

GET NET ZERO RIGHT

**A HOW-TO GUIDE FOR
SPOTTING CREDIBLE
COMMITMENTS AND THOSE
THAT MISS THE MARK**



United Nations
Climate Change

Marrakech
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CONFERENCE



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OXFORD

RACE TO ZERO

INTRODUCTION

Scientists have demonstrated that we must get our world to a state of net zero emissions as soon as possible (and by 2050 at the absolute latest) in order to limit the worst effects of climate change.

Net zero is defined by the IPCC, the United Nations body for assessing the science related to climate change, as: *“when anthropogenic CO2 emissions are balanced globally by anthropogenic CO2 removals over a specified period.*

Simply put, at a global level we need to balance the amount of emissions we put into the atmosphere with the amount we take out.

What this means in practice - and how the term net zero has been used - has been subject to fierce debate and contention as it has grown in popularity over the last decade.

There has been a significant growth in the number of ‘net zero commitments’ made by companies, cities, regions, investors, and educational institutions - but not all commitments are made equal.

So how do we know that net zero commitments are going to meaningfully contribute towards halving global emissions by 2030 - and which miss the mark?

This toolkit is designed to help us all understand what a credible net zero commitment looks like, and which commitments lack the substance needed to deliver a zero carbon world in time. It includes insight into critical topics such as emissions scopes, offsetting, interim targets and immediate action plans.

In all things, actions speak louder than words - and so even institutions with credible climate commitments must be transparent and clearly demonstrate their immediate steps in to reach zero emissions as quickly as possible.

Unlike most races, the race to zero emissions won't have one winner.

In this race we all win, or we all lose.

Nigel Topping and Gonzalo Munoz
High Level Champions for COP 25 and 26

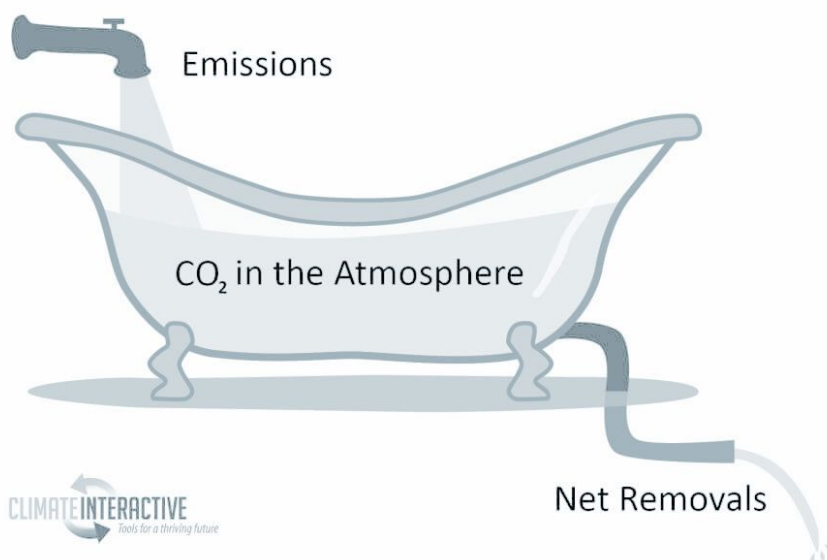
NET ZERO

AND WHY IT MATTERS

The climate science is clear: we are emitting more greenhouse gases than the world can absorb and creating a pollution blanket around the earth that is causing the global temperature to rise. This is contributing to the increasing severity and frequency of natural disasters, deadly levels of air pollution and wide ranging damage to our ecosystems.

The impacts are already being felt today, with high levels of pollution that kills 7 million people every year and extreme weather events that devastate vulnerable populations around the world, and will only get worse without immediate and ambitious action.

Governments agreed to keep global warming to well below 2 degrees and to aim for 1.5 degrees in the Paris Agreement. To achieve this, we know we must reach net zero emissions by 2050, at the very latest. Net zero means any emissions put into the atmosphere are balanced by absorbing an equivalent amount from the atmosphere.



Overall framing by Dr. John Sterman, MIT Sloan

Source: climateinteractive.org

This means that we have a global carbon budget: simply put, to achieve balance, there is a finite amount of emissions that we can release and keep in the earth's atmosphere before we cause runaway climate change, with serious and irreversible consequences. **Our priority is to radically reduce our emissions as quickly as possible.** The emissions which we are not able reduce by the net zero target date are referred to as 'residual emissions' and must be removed and stored in sinks.

