



Reduce your Carbon Footprint

Kick out Standby

Is it worth switching off electrical appliances rather than leaving them on standby?

The figures below show the costs, both in £ and in carbon emissions, if example modern appliances are left on standby 24x7 for a year.

Appliance	Standby power (watts)	Power used pa (kwh)	Carbon dioxide (tonnes)	Cost pa (£)
Small freezer	7	61.3	0.03	6.10
Dishwasher	2	17.5	0.01	1.80
Washing Machine	7	61.3	0.03	6.10
Small TV	6	52.6	0.02	5.30
TV/Freeview/VCR/DVD (together)	27	236.5	0.10	23.70
Cordless phone	2	17.5	0.01	1.80
Microwave oven	7	61.3	0.03	6.10
Old PC	30	262.8	0.11	26.30
Modern PC	15	131.4	0.06	13.10
Mini Hi-Fi	2	17.5	0.01	1.80
Mobile charger	2	17.5	0.01	1.80
TOTAL	107	937.3	0.40	93.70

One important number here is the tonnes of carbon dioxide:

0.4 tonnes is more than the total amount emitted by the average person in Bangladesh

AND – the annual power used in this fictitious but reasonable scenario is significantly higher than the average household uses for lighting, even using old energy hungry incandescent bulbs.

So, yes it is definitely worth switching off appliances at the wall socket!



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Carbon Emissions

Estimates below are taken from Chris Goodall's recent book – "How to live a Low-Carbon Life"

They are averages for each individual living in the UK, not for each household.

	Tonnes of carbon dioxide per year
Heating	1.2
Water heating	0.3
Cooking (by gas)	0.1
Lighting	0.1
Electric appliances	0.6
Total for house	2.3
Car	1.2
Bus / train	0.1
Air travel	1.8
Total for transport	3.1
Other direct emissions	0.6
TOTAL (direct emissions)	6.0
TOTAL indirect emissions*	6.5
OVERALL TOTAL	12.5

* Indirect emissions come from:

- **production and supply** of goods like food, clothes, cars, gadgets etc, the building, decorating and renovation of houses
- **services** like water, sewerage, waste, street lighting, telephone networks, TV and radio, the Armed Services, hospitals, libraries, education, sports facilities, hotels, restaurants, theatres, cinemas, transport infrastructure, etc
- **running** central and local government offices



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Food (2 tonnes)

Up to one sixth of our personal carbon emissions in the UK result from growing, distributing, displaying and buying food.

- Compost food waste** – reduces the amount going to landfill, improves the soil condition in your garden, helps conserve water in the garden
- Buy local, seasonal produce** – it's fresher, saves on transport and carbon emissions
- Grow your own** – the lowest eco impact, if possible get an allotment to make the greatest difference
- Reduce meat and fish consumption** – meat production is inefficient compared to vegetables and grain. To produce one pound of beef, a cow will have generated methane with the equivalent warming effect of 11.5 lbs (5.2 kg) of CO₂. Many fish stocks are at dangerously low levels.

Home Energy (2.3 tonnes)

*Energy use in the home is a major generator of CO₂
Heating is responsible for 1.2 tonnes
Hot water 0.3 tonnes
Electricity for appliances 0.6 tonnes
Lighting 0.15 tonnes*

- Turn the temperature down & heat fewer rooms** – each degree cooler can save 0.3 tonnes of CO₂ emissions per year.
- Take a shower, not a bath** – reduce your hot water demand by at least 50% (up to 0.2 tonnes CO₂), and conserve water
- Switch off appliances at the wall** – many modern devices, like DVDs, set-top boxes, PCs, even washing machines, draw power when 'off'
- Reduce or stop using a tumbler drier** – save up to 10% of your electricity bill
- Use low-temperature, low-water cycles for clothes and dish washing** – and use full loads



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Transport (3.1 tonnes)

We travel further, faster and more often. Personal transport accounts for 25% of UK carbon emissions:

Flying 1.8 tonnes

Driving 1.2 tonnes

Public transport 0.1 tonnes

- Take public transport instead of the car** - or walk
- Reduce your gallons per year** – drive less, drive more economically, or buy a smaller car
- Reduce your air miles** – flying is so carbon-intensive, we should cut back drastically or consider stopping altogether unless it's an emergency
- Start cycling** – buy a bike for local use, or hire one when on holiday
- Don't be an idler** – switch off your engine if stuck in a queue for more than 30 seconds
- Join or start a car sharing scheme** – ideal for regular journeys like the school run or commuting

Home Energy (2.3 tonnes)

Energy use in the home is a major generator of CO₂

Heating is responsible for 1.2 tonnes

Hot water 0.3 tonnes

Electricity for appliances 0.6 tonnes

Lighting 0.15 tonnes

- Switch to low energy light bulbs** – they save electricity and last much longer
- Switch to a green electricity supplier**
- Insulate cavity walls** – as much as 40% of heat is lost through uninsulated walls. Better insulation also keeps the house cooler in summer.
- Top up loft insulation** – current building regulations require 25cm thickness
- Install a gas condensing boiler** – a 20 year old gas boiler is about 70% efficient. New ones are 90% efficient and save 0.7 tonnes of CO₂ per year.
- Install solar water heating** - the most cost effective and proven micro-renewable energy for home use