



Joint letter calling for the recognition of Carbon Capture and Utilisation (CCU) as strategic net zero technologies in the EU Net Zero Industry Act

“CCUS has incredible potential in our race to reach climate neutrality. And without CCS and CCU, it will be practically impossible to limit global warming to the 1.5°C objective”.
 Commissioner Kadri Simson during the EU CCUS Forum in Oct. 2022

The co-signatories of this letter call on the co-legislators to fully leverage the potential of CCU technologies in the Net Zero Industry Act. CCU technologies represent an array of solutions critical for the achievement of the EU climate and energy ambitions. They will notably support the realisation of EU hydrogen goals and represent a crucial outlet for CO₂ captured from all sources. Products and fuels from CCU technologies will displace fossil resources and lower EU GHG emissions.

As such, CCU technologies should be considered – along with CCS – in the list of ***strategic net-zero technologies*** contributing to the European Net Zero goals. It will allow CCU projects to benefit from the priority status towards national authorities to fully unleash their potential for emission reductions and carbon circularity while maintaining and enhancing the skilled technical workforce in Europe.

Background

The Net Zero Industry Act (NZIA) distinguishes between *net-zero technologies* and the *strategic net-zero technologies*. The technologies part of the latter category benefit from priority treatment from national authorities in terms of permitting procedures, public procurement or access to financing. They are also supported by a 40% EU annual manufacturing target (Art. 1(2)a). To proceed with this selection, the European Commission relied on a set of criteria which can be summarised in three indicators:

- Technology Readiness Level (TRL) i.e. the assumed commercial availability/scale up potential, which should be above level 8.
- Contribution toward the GHG emissions reduction.
- Contribution towards the overall resilience of the EU economy.

While these indicators are valid, the co-signatories disagree with the assessment made for CCU technologies, which complies with the above requirements, and consider that the exclusion of CCU related technologies from the list of strategic net zero technologies will endanger their development and ultimately hinder the achievement of the EU climate ambitions.

Recognition of CCU technologies and contribution toward the GHG emissions reduction

CCU technologies are not only recognised in the 6th IPCC Assessment report as **important technologies to mitigate climate change** but are also promoted in a series of recent EU legislative efforts:

- In the **RED III, FuelEU Maritime** and **ReFuelEU Aviation** proposals, by defining mandatory targets for CCU-derived fuels (e.g., Renewable Fuels of Non-Biological Origin, RFNBO) in order to reduce emissions from hard to abate sectors.
- In the proposal of **RED II related Delegated Acts** where a methodology to estimate the Greenhouse Gases (GHG) emission savings for CCU-derived fuels is defined.
- In the **ETS revision** adopted in Dec. 2022, by enabling CO₂ permanent storage via mineralisation and avoiding double counting of the captured CO₂ when used for other processes.
- In the **Sustainable Carbon Cycles Communication** where CCU, CCS and carbon removals are qualified as “*innovative clean technologies*” with a dedicated target of “*at least 20% of the carbon used in the chemical and plastic products should be from sustainable non-fossil sources by 2030*”.
- In the **EU carbon removals certification framework** proposal with permanent storage of atmospheric/biogenic CO₂ recognised in long-lasting products (e.g. mineralisation) as carbon removals activities.
- Through the work of the **EU CCUS Forum** and in the upcoming **EU strategy on CCU and CCS**.

CCU technology readiness

CCU represents an array of technologies, **some of which are already commercially available** be it in Europe or globally¹. This maturity is already acknowledged by the EU framework through the funding provided to CCU projects² by the Innovation Fund, recognising pre-commercial, first-of-a-kind maturity. A series of projects in EU are expected to start operation within the next 2-3 years³. The assessment made of the CCU technologies in the Net Zero Industry Act should therefore be revised.

CCU technologies with lower technology readiness level could still benefit from the Act, for example with regulatory sandboxes. On this topic, it could be beneficial to change the proposed approach, and to not leave only to Member States the possibility to create these sandboxes: it contradicts the original goals of the Act by opening the door to an EU fragmented approach: regulatory sandboxes need to be developed across all Member States and monitored by the Commission.

CCU contribution towards the overall resilience of the EU economy

CCU technologies increase the resilience of the EU economy and its industrial systems by durably storing CO₂ or solid carbon in material and by reusing captured carbon as an alternative carbon feedstock to produce fuels, chemicals and materials as replacement of fossil-based equivalents. By doing so, CCU contributes to EU's independence from (imports of) fossil resources, provides significant emission reductions (even carbon removals in some value chains and according to certain carbon sources and pathways), increases circularity in manufacturing systems and contributes maintaining EU leading role in clean technologies.

¹ E.g. [Steelanol](#) in Belgium, [Fairfuel](#) in Germany, [G2L eFuels technology](#) in Denmark, [Sunfire](#) in Germany or EU-based CCU technologies which reached commercial maturity but are moving outside the EU e.g. [CRI's methanol plant](#) in China or [Norsk e-Fuel](#) in Norway. And globally, e.g. [LanzaTech](#), [Infinium](#) and [Newlight Technologies](#) in the US.

² E.g. AGGREGACO2, HySkies, C2B, AIR, CO2ncrEAT

³ E.g. [Columbus](#) in Belgium with IPCEI status; [FlagshipONE](#) in Sweden