ELECTRICITY CONSUMPTION AROUND THE HOME

NEA Action for Warm Homes
WARM AND SAFE HOMES

It's always useful to understand how much our appliances cost to run. Particularly with the steep increase in energy prices, it's worth knowing where you might be able to make savings.

The table shows the typical power consumption of appliances in watts. We've calculated the running costs using an electricity unit rate of 28.34p/kWh. This is the average unit rate from the electricity price cap for Direct Debit customers from April 2022 on the standard variable or default tariff.

How much do my appliances cost to run?

The amount it costs to run appliances depends on three things:

- **The rating (watts)**
- **The price you are charged per unit of energy (your energy tariff)**
- **How long the appliance is running for?**

We've created the table to give rough costs for appliances using an hour time frame, so the costs are comparable.

Remember some appliances may only be on for a few minutes and some several hours so the actual costs will vary.

A high rating doesn't always mean an appliance will be more expensive; it may take less time to do the job - ultimately working more efficiently - like a microwave.

What is a unit of electricity?

The power rating for electrical appliances is measured in **watts (W)** or **kilowatts (kW)**. A kilowatt is one thousand watts.

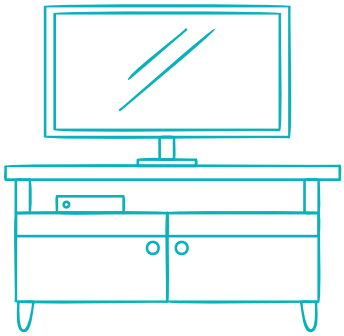
If a 1 kW appliance runs for 1 hour, it will consume 1 kWh (kilowatt hour) of electricity. Units of electricity are measured in kWh and the price for a unit of electricity is shown in pence per kWh.

Calculating the running costs of my appliances

The electricity used by domestic appliances varies between makes and models. If you know the power rating of the appliance and the electricity unit rate of your supplier, it's possible to use the following equation to calculate the running costs of your appliance.

Appliance running cost (p/hr) = Power rating (W) x Electricity unit rate (p/kWh) ÷ 1000

The power consumption of some appliances like washing machines and tumble driers varies over the time they're used so we have separated this information out into a separate table showing average cost per cycle with a full load.



	Appliance	Rating (watts)*	Cost (pence/hour)
	Electric Shower	7,000 – 10,500	200 – 300
	Immersion Heater (single rate tariff)	3,000	85
	Supplementary Heating e.g. Fan Heater	1,000 – 3,000	28 – 85
	Kettle	2,500 – 3,000	71 – 85
	Grill / Oven	2,000 – 2,400	57 – 68
	Hob (per ring)	1,000 – 2,000	28 – 57
	Iron	1,000 – 3,000	28 – 85
	Microwave	700 – 1,400	20 – 40
	Vacuum Cleaner	600 – 900	17 – 25.5
	Slow Cooker	150 – 300	4.3 – 8.5
	Fridge-Freezer	100 – 300	2.8 – 8.5
	Games Console	100 – 200	2.8 – 5.7
	LCD TV	25 – 175	0.71 – 5.0
	Incandescent GLS Bulb	40 – 100	1.1 – 2.8
	LED GLS Bulb	6 – 10	0.17 – 0.28
	Broadband Router	5 – 15	0.14 – 0.43
	Extractor Fan	5 – 10	0.14 – 2.8
	Phone / Tablet (charging)	2 – 15	0.06 – 0.43

* Will differ by appliance, range based on average energy ratings for appliances.

The previous table showed approximate costs per hour for most household appliances. We've included washing machines and tumble driers in the separate table below because they typically consume different amounts of energy throughout the cycle. For example the washing cycle will use more electricity than the spin cycle.

We know cycle lengths will vary so the costs are indicative based on the average cycle. ECO settings tend to wash at a lower temperature so less energy needed to heat the water, and we suggest you wash with a full load to make the most of the energy being used to run a cycle. You can find more ways to make the most of your energy in the Top Tips below.

We've costed out the approximate cost per cycle, rather than per hour, below.

	Appliance	Rating (watts)*	Cost (pence/full load)
	Washing Machine	1,000 – 2,400	14 - 28
	Tumble Drier (condenser/vented)	1,500 – 2,500	125 - 162

TOP ENERGY SAVING TIPS

There may be ways you can make small changes to the way you use your energy, helping to bring down your costs:

- Make sure to turn lights off when you leave a room. Leaving one standard 60W light bulb on all day (12 hours) could cost you 20p per day* that's £73 per year – for just one light bulb.
- Switch to a low energy LED bulb. These can use up to 90%** less electricity than a standard incandescent bulb while providing the same level of lighting (and they don't need replacing as often).
- When replacing appliances, consider energy efficient models, which may be A-rated.
- Use a cooler wash setting to do your laundry, washing at 30 degrees can save as much as 40% compared to washing at higher temperatures** If you're just freshening up clothes, then a cold wash would save you even more.
- The latest heat pump tumble driers use considerably less electricity than older vented models or even better dry clothes outside or on an airer for free!
- Electric showers are one of the biggest energy guzzlers – set a timer to 3 minutes.
- Towel dry hair to reduce how long you use a hairdryer.
- Cooking in a microwave is cheaper than an oven as it uses less power and takes less time to cook.
- A slow cooker is also energy efficient, running on low power, but may take several hours to cook – try batch cooking to make the most of the energy you're using.
- Unplug or switch off devices at the wall around the home, and only charge phones for as long as is necessary - items plugged in (even on standby) still draw electricity, which could rack up if you have a lot of items plugged in.
- Immersion heaters should only be switched on at the times when you need hot water and switched off when no longer in use - leaving one on is like leaving the kettle boiling constantly.
- Understanding your heating controls can help you use your system more efficiently. If you have electric storage heaters take a look at our **Getting the most from Economy 7** fact sheet.
- A third of our heat is lost through the roof – insulating your loft space can save as much as £215 per year** on energy bills. Take a look at **simpleenergyadvice.org.uk** to find out if you might be eligible for grants to help with improving the efficiency of your home.
- Put draft excluders around draughty doors and windows, or for a fraction of the cost you can use dry rice in a pair of tights to cover any gaps at the bottom of doors.

* Based on average unit rates under April price cap ** Information sourced from Energy Saving Trust 2022 www.energysavingtrust.org.uk/energy-at-home/

If you are finding it difficult to meet the costs of your energy, other support is available too:

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- Check if you are entitled to your supplier's Warm Home Discount rebate. **It gives £140 off your electricity bill**. Go to **www.gov.uk/the-warm-home-discount-scheme.**
- Typically suppliers will open their schemes around late Summer/Autumn but some suppliers allow you to pre register so worth checking with your supplier as soon as possible if you might be eligible.
- Millions of pounds of welfare benefits go unclaimed every year. If you are on a low income it's worth doing a quick benefit check at **www.gov.uk/benefits-calculators**.
  It should only take 10 minutes.
- Talk to your local authority to see whether you might can get help from their Household Support Fund.
- There may be crisis support grants you can access.
  Take a look on **grants-search.turn2us.org.uk**.
- If you are living in vulnerable circumstances ,have a health condition or children under five – you should register for your supplier's Priority Services Register.
  Find out more at **www.ofgem.gov.uk/getting-extra-help-priority-services-register**.

For more helpful guides take a look at www.nea.org.uk/advice-support/information-leaflets/

If you want to understand what your appliances are costing you, you might want to think about getting a smart meter – the handy in-home display can help you see what your energy is costing in pounds and pence so you can see where you might be able to save on any wastage.

To find out more talk to your supplier or take a look at smartenergygb.org for more information