

Climate Investment Update

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Climate Change - Global

Back to the moon as the US aligns to net zero

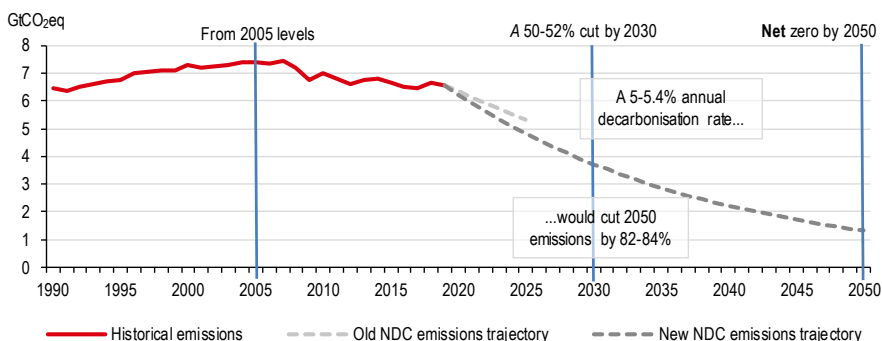
- ◆ US pledges to cut GHG emissions by 50-52% by 2030...
- ◆ ...to put it on the path to net zero emissions by 2050
- ◆ Details and implementation – the hard part – are still to come

The long: President Biden has unveiled a *major enhancement* of the US climate pledge towards the Paris Agreement (known as its *nationally determined contribution*, or NDC) ahead of hosting a Leaders Summit on Climate. The US pledges to **reduce net greenhouse gas (GHG) emissions by at least half (50-52%) by 2030 (from 2005 levels)**, aligning to a 2050 net zero pathway. This raises US climate ambition levels and, on our calculations, represents a 10-12% improvement to 2025 or an 18-21% improvement to 2030, from the previous 26-28% reduction by 2025, set in 2015.

And winding: The 2030 target is **economy-wide** and the statement mentions the big five sectors: zero-carbon electricity (2035), buildings, transportation, industry and agriculture. However, **it is also a net target** – meaning the GHG account will likely be offset with carbon sinks (forests, soils and oceans). We calculate that an annual decarbonisation rate of roughly 5-5.4% (chart 1) is required if the US is to halve emissions by 2030, en-route to net zero by mid-century. We believe this is possible but challenging as the average decarbonisation rate from 2005-19 was less than 1%.

Road ahead: Having already rejoined the Paris Agreement, the US seeks to regain global climate leadership after four years out in the cold. We think this new pledge is a step in the right direction for the US, one which will give it clout when it comes to climate diplomacy. The pressure is on other major emitters to align their 2030 targets to a net zero pathway. As businesses do the same, we think investors will have to look through the details to determine whether corporate strategies are properly aligned to net zero, as well as consider the carbon footprints of their own portfolios.

1: Illustrative pathway of US decarbonisation to net zero by 2050 via 2030



Source: HSBC estimates (based on US EPA, White House)

This is an abridged version of a report by the same title published on 23-Apr-21. Please contact your HSBC representative or email AskResearch@hsbc.com for more information.



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Implications of the US climate pledge

The new US target is in line with climate science...

...but it is less ambitious than the EU's target

The dark side of the moon: The US 2030 NDC pledge of a **50-52% reduction from 2005** is approximately **equivalent to a 42-45% reduction from 1990 levels**. It is now broadly perceived to be in line with the science (en-route to a 1.5°C pathway). However, there were calls for it to be even higher. It is less ambitious than the EU's target (at least 55% from 1990) and far below the UK's (a 68% decline from 1990 with a view to increase this to 78% by 2035).

China does not have an absolute reduction plan for 2030 yet, but is seeking to 'peak emissions' before 2030. For others, direct comparability is difficult because they may have a relative target (e.g. intensity-based or vs BAU), be conditional or use different GHG inventory accounting.

