GUIDES AND INSIGHTS

1.1. Climate change and carbon jargon buster for businesses

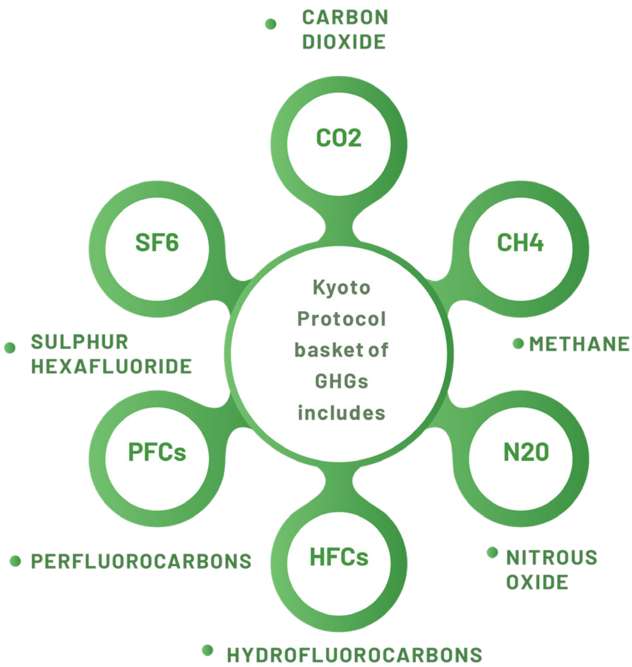
Climate change and carbon jargon buster for businesses

netzerocarbon.com aims to discuss business decarbonisation as simply as possible and with no use of jargon. Sustainability, however, is a field full of it. We've crafted a small guide to help explain some concepts that are often based on assumed knowledge.

Many jargon busters exist for sustainability and are broad in scope. We limited this one to the terms and issues that businesses will encounter when considering their own decarbonisation.

'Carbon', 'greenhouse gas', and 'decarbonisation'

'Carbon' is often an umbrella term used to generalise all greenhouse gases (GHGs). This is because CO_2 is the most abundant GHG emitted by humans. However, several other gases are emitted in large enough quantities by humans that they should be considered part of decarbonisation. Similarly: 'decarbonisation' usually refers to general GHG emissions reductions rather than CO_2 emissions reductions only. The globally agreed set is known as the Kyoto Protocol basket of GHGs. It includes:



GHG emissions are standardised as CO2e (CO2 equivalent). This expresses different emitted amounts of different GHGs as one equivalent emitted amount of CO2. The contribution from each GHG is weighted according to its Global Warming Potential (GWP). Carbon dioxide has a defined GWP of 1. Sulphur hexafluoride has a GWP of up to **32,400.**

It is important to define which GHGs are being included in the scope of any decarbonisation plan.

Carbon footprint

A carbon footprint – which really is a GHG emissions footprint – is the quantity of emissions for which an entity is responsible for. An entity can be responsible for both direct and indirect emissions. Please refer to the note on the GHG Protocol in this document for more information.

Carbon budgets

A carbon budget – which really is a GHG emissions budget – is an upper limit on net emissions associated with a given rise in global temperatures. In 2018, it was estimated that the remaining carbon budget to keep within 2°C of warming was 1690 Gt CO2e (with 50% probability) and 1320 Gt CO2e (with 67% probability). If emissions remain at their current levels, the more ambitious (i.e., the safer) of these two budgets expect to be exceeded around 2045.

Global carbon budgets are an important concept in setting some science-based targets for businesses.

The UK has its own system of five-year carbon budgets as part of the 2008 Climate Change Act and is currently in the third budget (2018-2022).

Carbon credits

A carbon credit or emissions allowance is a tradable 'right to emit', usually representing one tonne of CO2e. These credits are allocated by governments, and the allocations tend to fall over time to make it more expensive to emit GHGs. Businesses which emit less than their allocations can support their revenue by selling their excess credits to business which emit more than their allocations.

This concept is also referred to as 'cap and trade'. It is the principle on which emissions trading systems – of which the EU Emissions Trading System (EU ETS) is the largest example – are based. In the EU ETS, these credits are called European Union Allowances (EUAs).

Carbon offsets

Emissions offsetting is the practice of buying unit 'offsets' of an organisation's emissions, usually by tonne of CO2e. These offsets in theory fund negative emissions in some way, possibly by planting trees, funding renewable energy projects, or funding energy efficiency projects.

Buying offsets is an essential way businesses can claim net emissions reductions.

Greenhouse Gas Protocol (GHG Protocol)

The GHG Protocol is an organisation which develops GHG accounting standards. We go into much greater detail on the topic in our guide **(AN INTRODUCTION TO EMISSIONS ACCOUNTING)**. Standardised emissions accounting is important in developing accurate GHG inventories (carbon footprints) across bodies that can be compared to one another. Businesses will typically use the GHG Corporate Standard when accounting for their own emissions.

Greenwashing

Greenwashing is a neologism that describes practices (usually by companies) that mislead about environmental impacts. Greenwashing is claiming something is less damaging to the climate than it really is.

Buying more renewable energy is an essential way businesses can claim absolute emissions reductions.

Guarantees of origin (GOs)

Guarantees of origin (GOs) are contractual instruments between energy suppliers and consumers that allow a consumer to claim the energy they consume comes from a specific source. They feed into a market that allows a business in the UK to claim that it buys electricity produced, for example, by a hydroelectric plant in Norway. In the UK, energy contracts can be '100% REGO-backed' – meaning 100% of the volume in the contract is matched with Renewable Energy Guarantees of Origin (REGOs).

