

NET ZERO FOR BUSINESS



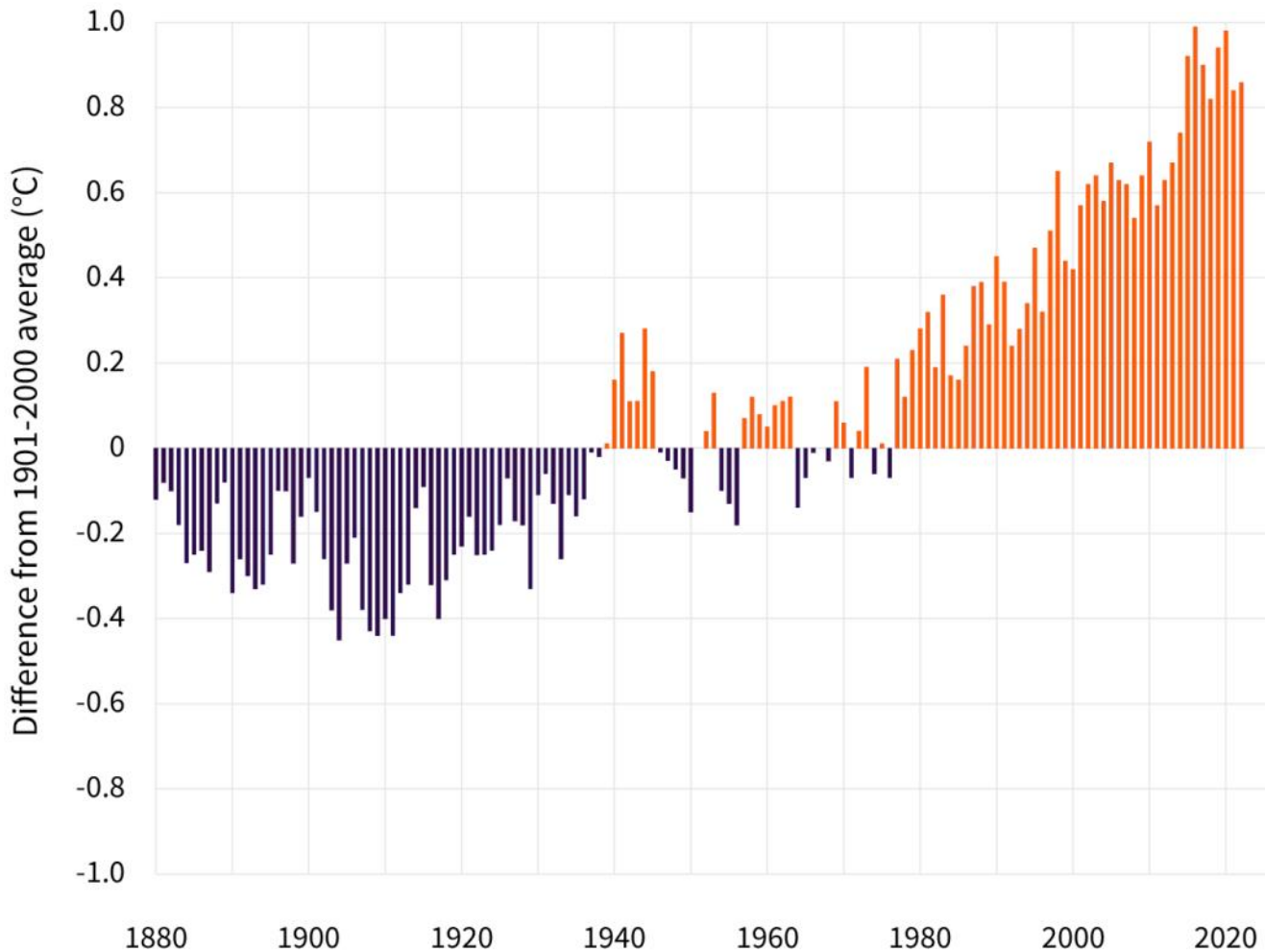
What is Net Zero and what it means for a business?

