



AN 8 STEP GUIDE

to help you measure and report your
Scope 1, 2 and 3 carbon emissions

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Introduction

Why calculate and report carbon emissions?

Climate Change and Net Zero

As the impacts of climate change become increasingly apparent, so does the need to drive down carbon emissions to limit global temperature change.

Many national governments, local authorities and businesses have published carbon reduction targets and committed to achieving Net Zero carbon emissions within their own scope of emissions. The UK Government is one example and has a legally binding target to reach Net Zero by 2050.

Net Zero, a term that is increasingly used in discussions around climate change, is defined by the Science Based Targets Initiative (SBTi) as 'a state of balance between anthropogenic (from human-derived sources or activities) emissions and anthropogenic removal. Companies must take action to halve their emissions by around 2030. Likewise, long-term deep emissions cuts of at least 90%

before 2050 are crucial for net-zero targets to align with science.' By this definition, it is required that emissions are reduced as far as is feasibly possible and then offset using carbon removal measures.

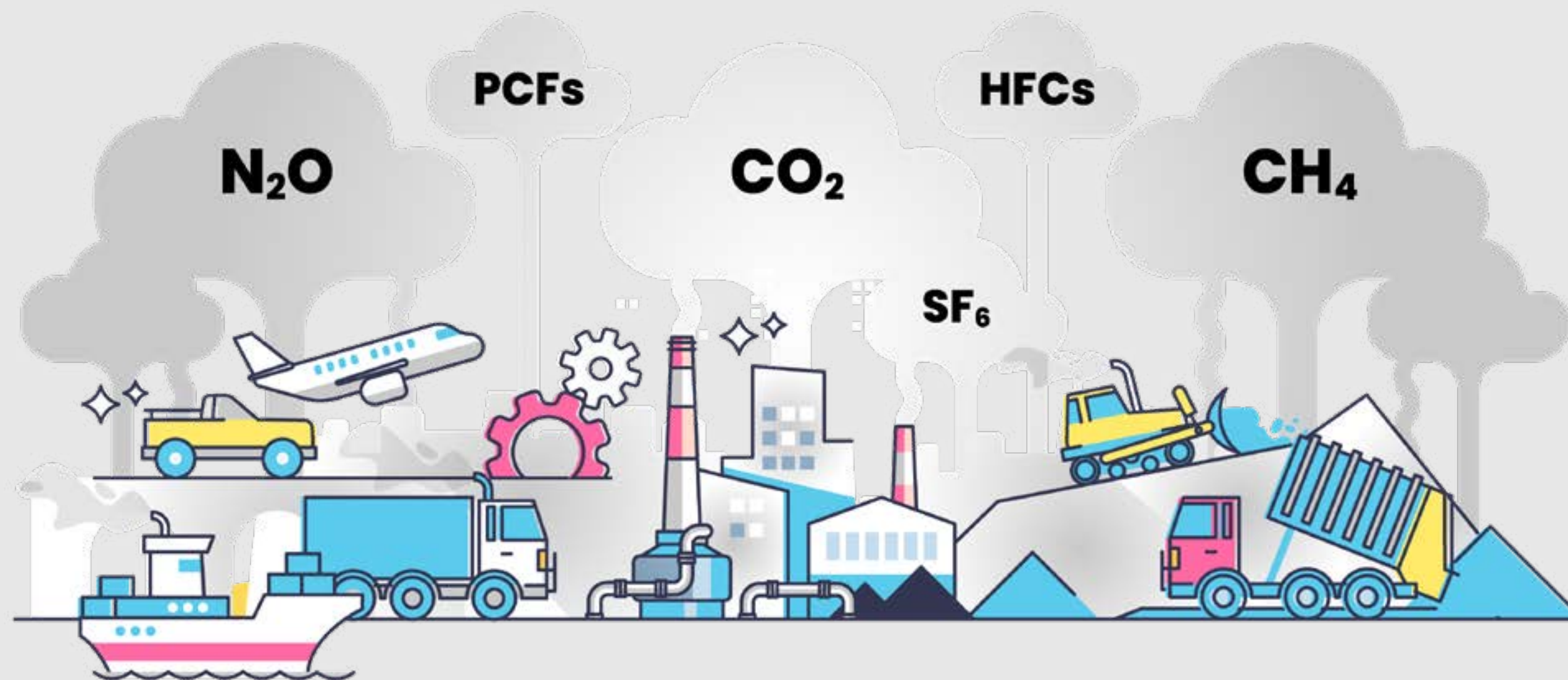
Carbon neutral is another frequently used term that is often used interchangeably with Net Zero. However, the definition of carbon neutral is very different and the terms are not interchangeable. Carbon neutrality allows you to offset your emissions without any reduction. Carbon neutral is generally regarded as the weaker of the two targets.

