



Conditions for Using International Carbon Credits towards the EU's 2040 Climate Target

// Lambert Schneider, Felix Fallasch, Anne Siemons, Sophia Lauer, Isabel Haase

On 2 July 2025, the European Commission is expected to make a proposal for an EU climate target for 2040. The proposal could involve the use of international carbon credits under Article 6 of the Paris Agreement. Based on our extensive research, including the [ACHIEVE](#) project, the [Oxford Principles for Responsible Engagement with Article 6](#) and our [Carbon Credit Quality Initiative](#), this policy brief outlines the conditions that should be met if any international carbon credits were to be used towards the EU's 2040 climate target. These proposed conditions aim to ensure that any use of international carbon credits enhances, rather than undermines, EU climate action and that the EU continues to adhere to the principles of the Paris Agreement.

Key recommendations

- Using international carbon credits only to enhance ambition beyond what is achievable domestically, i.e. beyond reducing emissions by 90-95% by 2040 compared to 1990.
- Establishing strategic partnerships with partner countries to promote integrity and ambition, including with regard to the ambition of Nationally Determined Contributions (NDCs), Article 6 engagement strategies, sectors and types of mitigation activity, authorisation arrangements and reporting.
- Implementing a fair sharing of emission reductions or removals between the partner country, the Adaptation Fund, global mitigation and the EU.
- Generating carbon credits through the Paris Agreement Crediting Mechanism (PACM) or standards with at least equivalent integrity.
- Implementing multi-year accounting approaches in the EU and in its partner countries.
- Implementing a 'like-for-like' approach for carbon credits subject to reversal risks.
- Not counting payments for international carbon credits as climate finance.
- Conducting a thorough impact assessment before using any international carbon credits, taking into account climate integrity, lock-in risks, and competitiveness.

Condition 1: Using international carbon credits only to raise the ambition of the EU's NDC

The Paris Agreement establishes three parameters for using Article 6 to achieve nationally determined contributions (NDCs). Firstly, an NDC should reflect the country's highest possible ambition. Secondly, each country's successive NDC must represent a progression beyond its current NDC. And thirdly, Article 6 should only be used to enhance the ambition of NDCs. In other words: Article 6 should be used to close the 'ambition gap' (i.e. the difference between the ambition of NDCs and the ambition level needed to meet the temperature goal of the Paris Agreement), rather than the 'implementation gap' (i.e. the difference between the ambition of the NDCs and their actual implementation).¹

In the latest NDC, the EU committed to a target of reducing domestic emissions by at least 55% by 2030 compared to 1990 levels, without using international carbon credits. Both the EU's NDC and its long-term low greenhouse gas emission development strategy (LT-LEDS) also refer to the EU's commitment enshrined in the European Climate Law to achieve climate neutrality domestically by 2050 at the latest.

This means that the EU cannot use international carbon credits through Article 6 to meet its current 2030 target or to achieve climate neutrality by 2050. To use international carbon credits to meet the 2030 or 2050 target, the EU would need to enhance the ambition of these targets (e.g. by committing to net negative emissions by 2050). Moreover, to be faithful to the principles of the Paris Agreement, any use of international carbon credits between 2030 and 2050 should go beyond a pathway of the highest possible domestic ambition. The European Scientific Advisory Board on Climate Change has concluded that "achieving a 2040 emission reduction of 90–95% domestically remains both feasible and would keep the EU on a credible path to climate neutrality by 2050".² For these reasons, if international carbon credits were to be used, they should serve to move beyond a 90-95% level, rather than to deter domestic emission reductions. This would also send an important signal that the EU is retaining its leadership in climate action.

Recommendation 1: If international carbon credits were to be used towards the EU's 2040 climate target, the EU should, in line with the principles of the Paris Agreement, use them only to enhance ambition beyond what is achievable domestically – an emission reduction of 90-95% by 2040 compared to 1990 levels. The EU should further define how any use of Article 6 may increase over time towards 2040 (e.g. starting in its third NDC period from 2036 to 2040) and decline thereafter in the light of the domestic target of climate neutrality by 2050, or possibly continue thereafter in the case of a net negative target for 2050.