Net Zero, in simple terms, means requiring us to balance the amount of greenhouse gases we emit with the amount we remove. When what we add is no more than what we take away, we reach Net Zero. Net Zero is a universal term that can be applied to various entities such as a country, a city, a business, etc. The scope and context of this factsheet is around what Net Zero means for a business and how it can be achieved.

For businesses, Net Zero entails adopting strategies and implementing measures to eliminate the emissions associated with its operations and value chain. In most cases, a business is said to have achieved Net Zero when it has reduced at least 90% of its Greenhouse Gas (GHG) emissions, with any remaining residual emissions being fully neutralised (offset) by permanent or like-for-like removals exclusively claimed by that organisation. The term “residual” refers to emissions that remain technically unfeasible to be eliminated.

Why do we need Net Zero?

Global Average Surface Temperature



The need for Net Zero emissions arises from the urgency to mitigate climate change and its far-reaching impacts. Climate change manifests itself through rising global temperatures, altered precipitation patterns, increased frequency of extreme weather events, sea-level rise, and ecological disruptions. These changes pose significant threats to ecosystems, biodiversity, human health, and socio-economic systems worldwide. Evidence shows that our planet has been getting hotter since the industrial revolution. Global average temperatures are now 1.2°C higher than in the pre-industrial era.

Though it doesn't sound like much, we are already feeling the effects of the incremental warming, including erratic weather patterns – such as heatwaves, floods, and severe storms – along with loss of polar ice, acidification of our oceans and rising sea levels. If recent trends continue, this is set to worsen, with predictions of global temperatures increasing by as much as 2.7°C by 2100, which could render parts of the planet uninhabitable.

What role does business play in fighting climate change?

The world's major governments, scientists and heads of industry have all agreed that urgent action is necessary to avoid further global warming. The Paris Agreement, signed by 194 states and the European Union, aims to address climate change through Nationally Determined Contributions (NDCs), which are plans for countries to reduce greenhouse gas emissions and adapt to climate impacts. To limit global warming, nations aim to cut emissions by approximately 50% by 2030 and achieve Net Zero emissions by 2050. The agreement emphasises international cooperation and sets a target of keeping the global average temperature rise below 1.5°C.

The UK government has legislated for a Net Zero emissions target by 2050 and promotes collaboration between governments, businesses, communities, and individuals to reach this ambitious goal through the strategy document, "Net Zero Strategy: Build Back Greener."

Small and medium-sized enterprises (SMEs) comprise 99.9% of the UK's business population and account for about half of the country's business-related greenhouse gas emissions. Because of this, they play a crucial role in helping the UK achieve its Net Zero ambition. They can contribute by implementing energy-efficient practices, renewable energy usage, sustainable supply chain optimisation, waste reduction and recycling, employee engagement in sustainability, stakeholder collaboration, and continuous measurement and improvement of their carbon footprint.



Are there any globally adopted standards to guide businesses in achieving Net Zero emissions?

The Greenhouse Gas Protocol and Science Based Targets Initiative are a widely used protocol and framework with regards to emissions reporting and target setting.

THE GREENHOUSE GAS PROTOCOL:

The Greenhouse Gas Protocol (GHG Protocol) is a widely recognised accounting tool developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). It provides a standardised methodology and guidelines for organisations to measure, manage, and report their greenhouse gas (GHG) emissions. The GHG Protocol is globally recognised and serves as a framework for emissions accounting and reporting, promoting transparency, consistency, and credibility in emissions management. It is widely used by businesses, governments, and institutions to track emissions, set reduction targets, and develop strategies for managing their carbon footprint.

