

Carbon Calculator Tool: Data Collection Guidance

GETTING STARTED

Consider all the activities that your organisation does that uses energy or resources. The most common examples are gas heating for buildings, electricity, and travel. These are the activities that create greenhouse gas (GHG) emissions and the activities you need to collect data from in order to measure your emissions. You can find more detail on GHG emissions in the Data Inputs section.

Most data relating to these activities should be accessible within your company records. Some indirect data may need to be provided by suppliers or customers. Once data from each emissions source is totalled, most of this data can be inserted directly into the Carbon Calculator Tool.

In some cases, raw data will first need to be converted or combined into a format that is suitable for an emissions calculation. Applicable cases are outlined in the Carbon Calculator Tool within respective tabs. There is also a 'unit conversions' tab to help with any units you do need to convert.

MATERIALITY – FOCUS ON WHAT MATTERS MOST

Not every activity will have a significant impact on your organisation's total emissions. Materiality means focusing your time and efforts on the emission sources that make up a meaningful share of your footprint.

An emission source is considered material if:

- It represents a significant proportion of your total emissions (for example, more than 10%, though the threshold is up to you to decide).
- It is important to your stakeholders (e.g. members, funders, partners).
- It presents a clear opportunity to reduce emissions.

If an emission source is very small, difficult to measure, and unlikely to change decisions or targets, it may be considered immaterial and can be excluded at an early stage.

INTRODUCTION TO DATA INPUTS

Data inputs are the measurable pieces of information that constitute your organisation's activities. Examples include kilowatt hours (kWh) of electricity used, litres of fuel consumed, kilometres travelled, tonnes of materials purchased, or cubic metres of water used. These inputs allow the Carbon Calculator Tool to calculate the associated GHG emissions.

Data inputs are typically sourced from invoices, utility bills, fuel receipts, expense claims, procurement records, or internal monitoring systems. The following section outlines each emissions source and provides more detail on where data can be found.

DATA INPUTS:

What data is needed to calculate emissions (Scopes 1 & 2)

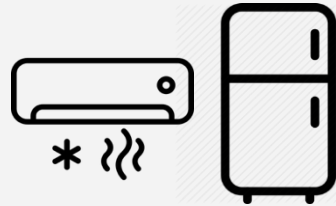
2



Mobile fuel



Stationary fuel



Refrigerant gases



Electricity



Electric vehicles

Option 1: Litres of diesel/petrol burned*

Option 2: Distance travelled by company vehicles, fuel type, vehicle size

Litres of diesel/petrol burned in generators, or kWh/cubic metres of natural gas

Refrigerant type (e.g., R404a) & top-up weight (in tonnes or kg)

Country & electricity consumption in kWh

Distance travelled by company vehicle, vehicle size

Data Sources: fuel receipts, fuel card statements, or fleet management reports

Data Sources: fuel invoices, meter readings, or supplier statements which show energy consumption

Data Sources: maintenance logs or contractor service reports that detail refrigerant top-ups or leakage amounts

Data Sources: electricity bills or meter readings

Data Sources: EV charging invoices or fleet reports that detail kWh of electricity used for charging

DATA INPUTS:

What data is needed to calculate emissions (Scope 3)



Water

Data Required: Litres or cubic metres of water consumed and disposed of/treated

Data Sources: Water bills, water meter



Waste

Data Required: Waste type (e.g. paper), weight (tonnes), method (recycled, landfill)

Data Sources: Waste management provider platform, local council



Business Travel

Data Required: Travel mode, passenger number, journey, class of travel, from and to stations or airports or distance

Data Sources: Travel provider, internal expense/record systems.



Hotels

Data Required: Hotel country, number of room nights

Data Sources: Travel provider reports or expense claim datasets



Material Use

Data Required: Material type, weight

Data Sources: Packaging/ material records (warehousing/manufacturing)



Freight

Data Required: Mode of transport, weight of goods (tonnes), distance (km)

Data Sources: Logistics provider records or invoices that detail weight transported and distance travelled

ESTIMATION TYPES

Metered utility data is most accurate. Complete travel, hotel, freight records, including travel class, freight type, hotel country etc. are also preferred.

When precise activity data is unavailable, it can be estimated using data from other offices/buildings/months/year or spend data.

If some data is unavailable, it would be ideal to introduce data improvements to collect this data next year.

ESTIMATION TYPES

Where verifiable data is not available, organisations may estimate data by:

- Direct comparison;
- Pro-rata extrapolation;
- Benchmarking.

Direct comparison means using figures from another comparable time to fill the gap (for example, the same day/week/month in another year).

Pro-rata extrapolation means using figures available for one period to get average consumption figures for a shorter period.

For example, an organisation may use the average day rate of energy use for 1 April 2025 to 25 April 2025 to estimate the energy used between 26 and 30 April 2025.

Benchmarking means using one asset/activity as a proxy to estimate the consumption of another.

For example, an organisation may use the energy use of one matchday to estimate another.

USEFUL RESOURCES

1. [Understanding my business energy bill – British Gas](#)
2. [How to understand your monthly half-hourly electricity invoice – SEFE Energy](#)
3. [Series of training webinars hosted on the GHG Protocol website](#)
4. [Air Miles Calculator](#) – Useful when needing to estimate the distance between airports.
5. [Doogal](#) - Another option for calculating distances as the crow flies

Full Links below:

1. <https://www.britishgas.co.uk/business/help-and-support/billing-and-payments/how-to-read-my-bill>
2. <https://www.sefe-energy.co.uk/media/xrbhrdsc/monthly-hh-invoice.pdf>
5. <https://ghgprotocol.org/corporate-standard-training-webinar>
6. <https://www.airmilescalculator.com/>
7. <https://www.doogal.co.uk/MeasureDistances>