

23 March 2023, Brussels

FEAD's feedback to the Commission's proposal on the certification of carbon removals

FEAD welcomes the development of EU rules for the certification of carbon removals to support the achievement of the EU climate targets. To reach climate neutrality by 2050, carbon capture, utilisation and storage (CCUS) and carbon recycling solutions are needed.

The waste management sector is the vanguard of circular economy and climate protection in Europe:

- Recycling and recovery operations save material resources, energy and CO₂ emissions by avoiding the extraction, processing and use of virgin raw materials and fossil fuels, and by directly capturing carbon in soils through compost and fertilisers.
- The electricity and heat produced from waste through incineration and anaerobic digestion is generated from a local, reliable and secure source, which allows for diversifying our energy supply and accelerates the roll-out of renewable energy.

In fact, the 2022 IPCC report on climate change has recognised the potential of waste-to-energy (thermal and biological) processes to contribute to clean electricity production and reduction of GHG emissions.¹ Moreover, it notes that, considering Europe only, **'the integration of CCS with WtE facilities has the potential to capture about 60 to 70 million tons of carbon dioxide annually'**.

FEAD notes the following to the Commission's proposal for a Regulation establishing a Union certification framework for carbon removals:

1. Scope of certifications: carbon removal activities must include CCU technologies

FEAD stresses that the new framework should support all different solutions that capture the carbon otherwise emitted into the atmosphere and bind it into products or materials, replacing a fossil carbon source, or that keep the CO₂ in a cycle. This includes all industrial removals, which ultimately lead to less CO₂ in the atmosphere. Such industrial carbon

¹ IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, https://report.ipcc.ch/ar6/wg3/IPCC_AR6_WGIII_Full_Report.pdf

removals should be supported through the Innovation Fund and the Horizon Europe programme as well as national state aid schemes.

Carbon capture and utilisation (CCU) is a rising solution for industrial removals from point sources, which can either bind carbon in a product or material or keep it in a cycle. **To promote ‘sustainable carbon cycles’ CCU technologies must be recognised as a carbon removal activity.**

- Removal of carbons from waste

CCU technologies can recycle carbon to use it in place of fossil carbon into new products. When applied to waste incineration plants (waste-to-energy or hazardous waste plants), the recycling of the carbon fraction captured from the waste streams through the flue gases can also contribute to the achievement of the EU’s recycling targets in future. Therefore, **FEAD considers that removals of carbon originating from waste should be covered by the definition of ‘carbon removal’.**² This can be applied e.g. to the flue gases of waste-to-energy plants or to hazardous waste incineration. This would incentivise carbon capture and removal in the waste sector irrespective of whether the carbon is from the biogenic or fossil share of the incinerated waste.

- Considerations on the lifespan of the carbon storage

By limiting the focus to the lifespan of the product or material the carbon is fixed into, the framework would hinder the development and investments of new carbon removal and recycling technologies. The essential aspect is that carbon is either permanently bound or kept within a cycle. Both options ensure environmental protection and sustainable removals of carbon from the atmosphere.

For example, a CCU process can be used to manufacture hydrocarbons, such as various plastics. It is virtually impossible for the manufacturer of plastic to monitor the different types of applications in which the plastic will be used. In addition, it is possible to use the same type of plastic for very different applications, meaning that the expected lifespan of the end-product can vary from weeks to decades in each case.

Therefore, **FEAD considers, that the definitions of ‘carbon removal activity’ and ‘carbon storage in products’ should not be limited to long-lasting products only.** In principle, all products, which store carbon should fall under these definitions.³

2. Additionality criteria in Article 5

The considered ‘Union and national statutory requirements’ should be clarified with regards to the additionality criteria. It should also be clarified whether economic or fiscal instruments, such as the EU ETS or national environmental taxes, which may incentivise

² The definition should be amended as follows: ‘carbon removal’ means either the storage of atmospheric, waste or biogenic carbon within geological carbon pools, biogenic carbon pools, long-lasting products and materials, and the marine environment, or the reduction of carbon release from a biogenic carbon pool to the atmosphere.

