Statement on the public consultation of the draft regulation ‘Carbon removals and carbon farming – methodologies for certifying permanent carbon removals’ of the European Commission ((EU) 2024/3012)

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Preface

The German Bioenergy Association (BBE) is the umbrella organization for bioenergy in the Federal Republic of Germany. It was founded in 1998 to effectively represent the diversity of bioenergy with all its technology paths in the electricity, heating, and transport sectors in politics and society. The BBE brings together specialized industry associations and companies in a broad network to analyse political and economic conditions. The BBE is committed to strengthening the position of the bioenergy industry in the energy transition and climate protection.

Introduction

The CO2 removal methods biochar and BioCCS (also known as BECCS) make an important contribution to European climate neutrality. They remove CO2 from the atmosphere and enable the long-term storage of CO2 and its use in value chains. When implementing these methods, it is important to consider the aspect of additionality. The methods are not intended to offset avoidable emissions. They should be used specifically to offset hard-to-abate emissions from industry and agriculture.

An adequately designed certification framework, based on feasibility, economic efficiency, and benefits in terms of climate neutrality, can encourage operators to drive the negative emissions market forward. So far, market conditions are still associated with many risks, which the draft regulation addresses and termed it as a “funding gap”. In fact, many of our member organisations are interested in improving their climate protection performance and promoting CO2 removal in their plants. Low subsidies, investment uncertainty, and highly fluctuating CO2 prices have so far prevented many operators from expanding their plants in the areas of industrial process heat or heating networks and capturing CO2.

The BBE suggests integrating the following aspects for adjusting the regulation:

- The capture of CO2 must not have a negative impact on existing plants and value chains. The extraction of CO2 from biomass should be seen as complementary to existing biomass use. This includes wood-fired power plants, which already make an important contribution to the European economy and the defossilization of the energy sector. Biomass also plays a central role in heat supply in the building sector, both in residential and non-residential buildings. These applications should also be continued in the future. CO2 capture offers existing plants the opportunity to expand and further improve their economic efficiency.
- With a limited resource such as biomass, the question of competing uses arises. Biomass is currently used in construction, the furniture industry, paper and packaging, and for energy production. The use of biomass in proven applications should be continued. When using biomass, it is important to consider where the individual biomass assortments can be used most sensibly in economic terms and in terms of climate protection. We do not consider a strict interpretation of the cascade of uses to be sensible, as it artificially directs material flows and neglects market conditions. Synergies often arise because the use of certain types is particularly sensible in individual applications. For example, valuable saw-wood is mainly used in construction. On the other hand, thinning material, forest residues such as tree crown material and branches, residues from wood industries, wood from agroforestry as well as waste wood and wood for which for economic or logistical reasons no other use cases exist are well suited for energy use.
- The draft regulation does not refer to applications that might benefit from **utilising biogenic CO2** in value chains. When biogenic CO2 substitutes fossil CO2 it prevents additional CO2

from entering the carbon cycle. This is valuable in terms of climate policy, even if its use often does not represent a "permanent sink." The EU Commission should take into account the important use of biogenic CO2. The legislation aims to encourage investment. If only storage projects are recognized, there is a lack of incentives for business models that use CO2 as an input material. This leaves BioCCU a "blind spot" even though it is part of a closed biogenic carbon cycle. The draft regulation does address BioCCS in detail. It is understandable that the emphasis is put on the storage of CO2, but BioCCU should be addressed adequately to broaden potential use cases and enable CO2-markets to grow.

Please find below the detailed criticism of the draft regulation (EU) 2024/3012 and its annex.

Detailed feedback
Feedback to the draft regulation

Article 1: Definitions

In (2) 'biochar' is defined as "a carbonaceous material that is produced by thermal treatment of biomass;" This definition is not specific enough. The BBE suggests to add that biochar is a solid material and it must have a maximum H/ C_{org} ratio (molar) of 0.7 and resist biological degradation. The BBE suggests to use the definition of the European Biochar Certificate as a guideline. Please follow the URL for a detailed definition of biochar: https://www.carbon-standards.com/docs/transfer/4000093EN.pdf?t=1916423

In (4) BioCCS is defined as: *'biogenic emissions capture with carbon storage activity' or 'BioCCS activity' means an activity resulting in a process of capturing biogenic CO2, followed by transport and permanent storage of that biogenic CO2 by injection at a geological storage site for which a valid permit exists in accordance with Article 8 of Directive 2009/31/EC.*

The BBE criticizes that one core element in the definition is missing. The definition must include that these are **bioenergy facilities** that capture CO2. In other contexts, the term Bioenergy with Carbon Capture and Storage (BECCS) is used. The definition in the draft is not precise enough.

