

Green energy

Switching to a greener energy tariff could save you money

All electricity suppliers in the UK are legally obliged to buy a small amount of renewable power – generated using wind turbines or solar panels, for example – each year. So whether you're aware of it or not, you are already supporting green energy when you pay your electricity bill.

Green tariffs further encourage electricity generation from sources that produce little or no carbon dioxide – but few people

have taken them up. According to electricity and

gas watchdog Energywatch: 'One likely reason is confusion over what green tariffs actually do and how they benefit the environment.'

If you want to ensure that every unit of electricity you use will be matched by one bought from a renewable source, switch to a green source tariff – currently offered by Ecotricity, EDF Energy, Good Energy, Green Energy, Npower and Powergen. Contact Energywatch for more about green tariffs (see 'Contacts', p34).

You could save money by switching to a green tariff. Taking the example of someone in the East Midlands who'd never changed their supplier, our free Switch with Which? service (www.switchwithwhich.co.uk) calculated that switching to an Ecotricity green source tariff from Powergen's standard tariff would cut an average bill by almost £35 a year. However, savings from switching to a regular tariff from British Gas are closer to £100 – so for those on a tight budget, going green isn't always the best option.

Switch with which?

RECYCLING CHALLENGE

The Bradshaws Left to right: Jake, 7; Tim, 30; Rose, 9 months; Maddy, 30; and Harry, 3½

More than three quarters of the Bradshaws' rubbish ends up in their bin, so we set them a challenge to recycle as much household waste as they could.

All it took to reverse the trend was a little advice and some basic recycling equipment provided by Which? – including stacking boxes (£29, from Evengreener; see 'Contacts', p34) to store materials that can be recycled only at the local tip, a wormery (£98) to

compost kitchen waste and extra recycling boxes (available from the council). 'We still have a lot of nappies and wipes, but I'd say that less than a third of our rubbish goes in the bin now,' said Maddy. 'The stacking containers look neat in the kitchen and the extra recycling boxes mean the council can take all our waste paper, glass and cans.' The wormery, however, wasn't such a great success. 'We needed

the worms to eat faster as the wormery fills up too quickly. Bulky leftovers, such as banana skins, had to be thrown away, but our rabbit's been helping out with the vegetable peelings!'

And Maddy's verdict? 'I feel much better that we recycle so much more than we did before. We've also found out about useful recycling facilities in our local area and we're now making better use of the council's collection.'

Not just another

We're being told to cut down on carbon emissions, recycle more and generally be greener. But do we really need to?

Fed up with being told that you have to recycle more, throw less rubbish in the bin and ditch your car? Based on current scientific research (see 'Green dilemma', below) it looks as if we're all going to have to make some changes to the way we live.

Cutting carbon emissions can save you time and money

Thankfully, doing your bit to reduce your impact on the planet and combat the dangerous effects of climate change, caused by emission of greenhouse gases like carbon dioxide (CO₂), doesn't have to mean huge sacrifices or radical changes to your lifestyle. Making small changes and thinking more carefully about the way you go about our daily lives – particularly heating and powering our homes, travelling, shopping and disposing of waste – can make a big difference. In some cases, it will even save you time and money, meaning carbon emission won't be the only thing you're cutting.

Why you need to recycle

Recycling is a cornerstone in the fight against climate change. Recycling one aluminium can, for example, uses just 5 per cent of the energy needed to make the same can from scratch. The UK currently recycles a quarter of all household rubbish – the carbon equivalent of taking 3.5 million cars off our roads.

While some councils are undoubtedly winning their war on waste and recycling around half of everything thrown out by households, others recycle only a tenth of

which? GREEN DILEMMA

Q Do I really need to care about carbon emissions?

A According to the UN Intergovernmental Panel on Climate Change, the release of gases – of which CO₂ is the most common – into the atmosphere is the main man-made contribution to global warming. Climate change could cause flooding and water and food shortages, affecting millions of people. The UK has less than 1 per cent of the world's population yet is responsible for more than 2 per cent of CO₂ emissions.



green article

their rubbish. And we're still lagging well behind countries such as Austria and Germany, which boast national recycling rates of more than 50 per cent.

UK councils that recycle the most all operate alternate-week collections, while none of those that recycle the least does this at present. 'Collecting recyclables one week and residual waste the following week has increased the amount of recycling in places where this change has been made,' says Environment Minister Ben Bradshaw.

