Recommendations for EU Climate Law amendment

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Key recommendations

Adopt separate targets for greater transparency and integrity	The EU should adopt distinct, science-based targets for GHG emission reductions, permanent carbon removals, and temporary removals, respectively. This would better reflect the different roles that each can play to counterbalance fossil CO_2 emissions.
Set safeguards to compensate for legislative uncertainties	The EU should clarify as soon as possible whether the listed flexibility will be adopted and specify what safeguards will be introduced both to preserve a high level of climate ambition and to guarantee transparency and integrity.
Preserve the EU ETS integrity by limiting scope expansion	Any potential inclusion of CDR credits into the EU ETS should be restricted to DACCS and BioCCS, together with robust MRV, proven permanence, and alignment with the EU ETS architecture to avoid mitigation deterrence and market destabilisation.
Restrict the use of international carbon credits	Should the use of international carbon credits be allowed to count towards the EU 2040 climate target, clear guardrails should be set so that only permanent removals of the highest quality are eligible, in very limited volumes, and in line with EU standards.
Leverage EU competitiveness in industrial carbon management	A strong EU 2040 climate target and industrial competitiveness can mutually reinforce each other. By leveraging its leadership in industrial carbon management, the EU can advance climate goals, support employment, and stimulate innovation.

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Introduction

Establishing a 2040 target is an essential milestone to keep the European Union (EU) on track for climate neutrality by 2050 and net-negative emissions thereafter, while also supporting European industrial competitiveness in a net zero economy. By setting an ambitious target, the EU can reaffirm its leadership in climate action.

The proposal acknowledges the key role of industrial carbon management (ICM) in achieving the 2040 target and in strengthening industrial resilience. It highlights the need to deploy and scale-up clean technologies and low-carbon solutions such as carbon capture and storage (CCS), carbon capture and utilisation (CCU), and carbon dioxide removal (CDR). Specifically, it acknowledges the credible and transformative nature of permanent carbon removal technologies such as direct air carbon capture and storage (DACCS) and biogenic emissions with carbon capture and storage (BioCCS).

Zero Emissions Platform (ZEP) welcomes the opportunity to respond to the public consultation on the revision of the EU Climate Law. Drawing on insights from a board range of technical experts in the ICM community, our recommendations aim to support an ambitious target and a robust implementation framework.

1. Grounding the 2040 target in science: the case for separate targets

The proposed amendment sets a target of 90% net reduction in greenhouse gas (GHG) emissions by 2040, compared to 1990 levels. This is consistent with the lower end of the European Scientific Advisory Board on Climate Change (ESABCC)'s recommendations,[1] Option 3 of the Commission's own Impact Assessment,[2] and ZEP's 2023 response to the Commission's previous public consultation on this topic.[3]

ZEP supports a 90% net reduction in GHG emissions by 2040. However, this proposal does not provide enough clarity on the respective share that emission reductions and carbon removals will play in achieving this target.

ZEP strongly recommends adopting three distinct targets for (1) greenhouse gas emission reductions, (2) permanent carbon removals, and (3) temporary carbon removals, respectively. This disaggregation, strongly supported by the ESABCC and the broader scientific community, would better reflect the different roles that temporary and permanent removals can play to counterbalance fossil CO_2 emissions in line with the like-for-like principle.[4]

[1] ESABCC (2023), 'Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030–2050'.
[2] ESABCC (2023), 'Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030–2050'.
[3] ZEP (2023), 'Response to the public consultation to the EU climate target'.
[4] European Commission (2024), 'Impact assessment report'.

2. Addressing legislative uncertainty

A 90% net emission reduction target would provide certainty about the pace of the EU's transition to climate neutrality. However, many crucial details remain open to negotiations in a forthcoming post-2030 policy package, which is expected to address the eighteen elements outlined in Article 4. Among these, three have been described by the Commission as "flexibilities",[5] namely:

i) a possible and limited contribution of international carbon credits, as foreseen under Article 6 of the Paris Agreement;
ii) the potential inclusion and role of domestic permanent removals within the EU Emission Trading Scheme (ETS) to compensate for residual emissions from energy-intensive industrial sectors;
iii) enhanced flexibility across sectors.

