Removal activities under the Article 6.4 mechanism

Neustark response to information note

About Neustark

Neustark is a Swiss-based company, founded in 2019, and is a team of around 40. Together, we enable permanent CO_2 storage for a bright future of all generations on our planet by deploying carbon removal (CDR) solutions. Neustark is a leading provider in this rapidly growing field, having developed a solution to permanently store CO_2 from the air in recycled mineral waste such as demolished concrete.

Our first solutions have been deployed in Switzerland and Europe and are already capturing and storing important amount of CO_2. Our process is measured and credited on a full life cycle assessment and evaluated for expected permanence of storage and potential for leakage, certified under Gold Standard. It offers enduring mitigation outcomes fundamental to achieving the Paris goals.

We are currently scaling up our operations and carbon removal impact globally – on the road to removing one million tons of CO_2 in 2030, and beyond that.

www.neustark.com

Neustark would like to thank the Supervisory Board for the opportunity to respond to this consultation.

Neustark supports an approach to Article 6 that is technology neutral and aligned with scientific assessments of the possible scenarios for keeping the 1.5°C target and welcomes efforts to focus on monitoring and reporting and addressing reversals.

Carbon removal activities are varied, including in regard to their monitoring, reporting and verification (MRV); storage duration; and risk of reversals. Given this, Neustark calls on the Supervisory Body to establish activity-specific requirements that also address the granularity that is needed for the different activity types. This would create more trust and transparency in the reporting rules of the different carbon removal methods, ultimately facilitating carbon trading under the Article 6.4 mechanism.
Also tech-agnosticism is critical, treating all CDR activities equally without favouring any specific technology. In line with this approach, the 6.4 Supervisory Body should consider a gradual implementation strategy in which approved methodologies, once deemed ready, can be employed for issuing A6.4ERs. By giving approval to these methodologies, they can be put into action promptly, accelerating progress towards achieving climate goals.

Accordingly, the definition of a time horizon for this mechanism should be done in a way that does not put the inclusion of highly durable methods at risk. We encourage the A6.4 body to find a well-balanced storage threshold, reflecting both economic and scientific rationales.

5. Should the activity proponent be required to periodically update its monitoring plan every five years and/or at the end of the crediting period?

Neustark supports an update at the end of crediting period unless there is a change in the project.

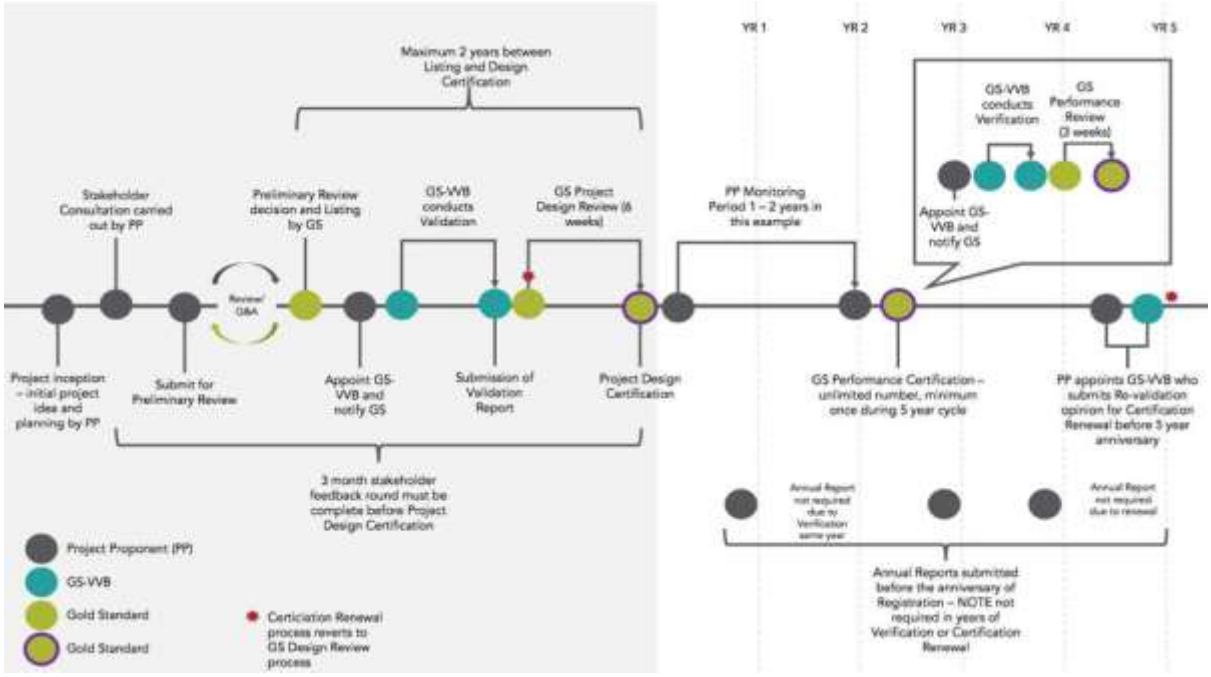
Monitoring is defined when the project is validated. If the project gets changed, we review the monitoring report and amend it accordingly. Request a change to the methodology for the carbon removals has to be approved by an external auditor.

