



Go  
Climate  
Positive

To Carbon Neutral and beyond 2...



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# The Road to Net Zero

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The steps you need to take to continue your journey to Net Zero...



## Time for a new destination...?

### Do you want to do the right thing for the climate?

Global warming is a fact of life now, We are getting used to reports of storms and flooding, of record-breaking heatwaves, of more intense hurricanes, wildfires and ice retreat in all parts of the world. It can seem really daunting, and sometimes we wonder whether the things we do every day to go greener can have a real impact for good.

We all worry about what the future holds, for our business and the next generation. We all want our kids, nieces and nephews to grow up in a healthy environment, with a flourishing natural world. Climate change, driven by the dramatic increase of carbon dioxide in the atmosphere is the most significant threat to the health of our environment and ourselves that we face.

Really understanding the full climate impact of your business, and working to reduce it, is one of the most important things you can do to safeguard the future for the next generation.

### Have you heard about "Net Zero" but don't know what it really means?

Until a couple of years ago most of us had probably never heard the term "Net Zero" but all of a sudden it seems to be everywhere. The UK Government has committed to achieving it by 2050, the United Nations has created a "Race to Zero", it has even been discussed on breakfast television. But what does it mean?

Although we probably understand that it has something to do with achieving zero emissions or zero carbon, we need to understand what it really means to work out what the impact will be for our business.

### Are you looking for guidance on how to start the journey to "Net Zero" on the right foot?

The number of businesses that have made net zero commitments is growing daily. Customer's expectations of the brands they buy is growing and most consumers expect companies to be taking action on the climate now. With this in mind you might be considering making a net zero commitment for your business.

Building on the success of our guide, "To Carbon Neutral and beyond..." ([downloadable here](#)), we have published this sequel to explain in straightforward terms what net zero means and how you can make a meaningful commitment to achieving it in your business.

If your answer to these questions is "yes" (or even "maybe") this guide is for you....



## A bit about me

Hi, I am a business owner who wants to do my bit to help alleviate the climate emergency rather than contribute towards it.

When I started to look into it, I found lots of conflicting advice and a lot of noise about "green" initiatives that would, at best, have a tiny effect and at worst, actually make things worse.

"Go Climate Positive" was born from my desire to take an objective look at the climate impact of my business, to focus on doing the things that will reduce that impact the most and to tell my customers about my commitment transparently and honestly.

I am now a Practitioner member of the Institute of Environmental Management and a sustainability lead on the Cheltenham Economic Recovery Task force, but at heart I remain a business owner.

I do hope that you will find this guide informative and useful. If you have any questions, please do get in touch.



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## What does “Net Zero” mean?

In our guide “[To Carbon Neutral and beyond...](#)” we explained why climate change is the biggest issue of our age. Since the Intergovernmental Panel on Climate Change (IPCC) was established in 1988 the science has become increasingly clear that global warming is real and that our actions are driving it faster and further than the human race has ever seen.

We are currently on track to reach a global temperature rise of around 3°C, compared with pre-industrial levels. Yet, the IPCC has painted a stark picture of what is likely to happen if temperatures rise by just 2°C including:

- Heavy precipitation events on a global scale, with an increase in the number of tropical cyclones.
- Higher probability of extreme drought, precipitation deficits, and risks associated with water availability.
- Risk of damage to natural systems (including terrestrial, freshwater, wetland, coastal and ocean ecosystems) and to human systems (including food production, human health, tourism, energy systems and transportation).
- An increase in flood hazard in some regions.
- Risks to global economic growth, with the largest reductions for low- and middle-income countries and regions (the African continent, Southeast Asia, India, Brazil and Mexico).

This is why we, along with the IPCC and the UK Government believe we should aim to limit global warming to a maximum of 1.5°C. To learn more about climate change and carbon footprints, you can watch my video series [here](#).

## Net Zero is the state we need to achieve by 2050 to limit global warming to 1.5°C

To prevent the consequences of climate change getting any worse than is already inevitable by limiting global warming to 1.5°C, we need to reduce our emissions of all greenhouse gases to **zero by 2050** at the latest (these gases include carbon dioxide, methane, nitrous oxide and refrigerants). In reality we know that we will not be able to completely eradicate all our emissions, so we will need to also **remove enough carbon dioxide or other greenhouse gases physically from the atmosphere to compensate for the emissions we cannot eliminate**. This is the goal that all of the countries of the world signed up to in the Paris Agreement in 2015. We call this goal “Net Zero” or to give it its full title “**Net Zero Greenhouse Gas Emissions**”.