Condition 2: Working with partner countries to enhance ambition

Cooperation under Article 6 should lead to enhanced mitigation ambition in all countries participating in any such cooperation. Most importantly, this requires that both the EU and its partner countries have ambitious NDC targets expressed in absolute levels of emissions, are on track to achieve them, and have committed to achieving

¹ See Laine et al. (2023).

² European Scientific Advisory Board on Climate Change (2025).

net zero emissions by mid-century or earlier through their long-term low emission development strategy (LT-LEDS).

Seller countries have specific responsibilities to ensure that their participation in Article 6 does not undermine integrity or ambition. To avoid a shortfall in their emission balance, it is important that Article 6 activities fall within the scope of their NDCs, and that their national greenhouse gas inventories are granular enough to capture the impact of mitigation activities. Seller countries should also develop strategies for engaging in Article 6 coherent with their NDC and LT-LEDS and have robust governance arrangements in place for authorising carbon credits and meeting the reporting obligations under the Paris Agreement. This includes applying corresponding adjustments in biennial transparency reports.

The EU should support its partner countries in meeting these requirements and avoid participation in any Article 6 transactions that would jeopardise their ability to implement and enhance the ambition of their NDCs. The EU and its partner countries should jointly identify sectors and types of mitigation activity for which cooperation under Article 6 has a high potential to enhance ambition, while preserving their competitiveness. For example, subsidising mitigation in the EU through carbon credits in sectors exposed to international competition could negatively impact the functioning of the Carbon Border Adjustment Mechanism (CBAM). In order to safeguard ambition, the EU and its partner countries should also select mitigation activities and agree on baseline levels that are aligned with Paris-compatible carbon budgets (e.g. by focusing on ‘high-hanging fruit’ mitigation actions and adjusting baselines downwards towards zero emissions in 2050).

Recommendation 2: The EU should establish strategic partnerships with partner countries based on principles that promote integrity and ambition. These should address the ambition and coverage of NDCs and LT-LEDS, national greenhouse gas inventories, Article 6 engagement strategies, the selection of sectors and mitigation activity types, governance arrangements for authorisation, and meeting relevant reporting requirements under the Paris Agreement.³

Condition 3: Fair sharing of emission reductions or removals

The Kyoto Protocol’s carbon crediting mechanisms, the Clean Development Mechanism (CDM) and Joint Implementation (JI), were designed as offsetting mechanisms: reducing one tonne of emissions in one country allowed another country to increase its emissions by the same amount. However, Article 6 of the Paris Agreement moves beyond this approach. Emission reductions or removals achieved through a cooperative approach should be shared among four recipients:

- **Seller country:** The Article 6 rules establish that carbon market cooperation should help not only buyer countries but also seller countries to enhance their NDCs. To implement this, seller countries should retain a share of the emission reductions or removals, enabling them to use this share to enhance the ambition of their own NDCs. This also reduces perverse incentives for seller countries to set less ambitious NDCs in order not to forgo carbon credit opportunities. Such

³ For further specific criteria, see Johnstone et al. (2025).

sharing can be achieved in various ways, such as downward adjustments to baselines, shorter crediting periods, or cancelling a portion of carbon credits. We recommend that a significant portion of the emission reductions and removals be shared with partner countries (e.g. 30%).

- **Adaptation Fund:** Secondly, a share of carbon credits should be provided to the Adaptation Fund, which can raise funds by selling these credits. Under the Article 6.4 Paris Agreement Crediting Mechanism (PACM), 5% of credits are transferred to the Adaptation Fund. We recommend that the EU goes beyond this minimum level and provides a larger share to the Adaptation Fund (e.g. 10%).
- **Global mitigation:** Thirdly, some of the carbon credits should be cancelled in order to deliver an 'overall mitigation in global emissions' (OMGE). These emission reductions or removals are not used by either the buyer or the seller towards their NDCs; rather, they accrue as a global net benefit to the atmosphere. Under the PACM, a minimum share of 2% is required. We recommend that the EU goes beyond this minimum level to effectively contribute to a net reduction in global emissions (e.g. 10%).
- **Buyer country:** Only the remainder of carbon credits should be used by carbon credit buyers.