The government has increased landfill tax so councils need to either raise money to fund the deficit or ensure less waste goes in to landfill. A change in the law needs to take place before councils can start charging by weight for collections, which means

they're likely to switch to fortnightly rubbish collections to encourage recycling. If you're worried about whether a fortnightly collection will encourage bad smells, insects and vermin, a recent study by the Department for Environment, Food and Rural Affairs (Defra) found that as long as waste is sealed, these are no more adverse than with weekly collections. So make sure your bin's lid is firmly closed and the bags are airtight, or your rubbish is going to smell for a week longer than usual.

Solving recycling problems

Not everyone finds it easy to get recyclable materials collected from their doorstep, as our survey reveals – see 'Recycling problems', right. 'Sparsely populated rural local

transportation is taken into account, the energy and resources saved by not having to make new materials from scratch, such as aluminum cans, makes recycling better for the environment than dumping rubbish in landfill sites – particularly as they will fill up at some point in the future.

Recycling problems

It's all very well being encouraged to recycle, but it's not so easy to do when your council doesn't pick up certain materials from your door. This chart shows the percentage of surveyed Which? members who can't recycle the listed products via a doorstep collection



We asked 2,667 Which? members how they were able to recycle

authorities or, conversely, those with lots of high-rise properties face considerable barriers to increasing their recycling rates, particularly where door-to-door collections are concerned,' explains Linda Crichton from the government's Waste Resources Action Programme (Wrap).

Some materials are more tricky to recycle than others – see the 'Green dilemmas' on p32 to find out more about drink cartons and p33 for plastic packaging, two of the materials you find the most difficult to recycle. Kitchen waste, such as leftover food, proved to be a bother for 64 per cent of you. If this ends up in a landfill it can produce methane, a highly potent greenhouse gas.

Our research

In March 2007, 2,677 Which? members responded to an online survey on recycling and carbon offsetting. Thanks to all who took part.

Does carbon offsetting work?
We set you straight

which?

GREEN DILEMMA

Q Does the council collecting waste to be recycled actually use up more energy than if I just put my rubbish in the bin?

A It's important to remember that dustcarts would still go out and collect your rubbish, even if there was no recycling. But even when

Disposing of it in a wormery or compost heap exposes it to oxygen, so it doesn't produce methane – and you get a free supply of nutrient-rich food for your garden.

Not got a garden? According to Wrap, each UK household chucks out between £4.80 and £7.70 worth of uneaten food every week – that's up to £400 a year or £24,000 in a lifetime. So plan your shopping better to cut down on what goes in the bin or ask your council to supply a means of recycling kitchen waste. Similarly, if your council is switching over to fortnightly collections and doesn't provide much choice about what you can recycle, complain – otherwise you'll end up taking the stuff you can't fit in your bin to the local recycling tip.

It's not actually difficult to reduce the amount of rubbish you put in the bin – as Maddy Bradshaw and her family found, see p30 – but the more recyclable waste the council can collect from your kerb, the easier it will be for you. It will also cut down on carbon emissions. One dustcart produces fewer emissions than multiple cars going to the local recycling tip.





Isn't waste just dumped abroad?

As our recycling rates increase, so does the amount of waste shipped to other countries to be recycled. China is the main recipient. In 1997 it imported around 12,000 tonnes of waste plastic, paper and metal from the UK; by 2005 this had mush-

The more the council can collect from your door, the easier recycling will be for you

The true cost of travel

We're always being told to switch to public transport as a greener alternative to travelling by car or plane. However, as the chart shows, the typical cost, time and environmental impact of two people travelling from London to Glasgow means that the greenest option isn't always the cheapest or quickest option.

TRAVEL COMPARISON			
	JOURNEY TIME	COST OF CHEAPEST RETURN JOURNEY (£)	CO ₂ EMISSIONS
CAR 	7 hours 1min	81	110.8
COACH 	8 to 11 hours	45	18.4
PLANE 	1 hour 22min	75.34	192.8
TRAIN 	5 hours 20min	144	23.8

Car assumed to be doing 43 miles to the gallon. Prices checked over a seven-week period between November and December 2006 by *Holiday Which?* (see *Holiday Which?*, March 2007, p10). CO₂ figures obtained from the government

PHOTOGRAPHY: ALAMY

Does carbon offsetting

We set you straight about carbon offsetting

The basic idea behind carbon offsetting is that you pay to fund projects – such as a wind farm or replacing diesel generators in developing countries with solar-powered ones – that neutralise CO₂ emissions produced by you flying on holiday, for example. Carbon offsetting isn't a cure for climate change because you're only taking out what you put in – so the net effect is zero. The most effective way for you to tackle climate change is to reduce the amount of carbon that you create in

the first place. Only once you've done this should you consider offsetting.