CARBON AND GHGSCAR

Greenhouse gases (GHGs) are gases within the atmosphere that contribute to the greenhouse effect. Such gases include carbon dioxide, methane, nitrous oxide, water vapour and more. Whilst these gases occur naturally, emissions from human-sources are amplifying the greenhouse effect, leading to climate change.

As the primary GHG emitted by human activity, carbon dioxide is regularly used as the standard to both report on and refer to GHGs as a whole.

More information on greenhouse gases, the greenhouse effect and climate change can be found [here](#).



UK Net Zero target and regulatory changes

The UK's national target to meet Net Zero by 2050 is driving new policies and regulations to be implemented that drive down the overall carbon emissions of the UK. Currently, it is mandatory for all large businesses in the UK to measure and report on their scope 1 and 2 emissions. This covers any company that exceeds at least two of the following three criteria within the financial year. £36m annual turnover, £18m balance sheet total, 250 employees. It is expected that this requirement will soon be extended to incorporate all companies operating in the UK, regardless of size. Furthermore, the government recently began consulting on the feasibility of extending the compulsory emissions reporting to include scope 3 emissions as well as scopes 1 and 2.

By calculating and reporting your carbon emissions, you can be well prepared for these potential future legal changes. In addition to this, there are multiple other benefits from calculating and reporting your full scope of emissions:

- Understanding risks to your business that may arise from future changes to legislation and regulation around GHGs.
- Identifying opportunities to become a leader with a positive environmental reputation.
- Potentially gaining a competitive advantage when tendering work.
- Setting the scene to implement emissions reduction targets and produce a practical action plan to drive down business emissions.

Scopes of emissions

Carbon emissions are categorised into three distinct scopes, scope 1, scope 2 and scope 3. This is to aid in carbon accounting and allocate accurate responsibility for the emissions and subsequent reduction strategies.

SCOPE 1

These are direct emissions from sources owned by your company. For example, carbon emissions emitted as a result of fuel used in company-owned vehicles, boilers, etc, and leaks of gases used in air conditioning systems.

SCOPE 2

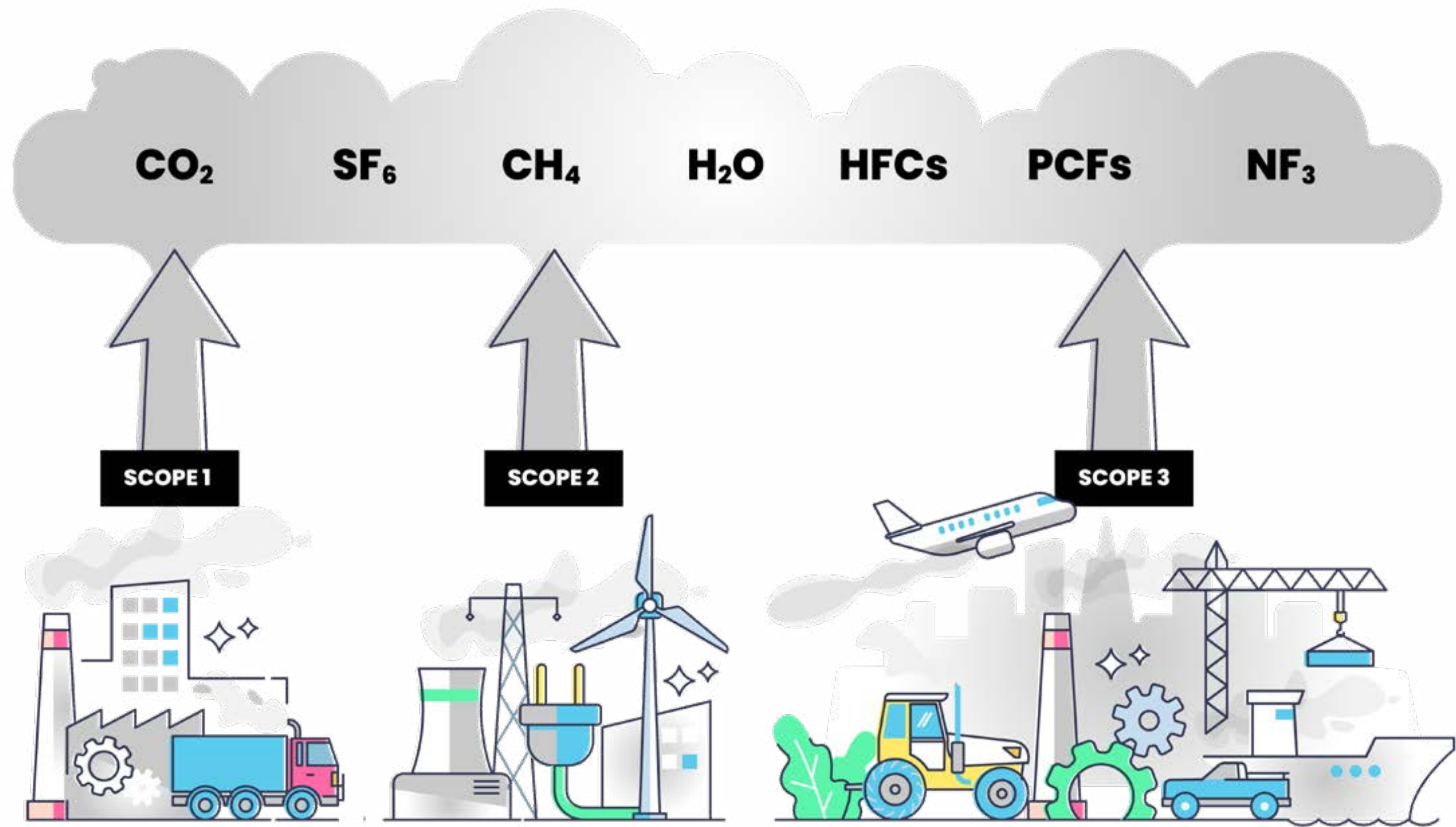
These are indirect emissions resulting from the generation of electricity you purchase. As the business does not physically generate the electricity and subsequently the emissions, these are not direct. For example, energy use in your permanent offices.