While the European Commission plans on addressing all these elements in upcoming legislative proposals, these points merit further examination. It is crucial to clarify as soon as possible whether these elements will be adopted, and, if not, to confirm that the 90% reduction target will nonetheless be met.

To ensure that the level of ambition is fully preserved, it is also essential that the "flexibilities" left to future legislation are accompanied by clear safeguards that prevent any reduction in climate ambition and guarantee both integrity and transparency. These safeguards should include clear accounting rules, limits on offsets, and transparent monitoring of progress.

3. Carbon Removals in the EU ETS: Permanence as a core criterion

Scaling CDR activities in Europe is necessary to achieve climate neutrality by 2050 and net negative emissions thereafter. The impact assessment accompanying the 2040 target Communication also recognises the need for carbon removals to balance out around 400 million tonnes of $CO_{2\text{-eq}}$ hard-to-abate emissions.[6]

In parallel, the EU ETS continues to encourage industrial installations to decarbonise their manufacturing processes. Pressure on companies to reach net zero increases as the number of EU allowances in circulation decreases. The inclusion of carbon removal credits into the EU ETS has therefore been suggested to alleviate some of this pressure, while also providing a new source of financing for CDR activities. However, the inclusion of new credits requires careful consideration, for it must not compromise the environmental integrity nor the price stability of the EU ETS. As one of the EU's most effective instruments for driving emission reductions, any expansion of the market scope must be carefully managed to preserve its effectiveness and credibility.

Both the quantity and the quality of such carbon removal credits are key. Yet, much of the architecture surrounding CDR under the EU Carbon Removal and Carbon Farming Regulation (CRCF) is still being negotiated, with methodologies for permanent carbon removals due to be adopted by the end of 2025 and first certification expected to be issued in 2026/2027. Ensuring that methodologies for certifying CDR are

[5] European Commission (2025), 'Questions and Answers on the 2040 EU climate target proposal'.
[6] European Commission (2024), 'Impact assessment report'.

robust is essential to guarantee that any integration into the EU ETS does not lead to mitigation deterrence and preserves the core function of the EU ETS as a tool for driving genuine, net emission reductions.

As noted in ZEP's response to the call for evidence on the revision of the EU ETS, CDR credits should only be integrated into the EU ETS under strict quality standards, proven permanence of storage and a clear alignment with the broader EU ETS structure (e.g. MSR).[7] Temporary removals carry a high risk of reversal, which could destabilise the market and jeopardise long-term decarbonisation goals. ZEP therefore supports limiting CDR credits' eligibility for an inclusion into the EU ETS to DACCS and BioCCS credits – both of which are recognised as permanent CDR and are already partially regulated within the EU ETS framework. Excessive injection of CDR credits into the EU ETS could distort the supply-demand balance and risk a sharp drop in the carbon price. Credits from these technologies should therefore be integrated through a carefully managed system that avoids undermining allowance demand.

ZEP wishes to stress once again that the EU ETS alone cannot deliver the scale of removals required for long-term climate goals, nor should be considered as the main instrument to attain this objective. Broader policies are needed to support the development of the CDR sector. Financial incentives, regulatory certainty, and dedicated frameworks will be critical to support planning and investment, especially as the EU moves toward net negative emissions after 2050. While the integration of some CDR credits (DACCS and BioCCS) into the EU ETS may contribute to the scaling up of these technologies, parallel instruments must exist outside the EU ETS to address residual emissions and deliver broader climate resilience.

4. Integrating international carbon credits

The proposal contemplates a limited role for international carbon credits – capped at 3% of 1990 net emissions, starting from 2036, and not eligible for use within the EU ETS. Their use would therefore be time-bound (up to the end of 2040) and subject to qualitative and quantitative constraints.[8]

This echoes Article 6 of the Paris Agreement, which allows nations to voluntarily trade emission reductions through market mechanisms, such as carbon credits. However, only few signatories of the Paris Agreement currently allow trading of carbon credits (ITMOs), since it requires countries to agree on complex accounting rules to prevent "double counting" of emission reductions. There are also concerns about ensuring the environmental integrity of traded credits, and negotiations struggled over transparency standards, reporting systems, and how to guarantee that these mechanisms lead to higher ambition rather than letting countries avoid cutting emissions at home.

