

Welcome to the Challenge

**A guide for small and medium sized
enterprises (SMEs)
Version 1.0**

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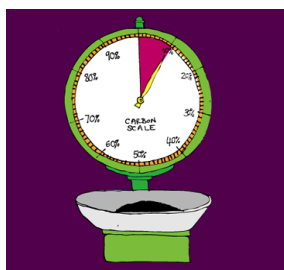
You've made a good start, where now?

Did you know
SMEs in the
South West
employ
1,269,000
people. Or 73%
per cent of the
regional total
which is
significantly
higher than the
55% UK average.

The Challenge

You've joined a collective effort to achieve a cut of at least 10% in the West of England's carbon emissions by 2013!

The West of England Carbon Challenge (WECC) is a free network across Bristol and the West of England, to help organisations reduce their energy bills and carbon footprint. WECC is managed by Forum for the Future, one of the UK's leading sustainability NGOs, which supports the Bristol Green Capital Pledge and Business in the Community Mayday Initiative. Members receive advice, tools and practical support to measure, manage and reduce their CO₂ emissions.



Our request of you:

- ▶ You need to commit to measuring, reducing and reporting your organisation's carbon emissions on an annual basis; and
- ▶ You need to have one or more sites in the following local authority areas: South Gloucestershire, Bristol, North Somerset, or Bath and North East Somerset.

Our pledge to you; we'll help you to:

- ▶ Save energy, waste and money through assessment of your carbon usage;
- ▶ Future proof your business from rising energy costs and government legislation;
- ▶ Demonstrate leadership on tackling climate change, while raising your profile and strengthening reputation; and
- ▶ Join other regional leaders in putting the South West at the forefront of the transition to a prosperous low carbon economy





Welcome to the challenge

You've signed up, so let's get going...

We have developed this guide for getting started with carbon reduction. It will help you with recording and reporting your data, and point you in the direction of any sources of funding and practical advice on cutting your carbon.

A quick rundown of what you do now:

1. Get Connected

- ▶ Come to our events
- ▶ Follow us on Twitter
- ▶ Join our Linked In group
- ▶ Use this guide and ask us who it would be worth connecting with for advice and funding
- ▶ Check out our website

2. Get started on your data (if you haven't already)

- ▶ Start with your energy (gas and electricity) – it's sure to be your biggest source of carbon
- ▶ Measure (find your meters or get your bills) and record

3. Submit your data (3 options)

- ▶ Self reporting
- ▶ Using the simple carbon calculator
- ▶ Use the I-Systain tool

4. Get help...any questions, just pick up the phone

Thanks again for joining the challenge... and step this way please...



Get connected

Connecting with other WECC members and linking up to the network of advice and support will help you get the most out of joining the challenge, and see some real results!

▶ **Come to our events**

We have regular networking events based around carbon reduction issues, with opportunities to be among the first to take a look at some of the latest, greenest buildings. These include high profile speakers and most importantly a great opportunity to meet and share experiences and best practice with people facing the same challenges as you. Our latest events are posted on our website.

▶ **Follow us on Twitter**



twitter.com/#!/wecc2012 Got a twitter account? Follow our updates here.

▶ **Join our Linked In group**



Get connected to everyone in the challenge by joining the LinkedIn group

▶ **Ask us who it would be worth connecting with**

Use this guide and talk to us and fellow WECC members to connect with potential sources of funding and practical advice.

▶ **Check out our website**



www.westofenglandcarbonchallenge.org To keep in touch with the latest WECC goings on, for our latest case studies, sharing some of the great things businesses are doing, the latest thinking in carbon reduction, news of our events and to take a look at who has joined the challenge with you.

Remember just drop us an email or give us a call if you need any information or advice:

Tel: 0117 930 7300

Email: s.billing@forumforthefuture.org



Getting hands on support

Are you eligible for any government funded schemes or hands-on support?

If your annual energy bill is more than £30,000 you may qualify for a free [Carbon Trust site survey](#). Call 0800 085 2005.



If you have a fleet of over 25 vehicles you may qualify for a free [Energy Saving Trust fleet carbon footprint](#) & green fleet review. Call 0845 602 1425.



