

BLOG POST November 24th 2020

Carbon neutrality: a key political attractor to reach the Paris Agreement goals

Blogpost series - 5th anniversary of the Paris Agreement

Authors

Henri Waisman

Director, Deep Decarbonization Pathways programme

Marta Torres Gunfaus

Director, Climate Programme

David Levai

Associate Researcher

Alexandra Deprez

Research Fellow, International climate governance

🕒 Reading time: 8 min



The Paris Climate Agreement (PA) states in its Art 4.1 the objective to reach a “*global balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century*”^{[1](#)}. Scientific studies synthesised in the 2018 IPCC Special Report on “Global Warming of 1.5°C”^{[2](#)}

confirmed that the “well below 2°C” temperature goal defined in the PA requires achieving net-zero emissions of carbon dioxide between 2050 and 2070. This is the challenge posed by “carbon neutrality”. The introduction of such an explicit long-term emission objective is one of the most striking novelties of the PA. Five years later, is this vision turning into a reality? Has the carbon neutrality target delivered its expected benefits for ambition and action?

This blogpost is part of a [series](#) produced by IDDRI on the effects of the Paris Agreement, on the occasion of its 5th anniversary.

What does carbon neutrality mean?

The carbon neutrality objective is global in nature, and does not mean that all countries would need to reach it within their boundaries at the same date and with the same strategies. But, on the other hand, science argues that achieving this ambitious collective goal would be impossible if any major player was off track. Therefore, the global carbon neutrality objective translates into a requirement for each country (and major players of the political economy) to consider as a critical benchmark for the design of their domestic actions. It makes the definition of the scale of the challenge straightforward, imposing drastic reductions of GHG emissions from fossil fuels (coal, oil, natural gas), notably from the production and consumption of energy; and deploying options to extract carbon from the atmosphere through the maximisation of natural carbon sinks (notably reforestation and sustainable land-use) and possibly innovative technologies. This in turn requires rapid and far-reaching transitions in all key components of the economic system: energy, industry, infrastructure, transport and land-use.

This normative view of the transformations ahead changes the rules of the game, or at least, the domestic political discussions. The numerous domestic processes that have taken place over the last five years have eyewitnessed the politics of this assimilation, namely in the context of the development of evidence to inform long-term development planning, such as the so-called Long-Term Low Emissions Development Strategies, LT-LEDS. The carbon neutrality objective forces countries (and Non-State Actors, NSAs) to confront the scale of the challenge imposed by the long-term temperature goal and to seek to identify the consistent sequence of necessary systemic physical and socio-economic transformations. This codified vision is therefore a key instrument to help translate long-term ambition into short-term action, and to embed the multilateral conversation in domestic politics.

What has happened since COP21?

Five years after COP21 and the adoption of the PA, a rapid proliferation of carbon neutrality pledges across a range of stakeholders and sectors is observed. The Carbon Neutrality Coalition (CNC),³ gathering today 29 countries, 102 cities, 10 regions, 93 businesses and 12 investors, pioneered this process. As of November 2020, more than 110 countries⁴ have committed to a net-zero objective. These represent in total around half of the world's GDP and of global CO₂ emissions, and include notably the totality of the G7 and a majority of the G20. Carbon neutrality has also become a reference for a growing number of NSAs. For example, 1,100 companies have adopted carbon neutrality goals and joined the UK COP26's Race to Zero Campaign⁵ alongside other NSA.

It is stunning to see how fast this concept of carbon neutrality, barely discussed beyond experts before 2015, is now mainstreamed and widely understood by leaders and society.

Most importantly, the three main GHG emitters (EU, China, USA) have now clearly established carbon neutrality as their horizon. The European Union has decided to become climate neutral by 2050 and has enshrined this goal as one of the key features of the European Green Deal, endorsed by both the Council and the Parliament. At this year's virtual General Assembly to the UN, Chinese President Xi Jinping pledged that China would achieve '[carbon neutrality before 2060](#)'. Finally, the new American President-elect Joe Biden has announced during his campaign his intention to re-join the PA on Day One of his presidency and has set an unwavering [commitment to carbon neutrality by 2050](#).

The political signal of a broader movement

The EU, US and China's carbon neutrality announcements are key for the achievement of the collective goal, even if only for the size of their emissions. But, more importantly, they illustrate the shift in the political process that setting a "carbon neutrality" target can help crystallise both domestically and internationally.