Climate change mitigation and climate change adaptation

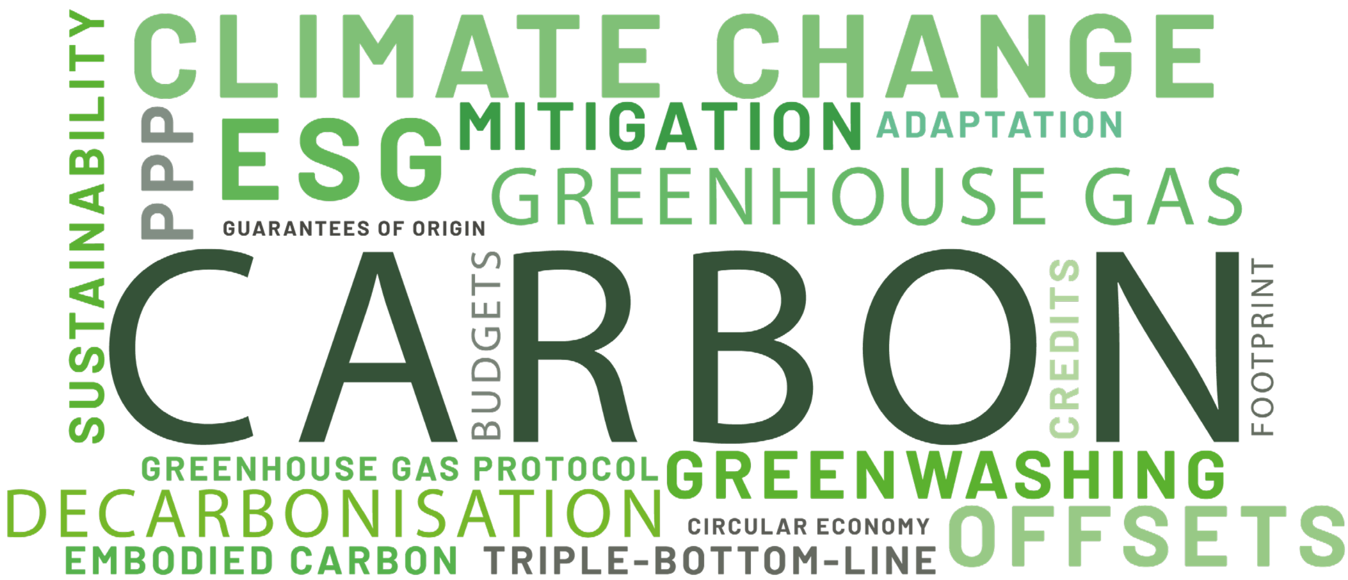
Action against climate change is often described as mitigation or adaptation. Mitigation refers to action taken to prevent climate change – which will mean reducing GHG emissions. Because climate change is already having effects which will inevitably worsen, any action taken to prepare for these effects is adaptation.

'PPP', 'ESG', 'triple-bottom-line'

People, planet, profit (PPP); environmental, social, governance (ESG); and triple-bottom-line (referring to the same ideas as PPP) are terms relevant to investors and business decision-making. Rather than making investment decisions purely based on expected returns (i.e., only based on the 'profit' element of PPP), investment decisions are increasingly considering environmental and social returns as factors.

Sustainability/sustainable development

This one seems obvious, but a formal definition does help. Sustainable development was first defined in the 1987 UN Our Common Future document (also known as the Brundtland Report) as: development which meets the needs of



current generations without compromising the ability of future generations to meet their own needs.

Embodied carbon/energy

GHG emissions or energy can be considered 'embodied' in products. This refers to the energy use or GHG emissions associated with their production, use, and disposal. The concept is important because, particularly in the case of embodied GHG emissions, these impacts are not always accounted for in the cost of the product. If the costs of reversing the environmental impacts associated with the production, use, and disposal of certain products were included in the cost to the user (also called 'internalising' those costs), they would become much more expensive.

Circular economy

A circular economy aims to reuse resources for as long as possible by recovering and regenerating materials at the end of a product's life. Its traditional opposite is a linear economy, whereby materials are disposed of and new resources are constantly extracted.

Further reading

This jargon buster has been kept deliberately high-level. There are several other pages in netzerocarbon.com that introduce important ideas that are often referred to without introduction in sustainability. See the links below for more detailed information on some key topics businesses should be thinking about:

Net zero

The GHG Corporate Standard (often called the GHG Protocol)

Science-based targets (SBTs)

UK and global climate policy

net zero CARBON

About Us

The UK has a net zero target for 2050. Businesses who are unprepared for it are exposed to long-term regulatory and reputational risk. If your business is looking to respond to the UK's 2050 net zero target, you're going to need a clear resource to help you through the complex process of developing and implementing a commercial decarbonisation strategy.

This is why Alfa Energy founded netzerocarbon.com, the home of everything net zero you'll need. Along with our partners and industry collaborators, we will be bringing you a step-by-step guide to strategy development and implementation, regulatory and compliance developments, best practice advice and examples from industry experts and your peers, and roundups of ongoing stories in business decarbonisation.

We aim to provide you with a clear, straightforward approach to achieving net zero emissions and all you'll need to develop your knowledge and understanding of the opportunities to deliver this critical objective.