Article 3: Certification methodology for permanent carbon removals generated by biogenic emissions capture with carbon storage activities incl. Annex

Article 3 2. states that the biogenic CO2 captured shall be generated as a by-product of production processes of goods, energy and services. The BBE agrees that biogenic CO2 from biomass shall not solely be produced for the purpose of capture and storage.

Feedback to the Annex of the Draft Regulation

Definitions

In several instances the term certification scheme is used in the annex of the draft regulation. However, it is not defined. The European Commission should clarify what this term means. The term is defined in the Carbon removals, carbon farming regulation (Regulation (EU) 2024/3012) of 27 November 2024 in article 2 as:

(15)'certification scheme' means an organisation that certifies the compliance of activities and operators with the quality criteria and certification rules set out in this Regulation;

The Commission needs to clarify whether this definition also applies to the draft regulation at hand.

Under (4) of the draft regulation the phrase 'capture facility' is defined as 'a facility that captures CO2 from the atmosphere or from a biogenic-CO2 containing stream and conditions it to a form that is ready to be transported or stored, including in terms of CO2 purity and pressure;'

The BBE suggests this definition is not complete. In the case of BioCCS the definition should include mentioning of the biomass plant. A capture facility cannot work on its own. Especially in the production of heating or electricity by an existing biomass plant the capture facility is defined as an additional facility to the original biomass plant. This also implies that an operator of a capture facility is in fact the operator of the energy plant. Therefore, the definition should include that the capture facility can be an extension of an energy producing plant and that the operator can be responsible for both the energy plant and the capture facility.

1.1 Eligibility

1.1.1 Carbon removal activities with CO2 capture and geological storage

In the context of the CRCF the BBE suggests that carbon capture and utilisation need to be addressed as well. It is understandable that the utilisation of CO2 cannot lead to CO2 certificates. However, there needs to be a differentiation between CO2 stemming from biogenic origin and CO2 stemming from fossil resources.

There needs to be an incentive to capture CO2 not only for storage purposes but also for the utilisation of CO2. When biogenic CO2 substitutes fossil CO2 it prevents additional CO2 from entering the carbon cycle. This is valuable in terms of climate policy, even if its use often does not represent a "permanent sink" but just a substitution. The EU Commission should take into account the important use of biogenic CO2 as part of the natural carbon cycle and its application in sectors that are otherwise reliant on fossil fuels like the chemical industry. The legislation aims to encourage investment. If only storage projects are recognized, there is a lack of incentives for business models that use CO2 as an input material. This leaves BioCCU a "blind spot" even though it is part of a closed biogenic carbon cycle. The draft regulation does address BioCCS in detail. It is understandable that the emphasis is put on the storage of CO2, but BioCCU should be addressed adequately.

1.1.2. Biochar carbon removal activity

The annex currently defines Biochar Carbon Removal (BCR) as a "project/activity" that runs from production to application, with full responsibility placed on plant operators and no mention of MRV. In reality, biochar is traded as a commodity through complex supply chains, and only ex-post application determines whether it becomes a carbon sink. Many applications do not create sinks, making MRV systems essential for tracking and verification.

Since biochar production is decentralised and mostly handled by small operators with limited capacity, holding them accountable for the entire process is unrealistic and risks slowing market growth, discouraging investment, and undermining climate benefits.

BBE suggests the following changes:

- Replace “project/activity” with “supply network/chain,” allowing certified intermediaries to assume responsibility for tracking and monitoring. Plant operators can still monitor but should also be able to delegate.
- Separate production and application: the final destination of biochar can only be determined ex-post, after permanent application, not ex-ante.