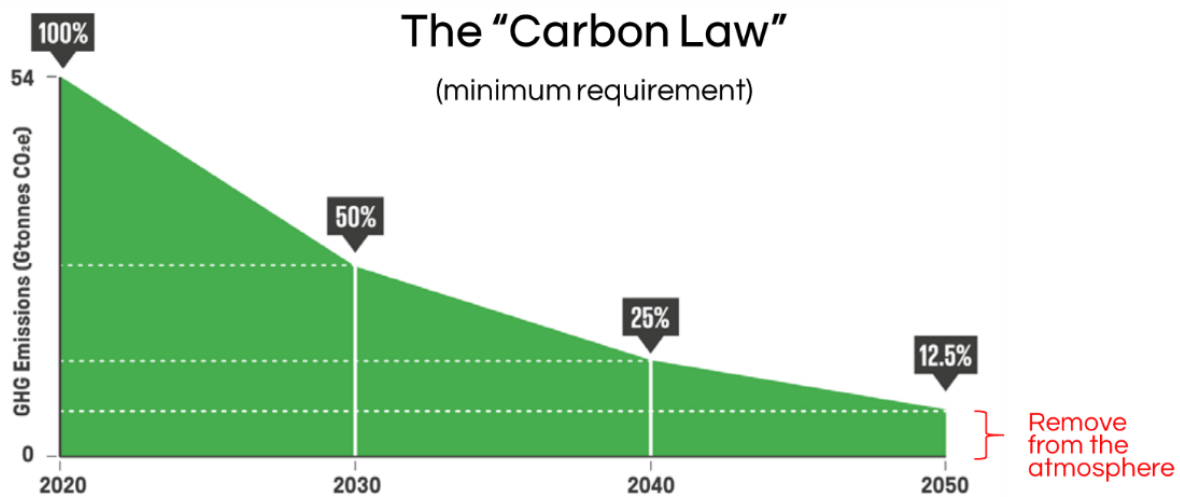




## Why wait until 2050 - can we be Net Zero now?

**In short, no we cannot!** It would be nice to think that we could remove enough carbon dioxide from the atmosphere to compensate for our emissions without making any changes to the way we live and work, but the technology and space to do this at the scale necessary simply does not exist and does not look feasible for the foreseeable future.

For this reason, we need to make deep reductions in the amount of greenhouse gas emissions for at least the next 30 years. The so called "Carbon Law" is a good guide to the size of reductions necessary. It shows that, as a minimum, we need to half our emissions every 10 years for the next 30 years. This will leave us with residual emissions of 10-15% of their current value to compensate for. This will still be a significant challenge, but one that is achievable.



*"A roadmap for rapid decarbonization" (Rockström, J., Gaffney, O., Rogelj, J. et. al. 2017.)*

Net Zero is the state we will achieve when we have eliminated all avoidable greenhouse gas emissions and compensated for the remainder by removing an equivalent amount of carbon dioxide or other greenhouse gases from the atmosphere.

We need to cut our emissions in half by 2030 and achieve net zero by 2050 to avoid the worst consequences of global warming, by limiting it to 1.5°C.



## What does Net Zero mean for an organisation?

For an organisation to claim it is net zero it needs to reach a state that is consistent with the global definition of net zero. This means it needs to have done 3 things:

### 1. Have calculated its current carbon footprint in full.

This gives a baseline to compare future reduction against. **All significant greenhouse gas emissions from its operations and value chain must be included** (in the jargon this means calculating [Scopes 1, 2 and 3](#) in full).

It is not ok to say that some emissions are hard to calculate therefore they will be ignored, It is also not ok to claim to be net zero for a portion of your emissions, it is all or nothing (although it may be reasonable to set earlier interim targets for a sub-set of your emissions).

### 2. Have reduced its emissions in line with the science.

This means emissions **have been reduced** in line with the Carbon Law explained above (or in line with the requirements of the "Science Based Targets Initiative" which is a body that accredits meaningful carbon reduction commitments), It is not possible to claim that you are a net zero organisation on the basis of a promise or pledge.