2: How the US pledge looks against pledges from other parties*

Party	2030 climate targets (mostly officially submitted to the UN)
China	China's President Xi Jinping announced a target to cut carbon intensity of GDP by more than 65% from 2005 levels
India	Reduction of emissions intensity of GDP by 33-35% from 2005 levels
Russia	Reduction of GHG emissions by up to 70% compared to the 1990 level (considering absorptive capacity of forests and other ecosystems and subject to sustainable and balanced socio-economic development of the country)
Japan	26% GHG emissions reduction by FY2030 compared to FY2013 levels
Brazil	Reduction of GHG emissions by 43% compared to the 2005 level
Indonesia	Unconditional commitment of reducing GHG emissions by 29% compared to BAU scenario (2,869 GtCO ₂ e in 2030) which could be increased to up to 41% reduction, subject to international support
Canada	Per the budget announcement in April 2021, Canada has set a new emissions reduction target of 36% below 2005 levels, which is more ambitious than its previous 30% target
UK	Reduction of GHG emissions by at least 68% compared to reference year levels (1990 for CO ₂ , CH ₄ and N ₂ O; 1995 for HFCs, PFCs, SF ₆ and NF ₃)
EU	Net domestic GHG emissions reduction of at least 55% compared to 1990 levels

Source: HSBC (based on various announcements from government sources). *These are as of 21 April 2021 and may change at the Leaders Summit on Climate

Aligning to net zero by 2050 pathway

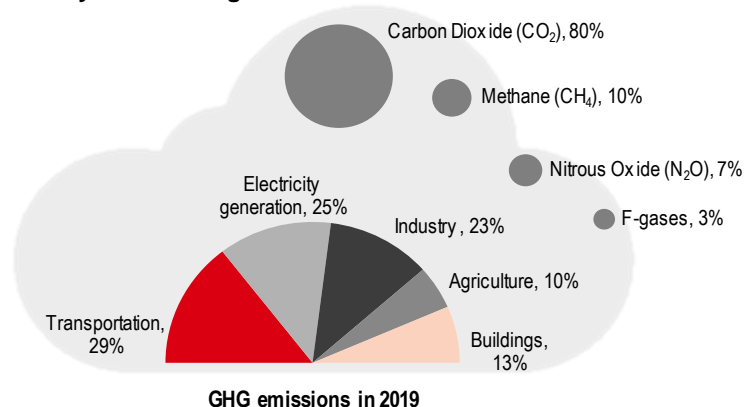
Why net zero? The UN's climate science body, the Intergovernmental Panel on Climate Change (IPCC), has stated that the world needed to achieve net zero emissions by 2050 in order to be on a pathway consistent with limiting warming to within 1.5°C.

What does net zero mean? Net zero refers to balancing the *sources of emissions* with *sinks of emissions*. This does not mean that we cannot emit any GHGs at all; it does mean that our net impact on atmospheric concentrations of carbon dioxide (and other GHGs) should *effectively* be zero, i.e. net zero. This is achieved by balancing *sources* such as fossil fuel combustion with *sinks* of emissions such as forestry or carbon capture.

We think implementation will be challenging

(Not) the final cut: Achieving net zero across the US economy will not be easy. It will require decisive action to reduce emissions across transportation, power generation, and industry, as well as agriculture and forestry (chart 3).

3: US emissions by sector and gas in 2019



Source: US EPA

Sinks and offsets are likely to be required, in our view

Obscured by clouds: A continuation of the 5-5.4% decarbonisation rate from 2030 (chart 1) would only take the US to an 82-84% emissions reduction in 2050 (from 2005), implying the US is likely to meaningfully use carbon offsets. It is not clear how any carbon-offsetting regime would be implemented, although the statement mentioned the enhancement of carbon sinks – through “**nature-based solutions for ecosystems ranging from our forests and agricultural soils to our rivers and coasts**” and also “ocean-based solutions.” There have been musings about a national carbon pricing program such as emissions trading, although the administration has not mentioned this in any formal statements.

The cost of emitting carbon is likely to rise

The endless river: In late February, the US announced the reinstatement of its social cost of carbon (SCC) starting at USD51 per tonne on an interim basis – which reflects the long-term damage to the wider economy associated with an incremental tonne of CO₂ emitted. Given the targets set today, the updated SCC (to be put forward in early 2022) may be much higher.

The division bell: This announcement did not mention climate finance directly, although the president’s request of 9 April 2021 for discretionary funding for 2022 asked for USD2.5bn for international climate programs and USD1.2bn for the UN’s Green Climate Fund. Making funds available internationally raises the credibility that the US is not just in it for itself, but willing to help developing economies, and hence, the world, to move towards a net zero future.

