

Miljödepartementet

Yttrande angående: **“Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL; establishing a Union certification framework for carbon removals”**.

Chalmers har tagit del av **Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL; establishing a Union certification framework for carbon removals**.

Nedan återfinns Chalmers svar och kommentarer på betänkandet.

Författare: Jan Kjärstad

General comments:

I agree that an EU-wide framework for the assessment of the quality of carbon removals is vital. It will ensure a level-playing field for operators and a fair internal market for the certification of carbon removals, and thereby also enhance comparability and trust.

I also agree with the four quality criteria set out in the proposed regulation, i.e., quantification, additionality and baselines, long-term storage, and sustainability in order to identify and certify high quality carbon removals generated in the EU.

The action plan in the Commission’s Communication on Sustainable Carbon Cycles 2021 stating that industrial technologies should remove annually at least 5 Mt CO₂ eq by 2030 and reinstated in this proposal is considered too modest.

Regarding the second last passage page 3 stating, quote from the middle of the passage;

“Furthermore, the 2022 Communication on Greening the Commission announced that, in addition to the ambitious set of GHG reduction actions, the Commission will have to rely also on carbon removal to neutralise unavoidable emissions and achieve net zero GHG emissions by 2030”, unquote. It should probably be “...net zero GHG emissions by 2050”

I have concerns regarding the timelines for the certification process including the re-certification audit. There is no way an industry/operator will commit to set up/take final investment decision for a CCS-

system (providing carbon removal) until the process and the number of CRUs have been certified for the long-term.

A typical CCS-system today comprises the operator dealing with the capture process, a transporter A who transports the CO₂ to a port and a transport and storage provider B who transports the CO₂ to its own CO₂ terminal before treating the CO₂ and injects it into a storage site. Where in such a system will the CRU's be counted? Assuming that the CRU's will be counted at the capture site, what happens if the number of CRU's deviate from what is actually injected and stored (leakage during transport, e.g. the taxonomy screening criteria for transport of CO₂ (activity 5.11) limits leakage between capture site and injection site to maximum 0,5% of the mass transported).

Comments related to points (1) to (31)

Points (1) and (15); I am deeply concerned with proposals from the EU Parliament with regard to the revisions of the LULUCF regulation and the RED directive and the *consequences this may have on the possibilities for carbon removal through Bio-CCS in Sweden*. More specifically;

- a) the quantified target set for Sweden regarding the net CO₂-uptake from the LULUCF-sector has been set at 47.3 Mt CO₂e annually which will reduce production of forest raw materials and biomass for the energy sector (transport, power and heat) - the annual CO₂-uptake currently stands at around 40 Mt CO₂e)
- b) the proposal to limit the amount of primary wood biomass that can be burnt in power plants and to stop accounting this as renewable energy. Almost 40% of all biomass used for energy production in Sweden is primary wood biomass.

Point (6): See also comments related to Article 3 and 15. Uncertainties related to ongoing revisions of the Renewable Energy Directive and the LULUCF regulation regarding the definition of “sustainable biomass”.

Points (11) and (12) regarding additionality; Not clear regarding capture sites where CO₂-stream is both fossil and biogenic like for instance CCS installed on waste CHPs. Suggests that the regulation exemplifies.

Points (13) and (14): Point (13) states that as soon as the CO₂ has been injected into a geological storage site it can be considered as providing permanent storage. But point 14 refers to – among others – application of liability mechanisms (in the case of leakage from a geological storage site) in Directive 2003/87/EC and Directive 2009/31/EC of the European Parliament and of the Council. Also, a storage site can be expected to contain both fossil and biogenic CO₂ from multiple sources, how to allocate leaked CO₂ to specific certificates?

Point (19): Concerns regarding the meaning of “correct quantification of the expected net carbon removal benefit before implementation”. See also general comment above regarding where the CRU’s should be counted?

Comments related to “Chapter 2 Quality Criteria”

Article 5 – Additionality: See comments to points (11) and (12) above. Unclear with regard to CCS applied on sites where CO₂-stream is part fossil and part biogenic. Recommend exemplification.

Article 6 – Long-term storage: Confusing in the case of CCS with regard to a) where should the CRUs be counted, b) length of the monitoring period and c) which legal entity is responsible for the monitoring and d) which legal entity is responsible/liable if CO₂ is leaked from the storage site.

Article 7 – Sustainability: See comments above regarding concerns related to ongoing revisions of the LULUCF regulations and the Renewables Directive (RED III).

Comments related to “Chapter 3 Certification”

Article 9, point 3.: Concerns with regard to CCS related to the periodic re-certification audits and the impact this may have on financing of CCS-projects.

Comments related to Annex II - Minimum information included in the certificate referred to in Article 9”

(c) start date and end date of the carbon removal activity; Regarding CCS; will the operator actually decide in advance when to end the CCS-operation?

General comment with regard to CCS;

It is unclear **where** the operator shall report CRUs; at the capture site, at the port where transporter takes over, at the transporters terminal, at the injection site? And what about the transporter, where does the operators liability end and the transporters liability start?

Göteborg 2022-01-19

Jan Kjärstad



CHALMERS

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL; establishing a Union certification framework for carbon removals C 2022-1896-1