SCOPE 3

This category covers all other indirect emissions associated with your business. These emissions may arise from sources not controlled by your company, but are emitted as a result of your business activities.

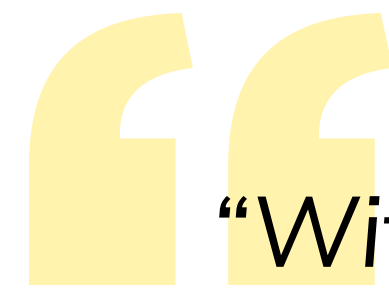
Full scope 3 emissions cover a wide range of sources, across 15 categories. Scope 3 reporting takes time and resources to compile and calculate, however, it is where the largest sources of your carbon emissions are likely to come from, so it is really important to report and understand.

Due to the complexity and scale of the task, we would recommend you first focus on calculating your scope 1 and 2, and operational scope 3 emissions before tackling full scope 3 emissions. The scope 3 category is broad and can become complicated due to the indirect nature of the emissions throughout the wider value chain. Because of this, the term operational scope 3 is increasingly being used to refer to scope 3 emissions categories that are directly within a business' operational control, such as business travel and business waste. Whilst not an official term, operational scope 3 can be a useful starting point to begin your scope 3 calculations.



Step 1

Allocate resource



“Without resource, the rest of the steps won’t matter.”

To be able to calculate and report your emissions, from just focussing on scope 1 and 2 emissions, up to calculating your full scope 3 emissions, you will need to ensure you are allocating appropriate resources and time.

The level of resourcing you will need will be dependent on the scale, complexity and size of your business, the scopes you are aiming to calculate and if you plan to use an external consultant. Some key principles to keep in mind are:

- You need to designate someone to be responsible for understanding the process; collating all the relevant data and information; and calculating the emissions.
- You will need to understand that this process will take time, and so time for this will need to be protected for the designated person to be able to undertake these tasks.
- If you decide to use an external consultant to calculate your emissions for you, you will still need to set aside time and resources to collect the data and information they require.
- Other members of your business will need to provide data, and so time will need to be provided for them as well, this can include finance teams, facilities managers, procurement and commercial teams as well as suppliers.
- Someone from your finance team will need to be available to provide data, including spend on products and services; total company turnover; allocation of capital goods etc.

Step 2

Read The Greenhouse Gas Protocol



“This will be your sacred text and will inform all you do.”

The GHG (Greenhouse Gas) Protocol is the internationally accepted method for measuring and managing greenhouse gas emissions across a company’s scope 1, 2 and 3 emissions.

The Greenhouse Gas Protocol has a range of documents available to aid in the development of your carbon inventory.

- GHG Protocol - Corporate Accounting and Reporting Standard
- GHG Protocol - Scope 2 Guidance
- GHG Corporate - Value Chain (Scope 3) Accounting and Reporting Standard
- GHG Protocol – Technical Guidance for Calculating Scope 3 Emissions

We recommend, before starting your carbon reporting journey, reading these documents and becoming familiar with them. The standards can be a useful reference guide on how to start, how to define your company boundary, what scope 3 categories are in scope for you, types of data, as well as setting targets.

The two guidance documents should be read, understood and referenced regularly by the person(s) responsible for putting your inventory together. The guides explain what is covered by each category, what is a mandatory requirement and what is an optional disclosure; and most importantly explain the calculation methodologies you can follow dependent on the type of data you have.

