

China and US increase climate ambition: Improvements needed in 2015

Climate Action Tracker

Policy Brief

12 November 2014

The Climate Action Tracker has undertaken an initial assessment of the recent announcements by the United States and China's new pledges and proposals on emissions reductions for 2025 and 2030, in the context of the present international negotiations for a new climate agreement to be adopted at the end of 2015.

The announcement of increased ambition by the biggest emitters China and the United States one year ahead of the Paris Climate Summit in 2015 is a very important political development. It begins to close the gap between their previous pledges and the emissions limits needed to hold global warming below 2°C.

It is clear however that both could significantly improve over these new pledges. Adopting world best practice would enable substantial improvements, as outlined in the [Climate Action Tracker's update last month](#), where we looked at the potential for both countries.

"These pledges give scope for further improvement during 2015. But for both countries, the increasing challenge now is to match the pledges with policy action," said Bill Hare of Climate Analytics.

"Both move closer to a pathway that is compatible with 2°C but would need to increase ambition" says Niklas Höhne, NewClimate Institute.

"This is a very positive development but needs on-the-ground implementation from both countries to ensure they contribute sufficiently to safeguarding our climate," Kornelis Blok, Director of Science at Ecofys, concludes.

United States

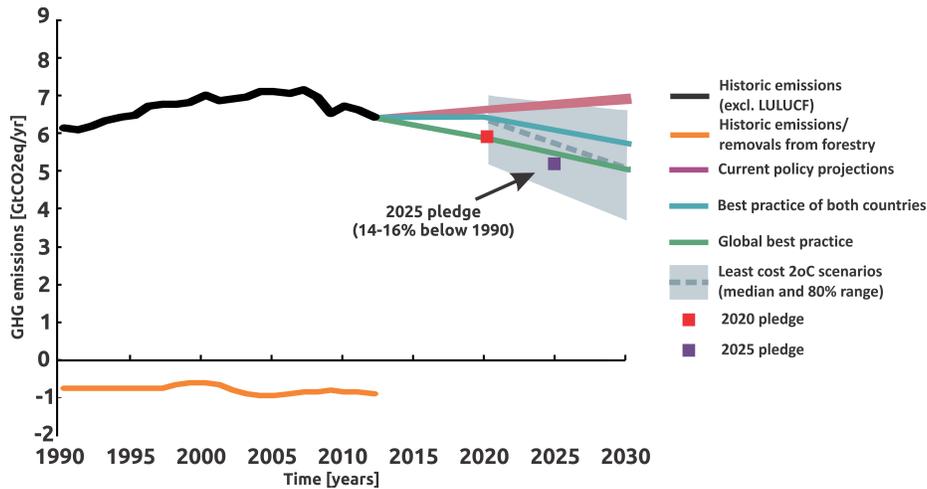


Fig. 1: US pledge pathway including the 2020 pledge of 17% below 2005 levels (or 4% below 1990), the newly announced 2025 pledge of 26–28% reduction below 2005 (or 14–16% below 1990) and 2050 pledge of 83% below 2005 levels (or 80% below 1990). Also depicted are US greenhouse gas emissions excl. LULUCF under “current implemented policy”, the explorative scenarios “best of both China and USA practice”, “best practice globally” and “2°C compatible global least cost”. The least cost scenarios do not necessarily reflect fair shares of reductions.

US emissions have declined since 2007. However, recent assessments on current US action indicate that without further action emissions could stabilise and even increase in the period between 2020 and 2030.

The US is not currently on track to meet its 2020 pledge. This new pledge would reduce emissions by approximately 14–16% below 1990 levels by 2025, and accelerate the rate of emission reductions beyond those embedded in the earlier pledge for 2020. But without further new policies for domestic action, the gap between projected emissions and pledge would grow.

If the US were to implement policies that effectively achieve the 2025 pledge, this would begin to place it close to, but on the high side of, a pathway consistent with limiting warming below 2°C (with a likely probability)¹.

It is also apparent that the US pledge does not yet account for the well-established need for developed countries to contribute to mitigation in less well-off, developing countries. Finance and enabling of clean technology deployment will thus be an important part of the contribution of the US and also the overall agreement to be adopted in Paris.

¹ Due to the factors explained here, the 2025 pledge of the US would likely be on the high-emissions side of the 2°C range, rather than the low side as suggested by Figure 1. The range of 2°C-consistent emissions shown in Figure 1 is derived from scenarios from the LIMITS project (<http://www.feem-project.net/limits/>), also assessed by Working Group III in its contribution to IPCC's Fifth Assessment Report. This range includes scenarios that do not reflect the effects of the recession and replacement of coal by (shale) gas, causing historic emissions in the period 2005–2014 to generally be lower than the scenarios. Lower emissions historically imply lower costs to achieve reductions in subsequent decades, and a 2°C-consistent range calculated taking into account these factors would therefore shift downward.