We have a finite number of natural sinks that can absorb the emissions released into the atmosphere - and these must be reserved for activities that will be extremely difficult or not feasible to eliminate completely, e.g. natural methane from cows.

MORE INFORMATION:

- [Video by TED](#) explaining the net zero concept
- [Podcast](#) by Outrage! + Optimism
- [Summary of the IPCC's 2018 report](#) on the state of climate action and the role of net zero
- [World Resources Institute's blog](#) explaining net zero
- The [Race to Zero lexicon](#) for a glossary of net zero terms

WHAT DO EXPERTS SAY ABOUT NET ZERO?

A goal of net zero should mean cutting emissions to zero, as soon as possible. If not immediately possible — which is understandable, especially for utilities, heavy industry and agriculture — then a goal of net zero means implementing a realistic plan for transitioning to zero for all greenhouse gases while finding offsets for residual emissions.

Rachel Kyte, dean of the Fletcher School at Tufts University and a climate adviser for the U.N. secretary-general.
Source - Washington Post

If we allow disingenuous uses of net zero to discredit the concept as a whole, we risk giving up the hard-won gains secured by activists and vulnerable countries in Paris in 2015.

Rather than tarring all net zero pledges with the same critical brush, we would advocate differentiating serious targets from those set for greenwashing.

Richard Black, Honorary Research Fellow, Grantham Institute, Imperial College London
Steve Smith, Exec Director, Oxford Net Zero, University of Oxford
Thomas Hale, Associate Professor in Public Policy, University of Oxford
Source- the conversation

A strategic response to systemic climate risk demands that business and investors set and pursue 'Paris-alignment' or 'net-zero' strategies – hundreds of firms are now doing so. Because of the strong potential to influence company capital expenditure and operations, widespread uptake of 'Paris-alignment' or 'net zero' objectives by investors and business could rapidly accelerate reductions of GHG emissions in the real economy.

Client Earth lawyers

The experts are clear. Our governments, as well as our whole economy and society, must work to reduce their emissions, as fast as possible in order to achieve the global net zero emissions necessary to prevent the worst effects of climate change. We therefore need institutions - businesses, investors, cities, regions, universities and others - to commit to credible net zero plans to enable us to achieve this goal.

As the concept of net zero emissions has shifted into the mainstream, there has been growing scepticism as to the validity of net zero commitments made by different institutions. This is because standards and definitions for credible net zero commitments were lacking.

However, there are now a commonly-held set of minimum standards -that we can call the guardrails for net zero. These are guidelines for credible net zero commitments which can empower all of us to effectively distinguish between credible commitments that will move us towards a zero carbon future and those commitments lacking in substance.

READ THE STORY:

Of the activists and practitioners that worked to get net zero enshrined in the Paris Agreement [here](#)

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QUESTIONS TO ASK ABOUT NET ZERO COMMITMENTS

1 IS IT ABOUT NOW?

50% REDUCTION BY 2030

Does the commitment focus on acting right now, toward an interim 2030 target, as part of the global effort to halve emissions by 2030?

Credible = yes, I see an interim target, which supports the global goal to halve emissions by 2030

2 IS THERE A PLAN?

AMBITION TO ACTION

Do they have a clear plan of what actions will be taken immediately, and in the next five years, toward achieving both interim and longer-term targets?

Credible = yes, I see a plan, with interim and end goals, that's focused on the next five years.

3 IS IT FAST ENOUGH?

BEFORE 2050

Are they planning to reach net zero emissions in time – before 2050? Does that target maximise their ability to act, given that some can get there faster than others?

Credible = yes the end goal is before 2050, by continuing to prioritise reduction

4 CAN YOU SEE PROGRESS?

TRANSPARENCY + GOVERNANCE

Do they report publicly on their progress, at least annually, and against all of their emissions? (Scopes 1, 2, and 3 – for more information on scopes, see [here](#)).

Credible = yes, I can see their progress clearly, against all scopes, without having to dig for it and there are strong governance arrangements in place.

5 WHAT DOES IT COVER?

SCOPE OF COMMITMENT

Does the commitment cover all greenhouse gas emissions including Scope 3 for businesses and investors?

Credible = all emissions sources are discussed, even if the plan is to manage them together with other partners.

6 IS IT JUST OFFSETTING?

PRIORITISE REDUCTION

What is the role of offsetting in the net zero strategy? Are they reducing emissions, or relying mainly on offsets?