Recommendation 3: The EU should implement a fair sharing of emission reductions and removals between the partner country, the Adaptation Fund, global mitigation and the EU. We recommend setting minimum values for such shares (e.g. 30% for partner countries, 10% for the Adaptation Fund and 10% for the global mitigation), possibly with variations between countries (e.g. higher shares for least developed countries) and types of mitigation activities.

Condition 4: Using the PACM or equivalent Paris-aligned standards for generating carbon credits

Ensuring the quality of carbon credits has posed a major challenge under the Kyoto Protocol's CDM and JI and in the voluntary carbon market. It is very likely that a large share of the carbon credits issued to date do not represent actual emission reductions or removals.⁴ This could also hold for units that will be generated under the EU's Carbon Removal Certification Framework (CRCF).⁵

The PACM introduces new principles and requirements for generating carbon credits, which go beyond requirements under the Kyoto Protocol's mechanisms and the approaches currently used in the voluntary carbon market. Examples include applying downward adjustments to baselines, considering international leakage, avoiding lock-in, and conducting mandatory assessments of environmental and social risks as well as sustainable development benefits. These are complemented by more detailed requirements relating to additionality, the conservative quantification of emission reductions and removals, avoiding various forms of double counting and addressing non-permanence. In our assessment, the PACM is currently the best available benchmark for the integrity of carbon credits, though its further evolution should be observed. It

⁴ See, for example, Probst et al. (2024); Cames et al. (2016); Kollmuss et al. (2015).

⁵ See Oeko-Institut's blog post [Revised methodologies under the EU Carbon Certification Removal Framework continue to lack integrity](#).

is important to note, however, that CDM projects transitioning to the PACM are not subject to the same rules.

Recommendation 4: If Article 6 were to be used towards the EU's 2040 climate target, the EU should purchase carbon credits generated through the PACM or according to standards of at least equivalent integrity. The PACM should be used as benchmark for approving any other carbon crediting programmes and quantification methodologies for generating carbon credits used towards the EU's NDC. CDM projects that have transitioned to the PACM should not be eligible for use in the EU.

Condition 5: Using robust multi-year accounting approaches

Most countries have only pledged a target for a single year, such as 2030, in their current NDCs. This raises complex accounting issues, given that multi-year periods are commonly used in carbon crediting. Article 6 offers countries with single-year targets two options to account for the international transfer of carbon credits: (1) averaging, whereby the average number of carbon credits used or sold over an NDC period is accounted for in the target year, and (2) multi-year trajectories or budgets, whereby the use or sale of carbon credits is balanced against the trajectory or budget. In practice, averaging can lead to double counting and an increase in global emissions even when carbon credits represent additional emission reductions or removals.⁶ Since 2013, the EU has domestic trajectories with annual targets for almost all emissions through the emission trading system, the Effort Sharing Regulation and the LULUCF Regulation.

Recommendation 5: The EU should not purchase carbon credits from countries that use the averaging approach. Rather, the EU and eligible partner countries should use multi-year accounting approaches, either by pledging a multi-year NDC target or by establishing a multi-year trajectory or budget. These targets, trajectories or budgets should be met cumulatively over the NDC period.⁷

Condition 6: Implementing a 'like-for-like' approach for carbon credits subject to reversal risks

Some types of mitigation activities, such as forestry projects, are subject to non-permanence or reversals risks. This refers to the possibility that the carbon stored in reservoirs, such as trees and soils, will be released back into the atmosphere. This could, for example, occur due to natural disturbances like fires or human activities like harvesting.⁸

Carbon crediting programmes use a variety of approaches to manage reversal risk, such as requiring reversal risk assessments and compensation for reversals. However, these approaches have strong limitations, including with regard to the time scale

⁶ Siemons and Schneider (2022).

⁷ This means that the cumulative emissions over an NDC period (e.g. 2036 to 2040) after application of corresponding adjustments should be equal to or lower than the multi-year target, trajectory of budget for that period.

