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REPORT, DOCUMENT

# Resource Efficiency and Carbon Accounting Quick Guide

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# A Net Zero Wales

Wales has long prided itself in being a leader in resource efficiency, sustainability, and action on climate change. Recycling is one area where Wales is a global leader; it's the first in the UK, second in Europe and third in the world for high recycling performance.

Along with the UK Government, in 2021 Wales passed legislation committing itself to net zero carbon emissions by 2050. Meeting this target will require a significant effort from households, businesses, and the public sector (which is committed to reaching net-zero by 2030).

**The Wellbeing of Future Generations Act** seeks to ensure that public bodies in Wales think about the long-term impact of their decisions, to work better with people, communities and each other, and minimise poverty, health inequalities and climate change and the impact of carbon emissions on future climate change.

This guide introduces SMEs to resource efficiency and carbon accounting, providing information on a range of resources available to support with become an environmentally conscious business and save money. The information will support you with measuring and monitoring your resource usage, measuring your carbon emissions and action planning.

Whilst areas of consumption and emissions vary from business to business, the principles of resource efficiency and carbon accounting are the same.

Whilst small businesses often have relatively low emission footprints at an individual level, they collectively account for around half of greenhouse gas emissions by UK businesses, and around a third of total UK emissions. Hence, the potential collective impact from small businesses is significant – British Business Bank.

# Climate Change & Rising Energy Costs = The Need for Action

The relationship between carbon (and other greenhouse gasses (GHG)) and emissions is firmly established. We know that human activity has dramatically increased greenhouse gas emissions in recent years, and if we continue emitting GHG at the rate we currently are, we will not limit warming to the 1.5°C, or even 2°C considered necessary to avoid the most catastrophic impacts of climate change.

SMEs account for an estimated 6% of UK carbon emissions.2 Of these emissions, energy costs associated with heating and powering premises accounts for the vast majority.

## Resource Efficiency

Becoming resource efficient (which means only using the resources eg. energy, water, fuel and materials that are actually necessary, thus minimising waste) in businesses can improve your bottom line and carbon footprint—it's a win-win. There are many more reasons for reducing your carbon footprint including attractiveness to customers, staff retention and simply becoming an efficient and responsible business.

## Make a Pledge

Making public pledges can be a good way of showing your commitment to resource efficiency, waste reduction, and tackling climate change. A pledge affirms your intentions and can outline in broad terms the areas your business will focus on to achieve its goals. The Green Growth Pledge helps Welsh businesses take pro-active steps towards improving their sustainability, demonstrating their positive impact on the people and places around them, as well as joining a growing community of forward-thinking organisations who are helping Wales transition to a low carbon

future. For more information and to make your pledge, visit our **Green Growth Pledge web-page.**

### Create an environmental policy

An environmental policy is a simple document that describes the different ways that you, as an organisation can reflect upon how you use resources and the steps you can take towards
becoming more conscious and efficient in the way you use them.

An environmental policy should be accompanied by an action plan which sets out the steps you will take towards achieving the commitments made in your environmental policy.

For support with creating your environmental policy and action plan, **contact us.** Our Resource Efficiency Team are on hand to advise and support you every step of the way, and help you
achieve your green ambition.

### Monitoring and reducing resource use

Utility bills are rising sharply, but there are many simple ways that businesses can minimise consumption. By monitoring use of energy, water and waste you can begin to establish the areas of high consumption and create an action plan to help reduce spend and carbon emissions.

**We deliver expert resource efficiency advice and support to businesses as well as providing tools to help monitor spend and usage. To arrange a consultation contact us today.**

## What is a Carbon Footprint?

A carbon footprint is the total Greenhouse Gas emitted directly or indirectly from an individual, organisation, or activity. It is generally expressed as CO2 equivalent.

# Measuring your Carbon Footprint

The term ‘carbon footprint’ is now widely recognised. With more and more businesses calculating and publishing their carbon reduction targets in order to win business, and to simply become a responsible business, now is the time act. Not only do environmental credentials help to win business, but the efficiencies saved can be significant.

### What are the benefits of calculating my business’ carbon footprint?

Calculating a carbon footprint provides a baseline upon which to improve, and gives you the knowledge needed to help you plan the steps to carbon reduction. To achieve the greatest impact and plan investment, businesses need to understand where their emissions come from. Calculating your baseline carbon footprint helps you to do this.

### Scope of emissions

The emissions from your business can be broadly divided into 3 different categories, or scopes, and require different types of data:

**Scope 1**
These are direct emissions that come from an organisation’s operations and are controlled by the organisation, including:

- Fuel combustion, e.g. gas or oil boiler operation
- Fleet vehicles

**Scope 2**
Indirect emissions generated by the purchase of electricity to power and heat the business premises.

**Scope 3**
Indirect emissions from sources that are not owned or controlled by the organisation.

These are usually the greatest share of emissions and generally include things like:

- Purchased goods and services, e.g.
- catering, paper supplies
- Business travel Employee commuting
- Waste disposal
- Transportation and distribution
- Investments, e.g. pensions
- Leased assets and franchises
- End use of sold products

Scope 3 emissions can be more difficult to calculate than scope 1 and 2 due to the complexity of the supply chain. Tools such as the Greenhouse Gas Protocol's Scope 3 Evaluator can help simplify this process and reduce the amount of data required. The Science Based Targets initiative (SBTi) also provides a core standard, framework and guidance for the measurement of corporate carbon emissions and for target setting.