Credible = yes, offsets do not substitute for or delay decarbonisation and by the net zero target date, credits and sinks are only used to balance the hardest-to-abate emissions.

CHEAT SHEET

RACE TO ZERO

The UN-backed Race to Zero campaign is recognised by scientists and experts as the largest credible alliance of non-state actors taking action on climate change - the first campaign of its kind, mobilizing initiatives and their members to meet rigorous criteria.

The campaign criteria was developed by a group of climate scientists, experts and practitioners. This group - known as the Expert Peer Review Group - remains the ultimate arbiter of which initiatives are able to join the campaign.

The Race to Zero campaign can be a shortcut for scrutinising net zero commitments. The campaign's stringent criteria means that most net zero commitments are not actually part of the Race to Zero because they do not pass the bar - global net zero commitments represent 68% of global GDP and 61% of CO₂ emissions while Race to Zero commitments cover 15% of GDP and 7% of emissions. Only the most credible commitments - in line with the criteria set out in this toolkit - make it into the Race to Zero.

All members of the Race to Zero campaign can be found [here](#).

In recognition of the fact that the climate challenge and associated science continue to evolve, the campaign criteria is reviewed on an annual basis in consultation with climate scientists and civil society organisations to ensure it is in line with the latest science. Members or initiatives that do not meet the criteria are removed from the campaign.

RACE TO ZERO

CREDIBLE NET ZERO - 4 STEPS

Based on the principles developed by the Expert Peer Review Group of the Race to Zero campaign, and supported by experts and practitioners, a credible net zero commitment must have the following elements:

1 PLEDGE

Pledge at the head-of-organization level to reach (net) zero emissions as soon as possible, and by 2050 at the latest, in line with global efforts to limit warming to 1.5C. It must also include an interim target (see right) to achieve by 2030, which reflects maximum effort toward or beyond a fair share of the 50% global reduction in CO₂ by 2030.

2 PLAN

Within 12 months of the pledge, explain what actions will be taken toward achieving both interim and longer-term pledges, especially in the short- to medium-term.

3 PROCEED

It's not enough to enter the race. Institutions must start running. They need to take immediate action toward achieving (net) zero, consistent with delivering interim targets specified.

4 PUBLISH

Commit to report publicly both progress against interim and long-term targets, as well as the actions being taken, at least annually. To the extent possible, report via platforms that feed into the UNFCCC Global Climate Action Portal to ensure the highest levels of transparency.

INTERIM TARGETS

While net zero by 2050 at the latest is the end goal, we need more immediate targets to guarantee sufficient decarbonisation by the mid-century.

The Paris Agreement instigated a 'ratchet mechanism' - this means national governments must not only set long term strategies to achieve net zero by 2050 but must also establish Nationally Determined Contributions (NDCs).

NDCs are efforts by each country to reduce national emissions and adapt to the impacts of climate change.

Starting in 2023 and then every five years, there will be a global stocktake (GST) when governments to assess the collective progress towards achieving the purpose of the Paris Agreement and its long-term goals.

The outcome of the GST will inform the preparation of subsequent NDCs, in order to allow for increased ambition and climate action.

A similar ratchet mechanism must be mirrored by non-state actors to ensure that interim targets are in place and reflect each actor's fair share towards halving emissions by 2030.

CREDIBLE NET ZERO ≠ OFFSETS WITHOUT REDUCTION

Net Zero is not about offsetting: in the transition to (net) zero, institutions should prioritize reducing emissions, and limiting any residual emissions to those that are not feasible to eliminate.

Nature-based solutions are key to our efforts to combat climate change. Organisations are therefore encouraged to invest in high quality sinks, but such contributions should not substitute for or delay emissions reductions. Organisations should clearly specify what sinks or credits are being used to make what, if any, neutralization claims.

They should clarify how sinks and credits are being used both on the path to (net) zero and after (net) zero has been obtained.

Any neutralization of residual emissions must transition to permanent removals by the time (net) zero status is achieved.

Organizations should contribute to the immediate preservation and restoration of natural sinks - not necessarily linked to their neutralization claims - that could compensate for historical emissions.

Organizations should ensure that and outline how any credits achieve robust outcomes for additionality, permanence, and accounting, and do not undermine social justice or harm biodiversity.

Whilst it is important to uphold a robust and credible approach to offsetting, the priority must and always should be the immediate and absolute reduction of greenhouse gas emissions as quickly and fairly as possible.

Organisations must not use offsets to substitute for or delay decarbonisation. But that also doesn't mean that they cannot offset on top of decarbonising. Investing in nature based solutions is critical to reaching a net zero world.