Global climate cooperation

Other economies will face growing pressure to align to net zero...

The US alignment to a net zero pathway (although not quite a formal target) brings the total number of economies that have *net zero pathway alignment plans* to around 25, and means that about half of global emissions are under some form of net zero pledge or alignment.

4: Economies that have aligned to net zero in some form*

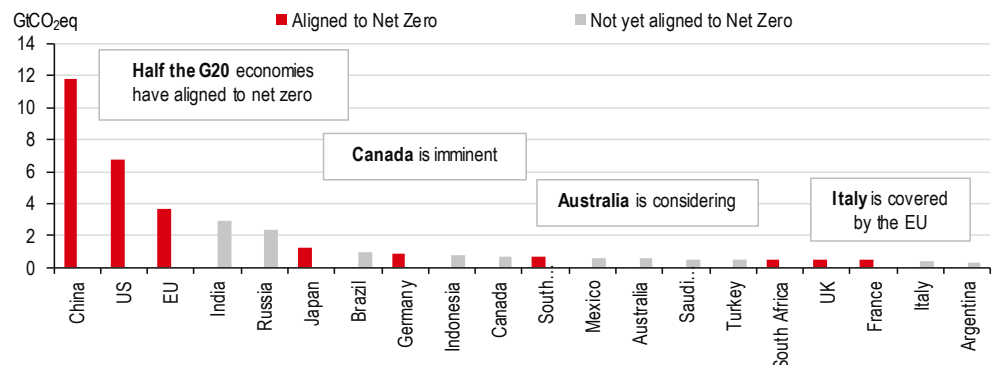
Andorra	Ireland	EU	The Marshall Islands
Austria	Iceland	UK	Chile
Denmark	Norway	Kazakhstan	Costa Rica
Finland	Portugal	China	Panama
France	Slovenia	Japan	South Africa
Germany	Sweden	Korea	US
Hungary	Switzerland	New Zealand	

Source: HSBC (based on various announcements). *These are as of 21 April 2021 and may change at the Leaders Summit on Climate.

...and this pressure is strongest for G20 members

Wish you were here: Italy holds the presidency of the G20 and its G20 agenda is focussed on “People, Planet, and Prosperity.” Italy has stated that it hopes to lead the international community to face the challenges of pandemic recovery and climate change, and has indicated that it would try to persuade all G20 members to have a net zero pledge in place before the Leaders Summit, which will be held in Rome, Italy, on 30-31 October 2021. Currently, half of the G20 economies (chart 5) have aligned to net zero, and, as has been widely supported.

5: Emissions and net zero alignment of the G20*



Source: PRIMAP, ECIU. *These are as of 21 April 2021 and may change at the Leaders Summit on Climate.

China-US cooperation at a climate level is important

The wall: Following a meeting between climate envoys John Kerry (US) and Xie Zhenhua (China) last week, the two economies agreed to cooperate on climate change. We believe this is significant because it highlights the scale of the climate crisis and the ability to put aside geopolitical differences for climate cooperation. Importantly, it also opens the pathway for agreement between developed and developing economies ahead of the important COP26 climate negotiations in November.

What happens next?

The climate alarm bells are ringing...

Delicate sound of thunder: The World Meteorological Organization (WMO) released its 'State of the Global Climate 2020' on 19 April. The WMO warned that:

- ◆ Concentrations of GHGs continued to increase despite pandemic-related restrictions
- ◆ 2020 was one of the three warmest years on record despite La Niña conditions
- ◆ Extreme weather events led to tens of billions of dollars in economic losses

A saucerful of secrets: In early March, the UN released its US synthesis report, which looked at the enhanced pledges received up to the end of 2020. It found that, in aggregate, the 75 updates only reduced global 2030 emissions by 2.8%. In 2021, around 10 more parties have submitted updated NDC pledges to the UN, mostly smaller emitters. We expect many more submissions in the coming months (from the ongoing Leaders Summit on Climate through to the run-up to COP26), and we note that these are supposed to be *more ambitious* than previous editions. The UN will publish another synthesis report ahead of COP26 – we think that most parties would likely want to be included in the aggregation.

