



ONE PLANET
MIDDLESBROUGH

creating sustainable communities

Save Money, Save Carbon - Research & Sources

Make these seven changes to save £520 and over a tonne of CO₂ a year!

1. Switch off lights in empty rooms

Save an average of 2 hours wasted lighting a day for a whole year

Save £14
71 kg CO₂

Here we assume the average room (whether it's a bedroom, living room or kitchen) is 150 square feet. We need 1 watt of electricity to light a square foot, so 150 watts per room.

A kilowatt hour (kWh) is a unit of energy usage that is commonly seen on your energy bills. For example, if we run a 1000 watt (1 kilowatt) electric heater for one hour we will use one kWh of energy.

So, lighting a 150 square foot room for 1 hour will require 0.15kWh. We are saving 2 hours of lighting per day so this equates to 0.3kWh.

1 kWh of electricity = around 14 pence currently. $0.3 \times 14p = 4.2p$

This works out at 4.2p saved per day. 29.4p per week. £1.17 per month and £14.10 per year! In terms of CO₂ this is 0.2kg a day. 1.5kg a week, 5.9kg a month or 70.88kg a year!

Formula: Cost per kilowatt hour X kilowatt hours used

Source: www.carbonrally.com/challenges/39-Lighting-energy

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2. Go by bike instead of by car

Travel by bike instead of by car five days a week for a year

Save £270

480kg CO₂

For this calculation we assume a 10 mile round commute per day. This equates to 50 miles a working week, 200 miles a month or 2400 miles a year. We also assume we're driving an average small car.



Currently the average cost of fuel is 98.9p a litre. Assuming an average miles per gallon of 40 this equates to £1.12 per day, £5.60 a working week, £22.40 a month and £268.80 a year. A 10 mile journey produces 2kg of CO₂ a day, 10kg a working week, 40kg a month, 480kg a year. All of this money and CO₂ could be avoided by cycling instead!

Remember that as the cost of fuel goes up and the more miles you ride, the potential savings will increase even more!

Formula: Price per gallon x gallons used in journey

Sources:

Commuting/travelling by bike: www.carbonrally.com/challenges/34-commuter-bike

Fuel cost calculator per mile: www.fuel-economy.co.uk/calc.html

3. Pump up car tyres

Tyres under inflated by just 15 PSI (1 bar) can be costly. Top them up and check regularly!

Save £150

270kg CO₂

Tyres as little as 15 PSI (1 bar) below recommended pressure can reduce your vehicle's miles per gallon significantly. Check your manual for the correct pressure.

Tip: Find a garage where you can inflate your tyres for free instead of paying.

Sources:

www.cmu.edu/cmnews/extra/050921_fire.html

www.tyrepal.co.uk/fuel-consumption-and-tyre-pressure/4498.html

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4. Only boil what you need

Boil 4 half full kettles a day instead of filling the kettle each time

Save £18

11kg CO₂

Boiling a full kettle 4 times a day for a year will produce 21.9kg of CO₂ (0.015kg of CO₂ per boil). The average cost of boiling a full kettle is 2.5 pence. Boiled 4 times a day for a full year this equates to £36.

Cutting down usage to boil only what we need each time we fancy a cuppa can save money and carbon. For example, boiling 4 half full kettles a day for a year instead would halve the costs, saving £18 a year. This would also reduce the amount of CO₂ produced by 11kg a year!



Tip: If you are only using the kettle for yourself, fill your mug with water and use this to boil exactly the right amount in the kettle.

Sources:

blog.npower.com/2013/02/ever-wondered-how-much-your-appliances-cost-to-run
www.theguardian.com/environment/ethicalivingblog/2008/mar/07/keepyourkettleincheck

5. Cut down shower time

Reduce your shower time from 10 minutes to 6 minutes each day.

Save £24

110kg CO₂

Showering for 6 minutes a day produces 165kg of CO₂ a year and costs £36. This equates to 220kg of CO₂ and £48 a year if the showers are longer at 8 minutes, and 275kg of CO₂ and £60 a year if the showers are 10 minute showers.

Shower time	6 mins	8 mins	10 mins	15 mins	20 mins
CO ₂ produced per year	165kg	220kg	275kg	412.5kg	550kg
Cost per year	£36	£48	£60	£90	£120

Tip: Northumbrian Water are offering free water saving kits to customers. This even includes a shower timer! Check out the link below:

www.nwl.co.uk/your-home/saving-water/request-water-saving-devices.aspx

Source: www.carbonrally.com/challenges/15-power-showers

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6. Combine washing to make a full load

Do one less wash per week

Save £12

57kg CO₂

An average washing machine produces 227kg of CO₂ per year if used 4 times a week. This costs £49 a year. Therefore 1 wash a week for a year would equate to 56.75kg of CO₂ and £12.25 in costs.

Tip: To save even more money and CO₂ do the washing at 30° where possible.

Source:

www.reduceyourcarbonfootprint.com/2.html

(Figures provided by Association of Electricity Producers)

7. Use your tumble dryer less

Cut down from 4 to 2 times a week by line drying instead

Save £33

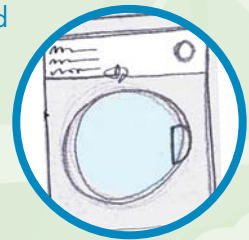
150kg CO₂

An average tumble dryer produces 302kg of CO₂ a year and costs £66 if used 4 times per week. Cut down to two times a week by air drying clothes outside or on a clothes horse and these costs are halved!

Sources:

www.reduceyourcarbonfootprint.com/2.html

www.carbonfootprint.com/energyconsumption.html



*All the information included in this document was accurate at the time of writing (14/04/2016)

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