What uses watt?

How much electricity am I using?

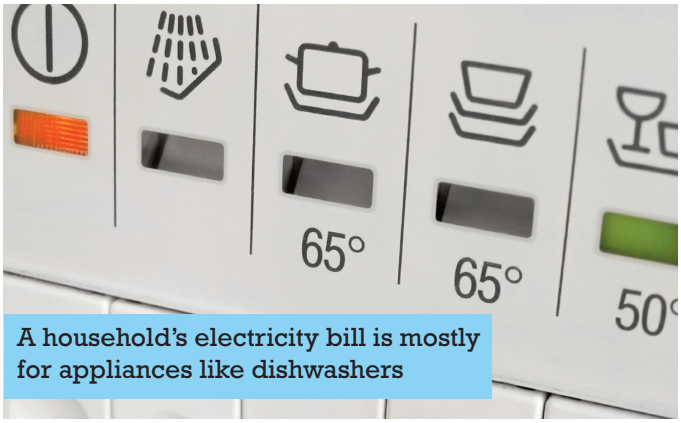
If you want to save electricity (and why wouldn't you?) it helps to focus on the things that use the most, and so cost you most money.

Some electrical items use a lot of electricity. Others don't. As a rule, those with moving parts or which produce heat use much more than those producing light or sound. So if you want to save electricity and money, there's no point worrying about a digital clock or an electric razor since these use so little power you would hardly notice the difference. The big savings lie elsewhere.

Every electrical appliance has a power rating which tells you how much electricity it needs to work. This is usually given in watts (W) or kilowatts (kW) (1000W = 1kW). Of course, the **amount** of electricity it uses depends on how long it's on for, and this is measured in kilowatt-hours (kWh).

Common appliances and an **average** power rating (the **actual** power rating can vary a lot depending on size and model)

Immersion heater	3000W	Grill/hob	1000-2000W
Electric fire	2000-3000W	Dehumidifier	300-700W
Oil-filled radiator	1500-2500W	Extractor fan	1-36W
Electric shower	7000-10500W	Fridge	40-120W
Dishwasher	1050-1500W	Fridge-freezer	200-400W
Washing machine	1200-3000W	Freezer	150W
Tumble dryer	2000-4000W	Electric mower	500-1500W
Iron	1000-1800W	Electric drill	900-1000W
Vacuum cleaner	500-1200W	Hairdryer	1000W
Towel rail	250W	Heating blanket	130-200W
Deep fryer	1200W	Plasma TV	280-450W
Toaster	800-1500W	LCD TV	125-200W
Kettle	2200-3000W	Video, DVD or CD	20-60W
Microwave	600-1500W	TV box	30-40W
Oven	2000-2200W	Games console	45-190W
		Laptop	20-50W
		Desktop computer	80-150W
		Tablet (charge)	10W
		Broadband router	7-10W
		Smart phone (charge)	2.5-5W



A household's electricity bill is mostly for appliances like dishwashers

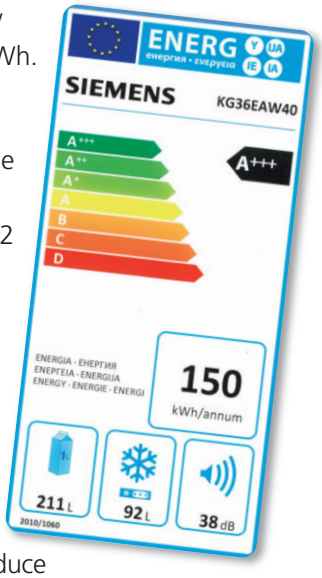
An item like a fridge has a low wattage, but because it's on all the time it'll use a lot of electricity. And although an iron is only used now and again, it uses a lot of electricity so the quicker you do your ironing the better.

Electricity is sold by the kilowatt-hour (kWh) – usually referred to as 'units' on your electricity bill. If you're feeling mathematical you can work out how much a particular appliance costs to run by multiplying its wattage by the amount of time it's on and then by the cost of electricity per kWh.

For example, let's say you have a 500W dehumidifier (i.e. 0.5kW) and you run it round the clock for a whole day. The electricity used is 0.5 (kW) x 24 (hours) = 12kWh.

If your electricity costs 15p per kWh (and price will vary depending on the tariff you are on) then this will cost 12 x 15 = 180p. It's costing nearly £2 a day to have the dehumidifier running constantly, so you can see how appliances can add a lot to your bills.

Many modern appliances have design innovations to make them more energy efficient. An electric oven might be better insulated to reduce



This is one of the new-style European energy labels which go up to A+++

cont ▶

heat loss, thereby reducing the energy it needs to maintain your cooking temperature. A modern washing machine is likely to be designed to get your clothes clean at lower temperatures and use less water.

Those goods rated 'A' or above on energy labels (see label, right) are the most efficient and will save you money compared to a lower rated equivalent.

Energy monitors like this tell you how much electricity you're using, and how much you're paying

Energy monitors

Many homes now have energy monitors that show how much electricity is being used at the present time, as well as how much was used last week or last month. They are wireless devices that can tell you useful things like what your current energy use is costing you. Basic models can be bought for around £30, although you may find that your local library can lend you one to try out.

Lighting

Although a single light doesn't use much electricity (60-100W for a typical old-fashioned bulb), our homes can have dozens of them, so it adds up to quite a lot – around a fifth of an average home's electricity bill. As we move to low-energy light bulbs the amount we spend on lighting will go down, but it is still worth checking that you're not leaving lights on unnecessarily.

The figures in this leaflet are correct as of January 2014

Tips for lower energy bills

Give your clothes a day in the sun and give your tumble drier a break. Clothes dried in the fresh air feel great, and there are drying days in winter, too.

Catch 'em young. Encourage your children to switch off electric toys and lights that they're not using. They'll soon get the hang of saving energy.

Be a friend to your freezer. Defrost it regularly to help it run more efficiently.

Buying a new washing machine, TV or dishwasher? Look out for the Energy Saving Trust logo.

Don't over-fill the kettle (but do make sure you cover the metal element at the base).

Dodge the draught! Fit draught-excluders to your front door, letter box and key hole, and draw your curtains at dusk to keep the heat in.

Turn your heating down by 1 degree. You'll hardly notice the change in temperature, but it'll make a big difference to your heating bill.

Sleep tight. Make sure all the lights are turned off when you go to bed. If you want to light a child's room or a landing, use a low-wattage night light.

Photos other side: dishwasher, iStock.com/Ruta Saulyte-Laurinaviciene; Photos this side: Owl energy monitor, 2SaveEnergy; towel, iStock.com/Robert Corbett; child switching off light, iStock.com/Dori O'Connell; boy collecting post, EST; child asleep, iStock.com/Grafissimo

Centre for Sustainable Energy

This leaflet was originally produced by the Centre for Sustainable Energy, a national charity (no. 298740) that helps people change the way they think and act on energy | **www.cse.org.uk**

Towards Zero Carbon Cumbria
CAfS Cumbria Action for Sustainability

Eden Rural Foyer, Old London Road
Penrith CA11 8ET

01768 210276
www.cafs.org.uk
office@cafs.org.uk

Facebook **/CAfSonline**
Twitter **@CAfStweets**

Charity Number: 1123155
Registered Company Number: 06492907

Cumbria Action for Sustainability (CAfS) work to promote low carbon living, energy saving and reduced use of fossil fuels throughout Cumbria; we provide information, advice and motivation through events, site visits and practical projects.

Contact us for more information of our energy advice events and workshops and how we can help you save energy in your home.

LOTTERY FUNDED