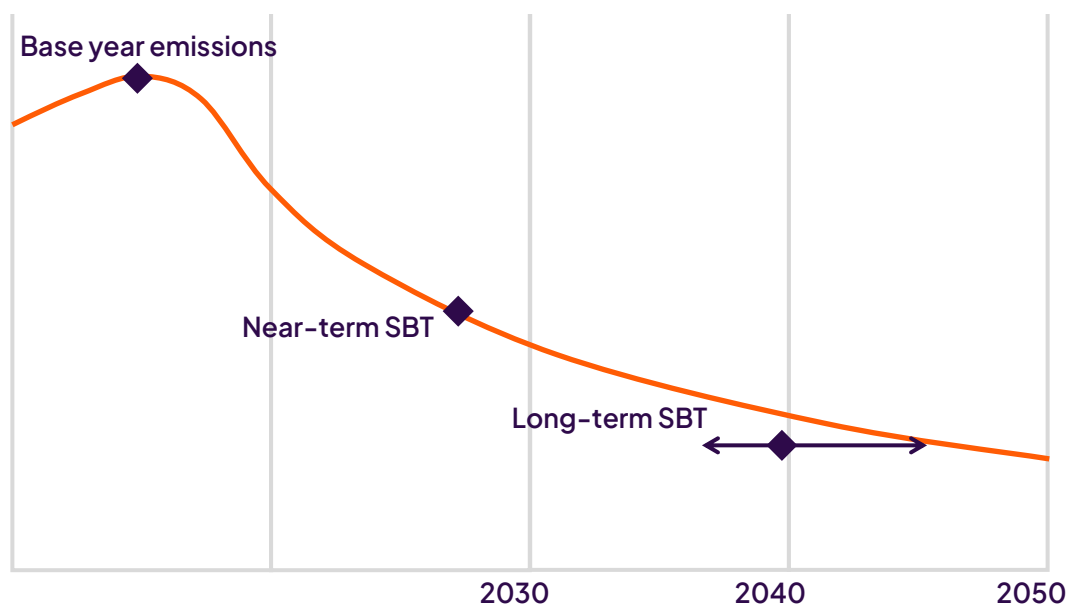
The GHG Protocol offers a framework for quantifying emissions from various sources and activities, helping organisations understand and track their carbon footprint. According to the GHG Protocol, emissions are categorised into three Scopes which are also split into direct and indirect emissions as illustrated:



SCIENCE BASED TARGET INITIATIVE:

Some companies may wish to have their emission reduction targets validated by an external organisation. One such organisation is the Science-Based Targets initiative (SBTi). This is a collaboration between CDP (formerly the Carbon Disclosure Project), the United Nations Global Compact (UNGC), the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). The SBTi provides a framework and criteria for companies to develop science-based targets (SBTs) that are consistent with the latest climate science. These targets are designed to ensure that companies contribute their fair share to limit global warming 1.5°C.

SBTi target setting methods are constructed from three main elements: a greenhouse gas (GHG) budget, a set of emission scenarios and an allocation approach. Companies have to commit to halving emissions before 2030, and achieve Net Zero Emissions before 2050. The SBTi provides guidance on setting both near term and long term targets for businesses.