In our survey, 60 per cent of you would consider using carbon offsetting



roomed to almost 1.9m tonnes. Our survey, however, revealed that 84 per cent of you felt that we should recycle our waste in this country; a similar number considered shipping waste halfway across the world to be a waste of energy.

We put these concerns to Liz Parkes, Head of Waste at the Environment Agency (EA). She told us: 'Much of the waste exported, such as plastic, is more readily recycled in countries where there is a demand for raw materials to manufacture consumer goods.' And according to Wrap, the UK's trade imbalance with countries like China means that container ships would return from the UK empty if they weren't used to transport waste for recycling – which means more energy isn't being wasted by shipping it overseas.

Of course, this doesn't mean that rubbish isn't dumped in other countries, but it's illegal to export anything other than clean, sorted waste – which is far more likely to be recycled than dumped as companies can make money out of it. Any company found to be sending waste abroad for disposal rather than recycling can be prosecuted; the EA recently fined a waste-management company £55,000 for attempting to export 1.8 million kg of unsorted household waste to Asia.

Home and carbon

Recycling isn't the only thing that householders are being encouraged to do to be greener, as we're also being told that we

need to cut our carbon emissions. This is because homes produce 27 per cent of the UK's total CO₂ emissions, with each household contributing around six tonnes of the stuff. About 1.7 tonnes come from electricity, the remaining 4.3 tonnes from gas.

Last month (see *Which?*, May 2007, p38) we showed one family how a few simple modifications to an already fairly energy-efficient home could cut their bills by around £250 a year. The environmental benefits of saving energy are not to be sniffed at, either.

which?

GREEN DILEMMA

Q My council won't collect Tetra Pak juice cartons – is it possible to recycle them?

A The need to separate the different materials that cartons are made of – cardboard, plastic and, sometimes, aluminium – can make them a bit tricky to recycle. Around 100 councils do have recycling schemes; otherwise you can send them back to the manufacturer, Tetra Pak (check www.tetrapakrecycling.co.uk for more information). You'll have to pay the postage, though: it will cost 36p to send one carton. Tetra Pak will then ship it to Sweden for recycling.

work?

in the future, but some of you were concerned about how your money would be invested – which is understandable, considering the confusing range of carbon-offsetting schemes available at the moment. By autumn, the government will have launched a standard that will approve only schemes that can prove that the emission reduction paid for will take place. According to Defra, offsetting schemes that are already selling approved schemes include Pure the Clean Planet Trust, Global Cool, Equiclimatic and Carbon Offsets Ltd.

Insulating your walls and loft could cut your home's CO₂ emissions by around 40 per cent (2.5 tonnes) and save you about £250 a year on your heating bills. And if your boiler's more than 15 years old, think about replacing it with an energy-efficient gas condensing one – this can reduce CO₂ emissions by another 12 per cent (0.7 tonnes) and slash heating bills by a third. Grants may be available to cover part or all of the cost of some modifications – contact your local council or the Energy Saving Trust (see 'Contacts', p34) for advice.

Don't forget the small things, either: 300kg, or 5 per cent, of our homes' carbon emissions come from gadgets such as set-top boxes and mobile phone chargers left on standby or plugged in. Simply switching things off properly when they're not in use will not only spare the planet these needless emissions but will also save you £37 a year. Swapping just three 100W traditional light bulbs for 20W energy-saving equivalents could prevent a further 120kg of CO₂. Each bulb will also save you up to £9 a year – or £100 over its lifetime (we'll be reporting on energy-saving bulbs in November).

Switching to a green electricity tariff (see 'Green energy', p30) will help you reduce the carbon footprint of your electricity supply further. Gas is itself a fossil fuel, so your options here are limited to using carbon off-setting (see 'Does carbon offsetting work?', above) or simply turning your thermostat down a degree, which will save £40 a year.

which?

GREEN DILEMMA

Q I find plastic bottles easy to recycle, but what about the rest of the plastic packaging that goes in my bin?

A Almost all of the 50-odd types of plastic that are manufactured can be recycled, but councils often focus on bottles as they're mostly made from only two types of material. This means little sorting is required and there's a good market for

the recycled product.

Recycle Now (see 'Quick tips', p34) has details of facilities to recycle other plastics (for instance, local supermarkets often offer plastic bag collection points), but the best thing you can do is to make sure you're recycling all the bottles you can – don't forget that products other than drinks, such as shampoo, come in bottles, too.

Travel and transport

Transport contributes almost 29 per cent of the UK's CO₂ emissions. But as our research shows – see 'The true cost of travel', opposite – greener forms of transport aren't always the most attractive option when travelling in the UK. It's all very well being told to not use a plane or a car, but if you can't book well in advance to get a cheap train ticket, or you need to get to your destination more quickly than a coach allows, you're better off driving or flying.

