

CEMBUREAU FEEDBACK TO COMMISSION DELEGATED REGULATION SETTING CLIMATE CHANGE MITIGATION AND ADAPTATION TECHNICAL CRITERIA (EU TAXONOMY REGULATION)

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CEMBUREAU, the European Cement Association (www.cembureau.eu), welcomes the opportunity to provide feedback on the draft Delegated Act setting the technical criteria for climate change mitigation and adaptation.

CEMBUREAU's commitment to Climate Change Mitigation is strong and our [2050 Climate Neutrality Roadmap](#), which was published in May 2020, sets out the cement industry's ambition to reach net zero emissions along the cement and concrete value chain by 2050. The roadmap looks at how CO₂ emissions can be reduced by acting at each stage of the value chain: clinker, cement, concrete, construction and (re)carbonation. It identifies the key pathways to decarbonise the industry, and its key findings are as follows:

- Carbon Capture, Use and Storage (CCUS) will account for 42% of the CO₂ emissions reduction in the sector.
- The replacement of fossil fuels by non-recyclable waste and biomass waste, and the use of alternative raw materials, will deliver another 15% of the emissions reduction in the cement industry.
- Bringing low carbon-cements products to the market will deliver an additional 13% emissions reduction.
- A level playing field on carbon, regulatory certainty as well as an ambitious industrial transformation agenda, will be pivotal to deliver the investments needed to achieve carbon neutrality.

Public and private investments will be key to allow the European cement industry to deploy a wide range of technologies and innovation projects at every step of the cement production process. Sustainable finance, the EU Taxonomy Regulation and the Delegated Act setting the technical criteria for climate change mitigation and adaptation will play a key role to support the cement industry access to finance throughout this process.

CEMBUREAU broadly welcomes the draft Delegated Act, but would like to offer the following comments in relation to Carbon Capture and Utilisation (CCU), the inclusion of white cement and the timing of implementation of the EU Taxonomy non-financial disclosure requirements.

1. The utilisation of CO₂ should be recognized in the Delegated Act

Today, a significant number of pilot projects in connection with Carbon Capture, Utilisation and Storage (CCUS) are deployed in the European cement industry across the EU. A large number of projects look at using CO₂, either through mineralization (permanent capture of CO₂ through carbonation) or through the re-use of CO₂ (for instance, as synthetic fuel through the blending with hydrogen, or for chemical purposes).

As it stands, the technical criteria for cement in the Delegated Act only mentions the transport and storage of CO₂ but seems to disregard its utilisation in other processes despite the fact that it is recognized (1) in article

10(1)(e) of the EU Taxonomy Regulation¹, (2) in the Master Plan for Energy Intensive Industries² and the impact assessment³ of the Communication “Stepping up Europe’s 2030 climate ambition Investing in a climate-neutral future for the benefit of our people” as a key technology for Industry to decarbonise and (3) that it is a technology to be funded under the EU ETS Innovation Fund.

We understand that the technical criteria for the use of captured carbon will be developed by the Sustainable Finance Platform. As CO₂ benefits of all carbon capture technologies must be adequately recognized and incentivized for the cement industry to transition towards net-zero, CEMBUREAU believes that the Delegated Act should also refer to CO₂ utilisation. For instance, the Delegated Act could read as follows: “ *Where CO₂ emitted from the manufacturing process is captured, the CO₂ is transported and stored underground, in accordance with the technical screening criteria set out in Sections 5.11 and 5.12 of this Annex. **Technical screening criteria will be developed for the use of captured carbon (e.g. as an industrial feedstock, fuel or mineralization).**”*

2. The particularity of white cement should be recognized through a dedicated metric and threshold

Furthermore, It is crucial that the Delegated Act recognizes the particularity of white cement by a dedicated metric and threshold to allow white cement producers present in Spain, Denmark, France, Germany, Portugal, Italy and Slovakia access to green funding since a clear pathway to achieving net zero CO₂ by 2050 exists for these producers.

Obtaining the right (white) colour is a crucial factor in the manufacturing of white cement and is a conditional clause in trade contracts. A reflection of at least 86% is generally required for the white cement to be competitive compared to the reflection of grey cement which is in the range of 30-40%.

It is correct that the production of white clinker entails a higher energy consumption than the production of grey clinker. This has to do with the fact that high grade raw materials are needed to achieve the chemical purities proper to white clinker. In addition and contrary to the grey cement production, it is necessary to rapidly cool the white cement clinker from 1200° C to 600° C in a few seconds, which requires quenching with cold water which reduces the possibility of preheating combustion air.