### 3. Have compensated for its unavoidable emissions with carbon removals.

Carbon Compensation or "Offsetting" today is done mainly through the purchase of [carbon credits](#) or through investment in natural [carbon sinks](#) (i.e. ecosystems that absorb carbon such as woodland or peat-bogs). The emissions savings are achieved in one of two ways:

*"Avoided emissions"*: which invest in projects designed to help someone else save or reduce their emissions. Often these projects have additional "co-benefits" such as improving health or social equality.

*"Carbon removals"*: which physically remove carbon from the atmosphere and lock it away permanently. There are very few offsetting schemes available today that truly do this although there is a lot of work going on in this area.

By definition achieving net zero means we have made all the emissions reductions we possibly can so **a claim of net zero can only be made if compensation for the remaining or "residual" emissions is done through carbon removals.**



## What does a Net Zero commitment look like?

Following the guidelines from the UN "Race to Zero", a meaningful net zero commitment should include the following elements:

<b>Pledge</b>	Pledge at the head-of-organization level to reach net zero emissions by 2050 at the latest and set an interim target to achieve a reduction that is at least in line with the "Carbon Law" or "Science based targets" by 2030 at the latest.
<b>Plan</b>	Create a plan, within 12 months of making the pledge, that explains what actions you will take to achieve your long-term and interim targets, that includes short-term and immediate actions.
<b>Proceed</b>	Start taking immediate action towards achieving net zero.
<b>Publish</b>	Commit to publicly reporting progress towards your targets and the actions you have taken, at least annually.

### Your plan should include:

<b>Scope of Pledge</b>	<p>Explain which emissions generating activities are included in your pledge. This must include all significant annual emissions from both your own operations and your value chain.</p> <p>Optional: Consider including all cumulative emissions in your target to show leadership.</p>
<b>Carbon Reduction Actions</b>	Explain the actions you will take to eliminate activities that generate emissions entirely, reduce the level of emissions from ongoing activities, or substitute activities for renewable alternatives (in that priority order).
<b>Compensation through Carbon Sinks and Credits</b>	<ol style="list-style-type: none"> <li>1. Make it clear that you are prioritising reducing emissions over offsetting. You should aim to make <b>all</b> feasible emissions reductions before claiming you have reached net zero.</li> <li>2. Clearly state what type of offsetting you are using both at net zero and as you work towards it (e.g., if you are claiming Carbon neutrality).</li> <li>3. At net zero only permanent carbon removals must be used for compensation.</li> <li>4. Ensure that any credits used are additional, permanent, and properly calculated, and do not undermine social justice or harm biodiversity.</li> </ol> <p>Optional</p> <ol style="list-style-type: none"> <li>5. Consider making immediate contributions to the preservation and restoration of natural carbon sinks.</li> </ol>
<b>Empowerment and equity</b>	Identify what you can do to help others contribute towards the global journey to net zero in a fair and equitable way. This might be through engagement with other organisations, information sharing, providing finance or building capacity.





## Planning your carbon reduction and compensation actions

Your aim should be to remove every source of greenhouse gas emission that you possibly can. There are 4 approaches to this, which should be considered in priority order.



The diagram above is known as the "Greenhouse Gas Management Hierarchy" (IEMA, 2020) and you can use it to guide the most effective choices for reducing emissions in the same way as the familiar waste hierarchy of "Reduce – Reuse - Recycle".

**Eliminating** emissions at source is the most effective way to make large-scale reductions but it is likely to need big changes to your business that may take many years. It is important to consider these first, so that there is time to put the plans in place to make these changes with a minimum of disruption to the business.

Making genuine **Reductions** in the amount of energy and materials you use is likely to be the mainstay of your plan in the early years. These activities will improve efficiency and reduce waste, giving the added benefit of real cost savings too. For this reason, reducing emissions should be next on your priority list of considerations.

**Substituting** your energy for renewable sources and/or switching to alternative materials with lower embodied carbon may be some of the quickest actions you can take. However, in the long term this should not take the place of eliminating or reducing emissions wherever possible. Although capacity is increasing rapidly it will be virtually impossible to meet all of society's energy needs through renewables alone without significant reductions in the total demand.

