

Monday, 19. June 2023

Call for Inputs: Removal Activities under Art. 6.4

Structured Public Consultation - Removal Activities

The European Biochar Industry Consortium (EBI) thanks you for all your efforts and particularly on the opportunity to comment on the Removal Activities under Art. 6.4.

Technological Carbon Removals are, even though currently at different TRLs, a viable option to store carbon permanently and a necessity to contribute to the climate targets.

As the representative of the Biochar sector in Europe and thus Biochar Carbon Removal (BCR), we'd like to address the following points regarding the Information Note on removal activities (<https://unfccc.int/sites/default/files/resource/a64-sb005-aa-a09.pdf>):

1. 33 - Comment to “Delete reference to products”:

We agree with the “Con” argument that inert carbon products can store formerly atmospheric carbon for long periods of time and, in this case, should be accounted for.

- Biochar-containing products like certain building materials (e.g. concrete) can serve as a carbon sink for very long periods of time as the biochar inside is safely contained within a matrix and not subject to oxidation.
 - Biochar-based products of intermediate lifetime (e.g. polymers in housing elements - wall claddings, 3D-printed elements) can be fully recycled and thus the formerly atmospheric carbon can remain in different products for long periods of time. To account for a carbon removal, of course, the material and eventual recycling has to be tracked properly. This is already being done.
 - Biochar is a chemically inert material that can be a product without further processing or blending. If deployed in a way that prevents thermal oxidation, e.g. as a carrier matrix for fertilizers, it will remain in the environment for time periods that can be considered permanent.
2. 34 (d) - Definition of Biochar: *Stable, carbon-rich material produced by heating biomass in an oxygen-rich environment. Biochar may be added to soils to improve soil functions and to reduce greenhouse gas emissions from biomass and soils, and for carbon sequestration.*

- This definition is limited to agricultural uses. Biochar is carbon and carbon is used in various different applications. Many of those will yield to carbon removals of different durability, numerous to long-term and even permanent carbon removals.
3. 37 (c) - Storage in durable products:
- Biochar as a product, e.g. for agricultural use, can be durable for longer periods of time. The scientific disciplines of organic geochemistry and petrology are examining their persistence in the upper earth's crust and a benchmark for "permanence" will be proposed. Industrially produced biochar, in most cases, are the most stable form of organic carbon and not prone to weathering. In products that are not subject to thermal oxidation (e.g. concrete), biochar will last for millennia. Thus, it is better suited as part of 37 (c)
 - ii - Inert carbon products.
4. 40 - Mitigation potential TRLs of different removal options
- In the European Biochar Market Report 2022/2023, published in March 2023, we recorded and published the production capacity of biochar in Europe. At the end of 2023, around 180 biochar production plants will be in operation in Europe (up from 60 plants at the end of 2019). The three producers with the most plants in the field each have between 25 and 35 plants in operation, one supplier has about 10 plants in operation, and several others have built 3-6 plants. Therefore, the indication in Table 4 of the status as TRL6-TRL7 is now certainly out of date and we would like to suggest that the status be indicated as TRL8-TRL9.
 - The cost of carbon removal in \$/t CO₂ should rather be put at \$120 - \$220. In this range, on the one hand, sufficient incentive is created for rapid scaling and, on the other hand, it is also sufficient to make projects/installations profitable

Thank you for your consideration.

We are happy to reply to any questions, please contact us:

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