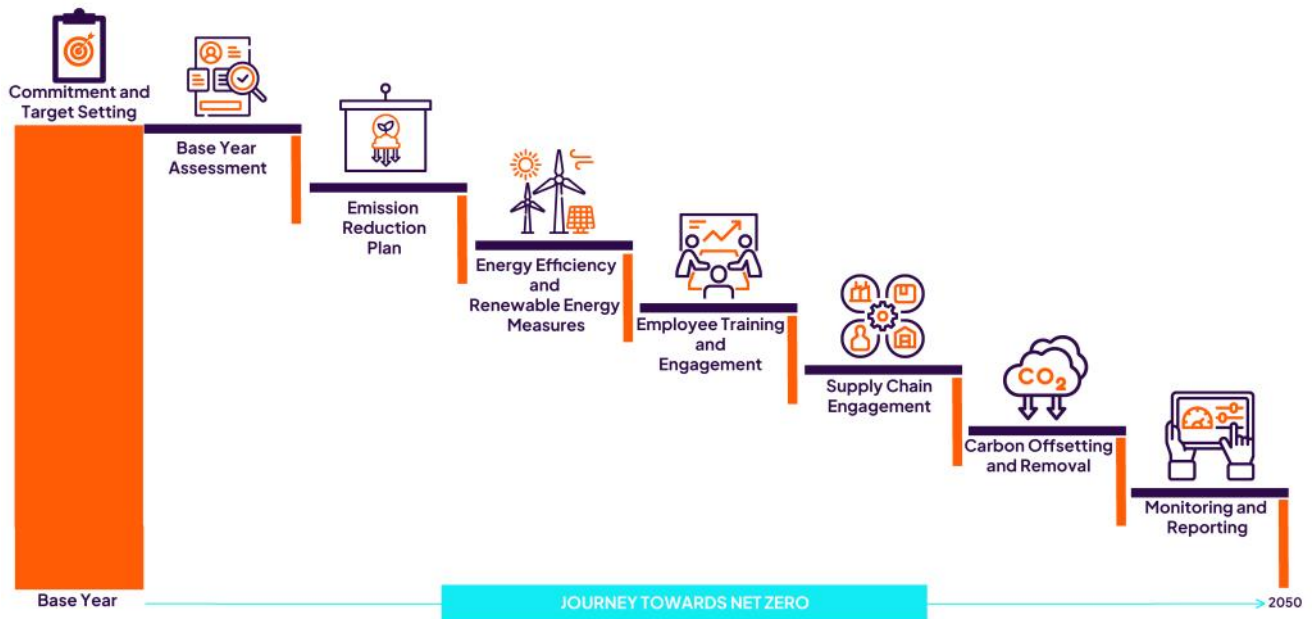


Near-Term Targets: Near-term targets typically refer to emissions reduction goals set for the next 5-10 years. These targets focus on the immediate actions and measures that organisations can take to reduce their greenhouse gas (GHG) emissions in the short term. Near-term targets help drive tangible progress and demonstrate the organisation's commitment to taking timely action on climate change.

Long-Term Targets: Long-term targets extend beyond the near term and typically cover a time horizon of 10-20 years or more. Long-term targets are crucial for organisations to transition to a low-carbon and sustainable future, aiming to achieve Net Zero emissions or align with the overall temperature goals of the Paris Agreement, such as limiting global warming to well below 1.5°C.

What steps does a business need to take to become Net Zero?

Due to the large range and variety of SMEs, there is no single, fixed method to reach Net Zero but the following are the general steps involved for most businesses.



Step 1: Commitment and target setting:

Commitment and target setting are essential first steps in achieving Net Zero emissions, providing a clear direction and framework for action. They enable long-term planning, policy development, and regulatory support for the transition to a low-carbon economy.

By joining initiatives like the UNFCCC-led 'Race to Zero' campaign, SMEs can make a commitment via the SME Climate Hub, while larger businesses can submit their targets to the Science-Based Targets initiative (SBTi) for validation.

Both SBTi and SME Climate Hub encourage businesses to reduce emissions by 50% by 2030 and strive for Net Zero emissions before 2050. These commitments attract investor confidence, promote accountability, and drive collective efforts to combat climate change.

Step 2: Base Year Assessment

Companies should choose a base year to calculate their absolute Scope 1 and Scope 2 and, if possible, Scope 3 emissions as defined in the GHG Protocol. The base year should be the earliest relevant point in time for which they have reliable data.

Once the base year is chosen, an organisation can measure its Scope 1, Scope 2 and Scope 3 emissions using a GHG emissions reporting tool such as BringAbout® from Decerna. BringAbout is based on the methodologies specified in the GHG Protocol and uses the emission factors specific to the reporting year.

Step 3: Emission Reduction Plan

Taking the Base Year emissions as a starting point, companies should develop a robust emission reduction plan that outlines specific measures and initiatives to reduce emissions in line with the Net Zero target. This plan should include actions such as energy efficiency improvements, renewable energy adoption, supply chain decarbonisation and waste reduction.

