



EU PUBLIC CONSULTATION ON INDUSTRIAL CARBON MANAGEMENT

EUROPEAN ALUMINIUM RESPONSE

29 August 2023

The European Aluminium industry is committed to achieving the EU's ambitious decarbonization objectives. If we are to achieve climate neutrality by 2050, industrial carbon dioxide removals (CDR) and mitigation technologies will be necessary to decarbonize the aluminium sector¹.

For this reason, we need to ensure a robust legislative and regulatory framework for removals to not only enable but also incentivize necessary new enabling technologies. In this response we outline what is necessary to develop these technologies at scale for our industry.

Support the development of emerging technologies

Firstly, it is pivotal that the EU supports the development of both carbon capture and abatement technologies to achieve climate neutrality in 2050. It is paramount industry is encouraged to test out new technologies.

As of 2020, only 13 commercial facilities are in operation (in various stages of development) across Europe. If CDRs are to play an important part in the fulfilment of the Climate Law objectives, industry must receive support for risky investments. Current CCS installations have a typical capture rate in the order of 90-95%, meaning that 5-10% of the CO₂e generated is emitted to the atmosphere. To achieve a net zero-emission target, there is a need to install direct air capture to complement the off-gas capture systems, thereby ensuring the complete removal of the amount of CO₂e produced.

Going beyond the research stage, the ETS Innovation Fund should support innovative carbon removal projects, including DACCS and BECCS. Support should be given to both CAPEX and OPEX (including operation of capture plant, transport, and storage). Also, Horizon Europe and the Connecting Europe Facility (CEF) should cover CO₂ capture, transport, and storage from off-gas as well as through DACCS, in addition to other negative emission solutions.

Widespread CO₂ transport and storage

¹ See the [Aluminium Sector Greenhouse Gas Pathways to 2050](#) by the International Aluminium Institute (IAI), September 2021): « Emissions from fuel combustion make up 15% of the industry's emissions. Here, electrification, fuel switching to green hydrogen and CCUS offer the most credible pathways. Process emissions make up a further 15% and require new technologies, such as inert anodes. These emissions and those in transport and raw materials will need to be reduced by 50-60% from a Business as Usual (BAU) baseline scenario by 2050 ».

Not all industrial installations in Europe benefit from the proximity of CO₂ storage sites. Currently, it is much easier to implement CCS in countries that have access to old, depleted natural gas fields where the CO₂ can be stored.

The EU therefore also needs to develop a flexible and efficient regulatory framework for transport and storage to facilitate those removals become an eligible option for all industries across the European territory, including via the TEN-T regulation.

Also, the revised TEN-E Regulation should include CO₂ transport via pipelines in the criteria for Project of Common Interest to encourage investment in CO₂ pipelines. Developing the necessary infrastructure for the transport and storage of CO₂ is absolutely crucial in order to preserve a level playing field under the EU ETS.

If this does not happen, ETS benchmarks will be set by installations in countries with access to CO₂ storage sites, whereas installations in other countries will face exorbitant carbon costs but will not be able to reduce their emissions by implementing CCS.

Finally, building on the positive experience of the EU Hydrogen Hubs (or clusters), the EU should develop similar carbon removal hubs for ETS-eligible removals, for industries to exploit synergies and accelerate the deployment of new technologies/processes through co-operation. This would allow to ensure the entire European value chain can benefit from the scaling up of both public and private investment and ensure cross industry cooperation on carbon removal technologies.

Coordination with the EU ETS

Newly created carbon removal certificates offer a perfect framework for inclusion of removal and mitigation technologies in the ETS. If certificates are tradeable against EUAs, it will incentivize investments in new projects. The earlier this is allowed, the more it will contribute to mitigating climate change. The ETS should allow for the purchase and use of all types of removal credits as emissions compliance instruments in case the removal is considered permanent. This should cover emissions from all installations. The accounting rules for all types of removal credits need to follow certification procedures ensuring a robust, transparent, and permanent reduction. A new EU ETS compliance flexibility allowing the use of these new credit types should gradually become eligible as soon as possible.

All removal credits should in principle be exchangeable with an EUA if they satisfy the definition of the “longtime/permanent” emission removal requirement and should be bankable without any time limitation. All removal credits should be traceable and thereby tradeable without any restrictions to create a viable and liquid market.

For further information, please contact:

Emanuele Manigrassi

Senior Manager, Climate & Energy

M +32 471 73 53 06

manigrassi@european-aluminium.eu

Léa Malfrait

Regulatory Affairs Officer

M +32 491 56 15 49

malfrait@european-aluminium.eu