China

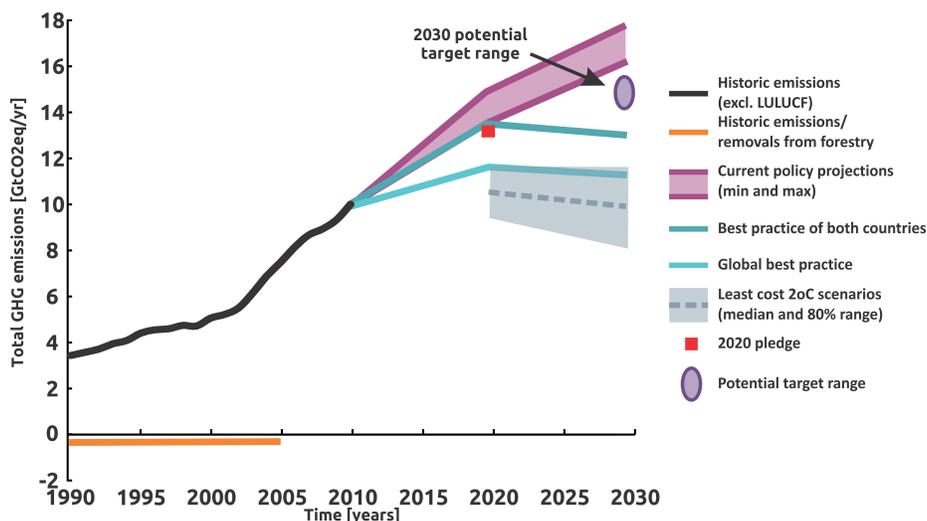


Fig. 2: China's newly announced potential target range (violet range). Upper end of the range defined by 20% non-fossil energy supply target by 2030. Additional energy efficiency measures could reduce emissions significantly. Also depicted are China greenhouse gas emissions excl. LULUCF under "current implemented policy", the explorative scenarios "best of both China and USA practice", "best practice globally" and "2°C compatible global least cost". The least cost scenarios do not necessarily reflect fair shares of reductions.

China's proposal for their national CO₂ emissions to effectively peak before 2030, or no later than 2030, is also very welcome step at this stage over a year ahead of the Paris Climate Summit. This would reduce emissions below current policies during the 2020s.

What is not clear, but is critical, is the peak level of China's emissions. In the assessment here Chinese peak emissions would lie far above a 2°C consistent emission pathway. We see however significant potential for improvement.

China's proposal to target 20% of energy to come from non-fossil sources by 2030 is close to being achieved with current policies, which are projected to result in approximately between 16% and 17% of energy coming from non-fossil sources (using the 2013 IEA World Energy Outlook). China has a target of 15% of non-fossil energy by 2020 and the proposed 2030 goal could represent a slow down in the increase in the non-fossil energy component fraction of energy supply post 2020.

The Climate Action Tracker is an independent science-based assessment that tracks the emission commitments and actions of countries. It is a joint project of the following organisations:

Climate Analytics

Climate Analytics is a non-profit organization based in Potsdam, Germany. It has been established to synthesize climate science and policy research that is relevant for international climate policy negotiations. It aims to provide scientific, policy and analytical support for Small Island States (SIDS) and the least developed country group (LDCs) negotiators, as well as non-governmental organisations and other stakeholders in the 'post-2012' negotiations. Furthermore, it assists in building in-house capacity within SIDS and LDCs. Contact: Dr. h.c. Bill Hare, +49 160 908 62463

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Ecofys – Experts in Energy

Established in 1984 with the mission of achieving “sustainable energy for everyone”, Ecofys has become the leading expert in renewable energy, energy & carbon efficiency, energy systems & markets as well as energy & climate policy. The unique synergy between those areas of expertise is the key to its success. Ecofys creates smart, effective, practical and sustainable solutions for and with public and corporate clients all over the world. With offices in Belgium, the Netherlands, Germany, the United Kingdom, China and the US, Ecofys employs over 250 experts dedicated to solving energy and climate challenges. Contact: Prof Kornelis Blok, +31 6 558 667 36

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Potsdam Institute for Climate Impact Research (PIK)

The PIK conducts research into global climate change and issues of sustainable development. Set up in 1992, the Institute is regarded as a pioneer in interdisciplinary research and as one of the world's leading establishments in this field. Scientists, economists and social scientists work together, investigating how the earth is changing as a system, studying the ecological, economic and social consequences of climate change, and assessing which strategies are appropriate for sustainable development. Contact: Dr. Louise Jeffery, louise.jeffery@pik-potsdam.de

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NewClimate Institute

NewClimate Institute is a non-profit institute established in 2014. NewClimate Institute supports research and implementation of action against climate change around the globe, covering the topics international climate negotiations, tracking climate action, climate and development, climate finance and carbon market mechanisms. NewClimate Institute aims at connecting up-to-date research with the real world decision making processes. Contact: Dr. Niklas Höhne, +49 173 715 2279

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