Step 4: Energy Efficiency and Renewable Energy

Following step 3, companies must implement energy efficiency measures within their operations, such as upgrading equipment, optimising processes, and improving building insulation. Companies may also need to adopt renewable energy sources, such as solar power, to decarbonise their energy consumption.

Step 5: Employee Training and Engagement

It is important for businesses to engage employees in the Net Zero journey by providing education and training on sustainability practices. Businesses should foster a culture of sustainability within the organisation and empower employees to contribute to emission reduction efforts.

Step 6: Supply Chain Engagement

Once businesses have taken efforts to reduce their own emissions, they must then collaborate with suppliers and value chain partners to reduce emissions throughout the supply chain. Businesses should encourage them to adopt sustainable practices, improve energy efficiency, and reduce their own emissions as well in order to foster strong partnerships and incentivise sustainability within the supply chain.

Step 7: Carbon Offsetting and Removal

Carbon offsets are a mechanism that allows individuals, companies or organisations to compensate for their residual greenhouse gas (GHG) emissions by purchasing credits or certificates representing the reduction or removal of carbon dioxide or other GHGs. These offsets are generated by projects like renewable energy, reforestation, or methane capture, which help decrease emissions or remove CO₂ from the atmosphere.

By supporting such projects, carbon offsetting aims to achieve an overall reduction in global GHG emissions. There are not, however, sufficient genuine carbon credits available for all businesses to offset their entire emissions. It's important, therefore, to stress that although carbon offsets can seem to offer a very low cost way to achieve carbon neutrality, a business can only really claim to be Net Zero business if it reduces at least 90% of its emissions before offsetting the remainder.

Step 8: Monitoring and Reporting

Businesses are required to establish a robust monitoring and reporting system to track progress towards Net Zero. If a business is committed to become Net Zero via SBTi or SME Climate Hub, it is mandatory to submit its annual emissions report and communicate transparently about the achievements and challenges.

Net Zero or Carbon Neutral?

In recent times, it has become more common for businesses to declare themselves as 'Carbon Neutral'. Although 'Net Zero' and 'carbon neutral' are often referred to interchangeably, and both result in CO₂ being removed from the environment, the two terms are not the same.

	Net Zero	Carbon Neutral
Definition	Greenhouse Gas emissions are measured and reduced in line with SBTs, followed by offsetting any hard to abate residual emissions.	Greenhouse gas emissions are measured , and neutralised by purchasing offsets—no requirement to reduce absolute emissions
Emissions Covered	Scopes 1, 2 & 3	Scopes 1 & 2, (Scope 3 is encouraged)
Applicable Offsets	Carbon removal credits only	Carbon avoidance/reduction credits and removal credits

An organisation achieves carbon neutrality by measuring its emissions and immediately offsetting them through the purchase of offsets. This approach considers only Scope 1 and Scope 2 emissions and allows the organisation to declare itself carbon neutral on an annual basis.

On the other hand, achieving Net Zero emissions requires an organisation to measure its emissions, implement emission reduction measures, and then offset any unavoidable emissions through the purchase of offsets. Net Zero encompasses all three scopes of emissions as defined by the GHG Protocol.

While carbon neutrality helps limit global warming to some extent, Net Zero is considered a more ambitious and comprehensive goal that involves proactive emission reductions and removals, while carbon neutrality primarily focuses on offsetting emissions to achieve a balance.

