

The climate argument

Leading climate scientists agree on the urgent need to drastically reduce carbon emissions on a global scale. Human activity since the start of the industrial revolution has already added more than 530 billion tonnes of carbon (BtC) to the atmosphere, in the form of the greenhouse gas carbon dioxide (CO₂), largely from the burning of fossil fuels. The vast majority of this CO₂ remains in the atmosphere, where so far it has caused just under 1°C of global warming, and in the top layer of the ocean, where it has caused serious acidification. If the cumulative carbon emissions were to reach 1,000 BtC, we would have a greater than 66% chance that peak global warming does not exceed 2°C. The limit is even smaller (800 BtC) when the warming effects of greenhouse gases other than CO₂ are included. But 2°C is now considered to lie on the boundary between dangerous and extremely dangerous warming. This means that as little as 470 or even 270 BtC can be added to the atmosphere without causing extremely dangerous global warming; yet in 2011 annual global emissions, mainly from burning fossil fuels, reached a record 9.5 BtC, 3% greater than in 2010. Furthermore, if all proven reserves of oil, gas and coal were burnt that would add about 765 BtC to the atmosphere! Thus to avoid very dangerous global warming much of the remaining fossil fuels must stay in the ground for ever, unless it can be burnt with efficient capture and storage of the emitted CO₂, and generally it is imprudent to continue producing more hydrocarbons. It may even be necessary to find ways of 'sucking out' much of the CO₂ which has been added to the atmosphere in recent years. [Read more..](#)

Action by individuals and households

Changes made by individuals and households towards more efficient use of energy and materials and a switch to renewable energy are important but not sufficient on their own. In addition, to rapidly reduce global dependence on the unmitigated burning of fossil fuels we must act to require governments at all levels, energy corporations, other businesses and other organisations to change their policies to help create a cleaner, safer world. However, in the age of austerity we now appear to be entering it would be naïve to expect governments and many businesses to have the will and financial resources to solve these problems on their own. It will also be necessary to develop new, community-led initiatives from very small to large scale, financed in creative ways, perhaps with a combination of public, private and personal funds.

People often ask us what actions they can take as individuals and households. So, in addition to urging them to act to encourage government and other organisations to change, and to back community initiatives, WinACC has come up with our Top Tips for the most effective ways for reducing individual and household carbon footprints. The 10:10 campaign also has some useful suggestions.

If you want to reduce your organisation's carbon footprint, there are tips aimed at businesses and other organisations.

In general, the best way to reduce greenhouse gas emissions is to follow these three steps in turn:

1. reduce energy consumption (this may cost nothing to do and generally saves you money)

2. use energy more efficiently (this may cost money initially but makes a bigger impact on climate change)
3. use or generate energy from renewable sources (this can be expensive but it will make the biggest impact).

We recommend that you first [measure](#) your carbon footprint, then follow the tips below to reduce it. You may already be following many of our suggestions, but we hope that you will be inspired to adopt others – we make no claim to originality!

Top Tips

Electricity and Appliances

Appliances can use a surprising amount of energy when left on stand-by, so turn off appliances at the wall when not in use. When buying electrical appliances look for A-rated ones with Energy Saving Recommended labels as these consume least energy. Consider switching to a genuinely “green” electricity tariff such as Good Energy, Green Energy or Ecotricity. [Read more...](#)

Flights

Flying, for leisure or business, can easily become your biggest personal source of carbon emissions. Within the UK and the rest of Europe, why not drive or take a train or coach instead? Avoid travelling by air unless it is essential to do so. [Read more...](#)

Food

Did you know that almost a half of food in the UK is wasted between farm and fork? Because a lot of energy is invested in the production and transport of food, you can help to reduce carbon emissions by only buying enough food for your foreseeable needs. Buying locally-grown food can reduce transport emissions, or you could even grow your own! Transporting bottled water uses a lot of energy, so drink tap water whenever possible. Rearing cattle can be greenhouse-gas intensive unless they eat grass. UK beef and lamb are most likely to be grass-fed. [Read more...](#)

