



## frequently asked questions

### Which form of home heating creates least CO<sub>2</sub>?

Per kWh, going from best to worst: wood, natural gas, liquid gas, oil, coal, electricity.

### I love an open fire. It's OK if you just burn wood, isn't it?

Open fires are one of the least efficient forms of heating. Warm air from the house is drawn up the chimney with the smoke. Turn off any other heating when you use your fire, so you are not sucking already heated air up the chimney. A flue baffle will stop warm air rushing up the chimney when the fire is not lit. An old pillow will do, or you can buy a 'chimney balloon', but remember to remove it before you light the fire and to replace it afterwards.

### I buy my electricity on a renewable tariff. Surely it doesn't matter how much I use?

Renewable energy is a scarce resource and shouldn't be wasted. Even the best green tariffs do not really provide all your electricity from renewable sources. The electricity market is complex and it is quite likely that the renewable aspect of the electricity you buy has been counted and sold several times over.

### Is it worth fitting a solar water heater?

Yes: when you can afford it and if you have a suitable roof.

### Are energy-saving lightbulbs the same as energy-efficient ones?

You'll hear a number of different terms used: energy-efficient lightbulbs, energy-saving lightbulbs and low-energy lightbulbs all usually refer to compact fluorescent lamps (CFLs) and LEDs. See Appendix 2: Home Energy Glossary for more details.

### I've got low-voltage lightbulbs. Are these the same as energy-efficient ones?

No. Low-voltage bulbs are incandescent lightbulbs powered from a 12 volt transformer. They don't save energy.

### Should I wait until my normal lightbulbs 'blow' before I fit energy-efficient ones?

No. Energy-efficient lightbulbs use so much less electricity, they should be installed as soon as you buy them.

### Doesn't it use a lot of electricity turning lights off and on?

No. This is an urban myth.

### I get headaches working under fluorescent lights. Do I have to have them at home as well?

Old-fashioned fluorescent strip lights flickered at only 100 times per second and caused headaches. Modern compact fluorescents generate 40,000 flickers per second. This looks continuous to the human eye. They won't give you headaches.

### Is it better to replace my old fridge with a more energy-efficient model now, or wait until it breaks down?

If your fridge is more than 5 years old it is worth checking its energy-performance. If you bought it after 2000 you may still have its energy-label. If not, check its performance with a plug-in power meter. More efficient models are now available and the energy label will indicate how much energy you might save. Saving 200 kWh per year will make up for the energy used in manufacturing in a few years.

### My TV only uses 2 watts on standby. Surely it's not really worth turning it off all the time?

A house with 2 TVs, 1 computer system, 1 Hi-Fi system and 3 mobile phone chargers could be using 22 watts constantly. This is almost 200 kWh or 80 kg of CO<sub>2</sub> per year (equivalent to a 500 mile car journey). Sort out your plugs and leads so that it is easy to turn things off.

### How should I dry the washing in winter?

Dry it outside when you can. Drying small amounts on indoor drying racks should not cause a problem if you allow some ventilation to prevent the house becoming damp and muggy. Try not to open windows when the heating is on.

### If I stop up all the draughts, won't the house get awfully stuffy?

Be in control of your ventilation. You need a system where you can open trickle vents or windows when you want to, rather than relying on a general draughtiness to get the air you need. 'Stiffness' can be caused by the air being too dry, due to cold, and dry air leaking into the house.

### Are there any dangers in stopping all draughts?

Rooms with open fires or old gas fires or boilers need a fixed air supply, usually via an airbrick or a window ventilator. There is a risk of carbon monoxide poisoning, particularly from gas fires, if you ignore this. If you buy new furniture or carpets or have building work done involving particle board, you may need to ventilate the room to get rid of volatile organic compounds (VOCs) used in their manufacture.

### My house doesn't feel draughty. Do I really need draught-stripping round the windows?

It may not feel draughty because the warm air is going out of your windows! Draught-stripping will stop this waste of energy.

### My hot water tank is well lagged. Isn't it better to leave the hot water on all the time, rather than letting it cool down and heat up again?

No. The energy needed to heat up a tank of water is less than the energy needed to keep it warm all the time.

Is it really worth doing all those fiddly things like lagging hot water pipes, putting foil behind the radiators and putting up radiator shelves?

Yes. You only have to do it once, it is an easy way to save a few watts, and it will make the house more comfortable.

Can I put temporary double glazing on any window?

Almost. You must not cover any fixed ventilation for fires or heaters in the room. You should not put fixed panes over windows that might be used as escapes, in case of fire.

If I fill my cavity wall with insulation, won't it let in the damp?

Not if it's done properly. This used to be a problem with some foams which shrank, cracked and allowed water to run through the gaps. Modern materials are more stable and water repellent.

The new building regulations are so much better than the old ones, my builder says it's not worth doing more than the regulations demand. Is he right?

No. Try to build for the future. Today's standards will soon be out of date. By 2016 all building work will have to meet Code 6 of the Code for Sustainable Homes, a much tougher standard than today's.

I'm only going to live here for a few years, surely it's not worth making changes?

Some changes will save you money even over a short period of time. Other improvements may increase the value of your house, gaining it a higher Energy Performance Certificate when you sell it. This reduces their real cost.

My friends say one thing, my builder says another, my plumber has a third opinion and the internet offers a dozen more. How do I decide what to do?

Compared with the rest of Northern Europe, the British construction industry has a poor record in training, in education and in following best practice for energy efficiency. This results in conflicting and poor advice being given by people with insufficient knowledge. Look for people with real experience of low-energy building. This might be a builder or an architect or others who have had low-energy renovations done. Best-practice guides are published by the Energy Saving Trust; your builder or architect should be referring to them. The books listed at the end of this Meeting are also reliable.

## Rules of thumb

### Small is beautiful

The smallest you can manage with is the best; smaller houses, smaller appliances, shorter showers are all winners.

### Monitoring is a must

If you measure it you can manage it. Unless you read your meters regularly you won't be able to see whether the changes you are making are having the effects you hoped for.

### Insulation! Insulation! Insulation!

Lofts, walls, pipes, floors and woolly hats are all winners. It's difficult to overdo it; aim to need no heating at all.

### If in doubt, switch it off!

It's never more efficient to leave things running when you're not using them.

### Ditch dinosaurs

It's sometimes better to get rid of an inefficient appliance that still works.

### Build tight, ventilate right

It's easy to open a window but hard to block up a draught. Make sure your house is air tight and also has the necessary ventilation in the form of fans and windows that can be opened.

### Learn to recognise expertise

Look for builders and architects with real experience of low-energy construction. Don't get confused by chat on the internet: use the reliable resources suggested in the next section.

### Be kind to yourself

Your green solutions are more likely to succeed if they are also comfortable and convenient.