1.2 Activity Period, Monitoring period and certification period
1.2.1.1. Activity period for DACCS and BioCCS activities

The BBE is uncertain whether the term activity period is correctly understood. The BBE suggests to elaborate why the EU Commission decided to include an activity period of 10 years. After 10 years, an operator needs to submit a new activity plan. Facilities that capture CO2 are built to last and operate for several decades. A 10-year period seems short. Capture facility operators need to have a long-term perspective. Restricting the period to 10 years could misalign certification timelines with financing models, thereby undermining project bankability and discouraging investment. Henceforth, an activity period of 20 or 30 years seems business friendlier. Alternatively, there shouldn’t be a restriction on the time period. It is not unlikely that activities can endure less than 10 years. Opening the length of the time period would therefore be a valid option.

1.2.2. BCR Activity
1.2.2.2. Monitoring period

The EU Commission needs to further clarify what activities shall be undertaken as monitoring. It is furthermore unclear who is responsible for undertaking the monitoring.

1.3 Planning and reporting
1.3.1 Activity Plan

The details on the activity plan as stated in the annex underlines that the operator is not only responsible for the CO2 capture but for the whole value chain from capturing, transporting and storing the CO2. The BBE highlights that this might be a challenge for some operators as they have their expertise in the CO2 capture, and not in the remaining steps of the value chain. This responsibility of the complete value chain might lead to a high bureaucratic effort. It should be possible that an activity plan is not only submittable by the operator of a capture facility but by organisations that are part of the value chain and might have expertise in their respective activities.

It is therefore recommended to define that it is not solely the responsibility of the operator to submit an activity plan. All operators that are part of the value chain should be allowed to submit an activity plan.

The BBE would like to emphasise that the requirements set in the draft regulation for the activity plan, the monitoring plan and the monitoring report will create additional bureaucratic efforts that are highly challenging to adhere to by small and medium-sized operations.

For biochar more specifically, the BBE suggests the following:

- **Digital MRV instead of activity plans:** Every shipment of biochar should be digitally tracked from production to final application. This ensures robust monitoring of all uses (including non-sink applications), prevents double counting and fraud, and reduces risks compared to pre-determining applications.
- **Clear allocation of responsibilities and rights:** Digital MRV also clarifies ownership of carbon sink rights and allows responsibility for monitoring to be transferred from plant operators to other certified market participants.

2.1.6 Capture of CO2 from biogenic streams
2.1.6.2. Capture of CO2 from partially biogenic streams

The BBE welcomes the exclusion of certification of fossil emissions in mixed streams. Operators of co-firing bioenergy facilities should not be allowed to certify capturing fossil CO2 and not be allowed to receive renumeration for capturing fossil emissions. The differentiation between fossil emissions and biogenic emissions should be clearly defined so that there won't be any fraudulent cases of fossil emissions being assigned as biogenic emissions. Otherwise, this regulation would not result in an additional efficient and efficacious EU climate policy instrument.

2.2 BCR activity
2.2.3. Quantification of the total removals of the activity, equation 44

Plant operators can only estimate the maximum carbon sink potential, not the actual removals, since they have no control over what happens in the supply chain. Holding them accountable for total removals is impracticable and risks false data. Therefore, the term "carbon sink potential" should be used until biochar is permanently applied and a sink is actually created.

4. Sustainability
4.2 Biomass sustainability

BBE welcomes the application of article 29 of the Renewable Energy Directive (RED) to guarantee the sustainability of biomass. It would have been unnecessary to introduce new or stricter sustainability criteria that are not already part of the RED. However, as stated in other consultations, the directive is not very user-friendly, especially in Member States where national laws already regulate and enable the sustainable production of biomass. In Germany, the Federal Forest Act ('Bundeswaldgesetz') regulates sustainable forest management. This sort of multi-regulation is a limiting factor in the bioeconomy and for many operators of biomass energy plants not comprehensible. After all, in Germany the biomass used for energy purposes has not significantly changed after introduction of the RED but just resulted in more bureaucracy and costs for certification.

The BBE appreciates the Commission's effort to align the framework with the Renewable Energy Directive (RED III), which offers a solid basis for the sustainable use of biomass. Such consistency is key for legal clarity, avoiding overlaps, and fostering long-term investment security across the EU.