OFFSETTING:

While many institutions can feasibly eliminate all of their emissions to reach "absolute zero" and should do so as quickly and fairly as possible, some actors will have residual emissions.

For example, emissions from biological processes in agriculture, some industrial processes, and fossil fuel combustion for aviation will likely be difficult to eliminate fully by 2050.

A number of institutions therefore include "carbon offsets" within their climate strategy. These are purchased credits representing a certified unit of emission reduction or carbon removal carried out by another actor to balance out the actor's individual 'sources' and 'sinks' of emissions.

A number of critically important questions emerge for the users of offsets. How can offsetting be made a credible means of achieving net zero? What types of offsets should be used and when? How can actors purchasing offsets, and stakeholders holding them accountable, avoid the risk of greenwashing? How can users catalyse the cost-effective supply of the right kind of offsets at scale?

The [Oxford Principles for Net Zero Aligned Carbon Offsetting](#) are designed to help clarify these questions, particularly for non-state actors who want to design and deliver rigorous voluntary net zero

commitments and develop high quality carbon markets. Offset buyers should adopt and integrate the Oxford Offsetting Principles into their activities, and regulators and standard setters should reflect them in the design of offsetting systems and net zero standards.

Observing these Principles will help ensure that users avoid buying low-quality offsets and that their decarbonisation plans are compatible with achieving net zero.

Nonetheless, our understanding of offsets continues to evolve and these guiding principles are still being developed as technology improves and our knowledge of natural sinks increases.

CREDIBLE NET ZERO: FROM COMMITMENTS TO ACTION

The concept of net zero enables the global community to focus on a collective goal for reduction of emissions in line with the science. It creates a clear focal point for everyone from activists to high court judges, businesses to policy makers to consider when evaluating credible climate action in their respective contexts. Below are a few examples of where net zero is driving climate action:

Net zero drives legal action

In May 2021, a Dutch court ordered that Shell is mandated by law to cut its emissions by 45% by 2030. Friends of the Earth and co-plaintiffs brought this case to the court. The ruling draws on the work done by the Climate Ambition Alliance and the Race to Zero campaign to set the bar for climate action for businesses as cutting emissions by at least 50% by 2030, which is what the science calls for. The ruling specifically references the Race to Zero's scientific "protocols and guidelines that [represent] what companies should do to reduce the greenhouse gas emissions caused by their activities and products."

Net zero drives greener supply chains

Through the the 1.5 Supply Chain Leaders initiative, a number of leading businesses including IKEA, Microsoft and Unilever are working to decarbonising their supply chain. Their specific focus is on working with suppliers and business partners - many of whom are SMEs and require support to take climate action - to halve emissions by 2030. To promote this, the companies plan to include climate targets and performance a part of their purchasing criteria.

Net zero drives emissions reduction

Analysis by the Science Based Targets initiative showed that a sample cohort of companies in Business Ambition for 1.5C - an initiative through which businesses make credible net zero commitments - collectively reduced their emissions by 25% between 2015 and 2019 - a difference of 302 million tonnes, which is equivalent to the annual emissions from 78 coal-fired power plants.

CALL TO ACTION

To get to a healthier, more resilient, zero carbon world, government must lead but the role of businesses, investors and society at large is going to be fundamental. Targets and plans made by the institutions that run our societies and economies will determine our ability to rapidly transition to a climate resilient future. Understanding these targets, ensuring they are real and robust, and holding our leaders to account for them is important.

As you work on climate action in your community, place of work, or in policy, ask all the institutions you come into contact with to adopt a credible net zero target and join the Race to Zero.

It is a radical collaboration of initiatives who adhere to the stringent criteria outlined earlier in this toolkit - pledge, plan, proceed, publish - and accept members only on this basis.



SCIENCE
BASED
TARGETS

BUSINESS
AMBITION FOR 1.5°C

THE
CLIMATE
PLEDGE

UNDER 2°

·I·C·L·E·I
Local Governments for Sustainability



IIGCC
The Institutional Investors
Group on Climate Change



JAPAN
CLIMATE
INITIATIVE



**EXPONENTIAL
ROADMAP** Initiative

**WE MEAN
BUSINESS**



**CITIES
RACE TO ZERO**

Ask your employer, university, local business, bank and any other institution you come into regular contact with whether they have joined the Race. And then hold them accountable to those commitments. Because we need all of society working together, and if we do so, we can succeed.

THANK YOU



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