³ ‘Long-lasting’ should be deleted from the definitions of ‘carbon removal activity’ and ‘carbon storage in products’.

or penalise certain behaviors, but do not inherently require reduced emissions, are included in these criteria.

3. Monitoring requirements in Article 6

To determine the long-term storage of the carbon in products or materials, **an emission reference value for typical applications should be used to determine when the carbon is considered released to the atmosphere, rather than relying on a monitoring period.** This approach would account for the diversity of potential technological solutions and applications of industrial carbon removals. As stated above, the carbon removal framework should recognise all industrial removals, that ultimately reduce CO₂ emissions in the atmosphere. Monitoring certain CCU solutions may prove to be overly complex.

4. Certifications schemes and methodologies

FEAD advocates for clear and harmonised EU rules that provide robust incentives for the development and implementation of CCUS projects in the waste management sector. However, FEAD **regrets that the Commission's proposal leaves relevant aspects, such as the certification schemes and methodologies to be determined through delegated and implementing acts**, which should only regulate non-essential elements of a legislative act according to Article 290 TFEU.

Carbon certifications should be a reliant and transparent tool to account for carbon absorption and provide a financial incentive to encourage the development of innovative techniques for carbon removals.

In addition, the framework should establish clear calculation and verification rules for carbon removal from mixed fuel sources, such as waste-to-energy plants or other combustions plants that use both fossil and biogenic fuels.

5. Importance of legal clarity and investments security: examples of carbon removals in the waste management industry

The Commission's proposal provides for a broad scope, which encourages innovation and the possibility for many activities to fall under it, but this should still provide the legal clarity and investment security needed for ongoing and planned projects.

- *Organic recovery of organic waste: composting and fertilisers (from biowaste and sewage sludges)*

Organic recovery of organic waste with agronomic interest, such as the production of quality composts and fertilisers has a crucial role to play, especially for carbon farming. Our understanding is that this contribution is recognised as a good carbon farming practice in the Commission's communication on 'sustainable carbon cycles' under the item "enhancing soil organic carbon on degraded arable land". However, this **should** be made more explicit and be **recognised as a carbon removal activity**. At this stage, composting is not valued at the level of the avoided emissions it allows. Such an inclusion in the scope should help to both reach climate neutrality and promote healthy soils.

In addition, the scope of the mechanism should be extended to the operators who provide the material, allowing carbon storage in the soils, and not only to its users. This means that **the producer of fertiliser or compost will be able to share the certificate with the user.**

- *CCU at anaerobic digestion plants*

Biogas generated by anaerobic digestion of organic feedstock (organic waste, industrial waste, etc.) is mainly composed of biomethane (50-60%) and carbon dioxide (40-50%). The most efficient biomethane recovery plants can capture the CO₂ contained in the biogas to use and/or sell it for different applications (technical use, food purpose, etc.) instead of releasing it into the atmosphere. Therefore, **it should be eligible for carbon removal certifications as it is a virtuous form of CCU.**

- *CCUS at waste incineration plants*

As explained above, the integration of CCUS to waste-to-energy plants has great potential. The captured **CO₂ can be used in different applications, such as greenhouses or in the manufacture of plastics and should also benefit from carbon removal certifications.**

In the Netherlands, for example, they have already started building a plant that will capture and reuse 100,000 tonnes of CO₂. Flue gases from the incineration of non-recyclable residual and commercial waste in waste-to-energy plants are cleaned and the CO₂ is removed.⁴ The CO₂ is not emitted from the stack, but is reused, for example, in the form of sodium carbonate (baking powder) or as liquefied CO₂ in greenhouse horticulture, where it replaces the use of natural gas to produce the CO₂ needed for plant growth.

FEAD is the European Waste Management Association, representing the private waste and resource management industry across Europe, including 19 national waste management federations and 3,000 waste management companies. Private waste management companies operate in 60% of municipal waste markets in Europe and in 75% of industrial and commercial waste. This means more than 320,000 local jobs, fuelling €5 billion of investments into the economy every year. For more information, please contact:

FEAD Secretariat

info@fead.be

⁴ <https://www.wastematters.eu/news/communication-between-policymakers-and-practitioners>