Developing a methodology takes at least 2 years with verification and approvals by third parties.

Our process is measured and credited on a full life cycle assessment and evaluated for expected permanence of storage and potential for leakage, certified under Gold Standard.

For the first project of a new type in a country, a public consultation takes place. This ensures that the high quality of carbon dioxide removals credits is identified.

To be more explicit, Neustark developed its methodology under Gold Standard (link here) applying a strict MRV and project boundaries.



6. Should monitoring reports be submitted within the first [2] [5] [X] years of activity implementation?

2 to 5 years

After the first report, at least once every [2] [5] [X] years?

At least once every 2 years

A robust MRV is a prerequisite to building trust in the carbon removal sector. The MRV for shorter-term carbon removals tends to be more complex due to the dynamic nature of ecosystems and the influence of various environmental factors on carbon sequestration. On the other hand, engineered methods offer more straightforward MRV procedures, as the capture and storage processes reflect “closed systems” and/or can be closely controlled and monitored. Developing distinct MRV protocols tailored to the specific characteristics of each carbon removal approach is essential to ensure accurate and reliable reporting, thereby instilling confidence in carbon removals.

Questions for structured call for inputs on recommendations for activities involving removals 2 of 3

7. Do the "reversal notification" reports referred to in SB 003 recommendations involve, e.g. digital notification of an observed event that could lead to a possible reversal of removals; submission of notification within [90] [120] [X] days of the observation;

100 days

follow-up submission of a full monitoring report within [6 months] [1 year] [X timeframe]?

1 year

8. To ensure and demonstrate the continued existence of removals, are activity proponents required to undertake monitoring and address reversals:

(a) Only during active crediting period(s) or

Mineral waste carbonation project/mineralization

(b) The longer of [9(a)] [9(b)] or a timeframe specified by the host Party (e.g. communicated in LoA or earlier)

For geological storage when specified by the host Party

9. Is simplified annual reporting required to ensure and demonstrate the continued existence of removals? In what cases and how long?

We do not see the additional benefit if every aspect of the project is declared in the monitoring report.

Data in cloud so this could be done but we check data to have the highest quality monitoring report.

10. Are measures required to address the residual risk of reversals beyond the monitoring timeframe? If so, for how long, and what are the options for, e.g. the mechanism(s), responsible entity(ies), oversight?

Again, this would depend on the process and timeframe.

Mineralization does not need additional measures. For geological storage it can be specified by the host party.

This has to be activity specific.

2.2. Addressing reversals 2.2.1. General

11. What type of risk rating is used to calculate an activity's buffer contributions?

(a) The results of an individual activity's risk assessment;

We would support a project specific risk assessment with a dedicated methodology for the process. One-fits-all would not work.

13. On what basis could requirements provide for the use of simplified / standardized elements or mandate the use of more frequent, full, or activity-specific elements and what are the requirements that may be relevant?

