

Action on climate change starts at home

Why?

The vast amount of energy wasted in our homes is the single largest factor in climate change. Energy use in houses accounts for 48% of Britain's greenhouse gases emissions, far more than industry and transport put together. What is more, whilst industry has greatly reduced its total energy use, domestic consumption continues to rise by 2% every year. Advances in insulation and boiler efficiency have been more than outweighed by a whole new set of demands, in particular:

- Ever more and larger homes - the number of houses keeps increasing as more people live alone or in one parent families. This expansion is accelerated by people's demand for ever larger houses and more rooms for new functions - playrooms, computer rooms, home offices, ensuite bathrooms.
- Heated conservatories - a vast energy drain that can double a house's heating needs.
- A new generation of energy gobbling electronic goods, in particular computers and satellite/cable tv boxes. Then there are a large number of new small devices that are never turned off and constantly leak small quantities of electricity such as transformers, battery rechargers, electric clocks.
- Constant warmth and hot water. The convenience and efficiency of central heating has made people expect constant warmth

Domestic consumption should be the starting point for personal action

Climate change threatens to provoke disastrous and permanent weather chaos. We all have a responsibility to reduce our role in this crime. What is more, *almost all the actions recommended in this leaflet will save enough money to pay for themselves within four years.*

.... and the starting point for national action

Domestic consumption is also an issue of social equity. Britain has the worst insulated housing stock in Europe. Every year 60,000 to 80,000 people, die from what the NHS calls "cold related causes". Half of these deaths are directly associated with houses that are so badly constructed and insulated that people cannot afford to heat them properly. Action to improve heating efficiency will not just reduce consumption; it will give millions of people their first chance to live in a warm and healthy house.



Where is the energy going?

Heating is by far the largest consumer of energy in the average home - so this is the first place to look for energy savings. Even small reductions in the demand for space and water heating will produce significant savings. Electricity is not only expensive; it is very wasteful - 70% of the energy is lost in production and distribution. (By comparison, a good domestic gas boiler loses only 15%). Using electricity for heating and cooking is very wasteful and electricity should be avoided as much as possible. In most homes, the main use of electricity is for cooling in refrigerators and freezers. Few people realise that cooling requires far more energy than heating (which is why air conditioning is extremely wasteful).

After cooling appliances, washing machines and dish washers are the highest energy consumers as they usually use electricity to heat their water. Machines which take hot water straight from the tank are far more efficient.

Electronics are still only 5% of total, but this percentage is growing rapidly and has doubled over the past ten years.

What can I do?

Britain needs to reduce its total greenhouse gas emissions by up to 90%. Renewable energy, such as solar, will be a very important component but is not the whole solution - we will need to be far more careful about our demand for energy and use it more efficiently. Personal solutions, like national and global ones, require a combination of reduced demand, increased efficiency, and renewable energy.

STEP 1 - Deciding to do something

Step one is recognising that being active in sorting out your own life is an important part of being a climate activist. We need to set an example and inspire others to join us.

STEP 2 - Setting targets

Look at your fuel bills (the utility company can give you past readings over the phone) and set a personal reduction goal. A 10% reduction is easily achieved by reducing energy use. A 20% reduction is easy with small investments. Keep trying new ideas until you reach your goal.

STEP 3 – Contact your local council energy officer

There are a remarkable number of grants, freebies and other initiatives to encourage energy efficiency - such as free insulation for people on benefits, free lightbulbs, insulation grants, discounts on boilers and solar systems. The schemes are often terribly publicised, so call the council and find out for yourself. (FREEPHONE 0800 072 0150)

STEP 4 – Reducing demand

Turning off lights and putting less water in the kettle is worthwhile, but realistically it's reducing room and water heating that saves most energy. The following steps will reduce your energy consumption by 10-20% at NO COST!

- Turn down the thermostat on the hot water tank - most hot water tanks are ludicrously overheated - up to 80°C. 45-55°C is quite hot enough for steamy baths. Tank thermostats are very inaccurate, so just turn it down a notch at a time.
- Heat water only when it's needed.
- Turn down the central heating thermostat. Most systems are set to 21°C but 17°C is perfectly comfortable most of the time.
- Turn off radiators in unused rooms, even if it's only for a few days.
- Turn down radiators in cooler areas, such as hallways.

STEP 5 - Increasing efficiency

Increasing efficiency involves finding ways to make less energy meet your needs. Even if you can go the whole way with solar power you will still need to start with the simple cheap measures below. They all save enough to pay back their costs within one to five years. The most effective is listed first.

Cheap ways - suitable even for people on low incomes in rented accommodation.

- If your hot water tank is not insulated - do it! Yes, it's the owner's responsibility, but if you can't get him/her to pay it's still worth doing yourself and pays back within one year.

- Draughtstripping - rolls of foam and rubber draughtproofing strip cost a few pounds from any DIY centre or ironmongers and can make a remarkable difference. Draughtproof around external doors, all windows and the hatch to the attic.

- Temporary double glazing - the best system uses sheets of light plastic which you seal over the window and tighten with a hair dryer. They last all winter. Sheets of perspex are more durable but also more expensive.

- Pin up, shorten or replace any curtains that hang over radiators.

- Replace all bulbs with low energy compacts. They are usually around £5, and can be as little as £1.50 each. Wherever you live, you can always take your bulbs with you!

- If you have electric heating and a gas oven it's definitely worth running the oven constantly on the lowest heat to heat the kitchen and core of the house.

- Defrost your fridge and freezer regularly and dust the condenser coils at the back.

Under £50 with quick payback.

- Insulate the loft space with up to 60cm of glassfibre insulation.

- Place reflective foil behind all radiators on external walls (available from all DIY stores)

STEP 6 – Go over to green power

Buy electricity from a company pledging to supply you with renewable energy. Friends of the Earth have done a comparison of the green power companies on http://www.foe.co.uk/campaigns/energy_and_climate/league_table.html

STEP 7 – Monitor results and set up a rolling fund

Take regular meter readings and take the time to measure the results. Keep trying new ideas until you reach and exceed your energy goal, and reinvest the money saved on new energy saving ideas.

George Marshall, Rising Tide - April, 2001