It is precisely these particularities in the manufacturing of white cement that have led to a separate benchmark that has been set at 987 kg CO₂/ t clinker. For instance, the Delegated Act could read as follows: “The activity manufactures one of the following:

(a) grey cement clinker where the specific GHG emissions¹³³ are lower than [xxx¹³⁴] tCO₂e per tonne of grey cement clinker;

(b) cement or alternative hydraulic binder, from grey clinker, where the specific GHG emissions¹³⁵ from the clinker and cement or alternative binder production are lower than [xxx¹³⁶] tCO₂e per tonne of cement or alternative binder manufactured;

(c) white cement clinker where the specific GHG emissions¹³³ are lower than [xxx¹³⁴] tCO₂e per tonne of white cement clinker.”

¹ REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020)

² European Commission High-Level Group on Energy-intensive Industries (EII) [Master Plan](#) for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral, Circular Economy by 2050

³ European Commission [Impact Assessment](#) of the Communication “Stepping up Europe’s 2030 climate ambition Investing in a climate-neutral future for the benefit of our people”

133 Calculated in accordance with Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 59, 27.2.2019, p. 8).

134 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU Emissions Trading System (EU ETS) industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).]

Incorporating this metric in the Delegated Act would allow sustainable financing to extend to the CO₂ reduction efforts currently undertaken by white cement manufacturers in the following areas:

- Reduced clinker content: intensive research is under way to develop new cement types with reduced clinker content but compatible with the typical applications for white cement. One solution is to substitute clinker with white limestone filler but performance reduction for substitution levels above around 10% needs to be addressed. The most promising opportunity is the use of limestone-calcined clay technology which is under development.. Up to 30% CO₂ reduction can be achieved on the short term and even larger reductions on the long term. Significant investments in clay calcination equipment will be needed to realize this possibility, underlining the need for sustainable financing;
- Use of alternative fuels: while this is currently limited in white cement production because of the need for high chemical purity, white cement manufacturers are now looking into switching from petcoke into natural gas or, in the longer term, biogas. By developing and investing in advanced waste processing equipment, such as gasification, alternative fuels would become available for white cement production to much larger extent. Sustainable financing would be helpful to achieve this;
- Heat recovery: the high energy intensity makes white clinker production more suitable for heat recovery than grey cement production. The industry will seek financing for technologies that allow to increase the heat used for district heating;
- Carbon Capture and Use and recarbonation are explored by both grey and white cement manufacturers but it is noteworthy that the applications for white cement reabsorb CO₂ at a higher rate than typical grey cement concrete applications. This means that the quantity of CO₂ reabsorbed in the life cycle of white cement products is significantly higher than for grey products.

Allowing white cement manufacturers to be eligible for sustainable financing will also allow them to bring continued benefit to society in the form of:

- Improved energy consumption in buildings due to the light-coloured surfaces of white cement: the more reflective surfaces such as light-coloured roofs, walls and pavements result in more energy reflected to space, resulting in less warming. Studies have demonstrated that the CO₂ savings by using white concrete walls in constructing an office building with the dimensions 15x15x20 m will be approximately 27 tonnes annually. Assuming that 28 tonnes white cement are used for the building and that the CO₂ emission associated with this production is 1.2 tonnes CO₂ per. tonne white cement, the CO₂ savings will be larger than the emissions associated with the cement production after less than two years;
- Energy savings due to reduced need for artificial lighting when the reflection of white cement is used in tunnels and industrial warehouses;
- Better road safety through increased visibility thanks to the use of white cement in road barriers, sound barriers and other road equipment.

3. The timing of implementation of the EU Taxonomy non-financial disclosure requirements should be more realistic

In addition, CEMBUREAU was alerted by its members that the implementation of the EU Taxonomy non-financial disclosure requirements by 1 January 2022 for the financial year 2021 is challenging for their

corporate/finance departments since the requirements will be known only by mid 2021 and would significantly increased cost of assurance. CEMBUREAU would therefore recommend implementing the non-financial disclosure requirements for Mitigation and Adaptation on 1 January 2023 as for the other environmental objectives.

CEMBUREAU keeps itself at the disposition of the European Commission and the Sustainable Finance Platform for any inquiry on cement production they have which will feed into the delegated acts on non-financial information and on the other environmental objectives they will develop in 2021.
