

Policy brief | February 2020

Why and how a ‘net zero club’ can contribute to success at COP26

To succeed in increasing the urgent action required to address climate change, COP26 must show a credible and substantive ratchet in ambition. While new Nationally Determined Contributions (NDCs) must be enhanced, it is unlikely that they will, on their own, put the world on track to “well below” 2°C this year.

A ‘net zero club’ that brings together not just national governments but also cities, business, states, regions, provinces, investors, and ‘all of society’ can provide a powerful “real economy” complement to NDC enhancement under the UNFCCC.

This document, informed by discussions with a wide range of actors over several months, is intended to catalyse further discussion and ideas around the design of a net zero club.

How a net zero club can help to raise ambition to 2025

2020	2021	2023 - 2025
COP26: ‘50 zero 50’	UK G7 / Italy G20	Global stock take → 2025 NDCs
<p><u>Stretch target:</u> Actors representing at least 50% of global emissions target net zero by 2050 or sooner.</p> <p><u>Safe target:</u> Actors representing at least 50% of global GDP target net zero by 2050 or sooner.</p>	<p><u>Target:</u> All G7/G20 countries commit to net zero.</p> <p>Holdouts are isolated and increasingly out of step with their sub-nationals, businesses, and investors.</p>	<p><u>Target:</u> All countries commit to net zero.</p>

‘50 zero 50’: what this COP26 narrative would mean

More than half of the world pledges to reach net zero emissions by 2050 and is acting on that commitment. An economic tipping point has been crossed, ratcheting up decarbonisation toward the goals of the Paris Agreement.

Current context

The 2018 IPCC [Special Report on Global Warming of 1.5°C](#) shows that reaching net zero carbon emissions by 2050 globally is needed for 50% chance of limiting climate change to 1.5°C. At COP25 in December 2019, Chile's [Climate Ambition Alliance](#) identified actors “working towards” net zero.¹ This includes 120 countries, plus the EU, 400 cities, 800 businesses, and 15 states and regions which together account for 18% of world emissions and one third of the world's GDP.

It is difficult to assess the current scope of net zero commitments because ‘net zero’ is defined in different ways and commitments take various forms. A [recent analysis](#) by Boston Consulting Group for the World Economic Forum shows only a few of the front-runners have in place strong plans and policies to achieve these targets, and some of the largest emitters are not part of this coalition. [Another recent analysis](#) by ECIU showed that actors worth nearly 50 percent of global GDP are either committed to or discussing net zero targets. The table below, based on the ECIU report with our own estimates of GDP and GHGs, shows the current breakdown of targets under discussion, pledged, in policy, or in law (excluding corporate and investor targets).

Current pledges to reach or work towards net zero by 2050

All targets (committed and under discussion)	Number of actors	%GDP	%GHGs
Countries	123	32.02%	18.43%
Cities	104	10.31%	0.85%
States and regions	29	7.44%	2.55%
		49.76%	21.83%
Pledged			
Countries	100	11.54%	8.79%
Cities	56	8.71%	0.77%
States and regions	0	0.00%	0.00%
		20.25%	9.56%
In policy			
Countries	10	5.52%	2.58%
Cities	31	1.20%	0.08%
States and regions	7	1.01%	0.78%
		7.72%	3.44%
In law			
Countries	5	6.97%	2.58%
Cities	0	0.00%	0.00%
States and regions	4	3.51%	1.09%
		10.48%	3.67%
All committed (pledged, in law, and in policy)			
Countries	115	24.02%	13.95%
Cities	87	9.91%	0.85%

States and regions	11	4.52%	1.87%
		38.46%	16.67%

NB: Emissions (CAIT) and GDP (IMF) are calculated for countries and selected cities, states and regions only and, therefore, underestimate the total.

How to get to 50%

While the ECIU number is significant, many of the large economies it includes remain in the “working towards” net zero category meaning that getting 50 percent of GDP *committed* to net zero will remain a challenge. A number of large countries are unlikely to align to net zero by 2050, including both large developing countries like China and India, as well as countries with recalcitrant political leadership including Russia, Brazil, Iran, Australia, Turkey, and Saudi Arabia. Nor are many sub-national or business actors in these jurisdictions likely to align to such a target, though some already have and more may. Together this ‘hard bloc’ of countries amounts to 41% of emissions and 27% of GDP.

Reaching ‘50 zero 50’ by COP26 (either in terms of GDP or emissions) will require both strengthening current soft targets and getting a significant number of new countries and other actors to sign on. Some of the most promising targets are listed in the table below.