Before calculating your baseline emissions footprint, you must define your boundaries and the scope of emissions covered. Scope 1 and 2 emissions are essential to calculating a meaningful carbon footprint, and scope 3 emissions are optional for businesses not looking meet a standard, such as ISO 14064, or as part

of the UN Race to Zero Campaign or SBTi.

## How to calculate a business' carbon footprint?

A range of carbon footprint calculators are available for businesses to access, depending on the scope of emissions and level of detail you wish to report.

The Carbon Trust's **SME Carbon Footprint Calculator** provides a simple online tool which calculates annual scope 1 & 2 emissions.

Other tools, such as the **Supply Chain Sustainability School** require a membership fee for access.

### What data do I need & where can I find it?

**Energy bills:** these are probably the most important source of information for calculating your carbon footprint. All energy bills will include the total amount of gas/electricity/both consumed in kWh in the reporting period. Some bills also show the amount of CO2e this equates to.

**Smart meters:** As well as real-time energy usage, most smart meters provide the associated emissions too.

**Fuel receipts/ mileage:** fuel receipts provide the most accurate source of information for calculating emissions, as the exact quantities of fuel can be converted. Mileage is less accurate as it relies on average conversion data for fuel types and engine size, leaving wider margin for error.

**Scope 3 emissions:** This will vary greatly depending on what you choose to include within the boundary. Many certified standards will specify the minimum requirements for what should be included in the operational boundary.

We can guide you through the resources available and support you through the process. **Contact us** to arrange an appointment with one of our expert advisers.

# Action planning?

While good data is crucial to understanding your emissions, it's what you do with it that counts. Having calculated your baseline carbon footprint, you need to develop an action plan which includes SMART targets. Engaging with employees and external stakeholders throughout the formation and implementation of your action plan is key to setting realistic targets, assigning responsibilities, and getting the buy-in needed to achieving your targets:

### SMART targets

Specific: having identified the main sources of consumption and emissions, focus in on what you can practically do to reduce each area. What are the 'easy wins'? Which will require investment? Vague statements like 'reduce electricity consumption' won't give you the focus you need.

**Measurable:** How will you know what progress looks like? Electricity and gas consumption are often the biggest emitters of GHG and are easily measurable through utility bills.

**Achievable:** Targets are only useful if they stand a chance of being achieved, and you need to consider what is within your control and what is not. You may want to look to similar businesses who have achieved their targets and may have made costly mistakes that you can avoid.

**Relevant:** Targets need to be directly linked to achieving your overall business goals, e.g. net zero by 2050, making it explicit what impact this target will have on your resource use and associated emissions.

**Time bound:** Without setting clear short (e.g. one-year), medium (e.g. 3 years), and long-term (e.g. 5-10 years) targets, it will be difficult to monitor progress and know whether you're focussed on the right areas. Set review periods and stick to them.

Wherever you are on your journey, be it to reduce the cost of utilities or measure your carbon emissions, Business Wales is here to support. **Contact us** to arrange a consultation with one of our expert advisers, who are here to help you achieve your green ambition.

## Resources & guidance

**Business Wales – Green Growth Pledge**

**Business Wales – Resource Efficiency**

**Business Wales - Sustainable Tourism Toolkit**

**Carbon Trust**

**Department for Business, Energy & Industrial Strategy**

**Energy Saving Trust – Business: Energy efficiency**

**Planet Mark**

**Science Based Targets**

**Sustainability Supply Chain School**

**Welsh Government: Climate Change**

## Glossary

**Carbon footprint:** the total GHG directly or indirectly from an individual, organisation, or activity. It is generally expressed as CO2 equivalent, or CO2 e.g

**CO2 e:** different greenhouse gases have different global warming potential (GWP). To simplify and allow for easier calculations and comparisons, all gases are converted to the equivalent amount of CO2.

**Greenhouse gas (GHG):** GHG are those which contribute to the warming of the planet by trapping heat. The following 6 GHGs are those generally considered when calculating a carbon footprint: Carbon dioxide (CO2 ), Methane (CH4 ) Nitrous oxide (N2 O) Per fluorocarbons (PFCs) Hydrofluorocarbons (HFCs) Sulphur hexafluoride (SF6 ). They are found in different processes and Energy Saving Trust – Business: Energy efficiency Planet Mark Science Based Targets Sustainability Supply Chain School Welsh Government: Climate Change industries to varying degrees, e.g. methane in agriculture, PFC in textiles.

**Kilowatt hours (kWh):** a unit of energy consumption used for calculating carbon emissions.

**Net zero carbon/carbon neutral:** the balancing of carbon emissions against carbon removals and/or carbon offsetting with the net result being zero Operational boundary: this is set by categorising emissions as either direct or indirect (see Scope of emissions).

**Organisational boundaries:** this is determined by what operations are to be included within a carbon footprint calculation, e.g. waste collection, transport of products Scope of emissions: See Scope of emissions.

For more information refer to our **accessibility statement**.