance and use it as efficiently as possible. However, for others, the future savings outweigh the upfront costs in both carbon and financial terms. For example, experts suggest that it may be better to use your current

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washing machine more efficiently, but if you have an old fridge-freezer it may be worth upgrading it sooner.

## FIND OUT MORE

[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)    [www.withouthotair.com](http://www.withouthotair.com)    Chris Goodall, *How to live a low-carbon life*  
<http://www.toptenuk.org>

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