According to the Commission proposal, the use of international carbon credits towards the EU 2040 climate target would be restricted to "high-quality" units. In addition, their origin, quality criteria, and other conditions related to their acquisition and use shall be regulation in Union law. In practice, this means that such international carbon credits would need to comply with strict EU criteria – and likely conform with standards and methodologies that are currently being developed under the CRCF.

The CRCF acknowledges the need to align with the Paris Agreement in the future. Even though it does not recognise the certification of removals taking place outside the EU, it mandates the European Commission

[7] ZEP (2025), 'Recommendations for ETS and MSR'.
[8] It is not clear what kind of credit would be allowed (e.g. Article 6.4 only, or also Article 6.2). The text does not specify either whether international credits are limited to removals, or also emission reductions.

to assess any additional requirements needed to align the Regulation with Article 6 of the Paris Agreement by 31 July 2026 – including corresponding adjustments, host-party authorisation, and methodologies.[9] However, the methodologies and standards that are currently being developed by the Article 6.4 Supervisory Body significantly differ from the CRCF approach to date.

4.1 Recent developments in PACM

Article 6.4 establishes a carbon credit mechanism, referred to as the Paris Agreement Crediting Mechanism (PACM).[10] The PACM is a successor to the Kyoto Protocol's CDM, intended to issue Emission Reductions credits. These credits can represent either emission reductions or carbon removals, as long as the corresponding actions are real, measurable, and additional. Article 6.4 has a centralised Supervisory Body that approves methodologies, oversees issuance, and enforces rules. Credits from this mechanism can be authorised for use toward countries' NDCs or other compliance purposes.

Recent developments include the new standard for activities involving carbon removals, which came into force on 9 October 2024, and a draft standard addressing non-permanence and reversal, which has not yet been adopted. Both elements are analysed below.

4.2 Lack of separation between removal and emission reductions

Under the PACM, requirements and methodologies are being defined to address the varying degrees of permanence of CDR and the risk of reversals. These provisions apply at the project level to both emission-reduction and net-removal activities, spanning interventions as different as afforestation, carbon capture and storage, biochar, enhanced weathering, and ocean alkalinity enhancement.

Treating such heterogeneous activities within a single accounting framework entrenches a net-accounting approach, rather than preserving the clear categorical distinction between reductions and removals that is necessary for target-setting, monitoring, and like-for-like accounting.[11] If the EU were to recognise the use of international credits from the PACM toward its 2040 climate target, this lack of differentiation could compromise accounting integrity, weaken mitigation hierarchies, and dilute the robustness of the target architecture.

4.3 Asymmetries in definitions of removals

Under the CRCF, carbon removal activities must meet the so-called "QU.A.L.ITY" criteria – which require them to be: Quantified (accurately measured net removals), Additional (beyond legal obligations and market incentives), Long-term (stored permanently or with minimal release risk), and Sustainable (no significant harm, with potential co-benefits). Eligible CDR activities then fall under three main categories related to their different degrees of durability:

- Permanent carbon removals: storage for at least several centuries
- Temporary carbon storage in long-lasting products: sequestration for at least 35 years

[9] Regulation (EU) 2024/3012 on establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products.
[10] UNFCCC (2025), 'Article 6.4, Supervisory Body'.
[11] UNFCCC (2025), 'Draft Standards addressing non permanence/ reversal'.