Step 3

Plan your process



“Breaking down the process into actions will make the whole thing feel more manageable.”

Planning your scope 3 calculation process is a vital step that can't be skipped. The first step will be for the person you have made responsible for calculating your scope 3 emissions to download, read and understand the GHG Protocol's 'Technical Guidance for Calculating Scope 3 Emissions.'

This identifies all the categories within scope 3, what is included, what is optional to include, as well as identifying the different types of evidence and data you will need, and the different calculation methodologies you can follow. Before you start, you should also obtain your final accounts for the reporting year and the latest UK government GHG conversion factor database.

Company boundary

Next you will need to identify your company boundary. There are two key company boundaries you can choose:

- Financial boundary – This is everything that your company has financial control over.
- Operational boundary – This is everything your company has operational control over.

Though often these two boundaries are similar, there can be distinct differences. You need to decide which boundary you are using, as this will dictate which categories and emissions are within your control and therefore need to be reported on.

Scoping your emissions

Now that you understand your company boundary, you need to scope your calculation methodology. Identify which of the 15 scope 3 categories fall within your company boundary and so need to be calculated and reported.

Data types

Now that you understand your company boundary and the categories you are going to be reporting you need to understand what data you will need to collect and from whom. The three main types of data are:

- Actual carbon data e.g. Actual emissions for purchased products through an EPD.
- Financial carbon data e.g. Total spend on use of a type of service (e.g. consultants).

- Hybrid carbon data - a mixture of actual and financial carbon data e.g. having actual data for a proportion of emissions from a category and then making a benchmark per £ spend to calculate the rest of the emissions.

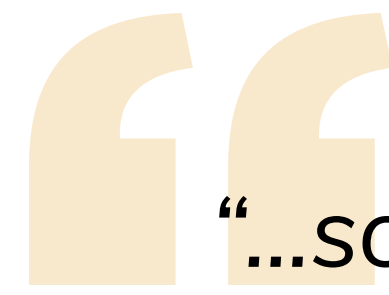
Where possible collect actual carbon data, as this is the most accurate, but for the first stab, it is ok to use predominantly financial data and then make a plan to move over to actual data in the following reporting cycles.

The data will likely come from many different sources, and so before you start collecting it, list out the data you need, what format it will come in and who has the data. This will allow for easier, more ordered collection.



Step 4

Establish significance



“...so that you can spend the most time where the most carbon is.”

A key part of the process is reviewing which sources of carbon are significant for your business. This saves you from spending resources and time calculating the emissions that are insignificant to your business. We spent two and a half days calculating the emissions from our staff using taxis for business travel. These emissions were 0.003% of our total company emissions; this was not a very smart use of our time!

Assessing significance is usually done using a financial calculation, where you identify your spend on different categories across your business e.g. purchased goods and services, utilities, business travel, etc. You can then use carbon conversion factors that convert spend to CO2 emissions to give you an estimate of which sources are significant and which aren't.

You will need to identify a threshold for what is a significant emission and what isn't. For example, you may decide to exclude any sources of emissions that together make up less than 5% of your total emissions.

For any emissions sources above your threshold, you should calculate these sources as accurately as you are currently able to. The items under this threshold are categorised as insignificant to your business and you can calculate these if able to.

Step 5

Collect and calculate



“After four steps of prep now it’s time to roll your sleeves up and do the work.”

Scope 1 calculation

Scope 1 emissions are direct emissions from sources that are owned by your business. These are typically the result of the following activities:

Fuel consumption

This covers emissions resulting from fuel combustion in any company-owned source such as cars, vans, plant, boilers and furnaces.

To calculate emissions under this category, you will require the quantity of fuel used in litres over the course of the year, typically taken from fuel purchase receipts.

Once you have these figures, utilise the carbon factor (CO₂) within the UK government GHG conversion factor database.

Fugitive emissions

This covers emissions resulting from releases of refrigerant gases from air conditioning equipment, whether intentional or unintentional.

Keep a record of any new refrigerant gases used to top up the systems throughout the year. To calculate the emissions associated with these top ups, note the quantity of new gas used and the type of refrigerant gas (i.e. R410A, R32, etc.). Use the UK government GHG conversion factor database to find the carbon factor for the specific gas used.

Process emissions

Process emissions arise from any directly-released emissions from industrial processes or on-site manufacturing that you are responsible for. Please note that this does not include electricity-use as this is included within scope 2.

Scope 2 calculation

To calculate your scope 2 emissions, you will need your total energy use (kWh) for the year. This should be based on the usage outlined within your energy bills. From this point, there are two methodologies that can be adopted to calculate the emissions associated with this energy use location-based or market-based.

