

REVIEW OF THE TEN-E REGULATION

CEMBUREAU input to the public consultation

July 2020

CEMBUREAU, the European Cement Association, welcomes the opportunity to input to the review of the Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure (TEN-E Regulation).

In summary, CEMBUREAU considers that the key objective of the TEN-E regulation should be to foster and develop the energy carriers needed to achieve carbon neutrality. For the cement industry, this involves in particular the development of CO₂ transport infrastructure. The development of a hydrogen network and appropriate electricity infrastructure will also play an important role.

On 12th May 2020, CEMBUREAU published its new [Carbon Neutrality Roadmap](#) setting out its ambition to reach net zero Greenhouse Gas (GHG) emissions along the cement and concrete value chain by 2050, in line with the European Green Deal. Our roadmap identifies the deployment of Carbon Capture, Utilisation and Storage (CCUS) as absolutely central to achieve carbon neutrality in the sector. CCUS will indeed account for 42% of the CO₂ emissions reduction in the cement industry by 2050.

A proper CO₂ transportation network is essential to allow the deployment of CCUS. Across Europe, a large number of pilot projects have been developed successfully in connection to cement plants, demonstrating the ability of different carbon capture technologies to efficiently capture (process) CO₂ emissions from cement kilns. However, in addition to continued support to improve the business case for CCUS investments, cement manufacturers will require the roll-out of CO₂ transport infrastructure to be able to re-use or store the large quantities of CO₂ which will be absorbed. This point is particularly central for the cement sector, where plants are evenly spread across the entire EU territory, and not necessarily part of “industrial hubs”. In addition to pipelines, other means of transport (trucks, barges, ships) may provide a solution for these plants.

In light of the above, CEMBUREAU believes that the TEN-E revision is a key opportunity to develop an EU CO₂ transport infrastructure that supports carbon neutrality for energy-intensive industries:

- It is critical that CCS/CCUS is maintained and enhanced as one of the 12 strategic trans-European energy infrastructure priorities;
- The TEN-E Regulation should encompass all CO₂ transport modalities, including ships, trucks, etc., in addition to pipelines – thereby supporting the take-up of CCUS, including in regions where building pipelines may not be economical;
- The revised TEN-E Regulation should also support the repurposing and retrofitting of natural gas pipeline networks for the transportation of CO₂, in addition to “dedicated CO₂ pipelines”; such re-purposing of the gas network will become increasingly relevant given the changes of the EU energy mix;

- The utilisation of CO₂ should be recognised in the revised TEN-E revision, as re-using the CO₂ will become an important part of CCUS projects in the future. In the cement industry, a number of projects look at re-using CO₂, either through mineralisation (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);
- The next list of EU Projects of Common Interest (PCI) that will be developed through the TEN-E Regulation should be compliant with the objective of carbon neutrality by 2050 and therefore allow for the scaling up of CO₂ and hydrogen transport infrastructure.
- The roll-out of hydrogen and electricity infrastructure should also be supported.

CEMBUREAU - Proposed amendments to the TEN-E Regulation

- Throughout the document, references to “*carbon dioxide transport*” should be replaced by “*carbon dioxide capture, transport and utilisation or storage*”, for instance in Article 4.2 (e), Annex I(4.12), Annex II(4), etc.
- To allow for the re-purposing of the existing gas network into CO₂ transport, as well other means of CO₂ transportation, article 4(a) of Annex II should be amended as follows: “(a) *Dedicated pipelines, **including retrofitted or repurposed natural gas pipelines, , other than upstream pipeline network and other transport modes such as ships, barges or trucks, used to transport anthropogenic carbon dioxide [...]***”
- To recognise the potential of CO₂ usage, article 4(a) of Annex II should be amended as follows: “[...] *used to transport anthropogenic carbon dioxide from more than one source, i.e. industrial installations (including power plants) that produce carbon dioxide gas from combustion or other chemical reactions involving fossil or non-fossil carbon-containing compounds, for the purpose of permanent geological storage of carbon dioxide pursuant to Directive 2009/31/EC of the European Parliament and of the Council, **or for the purpose of its re-utilisation in industrial processes or mineralisation processes***”
- To support carbon utilisation in addition to transport, article 4 of Annex II should include the following: “(d) *facilities that support the re-use of CO₂ in industrial process or permanent storage through mineralisation*”
- To support carbon storage in addition to transport, article 4(b) of Annex II should be amended as follows: “*facilities for liquefaction and buffer storage of carbon dioxide in view of its further transportation. ~~This does not include infrastructure within a geological formation used for the permanent geological storage of carbon dioxide pursuant to Directive 2009/31/EC and associated surface and injection facilities~~*”.