If all of the opportunities in the table below are realised, over 42% of emissions and 66% of GDP would be aligned to zero by 2050. Even in this maximalist outcome, China would need to come on board to exceed 50% of emissions. However, if even half of these opportunities are realised (and even if President Trump is re-elected), 30% of global emissions could still be covered (twice the current level) and 50% of global GDP.

Commitments could take various forms (see the discussion of criteria in the annex), though long term strategies within the Paris Framework may be the dominant mode:

1. Mentioned in NDCs
2. Long term strategies (LTS)
3. Pledges under existing city, region and business platforms
4. Sectoral commitments
5. National laws and policies
6. Political declarations

While COP26 would want to define ‘net zero’ broadly, analysts, NGOs, and others will draw distinctions between different ‘tiers’ (e.g. those with credible plans versus aspirational commitments; conditional versus unconditional commitments, use of offsets to achieve net zero, etc). It is therefore important to have a robust set of criteria to define inclusion (see the annex).

Changing the language from 2050 to ‘mid-century’ for certain developing countries and sub-national actors could significantly expand the number of potential joiners, but risks diluting the clear signal.

The building blocks of a COP26 net zero coalition

Possible contributions	% of world GHGs	% of world GDP
US election (declaration by president elect at COP)	14.74%	24.46%
All currently acting US cities/states align to net zero	7.37%	17.12%
Commitments by 10% of cities, regions and business in a 'hard bloc'	4.40%	2.68%
Japan moves its date forward	2.25%	5.93%
Indonesia LTS	1.64%	1.26%
Canada LTS	1.58%	1.99%
South Korea LTS	1.21%	1.90%
South Africa LTS	0.93%	0.43%
Ukraine LTS	0.83%	0.15%
Thailand LTS	0.82%	0.59%
Egypt LTS	0.60%	0.34%
Vietnam LTS	0.57%	0.30%
Philippines LTS	0.38%	0.41%
Bangladesh LTS	0.36%	0.36%
Myanmar LTS	0.22%	0.08%
Israel LTS	0.22%	0.44%
Peru LTS	0.18%	0.27%
Morocco LTS	0.18%	0.14%
Tanzania LTS	0.15%	0.07%
Kenya LTS	0.13%	0.11%
Potential boost if all opportunities realised (including USA)	31.40%	41.91%
Potential boost if 50% opportunities realised (including US sub-nationals)	17.90%	27.19%
Total range achievable by COP26	29.24 to 42.74%	50.87 to 65.59%

What would a more narrowly defined net zero club look like?

An alternative definition, including only those actors that have high quality commitments, could focus on leading an economic transition to net zero. This narrower definition could see between a third and 58% of global GDP mobilised. The key criteria for this club would be legal commitment to net zero by 2050 or earlier, and evidence that money is being mobilised at scale to achieving technology change in key sectors. (see the annex)

There is robust evidence that when technologies reach around 10% of market share, their pace of uptake increases rapidly, following an 'S curve'.²

More recent evidence suggests this threshold for clean energy technologies is as low as 3%, mainly because “markets are moved by growth not size”.³

That is to say, loss in growth in high carbon businesses is likely to see them starved of capital. We know already that when the US coal industry lost a little under 10% of its market share, it entered a spiral of bankruptcy that even Donald Trump’s administration has been unable to arrest.⁴

This version of the net zero club has three components: a core of legally committed countries and nations; a set of leading cities with net zero plans whose effectiveness is being supported by the C40 climate leadership network; and a growing list of corporations that are reorienting their business models to net zero with firm commitments, ideally drawing on assurance mechanisms like the Science Based Targets Initiative.

Current commitments	Proportion of global GDP
Countries and regions with net zero laws	23.20%
EU27+UK	16.29%
California and New York	5.04%
New Zealand	0.25%
Costa Rica	0.07%
Iceland	0.03%
Norway	0.60%
Switzerland	0.85%
Uruguay	0.07%
Cities with a formal net zero commitment	14.92%
C40 cities (excluding those in the states and regions above, 60 have committed to net zero)	14.92%
Corporations with firm, 1.5°C compatible commitments⁵	1.27%
Google	0.16%
Amazon	0.14%
Volkswagen	0.33%
Unilever	0.06%
Mahindra	0.02%
Ikea	0.05%
Microsoft	0.15%
Schneider Electric	0.03%
Mars	0.04%
BT Plc	0.04%
SAP	0.03%

HP	0.07%
H&M	0.03%
Telefonica	0.06%
T-Mobile US	0.05%

Taken together, these existing commitments represent well over a third of global GDP, assuming the EU27 formally adopt a net zero goal, as the European Commission has signaled it will do.⁶

Even on this narrower definition, the club could plausibly expand this year. If the set of US states that have already pledged to maintain the US’s Paris Agreement pledge join California and New York in legislating for net zero, the club would represent just over half of global GDP. And if a democrat wins in the United States and declares his or her intention to achieve net zero, the club’s membership could rise to nearly 60% of global GDP. The hurdles for achieving these harder commitments (laws and demonstrable real economic change) are significantly higher than in the COP26 net zero coalition above, but are certainly achievable.

