



NET ZERO CARBON - WHAT ON EARTH DOES IT MEAN?

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At its simplest, Net Zero mathematically means that input and output are matched, there is no net gain.

So Net Zero Carbon means that total carbon emissions are equal to (or less) than the emissions removed from the atmosphere. The aim is to stop introducing carbon to the atmosphere (and thus warming the planet) and additionally if possible to find a way of removing carbon - either through sequestration which means things like planting trees which absorb carbon dioxide, or by some form of carbon capture and storage.

Technically, the term Net Zero Carbon should cover all greenhouse gas emissions not just carbon dioxide; methane for example is 84x more potent as a greenhouse gas than carbon dioxide over a 20 year period. The term "carbon equivalent" is often used to accommodate this reality. The terms Zero Carbon or just Net Zero are used as shorthand. Scientists would prefer to say Net Zero reduction in greenhouse gas emissions.

Net Zero Carbon needs always to be accompanied by a boundary to describe what scope is being talked about. The scope can refer to a country, a region, a city, a business, a professional organisation, a project, a person. Indeed anything you want to define as the scope, the cricket team perhaps.

Net Zero Carbon as an ambition also requires a timeline – a date - as well as a scope – so x% reduction by 2025, by 2030, by 2050 or whatever you decide is useful for you. Obviously the ultimate ambition of 100% reduction can/will have intermediate targets, so e.g. 30% reduction by 2028, 50% by 2033 and 100% by 2050. Its a journey. The target dates should be challenging but also achievable, declaring 100% Net Zero Carbon by "the end of next month" is probably not going to be possible. The Committee on Climate Change in the UK through its 5 year carbon budgets carries out extensive analyses to try and determine what is necessary, challenging and achievable to reach the national target of Net Zero by 2050 required by the UK Climate Change Act.

Some examples of Net Zero climate ambitions and targets

- Globally: The 2015 Paris Agreement is the legally binding international treaty adopted by 196 nations with a goal to limit global warming to well below 2°, preferably 1.5° degrees Celsius to achieve a climate neutral world by mid-century.
- A mega region: The EU has a target of 55% reduction by 2030 and to be climate-neutral by 2050.
- Country: The UK, through the Climate Change Act, has a Net Zero Target by 2050 compared to 1990 levels; it also has several intermediate milestones such as 68% reduction by 2030, and 78% reduction by 2035.
- Devolved Nations: Scotland has a target of Net Zero by 2045. Wales of 80% by 2050.
- Cities: e.g. Manchester aims to be carbon-neutral by 2038; Bristol to be carbon neutral by 2030; Sheffield.
- Projects:
- Businesses:
 - Skanska: Net-Zero carbon emissions by 2045
 - Mace: Will be net-zero-carbon-in-2020
 - Grosvenor Group: to achieve net-zero landlord operational carbon emissions from all of their directly-managed buildings globally by 2030
 - Blackrock Asset Management: is committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner.

Further reading

- [UK Climate Change Act](#)
- [Committee on Climate Change reports including Sixth Carbon Budget](#)
- [Paris Agreement](#)

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