Location-based

The location-based method utilises an emissions factor reflective of the grid network where the electricity is sourced from. For UK-based businesses, this will be the average emissions factor associated with the UK electricity grid.

This figure is provided by the UK government in their GHG conversion factor database under the heading 'UK electricity'.

Market-based

The market-based method utilises emissions factors based off the specific energy-provider that is being used by your business and their specific contract for energy provision.

For example, if your chosen supplier is providing energy that is certified by a Renewable Energy Guarantees of Origin (REGOs) certificate, this demonstrates that your energy is generated from renewable sources, meaning the emissions factor will be zero.

It should be noted that if choosing the market-based route, a Renewable Energy Guarantees of Origin (REGOs) Certificate will be required to evidence the emissions factor, being on a green tariff isn't enough to demonstrate this.

Scope 3 calculation

The following section explains what each scope 3 category covers as well as some key guidance, but as every business is different, we have not laid out the methodology for collating and calculating your emissions. To understand how to do this, please consult the GHG Protocol's 'Technical Guidance for Calculating Scope 3 Emissions.'

The scope 3 categories

1. PURCHASED GOODS AND SERVICES

Purchased goods and services covers the carbon associated with all products, goods and services your company purchases and uses. This includes materials and products you use in your business activities (e.g. timber used by a joinery contractor); products used in your offices (e.g. stationery) or services that you employ and use (e.g. legal firms).

This category can cover a vast range of goods and services, especially for large businesses, and so it can be challenging to collate data.

If you have details and quantities of the products you have procured you should total these for each different type of product or material. This can either be quantity of product, or total spend on that product type. You can then multiply the quantity or total spend by a generic carbon factor for that material type (from databases such as the UK government GHG conversion factor database or BATH ICE) to give you the carbon emissions.

If you have Environmental Product Declarations (EPDs) for the products you have purchased, these should be used to calculate the carbon emissions, as these provide accurate details on the carbon emissions for that product. You can use the A1-A3 emissions for Global Warming Potential, multiply it by the quantity of product, and this will give you the emissions.

For services you have used, and products and materials you do not have quantity and product information for, you will need to use financial data and conversion factors to calculate the carbon emissions. To do this, you will total the amount you as a company spent on different types of service or product. Once this has been totalled for each type of service and product you can then use a spend-based conversion factor to calculate the carbon.

It is likely that you will use a mixture of actual product and quantity information and financial data. This is the hybrid calculation method. Each year you should try and increase the actual data you have to improve the accuracy and validity of your data, and allow you to better understand where carbon reduction initiatives need to be undertaken.

2. CAPITAL GOODS

This category calculates the emissions associated with the production of capital goods purchased by your company in the reporting year. Capital goods include fixed assets, plant, property or equipment (PP&E). Examples include equipment, machinery, facilities and vehicles.

The emissions from the use of your capital goods are covered in your scope 1 (fuel use) and scope 2 (electricity use). This category just covers the embodied carbon associated with the manufacture of the capital goods you purchase in the reporting year.

The calculation method for this category is the same as for Purchased Goods and Services.

3. FUEL AND ENERGY RELATED ACTIVITIES NOT INCLUDED IN SCOPE 1 OR SCOPE 2

This category covers the Well-to-Tank (WTT) carbon emissions from the extraction, production and transportation of fuels directly used by your company (scope 1 emissions) and used in the generation of electricity and energy (scope 2). This category also includes emissions from transmission and distribution losses (T&D losses). T&D losses are losses of electricity or energy between the source of the energy (power station) and the point of use (your office etc.), due to efficiency issues etc.

To calculate these emissions, you simply need your total fuel consumption in litres (as reported in scope 1) and total energy use (as reported in scope 2). You then need to use a UK government GHG conversion factor to calculate the associated WTT and T&D losses carbon emissions.

4. UPSTREAM TRANSPORTATION AND DISTRIBUTION

This is the emissions from the transportation and movement of products that you purchased via your Tier 1 suppliers (companies with which you, as a business, have a purchase order for goods or services). This category also includes the transportation and distribution services you have purchased, including inbound logistics, outbound logistics (e.g. transportation of sold products you have directly organised and paid for) and transportation of goods between your own facilities. This category also includes the emissions associated with purchased distribution (warehouses, distribution centres etc).

The first step will be to contact your Tier 1 suppliers and request data from them to calculate the carbon emissions.

Either, calculated carbon emissions from your allocated transportation.