The advantages of ‘50 zero 50’

Rises to the challenge of science: Ultimately, delivering the goals of the Paris Agreement requires reaching net zero globally by 2050. It is impossible to keep the Paris goals in sight if the world does not move aggressively toward this target. Showing that actors representing the majority of global emissions or GDP have set their course to net zero would represent a powerful and science-based ratchet of ambition.

Mitigates the risk of weak NDCs and Donald Trump’s re-election: We know that the new round of NDCs will not be sufficient to put the world on track. A net zero coalition provides a complementary tool to show that the world is ratcheting up ambition, preserving the integrity of the Paris Agreement’s architecture.

A broad tent: This target gives every single country and actor a very clear target to aim for, providing a powerful way to mobilise sub-national and non-state actors even in difficult countries. For developing countries, ‘mid-century’, as opposed to 2050, provides some flexibility that makes it more likely to reach 50%. It also allows more specific sectoral outcomes to fall under the broader umbrella of net zero.

Clarity: It provides a clear target for political pressure on those outside the club.

Feasibility: It is the most plausible way to show a meaningful increase in ambition in COP26 given political constraints.

The risks of '50 zero 50'

Credibility: There is decreasing tolerance for empty pledges, so credible plans are needed. By itself, the net zero club could be dismissed as words on paper only.

Urgency: Long term pledges that are not paired with short term action will be less credible and could be seen as greenwashing.

Organisation of the club and a role for the COP26 Presidency

The net zero club should be a 'coalition of coalitions' that builds on and supports the initiatives already working toward net zero. The COP26 Presidency can play an overarching orchestration role, while partnering with the existing networks of cities, states and regions, business and investors. These include:

1. **Businesses:** 1.5°C science based targets
2. **Cities:** C40 'Deadline 2020' commitments
3. **Regions, provinces and states:**
 - a. Under 2 Coalition (currently only a few members have net zero targets)
 - b. 2050 Pathways Platform
4. **Finance:** UNEP-FI / UNPRI Net Zero Asset Owners Alliance
5. **Countries:** Long term strategies under the Paris Agreement

Mobilisation of sub- and non-state actors should be led and staffed by these (or other) networks, with the support and encouragement of the COP26 Presidency. The High-Level Champion, in particular, can play a decisive role in channeling the Presidency's convening power into supporting outreach by these actors. In addition, the High-Level Champion may wish to appoint additional 'co-chairs' for the net zero club representing a broad range of different actors. For large, high value targets, additional Presidency support may be desirable.

In parallel, engagement with countries on their long term strategies should be led by the UK diplomatic team as part of their broader engagement.

The COP26 Presidency should take overall lead of the communications strategy behind the initiative.

Finally, the COP26 Presidency can promote alignment on criteria taking a 'funnel' approach that defines minimum criteria for membership (the wide end of the funnel) but also more stringent criteria as an objective to push toward (the narrow end of the funnel). See annex for additional information relating to criteria.

Annex

Criteria for inclusion in a net zero coalition

The idea of a 'net zero club' immediately raises questions about how to define who is in and who is out. Its credibility requires a transparent and science-based set of criteria.

For COP26, a feasible approach would be to articulate a set of broad criteria that bring together the most credible current approaches under an overarching framework. A 'funnel' approach may be the best way to do this.

The Climate Ambition Alliance began at COP25 with a large number of diverse commitments. Going forward, adding clearer criteria can enhance the credibility and impact of the coalition by:

1. Defining the minimum criteria needed for inclusion (the 'wide' end of the funnel)
2. Outlining stronger criteria that actors can move toward over time (the 'narrow' end of the funnel).

At present, there is no agreed definition of what 'net zero' means for countries, sub-national jurisdictions, business, or others. Thorny technical and normative issues arise, including:

1. **Scope:**

- a. For countries and sub-national jurisdictions, territorial emissions are the focus. But, for cities in particular, many emissions may be driven by, for example, consumption of products beyond the territory.
- b. For companies and sectors, should net zero commitments cover scope 3 emissions (i.e. those not just from the company's direct activities but also from the use of its products)?
- c. For investors and other financial entities, how to ensure that different forms of finance are net zero (e.g. is a pension fund that holds fossil fuel assets but is pushing those companies to set net zero targets aligned or not?)?
- d. Does net zero refer to CO₂ only, greenhouse gases, or other climate forcers (e.g. black carbon)?