Call Business Link South West

Regional support gateway focussing on resource efficiency. Free impartial advice on environmental business issues and assessment of appropriate regional support programmes. There are currently two main schemes for SMEs:

If you're a 'high-growth' business you may qualify for the [LYRE resource efficiency scheme](#): a free diagnostic and match funding for consultancy support and capital grants.

Collaborate with other local businesses and form a Resource Efficiency Club where you can pool Train to Gain vouchers to do something more substantial.

0845 600 9966 or email environment@businesslinksw.co.uk

If you're not eligible for these →



The DIY route...

You may not be eligible for hands-on support but there are plenty of other free resources...

Form a Green Team

Ask your people for ideas. Get representatives from all your departments. This has consistently been shown to be a critical success factor in effecting organisational change



Join the BITC Prince's Mayday network

Use the Mayday Journey online tool to help you plan your low carbon journey and track progress: www.maydaynetwork.com
You will also be linked in to a national network.



Join the Bristol Green Capital network

Browse the directory of 'Getting Started' resources, many of which are relevant to businesses based throughout the West of England

www.bristolgreencapital.org



Use the resources from the Carbon Trust

Advice and tools for SMEs, for understanding and reducing your carbon footprint (saving energy and cutting costs)

www.carbontrust.co.uk/cut-carbon-reduce-costs/small-medium-business/pages/small-medium-business.aspx

Get Sector Specific Support

Many sectors have specific initiatives, support schemes and networks. See p14 for a list of some of these.





Measure your energy...

Here's how to get started with measuring & reporting your figures...energy is sure to be your biggest source of carbon.

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1. Get the numbers

Carbon emissions from supplying your premises **with electricity, heating and hot water** will be the best place to start. So as a minimum, you need to measure your gas and electricity usage. **Find your meters (or dig out your energy bills)!** Note down your meter readings on a monthly or quarterly basis. These measure energy usage in **kWh**. If your workspace is within a shared tenancy and you don't have direct access to meters or bills go to ['Overcoming barriers' p13](#).

You also need to tell us the **number of employees** and **floor area m²** (per site in the WECC Region only).

Although you only need your energy data (gas and electricity), you can of course include your water, waste and transport figures.

2. Submitting your data

You have **two options** for calculating & submitting your carbon data:

1. Self reporting - If you are using your own systems for recording your energy usage, you can send these directly to us and we can calculate your footprint. Or feel free to just send us your monthly, quarterly or annual energy figures.

2. Use the I-Systain tool – You may want to enter your consumption data into the free I-Systain tool to see how much carbon you are emitting. It gives you a more detailed analysis. Let us know if you want to use the tool and we'll get you logged in.

The first time you submit data will be your **baseline** against which future reductions can be measured. We need **one year's figures** for this (we're happy to work to your chosen reporting year).



Reduce your energy

You've got your baseline figures, now you'll want to look at where you're spending the most and how you can become more efficient...

P L A N	<p>3. Do an energy walk around: Download the free 'Carbon Trust Walk Around Checklist' to help you identify low-cost and no-cost opportunities to save energy for your sector and size. www.carbontrust.co.uk/cut-carbon-reduce-costs/products-services/sector-advice</p>
	<p>4. Choose an action plan: Use the Carbon Trust Action Planning Tool to identify the key actions that you can undertake to save energy and reduce carbon emissions. The tool will recommend actions based on your sector and size – you can then pick the actions to make up your own action plan. Your action plan should include time bound targets! See an example on p10. www.carbontrust.co.uk/apl/</p>
	<p>5. Consider capital investment: You may identify areas where there is a business case for capital investment in energy efficient technology. This is where the Carbon Trust can be particularly helpful in identifying technologies, helping with business cases and procurement. Go to Financial help p12.</p>
A C T	<p>6. Spread the word: Identify champions, communicate and implement. The Carbon Trust offers a range of free online training, videos, posters, stickers, pamphlets and other publications to help raise workplace awareness. www.carbontrust.co.uk/posters</p>