However, nearly a quarter of all trips made by car are for less than two miles; when journeys of less than five miles are also included, this rises to almost two thirds. Unless you are carrying heavy shopping or find it difficult to walk, consider going on foot or cycling for shorter journeys. It's great exercise and, with petrol prices hovering close to £1 a litre, is easier on the wallet.

When you do choose to drive, the Department for Transport (DfT) has come up with a range of smart driving tips to reduce the amount of fuel you use and help save on CO₂ emissions and spiralling petrol costs. These include ensuring your tyres are properly inflated and switching your engine off when idling in a traffic jam. According to the DfT, the owner of a new 1.4-litre Ford Focus doing an annual mileage of 12,000 miles could expect to save £90 a year by driving smart (see www.dft.gov.uk/ActOnCO2 for more advice). Also consider down-sizing to a car with a smaller engine or choosing a hybrid or electric vehicle – see *Which?*, May 2006, p16.

Does air tax make flying green?

In Gordon Brown's pre-Budget speech, he said that doubling air passenger duty would 'secure extra resources for spending

Smart driving will save on CO₂ emissions and petrol costs

Green labels

You'll often come across eco labels on goods you buy. We tell you what they mean

In participating countries this means the manufacturer is funding a recycling programme for products with this label – the UK isn't a participating country



Shows that a product can be recycled separately from other household waste under the Weee Directive (see 'All change for electronics', p35)

An EU-wide award for non-food products that minimise impacts on the environment – detergents that are less harmful to rivers, lakes and oceans, for example



Products with this symbol can be recycled where facilities are available. May include a figure showing the percentage of recycled material it's made up of

priorities, such as public transport and the environment'. However, a Treasury spokesman told us: 'Like other taxes, revenues from air passenger duty are not directly ring-fenced for particular projects.' This means there's no guarantee that passengers' money will go directly towards helping the environment.

If you do fly and want to make less of an impact on the environment, consider carbon offsetting to reduce your flight's environmental impact (see 'Does carbon offsetting work?', p32). For shorter distances within Europe, however, travelling by train can offer a time- and cost-saving alternative, as well as the obvious environmental benefits.

Although journey times by plane look quicker on paper, it's important to factor in the time it will take you to get to the airport in the UK, from the airport to your destination on arrival, plus checking in and reclaiming baggage. Also think about the cost of getting to and from the airport, including parking fees. Trains, on the other hand, bring you right into the heart of a town or city, so you can get on with enjoying your holiday as soon as you arrive.

Quick tips

Five quick ways to make your life easier and greener

- **Contact your council if you're having trouble recycling.** It may also be able to offer you discounted or free equipment, such as a compost bin, extra recycling boxes or a bin.
- **Visit www.recyclenow.com or call 0845 331 3131** for details of recycling facilities in your area.
- **When you shop, look out for packaging made from recycled or compostable materials** – for the recycling industry to be able to work, there needs to be a market for its products.
- **Reuse carrier bags** (try keeping a ready supply in your car or bag) or invest in a longer-lasting bag for life, available from many supermarkets.
- **Cut down on the amount of waste that goes into your bin** by avoiding overly packaged food.

which? GREEN DILEMMA

Q Will my car really run on vegetable oil?

A Not if it runs on petrol. While it's technically possible to make modifications to run a diesel car on straight vegetable oil, it doesn't meet any recognised quality standards and could damage your engine or invalidate your warranty (or both).

Good quality biofuels that don't require engine modifications are available. However, at the moment, there's a debate about whether forests will be destroyed to grow crops for fuel. Our advice is to wait until this is resolved before you commit to fuel alternatives.

The time taken to get to Europe is set to come down. When Eurostar moves to its new London terminus at St Pancras in November, journey times to Paris and Brussels will be cut by 20 minutes. St Pancras' superior connections to the rest of the UK means passengers outside southern England will benefit, too: York to Paris, for example, will take just over four and a half hours. Booked in advance, the cheapest fares from York to London are as little as £10 each way; return tickets on Eurostar from London to Paris and Brussels are priced from £59. Visit www.seat61.com for help planning rail travel abroad.

Shopping

Supermarkets have worked to reduce their CO₂ emissions by optimising their distribution networks and sourcing local produce to reduce food miles – literally, the distance

Half of the miles driven transporting food in the UK come from shoppers

travelled by the food from farm to fork. Yet buying locally might not always bring the environmental benefits that we, as consumers, expect.