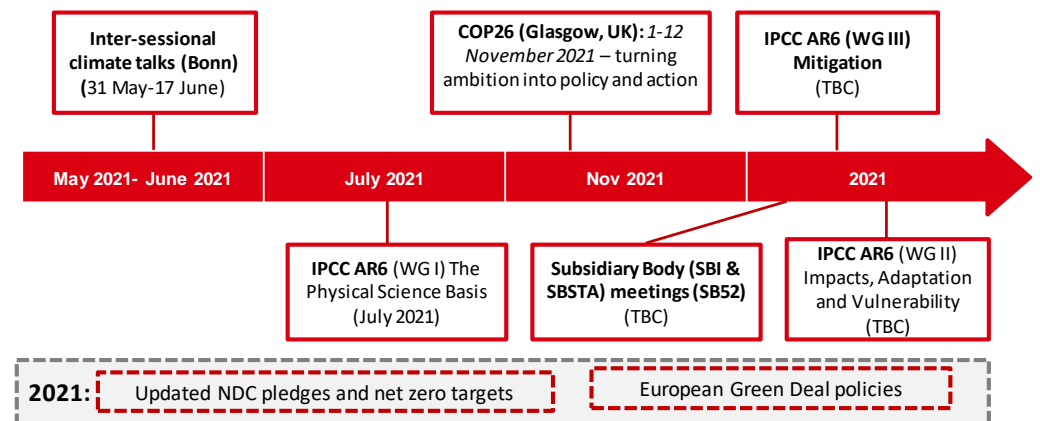
...as aggregate climate pledges still put the world beyond (even) 2°C

More: In December 2020, the UN Environment Programme estimated that, even if the US followed through with its net zero pledge, global temperatures are projected to rise around 2.5°C by century end. It found that the world is “absolutely not” on track for bridging the emissions gap with current policies or climate pledges. We anticipate more economies (besides G20 members) will align to net zero this year.

There is still much work to be done before COP26

A momentary lapse of reason: The global climate process is regrouping following a pandemic-induced pause. There are important inter-sessional climate negotiations which will take place from 31 May to 17 June, laying more of the groundwork before the crucial COP26 in November. This US pledge should be a catalyst for other parties to commit to more ambitious climate pledges and actionable policies, in our view – on the pathway to net zero by mid-century.

6: Climate milestones in 2021



Source: HSBC

Conclusion

The signals are becoming clearer...

We believe the US has demonstrated that it is serious about decarbonising its economy. Although not as ambitious as some would have hoped, we think it is a step in the right direction as it brings credibility to US climate diplomacy (and leadership) abroad. While the EU may be ahead in its pledge and related legislation, it is the US that has set the challenge for other emitters to raise their pledges.

...but investors should exercise caution, in our view

We think that many more businesses are likely to respond by aligning their operations to a net zero pathway. However, corporate net zero pledges should be scrutinised for climate integrity by looking at the details, as the spectrum of net zero is wide. “Good” net zero is very different from “bad” net zero. No one said getting to the moon was easy.

The global climate calendar: upcoming events

2021	Location	Event
06-07 May	Germany	12th Petersberg Climate Dialogue
17-19 May	Berlin, Germany	UNESCO World Conference on Education for Sustainable Development
25-27 May	Tours, France	Climate Change and Water 2021: Extreme Events
31-May-04 June	Europe	EU Green Week 2021
02-06 June	Lisbon, Portugal	UN Ocean Conference
11-13 June	United Kingdom	47 th G7 2021
20-21 September	Paris, France	Euro-Global Climate Change Conference (EGCCC 2021)
04-08 October	New Delhi, India	Adaptation Futures Conference
11-24 October	Kunming, Yunnan, China	UN Biodiversity Conference
18-19 October	Rome, Italy	10th World Conference on Climate Change
30-31 October	Rome, Italy	G20 Italia 2021
01-12 November	Glasgow, Scotland, UK	26 th Conference of Parties (COP 26)
06-07 November	Glasgow, UK	2021 Global Conference on Health and Climate Change
TBD	Beijing, China	UN Global Sustainable Transport Conference
TBD	TBD	United Nations Convention to Combat Desertification (UNCCD) COP 15

Source: HSBC

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