- They should confirm to you how these have been calculated

Or delivery information for your allocated transportation:

- Vehicle type used
- Fuel type of the vehicle
- Miles travelled

If the supplier provided actual carbon data, this can be used straight away. If you were provided with vehicle and distance data, you will need to use this to calculate the emissions. To do this, find the corresponding UK government GHG conversion factor for this type of vehicle and multiply it by the miles

It will be likely that you will not receive data from all suppliers. To cover these missing emissions, you will need to calculate averages that can be used. You can make either or both:

- Product based average – Create an average for transport emissions per different types of product based on the data you have. This can be per unit of product, or per spend. This can then be used to calculate the missing emissions.
- Spend based average – Create an average based on spend using the data you have acquired and the spend with those companies: This can then be used to calculate the carbon using the spend with the missing companies.

To calculate the emissions associated with the storage of materials in warehouses or distribution centres, you will need to collect:

- The scope 1 and 2 emissions for the locations you are using for the reporting year.

- % of volume of goods that you stored in the facility over the course of the reporting year.
- Using this data, you can proportion the scope 1 and 2 emissions to your use of the facilities during the reporting year

5. WASTE GENERATED IN OPERATIONS

This refers to emissions arising from the treatment of waste generated during your business operations. Whilst you cannot control the emissions associated with the treatment of the waste itself, the amount of waste generated (and therefore being treated) is within your direct control.

By waste generated during your business operations, we mean any waste that you are financially or operationally responsible for. On an Overbury project, we take responsibility for all waste generated on-site and we manage this directly. However, this may differ when working with other contractors so is something to be mindful of.

To calculate emissions associated with business waste you will require the following information:

- Quantity of waste generated, split by waste material type (i.e. general mixed waste, metals, glass, cardboard, etc.)
- Split between treatment type, e.g. landfill, recycled, incineration.
- The emissions factors provided in the UK government GHG conversion factor database can be utilised to calculate the respective emissions per waste type and treatment.

6. BUSINESS TRAVEL

The business travel category includes emissions from any employee travel conducted specifically for business purposes, plus emissions from overnight hotel stays for business purposes. Depending on the size of your business and the resources allocated to the task, there are two ways in which business travel can be tracked:

- Spend-based: This option requires the total spend on each transportation type (i.e. rail, taxi, car, etc.) and hotels. From here, conversions can be used to calculate the distance associated with the spend. For example, the government mileage allowance can be utilised to convert business spend on private car spend to mileage.
- Direct tracking: Alternatively, if there is sufficient resource, business travel and overnight stays can be tracked directly. Throughout the year, collate details of the mileage associated with business travel and hotel stays.

Once the above data is collated, the UK government GHG conversion factor database can be utilised to calculate the respective emissions per transportation type.

7. EMPLOYEE COMMUTING

This category covers the carbon emissions associated with travel of your employees from their homes to their permanent place of work. This includes all applicable methods of travel, including: cars, buses and trains.

If your employee has a company-owned car, these are reported in scope 1 emissions. Rental vehicles will be reported here in Employee Commuting.

Depending on the size and complexity of your business there are several ways that you can calculate these emissions:

- Fuel based method: Where you know the quantity of fuel consumed by your employees as part of their commute in their own cars, you can multiply this by the appropriate emissions factor (see Business Travel).

- Distance based method: Where you know the distance and transport type that your employees use as part of their commute, you can multiply this by the appropriate emissions factor (see Business Travel).
- Average data method: Conduct a company commuting survey of your employees, asking type(s) of transport used, distance used for each of these methods. You can multiply this by the appropriate emissions factor (see Business Travel). Using this data from the respondents you can then create an average for employees you do not have data from. You should aim to get as high a response rate from your employees as possible to ensure the average used is reliable.

8. UPSTREAM LEASED ASSETS

This category covers the emissions associated with assets that your company leases from another entity, and where you do not have financial control of the asset. It will depend on the type of lease you have if the emissions from your leased asset are included in this category or in scope 1 and 2:

- Financial control: If you have a lease where you retain financial control and so have accounting ownership over the leased asset, then the emissions associated with the operation of the leased asset (e.g. electricity usage) will be reported under scope 1 and 2, and not under this category.
- Operational control: If you have a lease where you have taken an equity share approach, and account for it as an operating lease, then the emissions associated with operation of the leased asset (e.g. electricity usage) will be reported under this category.

To calculate the emissions, collate the data for the operation of the leased asset (e.g. electricity usage, fuel consumption) and use the emissions conversion factors previously used in scope 1 and 2 reporting.

9. DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

This category covers the transportation and distribution emissions of your sold product after the point of sale.

This category does not include emissions from the transportation of products you have bought, or transportation and distribution services you have directly paid for, these emissions are covered in 'Upstream Transportation and Distribution.'

The carbon calculation process for the category is the same as in 'Upstream Transportation and Distribution.'

10. PROCESSING OF SOLD PRODUCTS

This category covers the emissions from processing or transformation of products sold by your business to a third party. An example of this would be a microchips business selling microchips to a television manufacturer. The emissions would be the scope 1 and 2 emissions of the television manufacturer for their use of the microchips in the manufacture of their televisions.