Take tomatoes, for instance. According to Defra, in terms of energy used and CO₂ emissions generated as a result of cultivation and transportation, it is better to truck tomatoes in from Spain than grow them in the UK outside of our relatively short traditional growing season (July to October). This is because of the huge amount of energy required to heat the greenhouses that UK tomatoes are grown in. Spanish tomatoes, on the other hand, grow outside under plastic sheeting.

Eating seasonally is one solution, but you can also think about how you're getting food home. On average, UK householders make two food-shopping trips a week and rack up almost five miles in their cars doing so. Half of the miles clocked up – and 13 per cent of the CO₂ produced – by vehicles carrying food in the UK come from shoppers driving to and from supermarkets.

Contacts

Carbon Offsets Ltd www.carbon-offsets.com
Defra 0845 933 5577; www.defra.gov.uk
Department for Transport 020 7944 8300; www.dft.gov.uk
Energywatch 0845 906 0708; www.energywatch.org.uk
Energy Saving Trust 0800 512012; www.energysavingtrust.org.uk
Environment Agency 0870 850 6506; www.environment-agency.gov.uk
Equiclimat 0800 458 7689; www.ebico.co.uk
Eurostar 0870 518 6186; www.eurostar.com
Evengreener 0845 658 5588; www.evengreener.com
Global Cool www.global-cool.com
Pure 020 7382 7815; www.puretrust.co.uk
Wrap 0845 331 3131; www.recyclenow.com





GREEN DILEMMA

Q Does it make a difference what sort of washing powder I use?

A Some powders contain phosphates which can cause large quantities of algae to grow in lakes and rivers and kill fish and other life forms. There are several products

that don't contain them – often it will say so on the box. To further minimise impact on the environment, choose the lowest possible temperature and the correct powder dosage (see p53 for more on washing machines and p58 for detergents).

Supermarket delivery lorries do produce five times more CO₂ per mile than a car, but to transport the contents of one lorry would take around 1,000 car journeys. This means that unless it's been air-freighted, the final journey of each item in your trolley's is likely to be the most damaging in environmental terms. To get around this, either make fewer shopping trips or save yourself some time and use an organic-box delivery scheme or online grocery shopping (see *Which?*, February 2007, p17, and March 2007, p12).

What going green means to you

The government and your council's green initiatives may well mean changes that affect you, such as alternate-week bin collections to get you to recycle more, switching to low-energy light bulbs and using the car a bit less. But – as we've shown – being green needn't be difficult; in fact using or wasting fewer resources will help your bank balance as well as the environment. And, as Maddy Bradshaw told us (see p30), it makes you feel good about yourself too. Who'd argue with that?

Long-term tips

Prepared to go the extra mile to be greener? Find out how you can make a difference

- Go to www.energysavingtrust.org.uk or call 0800 512012 for further energy-saving advice and information about grants for home improvements, such as cavity wall insulation.
- We reported on energy-efficient boilers in September 2006 (p36) and solar panels and insulation in October 2006 (p36) and we will be testing low-energy light bulbs this November.
- Want a VAT-free bike? Ask your employer whether it participates in the government's 'Cycle to Work' initiative. If you pay for your bike direct from your salary, you will save a further 33 per cent as you won't pay tax or National Insurance on the forgone income.
- The government's Transport Direct service (www.transportdirect.info) allows you to compare door-to-door travel by public transport with car journeys across the UK, providing you with information about the journey time and cost.



All change for electronics

How new regulations will affect the way you dispose of electronics

Starting from next month, it should be easier to recycle old electrical goods. The implementation of the Waste Electronic and Electrical Equipment (Weee) regulations means that manufacturers and retailers (both high-street and online) will have to contribute towards paying for goods to be recycled at local tips – although they're not obliged to offer free collection from your home. Other companies, including Dixons Group shops, PC World and

Currys.digital, will offer an in-store service where people buying new products can return old ones free.

The Weee Directive won't ban you from disposing of electrical goods in your bin, nor will it mean you can no longer donate electrical items to charities or community projects.

For up-to-date information on Weee, go to www.environment-agency.gov.uk/weee or call the Environment Agency on 0870 850 6506.

■ The 3.3 tonne, seven-metre Weee man sculpture, pictured left, is made up of the average amount of electrical and electronic equipment that each of us in the UK throws away over our lifetime.

■ More than six million electrical items are thrown away every year in the UK. It is estimated that over half of them are still working or could easily be repaired.

■ The average UK home now contains 47 energy-

using products (not including light bulbs) – 30 more than a typical home back in the 1970s.

■ On average, every person in the UK throws away their own body weight in rubbish every seven weeks.

Sources: Energy Saving Trust; RecycleNow