

DRAFT ACT ON PERMANENCE OF CO₂ STORAGE IN PRODUCTS

CEMBUREAU Position

July 2024

CEMBUREAU, the European Cement Association, wishes to comment on the European Commission's draft Delegated Act on permanent emissions storage through carbon capture and utilisation.

Introduction

As shown in CEMBUREAU's [Net Zero Roadmap update](#), Carbon Capture, Utilisation and Storage (CCUS) is critical to decarbonise cement production. Significant investments are currently ongoing in the cement industry in this respect¹: whilst today, the majority of carbon capture projects in the EU cement sector aims at capturing the CO₂ and storing it geologically (CCS), the sector is also looking at the utilisation of CO₂ in products (CCU). CCU is indeed vital for many EU cement kilns which are landlocked and not located next to CO₂ storage sites. Through CCU, the cement sector can provide a significant stream of concentrated CO₂ for use in various sectors of the economy, allowing to decarbonise and cut the EU's reliance on fossil fuels².

Mineralisation is a permanent form of CO₂ storage

The cement and concrete industries have been looking at the potential of mineralisation for some time. Significant research has gone into the topic³ and an increasing number of companies – some of them outside the cement sector – are aiming at storing CO₂ in concrete or aggregates, sometimes even offering carbon removals through the use of biogenic CO₂.

As evidenced in our previous position paper⁴, the permanence of CO₂ storage through mineralisation is well-established. We therefore welcome the recognition by the draft Delegated Act that mineralisation through construction products is a permanent form of storage.

When it comes to the annex, CEMBUREAU would however suggest the following changes:

- CEMBUREAU would generally suggest including carbonated constituents of other construction products than cement and concrete as part of the list.
- “Carbonated constituents of hydraulic binder (such as masonry cement, hydraulic road binder) used in construction products” should be added to the list, to ensure that it includes carbonated constituents such as recycled concrete fines.

¹ Based on current investment plans, CEMBUREAU estimates that the cement sector will be in a position to capture 14 million tons of CO₂ yearly by 2030. For more information, please see our Net Zero Roadmap update and our [interactive map of innovation investments](#).

² Please see study on [the need for CO₂ in the EU27 society in the timeframe 2035-2050](#), VITO for CEMBUREAU

³ Please see EU-funded [Fastcarb](#) project

⁴ Please see CEMBUREAU [position paper on the permanence of CO₂ in products](#), October 2023

- Similarly, “carbonated constituents of lime with hydraulic properties used in construction products” should also be added to the list.

The Delegated Act is overly prescriptive when it comes to other forms of ‘permanent’ CCU

However, CEMBUREAU believes that the draft Delegated Act is overly restrictive, in that it sets a requirement that “CO₂ should remain permanently chemically bound in a product for at least a period of several centuries or longer”, which de facto prohibits any other type of long-term storage in other types of products (e.g. chemical products), even when these would be part of a recycling loop. CEMBUREAU considers that, provided chemical products are part of a recycling loop, the putting of CO₂ in chemicals should be considered as permanent storage. As an example, it is CEMBUREAU’s strong view that if plastics are appropriately recycled (with clear obligations for the manufacturer), using captured CO₂ to produce them should be considered as permanent chemically bound use.

‘Non-permanent’ CCU in the revised ETS Directive

Last but not least, CEMBUREAU would like to stress that whilst the Draft Delegated Act provides a degree of clarity on what constitutes a permanent CO₂ storage in product, it is critical that the EU CCU framework is swiftly reviewed to provide a business case for investments.

In particular, the updated ETS Directive considers that, in the case of ‘non-permanent’ CCU, the capturing installation (rather than the installation/entity actually emitting the CO₂) should surrender allowances, even if the capturing installation is not releasing the CO₂ in the atmosphere. In our view, CO₂ allowances should be surrendered by the ‘emitter’ of the CO₂ contained in a CCU product, and not by the capturing installation. The CO₂ accounting needs to be done at the point where CO₂ is released into the atmosphere. CEMBUREAU notes that the ETS Directive foresees a review clause to ‘assess the accounting’ of CO₂ used in non-permanent CCU applications⁵. It is in our view very important that this clause is taken up in the future review of the ETS, in light of the expansion of the ETS to other sectors (full aviation coverage, waste incineration, etc.), which should allow to account emissions at the point of release.

Furthermore, CEMBUREAU wishes to highlight the urgency of reviewing provisions of the Draft Regulation setting out a methodology for GHG emission savings from renewable fuels of non-biological origin (RFNBOs) and recycled carbon fuels (RCFs). The act, in its current form, considers that CO₂ emissions from industrial sources will no longer be considered as avoided for RFNBOs production past 2040. This has de facto halted CCU projects in the European cement industry. It is urgent that to a review of this date, as foreseen in recital 5 of the [Delegated Act](#). For more information, please see [CEMBUREAU](#)

⁵ Recital 99 : « In order to regulate the capture of carbon in a way that reduces net emissions and ensures that all emissions are accounted for and that double counting is avoided, while generating economic incentives, the Commission should assess, by July 2026, whether all greenhouse gas emissions covered by Directive 2003/87/EC are effectively accounted for, and whether double counting is effectively avoided. In particular, it should assess the accounting for the greenhouse gas emissions which are considered to have been captured and utilised in a product in a way other than that referred to in Article 12(3b), and take into account the downstream stages, including disposal and waste incineration »