**Compensating** for the emissions you have been unable to eliminate, reduce or substitute through investment in carbon sinks and credit should be the final consideration.



## How can you start the journey?

We realise that starting the journey to Net Zero might seem daunting. Although you have a plan, you probably have only been able to sketch in the highlights at this stage and some of the technologies and processes you will need are likely still under development. However, our uncertainty about the latter stages of the journey does not need to prevent us from setting out. The risks of not starting the journey are too great, and by the time we can see a clear picture of how to get there, it will be too late to do anything about it. Indeed, there are many actions you can take right now using existing technologies that will allow you to get started.

So, how can we navigate a journey for which we cannot yet see the whole route? The answer is to create a process that allows us to confidently set out on the journey and adjust our trajectory as we go.

The annual carbon reduction cycle that we described in "[To Carbon Neutral and beyond...](#)" is ideal for this purpose.

## An annual carbon reduction cycle

### Calculate

Calculate your carbon footprint in full each year so that you can track progress.

### Reduce

Carry out the actions in your plan to eliminate, reduce or substitute emissions.

### Offset

If you want to be Carbon Neutral, offset what you cannot yet reduce according to your carbon compensation plan.

### Communicate

Report progress towards your targets and the actions you have done in the year.

### Do

As you go through the year, it is vital that you stay on track and put in place the carbon reduction measures you committed to in your action plan.

### Help others

Do what you can to help others contribute towards the global journey to net zero according to your empowerment and equity plan.





## Net Zero vs Carbon Neutral vs Climate Positive

In "[To Carbon Neutral and beyond...](#)" we explained the concepts of "Carbon Neutral" and "Climate Positive" and now we are talking about "Net Zero". We realise there is a lot of confusion over these terms and how they compare to each other. All 3 terms are in fact very complementary, but it is important to understand how they relate to each other. Here are the key things you need to know:

### 1. Net Zero is the destination whereas Carbon Neutral and Climate Positive are both ways to get there more quickly.

The heart of all 3 approaches is reducing our own emissions in line with the science to limit global warming to 1.5°C.

The Carbon Neutral and Climate Positive approaches involve also doing activities that help others to reduce their emissions in parallel. This does not speed up our own journey to net zero but it does speed up the global journey.

### 2. Net Zero and Carbon Neutral both involve compensating for emissions with offsets. The key difference is when and how this is done.

**Net Zero:** involves compensating only with "carbon removals" and only after every possible emission has been eliminated or reduced.

**Carbon Neutral:** involves compensating for our footprint now and doing so with a mix of "avoided emissions" and "carbon removals".

### 3. Climate Positive involves "over offsetting" so that overall impact on climate change is positive.

There are various different approaches to this. Some involve purchasing at least 10% more carbon credits than the emissions you have generated.

Our preferred approach involves doing activities that help other people or organisations to reduce their emissions until you are responsible for saving more emissions than you have generated. For example, this might be a special project with a supplier to help them reduce their operational emissions or it might be selling low-carbon products that reduce your customers' emissions.



## How can we help?

We are a community of like-minded businesses determined to make a difference on climate change. We know the journey can get tough at times, so we are here to support and encourage you every step of the way. Working together, we can achieve far more than we can on our own.

### The Go Climate Positive Process

The Go Climate Positive process follows all the recommendations given in this guide. We will help you to calculate your full carbon footprint, create your Net Zero plan and put you in touch with other businesses who are on the same journey or who can provide products and services that will help you reduce your carbon footprint.



### We give you a certificate to show your commitment

We know the importance of communicating your commitment to your customers in an open, honest and transparent way. So, once you are a member, we give you a certificate each year that reflects what step of the journey you are on and create a unique web page which publishes your carbon footprint, the reduction targets you have committed to and the offsets you have purchased or [handprints](#) you have created. From 2021 we have introduced a new "net zero aligned" stamp for those members who have plans that meet our net zero [criteria](#).

Step 1



Step 2



Step 3



We look forward to welcoming you into our community and helping you take the first step on your journey to Carbon Neutral and beyond...to Net Zero.





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## What next?

Thank you for reading this guide and taking your first step on the Road to Net Zero.

If you found it helpful and would like to continue your journey, then please [book a meeting](#) with our Chief Carbon Coach to discuss how we can get you started.

Book a meeting

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