- Temporary carbon sequestration from carbon farming (including soil emission reduction activities): sequestration of at least 5 years

By contrast, the requirements for activities involving removals under Article 6.4 mechanism are very different. Drawing from IPCC AR6, the document defines CDR as "anthropogenic activities that remove CO_2 and durably store it in geological, terrestrial, or ocean reservoirs, or in products, excluding natural uptake not directly caused by human activities".[12]

There are three issues arising with the PACM approach in this context. The first is that the term "durable" is not anchored to a specific time horizon, which complicates comparability with CRCF categories. Secondly, the framework treats temporary and geological removals under the same umbrella, without distinguishing their different climate functions and risk profiles. Thirdly, cross-cutting methodologies are applied uniformly to a heterogeneous set of removal activities with varying climate impacts, whereas tailored, activity-specific requirements are being developed under EU legislation.

There could be potential co-benefits stemming from the use of international CDR credits. For instance, it could enhance bankability in regions with optimal conditions, such as abundant clean energy and sustainable biomass, and ultimately supporting greater climate mitigation efforts. However, the Commission and co-legislators should establish clear guardrails so that only permanent removal credits of the highest quality are eligible toward the 2040 target to avoid dilution of European decarbonisation efforts. To this end, the EU must ensure that international CDR projects delivering removals via DACCS and BioCCS adhere to the rigorous standards laid out in the CCS Directive and the upcoming CRCF.[13]

5. Strategic importance of ICM for the 2040 target

ICM projects can help accelerate industrial transformation and decarbonisation efforts while also supporting employment and stimulating innovation.

In fact, with more than 30 years of experience in industrial carbon management, the EU demonstrates strong leadership in this sector and is still a frontrunner in carbon capture technologies.[14] Between 2018 and 2021, more than 350 CCS/U-related inventions were registered in the EU.[15] Remarkably, 65% of these inventions are classified as high-value, accounting for the highest share worldwide.[16] European companies also rank among the global top 10 in carbon-capture technology and are active across the value chain.[17]

However, the effectiveness of these technologies depends on a robust climate framework. Recent assessments have shown a 23% global decline in energy-transition investment, including in CCS projects, due to affordability and scalability challenges.[18] A strong 2040 target would provide certainty to the market

[12] UNFCCC (2025), 'Requirements for activities involving removals under the Article 6.4 mechanism'.
[13] Directive 2009/31/EC on the geological storage of carbon dioxide.
[14] Joint Research Centre (2025), 'EU competitiveness in net-zero technologies: Insights from patents and economic complexity'.
[15] Joint Research Centre (2024), 'Clean Energy Technology Observatory: Carbon Capture, Utilisation and Storage in the European Union – 2024 Status Report on Technology Development, Trends, Value Chains and Markets'.
[16] *ibid*, page 33. Note: high-value inventions refer to patent families that include patent applications filed in more than one patent office.
[17] Global CCS Institute (2025), 'State of the Art: CCS Technologies 2025'.
[18] Bloomberg (2025), 'Energy, transition investment trends 2025'.

to overcome these hurdles, mobilise investment, and help convert Europe's technological edge into meaningful, sustainable projects.

A strong EU 2040 climate target and industrial competitiveness can therefore mutually reinforce each other. By reaffirming its climate ambition and leveraging its leadership in ICM, the EU can show that decarbonisation efforts can go hand in hand with economic security.

Conclusion

Establishing a clear and ambitious 2040 climate target is a critical milestone in securing the EU's trajectory toward climate neutrality by 2050. To this end, setting distinct targets for emissions reductions, permanent removals, and temporary removals, can provide greater transparency and predictability for policymakers, industry, and civil society.

The inclusion of flexibilities must be accompanied by clear safeguards that guarantee transparency and integrity while also ensuring that the ambition behind the 90% emissions reduction target is preserved. Therefore, if undertaken, the integration of permanent carbon removals into the EU ETS should be underpinned by strict criteria on permanence, quality, and environmental integrity to preserve the effectiveness of the instrument. Similarly, the potential role of international credits must be carefully assessed and limited in a way not to deter from domestic emission reductions.

Finally, many European industries, including the industrial carbon management sector, rely on a high climate ambition to create viable business cases. By setting a 90% emissions reduction target, the EU has the opportunity to demonstrate that climate leadership can lead to sustainable industrial competitiveness in a carbon neutral economy.