China's choice of a milestone date that differs from other similar announcements—2060 instead of 2050—reflects domestic ownership of the global carbon neutrality target, in line with its specific country circumstances. Unlike Western industrialised nations, China's historic contribution to climate change, like its economic development, is much more recent, an argument for reaching net-zero a decade later. The content as well as the timing of the announcement, ahead of the US presidential election, signals that China is driven to adopt neutrality for its own interest, and not in response to peer pressure. Even if China is an outlier among developing countries, its announcement delivers the message that carbon neutrality remains the horizon for every country, not only for industrialised economies, which indirectly strengthens the universality of the PA. Numerous carbon neutrality commitments by other developing countries such as Chile, Costa Rica, South Africa, Fiji or Marshall Islands contribute further to this message.

In many countries, the neutrality target is backed by detailed analysis of supporting pathways and corresponding transformations. The European Commission has published a specific vision document exploring transition pathways towards the carbon neutrality objective for all key sectors, which notably serves as the backbone for the 'mid-century, long-term low-GHG emission development strategy' submitted to the UNFCCC⁶ in response to Art 4.19 of the PA. The Chinese announcement was also backed by detailed assessment⁷ of transition pathways prepared by influential domestic research institutes. These studies provides credibility to the carbon neutrality announcement and pave the way for its translation into concrete action. Many countries committed to carbon neutrality have presented a pathway or are in the process of developing one; this is the next step for others like the US where the credibility of the carbon neutrality target will require the incoming Administration to present a detailed pathway with relevant milestones to this objective.

A pledge for carbon neutrality also often goes together with a revision on the shorter-term target, which could be anchored in an enhanced NDC. The Chinese commitment to carbon neutrality is announced together with a slightly more ambitious target for 2030 compared to the current NDC (peak of emissions 'before 2030'), demonstrating that consistency between targets in different time horizons are critical for credibility. This is also visible in the EU process, since the carbon neutrality objective serves as a benchmark for the on-going discussion on the enhancement of its 2030 emission target, that the Commission proposes to move to -55%.⁸

What does this shift to carbon neutrality mean for next steps?

It has taken five years for carbon neutrality to go from being a common global political project to permeate a critical mass of society. The carbon neutrality objective has now proved its relevance as a political attractor, able both to

support the anchoring of domestic ambition against scientifically grounded benchmarks and to trigger a 'domino effect' towards more ambition globally. Indeed, countries committing to carbon neutrality not only send messages about their domestic ambition but also about their assumptions on global innovation of progress, hence creating favourable conditions for others to take similar pledges. This has been for example very visible with Japan and South Korea making similar announcements on carbon neutrality just after China.

Beyond this role of political attractor at the international level, many of the carbon neutrality commitments have emerged after extensive domestic processes. These processes, notably framed around the "long-term low GHG emission development strategies" codified in Art 4.19 of the PA, can partly explain the five-year time lag between the adoption of the Agreement and the recent burst of carbon neutrality announcements. This was probably the price to pay to make carbon neutrality useful to trigger more ambition in concrete national plans. On that account, carbon neutrality can notably be instrumental to support a progressive alignment of successive country NDC submissions with the global temperature goal.

Five years after the tremendous success of reaching an ambitious agreement in Paris at COP21, the time is ripe to assess the additional value that the new multilateral climate regime has offered. By becoming the benchmark for ambition, carbon neutrality has played a key role to keep alive and strong the "spirit of Paris", consisting of [five-year cycles supporting a progressive increase of ambition](#) and an acceleration of the transition. Carbon neutrality will also play a key role in the coming years. Notably, by facilitating the alignment of visions among different actors of the transition, carbon neutrality should help crystallise the emergence of a structured agenda of cooperation towards the common objective in the lead-up to the 2023 Global Stocktake. This next key milestone in the international climate agenda after COP26, codified in the PA to take stock of collective progress and action, will be the moment to prove that the "spirit of Paris" can turn into concrete plans and actions up to the size of the challenge.

1 <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>

2 <https://www.ipcc.ch/sr15/>

3 <https://www.carbon-neutrality.global/>

4 <https://www.un.org/sg/en/content/sg/statement/2020-11-09/secretary-generals-video-message-opening-of-race-zero-dialogues>

5 <https://unfccc.int/news/cities-regions-and-businesses-race-to-zero-emissions>

6 <https://unfccc.int/documents/210328>

7 <https://www.carbonbrief.org/influential-academics-reveal-how-china-can-achieve-its-carbon-neutrality-goal>

8 https://ec.europa.eu/clima/policies/eu-climate-action/2030_ctp_en