Guide for Measuring Your Emissions

Introduction

This guide explains how to approach your organization's greenhouse gas emissions inventory, or carbon emissions. Understanding your emissions is essential for planning effective reduction strategies and meeting stakeholder expectations, as businesses are increasingly required to report this information.

To get started, we outline three potential paths to approach measuring your emissions:

- **Initial Assessment with SME Climate Hub Calculators:** Begin with [the free Carbon Calculators](#) at the SME Climate Hub, tailored for SMEs at different stages.
  - **Small Business Carbon Calculator:** A simple, accessible calculator, for small businesses starting their carbon measurement journey.
  - **Advanced Business Carbon Calculator**: A comprehensive, transparent and auditable calculator, ideal for medium and large businesses, with the flexibility to incorporate data from multiple sites.
  - **Scope 3 Specific Calculator**:An intuitive platform that takes simple procurement data to generate accurate, quality-checked Scope 3 emissions data. Allowing you to identify emission hotspots from your suppliers.
  - Assess if these tools capture all your data and activities or if further refinement is needed.
- **Sectoral or Regional-Specific Calculators:** If your business activities are not fully covered by SME Climate Hub calculators, consider external tools that are sector- or region-specific and may better align with your operations.
- **Consultancy or Professional Services:** Whilst calculators such as the advanced carbon **calculator** will allow for accurate and auditable calculations, it can still be challenging gathering, inputting and analysing the data. sIf able you can consider working with a consultancy or service provider experienced in greenhouse gas accounting.

Start simple, using available data, and improve over time as your processes mature and more resources become available.

Key actions

Select Your Approach

Use a consistent methodology to calculate your emissions year-on-year. Following established frameworks like the [GHG Protocol](#) or [ISO standards](#) is recommended. If you chose to begin with our calculators, the SME Climate Hub's calculators align with the GHG Protocol (The most widely used framework for GHG accounting and reporting), offering a reliable starting point. Use the calculators to input your available data and assess whether they meet your business needs. If additional detail or specificity is required, consider sectoral tools or external consultancy support.

Categorize Your Activities

Identify all activities within your organization and value chain that emit greenhouse gases. Form a cross-departmental team to ensure no emissions sources are overlooked. Different individuals within your organization will be responsible for activities that contribute to your emissions. To ensure comprehensive data collection, engage a broad range of individuals and teams across your business.Categorize these activities using the GHG Protocol's three emission scopes.

If you are using the SME Climate Hub's calculators, these activities are already automatically categorized in the system, you just have to recognize which are relevant and gather respective data in the next step.

- **Scope 1 (Direct emissions)**: Emissions from activities owned or controlled by your organisation, such as fuel combustion in boilers or company-owned vehicles and refrigerant leaks.

- **Scope 2 (Energy indirect)**: Emissions from purchased electricity, heat, steam, or cooling used by your organization. For example, these can typically be tracked through utility bills.

- **Scope 3 (Other indirect)**: Emissions from activities outside your direct control, such as business travel, employee commuting, waste disposal, purchased goods and services, freight, and investments. See GHG Protocol for all 15 categories of Scope 3 emissions.

Gather Data

Collect reliable and relevant data for all activities during your chosen reporting period (usually one year). Common data sources include:

- **Scope 1**: Fuel purchase records, equipment logs, vehicle mileage, utility bills
- **Scope 2**: Electricity or utility bills (measured in kWh).
- **Scope 3**: Supplier data, shipment logs, expense reports for business travel, and product usage information.

Engage with suppliers early to obtain value chain data or support them in starting their own measurement processes. Be sure to collaborate with the person responsible for procurement within your organization to streamline data collection and ensure alignment with supplier engagement efforts.

Apply Emissions Factors

Emission factors are values that represent the average amount of a specific greenhouse gas emitted per unit of an activity or input. Calculate emissions by multiplying activity data by emissions factors, expressed in tonnes of CO_2 equivalent (tCO2e). They allow you to estimate your emissions from various sources when you are unable to provide direct measurements.

You can use generic factors from national databases or sector-specific sources. SME Climate Hub calculators automatically incorporate many of these factors to simplify calculations. If gaps remain, seek support from experts or industry networks.

Verify Results
Once calculations are complete, ensure data quality through internal reviews or third-party verification. This builds confidence in your results and ensures credibility when reporting to stakeholders.

Next Steps

Engage with Employees

Sharing results internally can foster employee engagement and inspire innovative ideas for emissions reductions. Employees involved in the process often uncover cost-saving opportunities and identify new areas for collaboration.

Take action
Measuring your emissions is the first step, with a clearer understanding of your emissions, begin identifying actionable steps you can take. Focus on what is practical and achievable for your business right now, and develop a plan to reduce emissions gradually over time. For further guidance and actionable ideas, explore the SME Climate Hub's [Action Space](#).

Report Your Emissions
Share your emissions data transparently, whether for internal planning, external reporting, or both. Highlight your methodology, organisational boundaries, and assumptions. Remember that emissions reporting is an iterative journey—starting with basic data and improving over time is better than delaying action for perfect accuracy.

SMEs committed to the SME Climate Commitment should begin collecting emissions data immediately after making their commitment. While historical data is helpful, it is not required for initial reporting through [the SME Reporting Tool](#).

By starting with the SME Climate Hub's calculators and assessing your needs, your organisation can confidently embark on its emissions quantification journey. Whether you refine your approach with sectoral tools or seek expert consultancy, this guide provides the foundation for effective emissions management and action. Remember, emissions measurement is not just about compliance—it's a strategic tool to drive sustainability, resilience, and long-term business success.