Want to play with your figures? Have an initial look at one of these carbon calculators:

www.carbontrust.co.uk/carboncalculator
www.nef.org.uk/greencompany/co2calculator.htm



Action planning

An example action plan for electricity consumption reduction

Measure & Analyse	Actions
On average each computer (with flat screen monitor) left on standby overnight and at weekends wastes £20 a year. <i>That's £200 - and 860kg of CO₂ - for every 10 computers in your company!</i>	Implement a policy that all computers and peripherals are shut down overnight. Do desk checks and name and shame!
Lighting in a typical office costs £3/m ² per year and £1/m ² per year in the most efficient offices.	Swap older 38mm fluorescent tubes for slim line 26mm tubes - they use 10% less energy and can cost less.
Leaving a photocopier on standby overnight and at weekends instead of switching it off costs your company £42 a year and emits around 183kg of CO ₂ .	Switch the copier off at night and at weekends - allocate responsibility to one person or install a timer. Ensure standby features are enabled for office hours when no copying is taking place.
A 2200w kettle used 10 times a day for 4 minutes costs £54 a year and creates 216kg of emissions.	When purchasing new electrical appliances, look for the most energy efficient option. Look for the Energy Star logo on IT equipment & Energy Saving Recommended kitchen appliances like kettles & fridges.
Switching off a laser printer overnight and at weekends, instead of leaving it on standby, will save your company £21 a year and cut CO ₂ emissions by approximately 91kg.	Communicate and engage staff to only print when necessary and use options like draft mode, duplex and A5 booklets to save paper as well as energy. Make sure the printer is switched off at night and at weekends.

Source: Warwickshire County Council

This only looks at electricity... a complete energy plan would also look at space & water heating too... but now onto travel...



Try travel...

Got to grips with energy? Try looking at business travel.

M E A S U R E	<p>1. Collect business travel data: Usually you will have this data in the form of expenses. Cars: You'll need to know at least the total mileage, preferably by fuel type and size Air: You'll need to calculate the total km flown for domestic, short haul and long haul flights. Public transport: You'll need to know at least your total spend on public transport, but you will get a more accurate measure if you can break this down by type.</p>
	<p>2. Convert to carbon: Enter your travel data into the WECC Carbon Calculator or I-Systain tool to see how much carbon you are emitting.</p>
P L A N	<p>3. Green travel plan: A set of measures and targets to encourage staff to use alternatives to single-occupancy car-use when commuting. All four local authorities in the West of England provide travel planning support including grants. See Financial help p12.</p>
	<p>4. Green business travel policy: a) Ensure staff always consider alternatives to travel such as teleconferencing. b) When travel is necessary, reward staff using less carbon intensive modes of travel.</p>
	<p>5. Sign up to the cycle to work guarantee: Use the cycle to work toolkit to guide you in how to fulfil the five pledges: Storing, Changing, Buying, Repairing, Inspiring. www.cycletoworkguarantee.org.uk/toolkit.php</p>
A C T	<p>6. Roll out these travel planning tools for staff: www.transportdirect.info door-to-door route planning on public transport around the UK. (or www.travelinesw.com). www.betterbybike.info/cycle-maps West of England Cycle maps. www.walkit.com Get a route map between any two points in Bristol. www.2carshare.com Car sharing website for the West of England. www.travelbristol.org Bristol journey planning, bus, bike, ferry, walk.</p>



Financial help

Some potential sources of financial support

Energy efficiency and renewables financing

The Carbon Trust offer 0% business loans of £3,000 - £100,000 to SMEs investing in energy saving technology. www.carbontrust.co.uk/loans

Enhanced capital allowances may also be applied which means you can write off the 100% of the capital costs in the first year of the investment. www.eca.gov.uk/etl

Feed-In-Tariffs for micro renewable electricity generation such as Solar PV and Wind turbines. These are currently quite generous and can have good payback returns. www.fitariffs.co.uk

The Renewable Heat Incentive is being introduced in 2011 to incentivise renewable heat generation from sources such as solar thermal, biomass boilers or ground source heat pumps. www.rhincentive.co.uk