There are two ways of calculating these emissions:

- Site-specific method: Obtain scope 1 and 2 emissions from the manufacturer/processor for their use of your product.
- Average data method: Estimate the emissions based on average, industry data such as average emissions per manufacture of the product.

11. USE OF SOLD PRODUCTS

This category includes the carbon emissions associated with the use of your sold products; this is the scope 1 and 2 emissions of end users when they use your sold product.

This can be split into two categories:

- Direct use-phase emissions:
 - Products that directly consume energy (fuels or electricity) during use
 - Fuels and feedstocks
 - Greenhouse gases and products that contain or form greenhouse gases that are emitted during use
- Indirect use-phase emissions (these only need to be included if they are expected to be significant)
Products that indirectly consume energy (fuels or electricity) during use. This includes apparel (requires washing and drying); food (requires cooking and refrigeration) etc.

To calculate these emissions, you will need design details and assumptions for how users will use your product (e.g. project lifetime).

12. END OF LIFE TREATMENT OF SOLD PRODUCTS

This category covers emissions arising from the waste disposal and treatment of your sold products at the end of their life.

To calculate these emissions, there are two options:

- Product-specific emissions factors: If your products have Environmental Product Declarations (EPDs), these should be used to calculate the carbon as these provide the most accurate emissions estimates. You can use the C1-C4 emissions for Global Warming Potential, multiply it by the quantity of product and it will give you the total end of life emissions.

- Processing method emissions factors: If your products do not have EPDs, collate the details and quantities of the products that you have sold throughout the year and the typical method of disposal for these (e.g. landfill, closed-loop recycling, etc.). You can then multiply the quantity of product by the carbon factors provided within the UK government GHG conversion factor database for each waste disposal method to give you the total estimated carbon emissions.

13. DOWNSTREAM LEASED ASSETS

This category covers emissions arising from the operation of any assets owned by your company and leased out to other entities. This category is only applicable to lessors.

Just as category 8, the categorisation of these emissions will depend on the type of lease and the approach taken towards operational boundaries when reporting emissions.

To calculate the emissions, collate the data for the operation of the leased asset (e.g. electricity usage, fuel consumption) and use the emissions conversion factors previously used in scope 1 and 2 reporting.

14. FRANCHISES

This category covers emissions arising from the operation of any franchises you own. If you are the franchisee, these emissions should be reported within your scope 1 and 2. If you are the franchisor, they should be reported here.

To calculate the emissions, collate the data for the operation of the leased asset (e.g. electricity usage, fuel consumption) and use the emissions conversion factors previously used in scope 1 and 2 reporting.

15. INVESTMENTS

This category includes the carbon emissions associated with investments and other financial activities. This category was primarily developed for private financial institutions and public financial institutions and other entities with investments.

It covers emissions associated with:

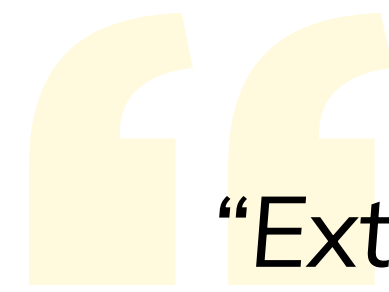
- Equity investments
- Debt investments
- Project finance

Investments emissions may be accounted for in scope 1 and 2 depending on your organisational boundary.

Emissions from investments should be allocated to the reporting company based on the reporting company's proportional share of investment in the investee.

Step 6

Review and refine



“Extract the valuable knowledge from the hard work you have put in.”

Creating a carbon inventory for your business is not a one-time task, it is a constantly evolving activity. Do not be disheartened when you realise that you forgot to calculate the emissions for a certain category, or missed a whole load of energy usage you hadn't realised was there. Every time we reviewed our data we realised we had missed something or other and had to add it in, or realised that one of our calculations wasn't working correctly.

This step is incredibly important to ensure you have as accurate numbers as you can currently report. The first action would be for the person who was responsible for producing the inventory to review the data themselves. Check the data you used, check the calculations are working correctly, check that the conversion factors used are correct and check that the units being used are correct for the data.

Next you will want someone not attached to the calculation to review the data and calculations. Not seeing the wood for the trees is very relatable with these calculations, so getting someone not involved will mean they can look at it all unbiasedly and identify any issues the person responsible may not spot.

Set an end point for your annual emissions calculation; you can't keep updating the emissions endlessly, set an end point and then report that as your emissions for the year. As you start to generate your carbon inventory for the next year you will likely find missed emissions or wrong calculations; you can then amend and include these emissions in your annual report and go back and retrospectively amend the calculations for the previous year to recalculate your base year.

Each year you will review and refine your calculations, be it adding in emissions you have missed; fixing faulty calculation; and moving to more accurate data sources. This is an important step and should be repeated each year.