⁸ FAO (2024).

they consider (from 5 to 100 years). They do not ensure equivalence in the duration of emission reductions or removals compared to carbon credits without reversal risks. Therefore, carbon credits subject to reversal risks should not be used to offset permanent emissions. This would pose considerable integrity risks, particularly as some ecosystems are shifting from a sink to a source of emissions. It would also raise equity issues, as the partner countries would ultimately bear responsibility for any future reversals.

Recommendation 6: The EU should implement a ‘like-for-like’ approach for any use of carbon credits subject to reversal risks. This means that long-lived emissions, such as CO₂ emissions from fossil fuel combustion, should only be offset by carbon credits with no or negligible reversal risks. Carbon credits subject to reversal risks could be used to compensate for CO₂ emissions or a decline in removals in the land-use sector. In order to incentivise continued storage, robust requirements for managing reversal risks should still apply to these carbon credits.

Condition 7: Not counting payments for carbon credits as climate finance

At COP29, the Parties adopted a New Collective Quantified Goal (NCQG) for climate finance. This goal calls on all actors to work together to enable the scaling-up of financing to developing country Parties for climate action from all public and private sources to at least USD 1.3 trillion per year by 2035. Within the scope of this wider target, developed country Parties committed to taking the lead in mobilising USD 300 billion per year by 2035 for climate action of developing country Parties. As carbon credit transactions will take place in the context of bilateral and multilateral cooperation, the question arises as to whether payments for carbon credits should qualify as flows that can be counted towards the two numerical goals of the NCQG.

Recommendation 7: The EU should not count payments for international carbon credits used to achieve its NDC, nor funding mobilised through such payments, towards either of the two numerical goals under the NCQG.⁹ Such payments are made for a transaction, as the EU in return receives the carbon credits. Therefore, they do not qualify as climate finance, the objective of which is to support the climate action of developing countries. Further, the EU should not subsidise the generation of carbon credits with public funds, including Official Development Assistance. This means that payments for international carbon credits should either not be blended with (other) public funding that supports the credited activities, or carbon credits should only be issued in proportion to the share of funding provided through carbon credit revenues.¹⁰

⁹ Possible exceptions may need to be further explored, including funding for a share of proceeds of carbon credits for the Adaptation Fund or funding for sharing emission reductions or removals with the partner country.

¹⁰ See, for example, Schneider and Haase (2023) and Fuessler et al. (2019).

Next steps

We recommend that the EU takes several further steps to assess whether and how international carbon credits could be used towards the EU's 2040 target, including by:

- Conducting a thorough **impact assessment** of possible ways of using international carbon credits, including impacts on global emissions, risks of locking in higher emission levels and technologies, costs and competitiveness, and energy security.
- Initiating a process to **establish criteria and frameworks** for (i) strategic partnerships with seller countries, (ii) eligible sectors and types of mitigation activities, (iii) eligible carbon crediting programmes and (iv) eligible methodologies for quantifying emission reductions and removals. These dimensions are commonly considered under other initiatives that aim to promote integrity.¹¹ Setting ambitious criteria and frameworks early on could provide incentives for potential partner countries and other carbon market actors to implement high-ambition approaches, beyond the EU.
- Assessing potential **mechanisms through which international carbon credits could be purchased**, drawing on the lessons learned from the past. We recommend exploring the purchase of carbon credits through a governmental facility through long-term contracts with partner countries, rather than allowing operators under the EU's emissions trading systems (ETS 1 and ETS 2) to directly purchase and use carbon credits. If carbon credits were to be used for increasing supply in the ETS 1 or ETS 2, the governmental facility could auction the acquired carbon credits, or an equivalent number of allowances, to ETS market participants. This would reduce price volatility, provide certainty for partner countries, reduce wind-fall profits observed in the past where project developers could sell credits at EU allowance prices, and may reduce the risks of a race to the bottom in terms of the lowest prices – and potentially the lowest quality – of carbon credits.