Getting about and driving

Nearly a quarter of all car journeys are less than 2 miles in length. Next time you make a short journey, think whether you could walk or cycle instead. For longer journeys, where possible, use public transport to reduce your carbon emissions. If you do drive, try to share your car with others, run more than one errand at once and drive efficiently. The [Energy Saving Trust](#) has tips on driving efficiently. [Read more...](#)

Heating

Heating is the biggest source of carbon emissions for most homes, but there are easy ways to reduce the energy that you use. For example, turn down your room thermostat and wear an

extra layer if necessary. Better still, by carefully managing your heating and hot-water controls, you can save even more energy and reduce your bills even further. [Read more...](#)

Keeping warm

Around half the heat is lost from a typical home through walls, windows and roofs. As a first step to keeping the heat in, you could close your curtains at dusk in winter and stop draughts around external doors and windows. Then investigate topping up your loft insulation to 270mm (11 inches) and installing cavity-wall insulation which will help to keep you warm in winter and cool in summer. Call the Act on CO2 Advice Line on 0800 512012 to ask about the grants available. If you're a tenant there are still things you can do. Click [here](#) for ideas. [Read more...](#)

Keeping cool

As our weather gets more extreme we can expect to encounter heat waves from time to time, as in 2003 when many people died in France. The old and very young are especially vulnerable to high temperatures and we all sleep better if the indoor temperature is not too high. As for keeping warm, the solution for keeping cool is largely down to insulation but in this case a well insulated house is required which will keep out the heat from the sun. Good ventilation with a slight draught also helps. [Read more ...](#)

Lighting

Energy-saving light bulbs use up to a fifth of the energy of normal bulbs and can last at least ten times longer. Turning off lights in empty rooms and outside lights at bed-time saves energy too. [Read more...](#)

Reduce, re-use, recycle

Energy has been used to make and transport every item that we buy. By reducing the amount we consume, or buying second-hand, we can reduce our carbon footprint. Try to repair things rather than replace them, and give away or sell things you no longer need. [Read more...](#)

Water

Rain water is free but energy is spent on making it fit to drink, piping it to our homes, heating it, and disposing of it afterwards. You can save water and energy by taking (non-power) showers instead of baths and only using your washing machine and dishwasher when full (unless they can weigh the load and only use water accordingly). Ask [Southern Water](#) to fit a free water meter so you can see how much you're using. [Read more...](#)

Your influence

You can do even more to reduce climate change by encouraging others to follow your example. Also, in today's consumer-driven society, every purchasing decision you make influences the manufacturer and retailer, so buy green products and support businesses that are trying to reduce their carbon footprints. We are all citizens as well as consumers, so you might decide it is

time to get more involved in political campaigning. Lobby for a climate change policy at your workplace, school or college, or join a campaigning environmental group. [Read more...](#)

And then what? How to use your savings without causing yet more emissions

It is very easy to spend any money that you've saved, from reducing your greenhouse gas emissions, in a way that inadvertently causes other emissions. For example, if you buy a smaller, lower emissions car you may be tempted to drive further simply because the new car is more efficient or to spend your savings on a different, high carbon activity! This is called 'rebound' and if you actually cause greater emissions than you avoided in the first place this is described as 'backfire'! So, your first aim should always be to use the money you saved in a way that protects the cut in emissions that you have just achieved. [Read more...](#)

If you would like to give feedback on this site, or have any suggestions for improvement, please [contact us](#). We are particularly keen to hear about other organisations and initiatives in and around Winchester which can help people reduce their carbon footprints.

The information on this page is provided in good faith and reflects our understanding of the underlying science and technology at the time of writing, but we cannot guarantee that it is wholly accurate. All figures for costs, savings and other matters are estimates: the actual figures will depend on your particular circumstances and may differ (perhaps significantly) from those shown. Although we have included links to various organisations, we are not recommending these organisations: it is your responsibility to check that they are suitable for your needs. Nonetheless, if you experience difficulties with any of the links or organisations, or believe that any of the information presented here is inaccurate, please let us know and we will update this page if we consider it necessary.