Step 7

Methodology



*“Write down your methodology –
it will save you a lot of time next year!”*

It is important to write up the steps taken to calculate your carbon emissions into a clear methodology. This will ensure that, In your absence, other members of your team can replicate the work you have undertaken.

Other benefits include a streamlined and more efficient accounting process in future years and easier identification of methodological weaknesses and opportunities for improvement. Furthermore, if choosing to undertake third-party verification of your carbon inventory, a clear methodology will make this process simple and provide a clear structure to the auditor.

The methodology can take various forms and can often be a process of trial and error until you get a methodology that’s clear to you and to others. It doesn’t need to be incredibly detailed, wordy and long. Just anything that gets your process across whilst being as concise as possible.

Before finalising, do a run through of the methodology with a colleague to ensure that they can follow through the process and understand all the steps thoroughly.

Step 8

Verify and report



“Get your work checked and publish it so others in the sector can benefit and your clients can better understand your business.”

Inventory verification

Now that you have a full carbon inventory and a solid methodology, it may be beneficial to explore verification options. This can give you the reassurance that your inventory is robust and can support the positive image of your business whilst providing a competitive advantage to support work winning.

There are a variety of third-party verification options. It is important to put some time into researching the various verification standards and the various providers of verification to identify which may be the best fit for your business and budget.

At Overbury, we have opted to verify our carbon inventory to the ISO 14064:3 standard. Our verification process involved a pre-audit session with the third-party auditor to identify any gaps in our process ahead of the formal audit. This was followed by a full three day audit to review our entire inventory of emissions (scopes 1, 2 and 3), our methodology for calculating these, and the evidence we used for each.

Whilst it may seem daunting, it is a process that exists to spot any flaws in your numbers and ensure they are accurate to make them more robust. During our first third party audit, we had some comments raised on our methodology that we then updated.

Finally, after all your hard work in quantifying your carbon emissions, get them published for the world to see! As we mentioned earlier, it is an iterative process with continual improvements. Be transparent of any weaknesses in your data, this is to be expected when calculating something so difficult to quantify and that is new to many people and businesses.

Target setting and reduction

Now that you have an understanding of your emissions, you're probably thinking 'now what?'. Of course, the key driver for calculating carbon emissions is ultimately to reduce emissions across all scopes. Now that you have your inventory, you have your starting point to set emissions reduction targets and implement a plan to drive down your emissions. Use all of the insights you have gained from this activity to focus your efforts and resource exactly where it can make the most impactful carbon reductions. If you have significant scope 1 emissions, have you considered electrification of your processes

and facilities? If the bulk of your emissions are in scope 2, take a look at some energy efficiency measures within your operations.

Quantifying your carbon footprint provides a real opportunity to not only set ambitious reduction targets, but also provides the opportunity to cement your company as an industry leader in emissions reporting and reduction. To further improve the accuracy, validity and credibility of your targets and increase your carbon-related business credentials, it may be worthwhile exploring options to get your emissions reduction targets third party verified in addition to your emissions inventory. The Science Based Targets initiative (SBTi) is one such body that can provide this service and verifies your carbon reduction targets in line with the latest climate science.



Conclusion

With the risks and impacts of climate change becoming more severe and more evident, we as companies, industries and as a planet need to reduce our carbon emissions. The key first step to this is to calculate and understand where our emissions are coming from and how they can be reduced.

As the construction industry, and especially as the fit out industry, our direct scope 1 and 2 emissions are overshadowed by the size of our scope 3 emissions, so this is where we need to focus.

Our emissions as an industry are interconnected, be they transport and distribution emissions, embodied carbon of materials we purchase and install or the emissions from waste we produce. We all need to work together as an industry to reduce these emissions as collaboration is key to succeed.

We are also seeing carbon reporting and reduction becoming a key element of winning work and a key requirement of clients. To make sure you are ahead of the game, and able to meet the requirements of our clients and our projects, beginning your journey of carbon reporting reduction as soon as possible is really important.

Useful Resources

[UK Government carbon conversion factors database](#)

[Greenhouse Gas Protocol – Corporate Accounting and Reporting Standard](#)

[Greenhouse Gas Protocol – Scope 2 Guidance](#)

[Greenhouse Gas Protocol – Value Chain \(Scope 3\) Accounting and Reporting Standard](#)

[Greenhouse Gas Protocol – Technical guidance for calculating Scope 3 emissions](#)

Auditing Bodies

[Achilles Carbon Reduce Programme and ISO14064 Verification](#)

[Carbon Trust Organisational Carbon Verification](#)

[BSI ISO14064 Greenhouse Gas Requirements and Verification](#)

[Science Based Targets \(SBTi\) Corporate Net-Zero Standard](#)





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