The reference to the cascading principle should only apply to energy support schemes, in line with Article 3(3) of RED III. The methodology should therefore reflect that combining carbon removals with energy generation creates distinct economic and environmental benefits compared to energy production alone.

As Member States' implementation of these provisions is still uncertain—particularly regarding the role of BioCCS in the hierarchy—further clarification and stronger alignment with RED would be highly valuable.

The BBE suggests the following changes marked in bold for 4.2 (b) of the annex:
(b) where the process that generates the CO2 captured by the activity generates energy that is taken into account under Directive (EU) 2018/2001:

"(i) the certification body shall verify that the national implementation of Directive (EU) 2018/2001 applies to the operator, and that the operator complies with this national implementation.
(ii) the certification body shall verify that the operator complies with any measures in national implementations of Directive (EU) 2018/2001 that are introduced to ensure that woody biomass is used according to the list of priorities established in Article 3(3) of Directive (EU) 2018/2001, including any derogations introduced by Member States under Article 3(3) of Directive (EU) 2018/2001,), **if the operator receives support for the energy production**.
(iii) the certification body shall verify that the operator does not receive direct financial support from Member States to process saw logs, veneer logs, industrial grade roundwood, stumps and roots **to produce energy**."

4.3 Avoidance of unsustainable demand for biomass raw material

The draft's requirement that new facilities prove they would be "economically viable without carbon capture" is misleading and impractical, since many renewable and low-carbon projects rely on policy support. Instead, eligibility should be based on whether installations contribute strategically to decarbonisation (e.g. in hard-to-abate sectors, renewable energy supply, or regional climate plans) and consider sustainability of biomass, installation type, and upstream supply chain emissions.

The BBE would also like to argue that converting existing infrastructure to BioCCS is more sustainable than new builds, and that the proposed "change of control" restriction on ownership would unnecessarily block investment, partnerships, and scaling. The BBE recommends to replace the economic viability test with a strategic set of criteria and to remove the "change of control" condition.

The BBE suggests the following changes to replace the current economic viability test:

"Where the activity takes place at a newly constructed facility that became operational not more than twelve months before the start of the activity period, operators shall demonstrate that if the facility had been constructed without carbon capture, **it would** ~~**still be economically viable, i.e. that the net present value would be positive for a version of the facility without the cost of carbon capture or the revenue from carbon removal units or any other support predicated on the delivery of carbon removals. Newly constructed facilities include facilities constructed on sites with no history of operation of the CO2 generating process and facilities constructed on sites where the CO2 generating process was previously operational under the control of a different economic entity but where operations had ceased and are restarted after a retrofit or expansion.**~~ **nonetheless play a strategic role in supporting decarbonisation objectives. This includes**

contributing to the decarbonisation of the power grid, industrial sectors, or regional energy systems. The assessment shall consider the availability of sustainably sourced biomass by recognising already existing means of proving sustainable biomass like the RED III-criteria, the type of installation (e.g., power-only, CHP, biofuels, or waste to energy), and alignment with local, regional or national climate and development plans.

The BBE further suggests adjusting chapter 4.3 as follows:
"Newly constructed facilities include facilities constructed on sites with no history of operation of the CO_2 generating process ~~**and facilities constructed on sites where the CO2 generating process was previously operational under the control of a different economic entity but where operations had ceased and are restarted after a retrofit or expansion**~~."

Reporting requirements on biomass types should align with RED III. The draft regulation introduces unclear forestry terminology—especially "industrial grade roundwood (IGRW)," which lacks a definition in RED and risks inconsistent interpretation across Member States, weakening monitoring and implementation.

The CRCF should align biomass sustainability criteria and reporting obligations with RED and existing voluntary or national certification schemes. Established systems already provide practical feedstock categories, while RED Article 30(3) sets detailed requirements on feedstock types and origin. This would ensure coherence and practicality.

To simplify and to align with the RED, the BBE suggests the following changes:

"Operators shall disclose the biomass feedstock or feedstock mix consumed, disaggregating feedstock to the level required in Directive (EU) 2018/2001, ~~**with an explicit identification of the respective fractions of the feedstock that comes from saw logs, veneer logs, wastes or residues and mixed material that may contain industrial grade roundwood**~~".

Berlin, 22.09.2025