Travel planning support & grants

Bristol

t: 0117 903 6673

e: transport.plan@bristol.gov.uk

South Gloucestershire

t: 01454 868004

e: transport.policy@southglos.gov.uk

North Somerset

t: 01934 426962

e: sustainable.travel@n-somerset.gov.uk

Bath & NE Somerset

t: 01225 47 7602

e: Christine.Warren@bathnes.gov.uk

Tax breaks for green travel plans

www.hmrc.gov.uk/green-transport/travel-plans.htm

Although there's not much around at the moment keep an eye out for new funding schemes in your area and sector. www.businesslink.gov.uk/bdotg/action/gsd
www.greengrantsmachine.co.uk

Overcoming barriers...

Often SMEs lease workspace in multi-tenanted properties and may have their power & heating costs wrapped up in service charges. If this is your situation here's what you can do...

Talk to your landlord: they are probably on the hook for carbon emissions from their building and will welcome efforts made by tenants to reduce energy consumption. This is best done collectively with other tenants.

If the landlord will share the building's electricity and heating bills, your portion can be calculated for your organisation:

$$\text{Your Heating} = \frac{\text{Building Heating Bill}}{\text{Building Work Space}} \times \text{Your Workspace}$$

$$\text{Your Power} = \frac{\text{Building Power Bill}}{\text{Building average occupancy}} \times \text{your number of employees}$$

Consider whether simple **energy monitors** can be used to measure the electricity coming into your workspace.

Talk with other tenants and your landlord about installing **power sub-metering** so you only pay for the electricity you use... and/or a **green lease** which rewards tenants for energy efficiency.

www.greenleases-uk.co.uk



Going further

Some resources for taking your carbon reduction further

What is it?	What's it good for?
WRAP recycleatwork.wrap.org.uk	An online searchable database of recycling service providers for small businesses
Sustainability South West www.oursouthwest.com	Formerly managed by the Government Office for the South West, this site is the champion of sustainability in the South West and has lots of detailed practical advice and information.
Green Wise www.greenwisebusiness.co.uk	An independent daily information service for businesses – large and small – that want to learn more about the opportunities and challenges of moving to a low carbon economy.
Action Sustainability www.actionsustainability.com	Now part of WRAP but the website provides a free online tool to help organisations audit the sustainability of their supply chain.
Envirowise www.envirowise.co.uk	Now part of WRAP but the website provides a free tools like the Green Efficiency Toolkit and the Minimise Waste Maximise Profit tool.
IEMA www.iema.net Ecomapping network www.ecomapping.org	Interested in developing an Environmental Management System? Check out these sites.



Sector support networks

Regional or sector specific support networks and schemes

Sector	Organisations
Legal	Legal Sector Alliance
Insurance	Climate Wise Principles
The pension fund	The P8 Group
The food and drink sector	Five-fold Environmental Ambition
Technology	Bristol Environmental Technologies & Services Initiative Connecting Bristol
Hospitality	Hospitable Climates
Manufacturing	South West Manufacturing Advisory Service
Construction	Future Foundations - the sustainable construction knowledge network for the South West.
Public Sector	Public Sector Carbon Network
Logistics	FTA Logistics Carbon Reduction Scheme
Property Development	Carbon Consensus

Did you know that “SMEs account for 45 per cent of UK business energy use, and could cut nearly £400m a year from their energy bills through relatively simple and low cost carbon management measures”

Carbon Trust, 2011

How much is a lot?

The rough guide to one tonne of carbon...



Electricity	1800 kWh. As a rough guide an average UK medium sized house might use around 3,300 kWh per year.
Natural gas heating & hot water	5400 kWh. As a rough guide an average UK medium sized house might use around 20,500 kWh per year.
Travel by car	2800 miles in a medium sized petrol car... that's only 10 miles per working day. Diesel cars have lower emissions.
Travel by plane	3500 miles... or one way to Dubai. Better than driving there though!
Travel by train or bus	10000 miles, about 40 miles per working day or London to Paris and back over 23 times.
Waste to landfill	6000 aluminium cans or 23 per working day... digging up bauxite is very carbon intensive. But if you recycle you save 93% of the carbon.