2. **Timing:** The IPCC report points to net zero carbon by 2050 and net zero for other GHGs by 2070 as a global average target. This means some could do so sooner, and others later. The sooner front-runners get to zero, the more time others will have to catch up.

3. **Offsets:** To what extent should the sale and purchase of external offsets be permitted to help reach net zero? If global net zero is the goal then what are the respective roles of removals (e.g. afforestation) and emission reductions in offset schemes? This is particularly difficult given ongoing debates on Article 6 in the UNFCCC.

4. **Equity:** While net zero helpfully reframes some of the traditional ‘burden sharing’ debate by creating the expectation that the entire world economy will be decarbonised, debates over who should do what resurface in two key areas:
 - a. Who is in the ‘net’ part and who is in the ‘zero’ part? That is, to the extent offsetting is allowed, whose emissions should be allowed to continue, and whose should be eliminated?
 - b. How much time past 2050 might, for example, developing countries or hard-to-abate sectors be granted and, therefore, how much sooner than 2050 must front-runners get to zero?

5. **Technological and behavioural uncertainty:** It is difficult to predict the future state of potentially key net zero technologies and actions in 30 years, including carbon capture and storage, aviation biofuels, dietary change, etc. Different net zero commitments rely to differing degrees on current versus future technologies, and on different balances between emissions reductions and large scale removals.

6. **Compatibility of commitments and plans:** At a global scale, we do not know if the assumptions and plans of different actors for achieving net zero are compatible. For example, certain sectors may be making assumptions about changes in sectors on which they draw (e.g. power), or multiple actors may be counting on the same afforestation offsets.

7. **Robust governance:** Are targets firmly embedded in ways that are likely to be binding on actors’ behaviour? For example, are they legally enforceable laws and policies, or aspirational statements? Do they come with concrete implementation plans and budgets, or are they just statements of intent? Will they report transparently on progress?

Potential criteria for inclusion include three broad areas:

1. **Target:** Reach net zero carbon emissions by 2050
 - a. **Option:** reach net zero greenhouse gas emissions (GHGs) by 2070, though perhaps with conditions for industrialised countries
 - b. **Option:** allow slightly later date (2060) or conditional target for least developed countries
 - c. **Option:** include ‘indirect’ emissions, e.g. scope 3 for companies or consumption emissions for cities

2. **Plan:** Specify how the actor plans to achieve net zero, including:
 - a. to what extent the plan relies on current versus future technologies, and what assumptions the actor is making about those technologies
 - b. what assumptions the actor is making about other actors’ behaviour (e.g. are cities relying on national governments to decarbonise the power grid?)
 - c. what concrete steps will be taken in the short term?
 - d. state to what extent the actor expects to rely on sinks (the ‘net’ part)
 - i. **Option:** specify what kinds of sinks are encouraged or preferred
 - e. how the target will be institutionalised (e.g. in law or policy) and what resources (budget, staff, etc.) are dedicated to achieving it
 - f. **Option:** Plan should include measurable interim targets

3. Process

- a. Preference for commitments to be made within existing credible platforms or initiatives, as opposed to ad hoc commitments, particularly for cities, businesses, investors, states and regions.
- b. Regular reporting on progress:
 - i. Where applicable, through existing platforms
 - ii. Through the UNFCCC Climate Action Portal
 - iii. Where none of the above apply, through an annual report posted online

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Endnotes

¹ This represents the widest possible definition of 'net zero'. For example, it includes countries like Canada and Mexico, which are part of the Climate Neutrality Coalition, but whose current long term plans do not yet aim for net zero by 2050.

² See www.sciencedirect.com/science/article/pii/S2214629615300827#bib0185,
<https://core.ac.uk/download/pdf/33896321.pdf>,

³ www.carbontracker.org/reports/myths-of-the-transition-renewables-are-too-small/full-report/. See also www3.weforum.org/docs/WEF_the_speed_of_the_energy_transition.pdf which sets tests showing that a 'rapid' economic transition is happening.

⁴ www.green-alliance.org.uk/resources/People_power_how_consumer_choice_is_changing_UK_energy_system.pdf

⁵ These corporations are measured by turnover, but it has not been possible to exclude activities that take place in the cities, regions, and states that are also in this version of the net zero club.

⁶ https://ec.europa.eu/clima/sites/clima/files/long_term_strategy_brochure_en.pdf