Activity specific

(c) Risk assessment contents (e.g. nature, number, variety of risk factors);

Due to the wide variation in the risk of reversal between CDR activities, we would support activity-level risk assessments. The measures and actions taken to mitigate the risk of reversal should span across different stages: before the project starts (e.g. in the rules / methodologies for the validation audit of a project), during its operation (e.g. regular monitoring), and even after it has been implemented (e.g. post-closure requirements) to allow for a mechanism that complies with the RMPs adopted in Glasgow.

14. Should procedures take the same or different approaches to instances of reversals that are

(a) intentional/planned versus (b) unintentional / unplanned?

(a) How/would other tools to address reversals involving direct credit replacement (including use of insurance / guarantees) be used in combination with a buffer pool?

On the risk of reversals, there is a greater likelihood that shorter-term activities could be impacted by reversals, particularly solutions that might be subject to natural disturbances or climate variability. Permanent storage of CO2 like for our solution, on the other hand, is not exposed to natural hazards and therefore less prone to reversals. By creating separate streams for shorter-duration CDR activities and highly durable removals, the Supervisory Body can adopt targeted risk management strategies for each category and better reflect on the requirement to address all reversals in full.

For our solution, the probability of reversal is low and highly controllable and controlled thus the utility of a buffer pool is questionable.

It is also based on an iron clad life-cycle assessment validated by external parties and end-project boundaries. In case of leakage, a replacement of credits is applied.

Questions for structured call for inputs on recommendations for activities involving removals 3 of 3

2.2.2. Reversal risk tools—General: Buffer pools, direct credit replacement, insurance / guarantees

15. Regarding reversal risk buffer pools, direct credit replacement, and insurance / guarantees:

(a) What is the current practice with these reversal risk tools, including the extent and nature of their use (respectively and in combination), transaction costs and how these are financed, and potential roles of the Host Party in multi-decadal compensation requirements;

N/A

(b) The circumstances under which the use of a given tool may be required or supplemental—for example, for intentional versus unintentional reversals, or during versus beyond the last active crediting period—and rationales.

The difference between intentional/unintentional reversals should apply.

2.2.3. Reversal risk tools: Specific

16. What are options for robust buffer pool design, including conditions and procedures for its use, ER composition, replenishment, and administration.

Neustark questions the necessity of buffer pools for certain (mainly permanent) solutions. When dealing with permanent storage options, where the risk of leakage is minimal (less than one percent), the inclusion of buffer pools may result in an over-regulation.

To be more explicative, if a buffer pool is deemed essential, a refundable buffer pool approach should be explored. Under this method, credits allocated to the buffer pool, where no reversal occurs, can either be reimbursed. This way, the system remains adaptable, provides a (monetary) incentive for safeguarding permanent storage approaches and promotes the efficient utilisation of carbon credits without impeding progress.
Regarding the tools used to mitigate the risk of reversals, especially in relation to risk buffer pools, we recommend that the Supervisory Body to rely on rigorous scientific models. Indeed, the Supervisory Body can enhance the reliability and credibility of carbon removal activities.

Considering that our solution occurs in a closed environment, in case of leakage, credits are immediately replaced.

2.2.4. Treatment of uncancelled/unused buffer ERs

18. Are uncancelled ERs in the buffer pool returned to the activity proponent to incentivize performance and/or automatically cancelled, and is this done periodically throughout activity cycle or only after the end of the activity lifecycle or the host Party NDC timeframe?

20. Possible basis for periodically returning ERs to proponents (e.g. metrics for activity performance, activity cycle milestones).

We would support that credits be returned to the project after the end of the monitoring period.

Whilst recognizing that not all countries or regions have a developed regulatory system for carbon removals, the new mechanism from the Article 6.4 Supervisory Body should not overlay these existing requirements (e.g EU ETS and EU CCS Directive) as it could lead to a greater/double financial burden on CDR companies.

21. Procedures for the SB's periodic review and ongoing management of buffer contributions (e.g. buffer composition, stress-testing the sufficiency of risk coverage). - - - - -

Neustark would support a differentiation between short durability and high quality permanent storage allocated credits.