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Regulation on carbon dioxide injection, Case no. 166/2021

Dear Sir or Madam,

Herewith, we confirm, that Magnús Óskarsson is authorized to submit the following comments in the name of Climeworks AG.

- Art. 51 e
In the text about insurance for leakage risks, it does not seem clear in our English translation whether this refers to a need for a third-party insurance product or rather to safety measures by the project operator in the sense of remediation plans, monitoring, etc. The former may not be easily available, on the market, as geological CO₂ storage is not an established market and there are no standard insurance products available.
- Art. 51 k
Third-party access to transmission system and injection site should not be enforced in the case of contractual arrangements that guarantee the exclusive use of a given reservoir for CO₂ from a specific origin. Such arrangements may be important for the purpose of increasing operational security by supporting clear responsibilities in the case of operational issues, including leakage risks and remediation tasks.
- Art. 51 m.b
The given minimum time period for the transfer of liability of 20 years seems reasonable for pure-phase injection of CO₂. However, for enhanced in-situ mineralization with injection of CO₂ in dissolved state (i.e. the "Carbfix" method), 20 years seem unreasonably long. Complete mineralization has been shown to occur within 2 years. Mineralization of the CO₂ should be acknowledged as the final step in the permanent storage of CO₂.
As a minimum, the regulation should define the demonstrated mineralization of the CO₂ as a satisfactory way of fulfilling the criterion referred to in point (a).
- Annex XI and XII
The rules laid out in these two annexes are based on the EU CCS Directive (Directive 2009/31 / EC). This directive has been designed for CO₂ storage in sedimentary basins, where the CO₂ is injected as a pure phase and thus requires stratigraphic trapping. For Iceland, these rules have limited availability, due to the absence of sedimentary basins. Specific regulations for enhanced in-situ mineralization with injection of the CO₂ in dissolved state (i.e. the "Carbfix" method) are required for site/reservoir selection and for monitoring. World-leading experts at Carbfix and in the Icelandic or international academia can assist the development of such specific legislation. Climeworks will be happy to provide a list of candidates.



If you have any questions, please feel free to contact us. We are happy to help!

Thank you for your efforts to help reverse climate change.

Kind regards,

A handwritten signature in blue ink that reads 'D. Sutter'.

Dr. Daniel Sutter

Project Development Manager

CO₂ Storage Specialist

Climeworks AG