References

- Cames, M.; Harthan, R.; Füssler, J.; Lazarus, M.; Lee, C.; Erickson, P.; Spalding-Fecher, R. (2016): How additional is the Clean Development Mechanism?, Analysis of the application of current tools and proposed alternatives. Oeko-Institut. Berlin. Online available at https://climate.ec.europa.eu/system/files/2017-04/clean_dev_mechanism_en.pdf, last accessed on 29 Jun 2025.
- European Scientific Advisory Board on Climate Change (2025): Scientific advice for amending the European Climate Law, Setting climate goals to strengthen EU strategic priorities. European Scientific Advisory Board on Climate Change (ed.). Online available at <https://climate-advisory-board.europa.eu/news/staying-the-course-on-climate-action-essential-to-eu-security-and-competitiveness>, last accessed on 4 Jun 2025.
- FAO (2024): Options for addressing the risk of non-permanence for land-based mitigation in carbon crediting programmes. Food and Agriculture Organisation of the United Nations. Online available at <https://doi.org/10.4060/cd3083en>, last accessed on 29 Jun 2025.
- Fuessler, J.; Kansy, T.; Spalding-Fecher, R. (2019): Blending climate finance and carbon market mechanisms: Options for the attribution of mitigation outcomes (Discussion Paper). CPF/TCAF. Online available at https://www.infras.ch/media/filer_public/f5/52/f55237be-98d7-4b34-8d03-7cda1d696bcf/blending_climate_finance_and_carbon_market_mechanisms_final_march2019.pdf, last accessed on 12 May 2021.
- Johnstone, I.; Schneider, L.; Michaelowa, A.; Grandpré, J. de; Kuci, S.; Ahonen, H.-M.; Probst, B.; Lezak, S.; Hale, T.; La Hoz Theuer, S.; Omukuti, J.; Reséndiz, J. L.; Fankhauser, S. et al. (2025): Oxford

¹¹ See, for example, the [Integrity Council for the Voluntary Carbon Market \(ICVCM\)](#) and the [Carbon Credit Quality Initiative \(CCQI\)](#).

Principles for Oxford Principles for Responsible Engagement with Article 6. Smith School of Enterprise and the Environment, University of Oxford. Oxford. Online available at https://www.smith-school.ox.ac.uk/sites/default/files/2025-06/The_Oxford_Principles_for_Responsible_Engagement_with_Article_6.pdf, last accessed on 29 Jun 2025.

Kollmuss, A.; Schneider, L.; Zhezherin, V. (2015): Has Joint Implementation reduced GHG emissions? Lessons learned for the design of carbon market mechanisms (Working Paper). Stockholm Environment Institute. Stockholm. Online available at <https://www.sei.org/publications/has-joint-implementation-reduced-ghg-emissions-lessons-learned-for-the-design-of-carbon-market-mechanisms/>.

Laine, A.; Ahonen, H.-M.; Pakkala, A.; Laininen, J.; Kulovesi, K.; Mäntylä, I. (2023): Guide to good practices for supporting voluntary carbon markets. Supporting voluntary mitigation action with carbon credits. Finnish Government (ed.). Online available at <http://urn.fi/URN:ISBN:978-952-383-511-5>, last accessed on 3 May 2024.

Probst, B. S.; Toetzke, M.; Kontoleon, A.; Anadón, L. A.; Minx, J. C.; Haya, B. K.; Schneider, L.; Trotter, P. A.; West, T. A. P.; Gill-Wiehl, A.; Hoffmann, V. A. (2024): Systematic assessment of the achieved emission reductions of carbon crediting projects. In: *Nature communications*.

Schneider, L. and Haase, I. (2023): Carbon crediting and official development assistance (ODA) – A summary of key issues (Working Paper, 5/2023). Oeko-Institut. Berlin. Online available at <https://www.oeko.de/fileadmin/oekodoc/WP-Carbon-crediting-and-ODA.pdf>.

Simons, A. and Schneider, L. (2022): Averaging or multi-year accounting? Environmental integrity implications for using international carbon markets in the context of single-year targets. In: *Climate Policy* 22 (2). DOI: 10.1080/14693062.2021.2013154.

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[oeko.de](https://www.oeko.de) | info@oeko.de

Contact

Lambert Schneider | Oeko-Institut | l.schneider@oeko.de

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