Certification Schemes

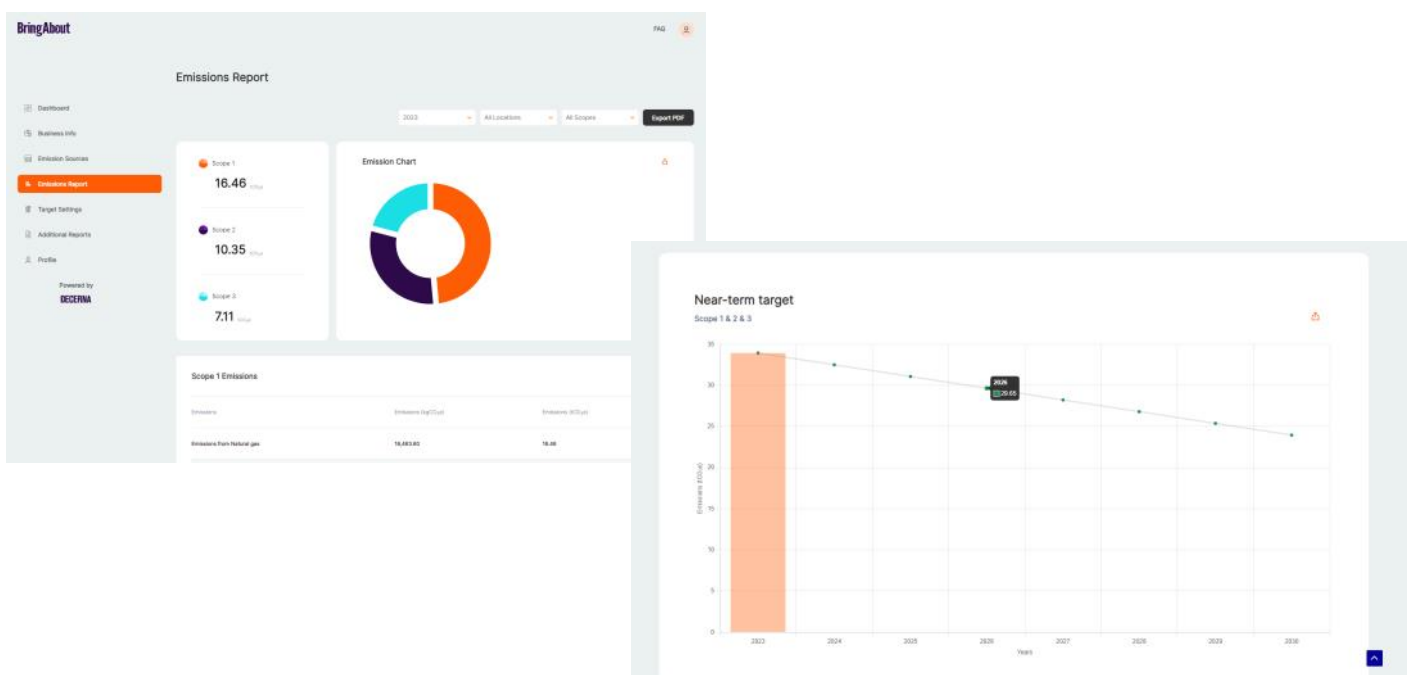
There are a growing number of organisations offering carbon neutrality and Net Zero certification at various levels. Larger businesses may need to demonstrate that they have reached a particular point in their Net Zero journey to their customers through supply chain audits or by having their arrangements certified externally. However, this is unlikely to become a requirement for the majority of SMEs who will mostly be able to self-certify their own Net Zero status. Decerna believe that by committing to achieving Net Zero and taking action to reduce and offset emissions, all businesses will yield benefits far beyond the value of a certificate alone.

Where a company purchases carbon offsets, there are numerous certification schemes. The two most widely recognised ones are The Woodland Carbon Code and The Peatland Code. These schemes validate specific offsetting projects within the UK that businesses may wish to invest in.

Introducing **BringAbout**

BringAbout is a web-based tool from Decerna for calculating and reporting carbon emissions. It is designed to be simple and user-friendly and helps takes care of the complex and extensive greenhouse gas reporting standards that need to be followed.

Free to all through a basic subscription; with additional features such as generating a Carbon Reduction Plan (PPN 06/21) accessible with a Premium subscription. Get started at bringabout.decerna.co.uk.



ABOUT US

Decerna provides a wide range of consultancy and development services, to ensure that the right decisions are made, to support our customers in the whole journey, from initial concept through to implementation of low carbon systems and infrastructure. Please get in touch to find out how we can help your organisation to de-carbonise.

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