#### Links

Questions for structured call for inputs on recommendations for activities involving removals (link)

SB presentation – activities involving removals under Article 6.4 mechanism (link)

## Questions

# 2.1. Monitoring and reporting

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?

A monitoring plan should reflect the latest scientific assessments, instruments and best practice for projects, wherever applicable. However, there will be monitoring plans that are equally valid after 10 years - without any changes. As long as they maintain to achieve the objective, which should be the correct, robust and science-based quantification of A6.4 projects, we see limited need to updating the monitoring plan. Embedding a periodic requirement to "revisit" rather "updating" the monitoring plan is preferrable. A clear periodic requirement for project proponents to reflect on the need for an update should than trigger actual "updates" only where relevant.

6. Should monitoring reports be submitted within the first [2] [5] [X] years of activity implementation? After the first report, at least once every [2] [5] [X] years?

First submission: Within 5 years

It is generally recommended to have frequent submissions of monitoring reports. However, industrial CDR facilities will undergo a commissioning and ramp-up phase that can be assumed to take 1-3 years. By being able to submit a first report latest by year 5, project proponents will have the possibility to reflect such a ramp-up "completely" within a first monitoring report. More frequent submissions should still be encouraged, but not mandated.

Thereafter: Every 2 years

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; follow-up submission of a full monitoring report within [6 months] [1 year] [X timeframe]? Reversal notifications should be focussing on actual reversal events and not necessarily be expanded towards a need of reporting for events that could lead towards a possible reversal. The emphasize on reversal notifications "ex-post" should thus be on gaining detailed insights on processes, where a reversal has actually happened and the quantification of the reversal event. An ex-ante assessment of risk (categories) that could be leading towards Thereby, project proponents should focus their efforts and monitoring reports on detecting and quantifying actual reversals within their reporting. An initial project A full monitoring report, could include a section on "near-misses" and outline what events could have led towards reversals over the reporting period. To ensure a timely reflection of reversal events within

the A6.4 mechanisms, reversal events should be fully quantified, third-party validated and reported within a (initial) monitoring report latest 6 months after the reversal event has occurred.

- 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
- (b) Also [15] [X] years after the last active crediting period?
- (c) The longer of [9(a)] [9(b)] or a timeframe specified by the host Party (e.g. communicated in LoA or earlier)
- (c) To ensure and demonstrate the continued existence of removals, the longer of 8b) or a timeframe specified by the host Party should be used. Here it is important to stress that previous UNFCCC decisions on modalities concerning geological storage stressed that, monitoring shall: "(d) Only be terminated if no seepage has been observed at any time in the past 10 years and if all available evidence from observations and modelling indicates that the stored carbon dioxide will be completely isolated from the atmosphere in the long term. This may be demonstrated through the following evidence[...]" (Source, c.f. para 16. In Annex B, page 16)

This marks an important precedent in the sense that the monitoring obligation is following a "performance-based" rather than ex-ante fixed termination date. This logic ensures that all reversals can indeed be addressed in full.

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

Within the crediting period: Simplified annual reporting could be installed, as long as it doesn't present too high of a burden to project developers. Note that we foresee a need to provide monitoring reports at least every two years once a first report has been authored.

Post-crediting period: See the answer to the point above:

Storage monitoring should follow a "performance-based" logic.

This logic should safeguard that reversals can be addressed in full wherever necessary, but also be easing the burden of monitoring according to the likelihood of reversal events for specific activities over time.

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?

Yes, those should be required or, as stated above, there should be a performance based monitoring timeframe enacted a priori... It could then be further considered whether a burden of monitoring for project developers can be ceased, if another entity is willing to take on a "highly-limited" possibility of reversals. This logic is enshrined within the European CCS Directive, where a project operator can apply to transfer the liability towards national entities. Such entities will be held responsible for further losses, in case they accept to incorporate said activity towards its accounts in the first place.

### 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;
- (b) A standard rate determined by the 6.4SB;
- (c) Either measure could be appropriate, depending on the circumstances (in this case, what factors should determine the use of an activity-specific or standard risk rating)?
- a) For the case of permanent storage via geological sequestration, buffer contributions (if necessary at all) should reflect the project specific risk profile. This contribution should also take account of existing regulations in the host country. E.g., in Europe, a geological storage operator is regulated by the EU ETS and legally required to compensate for reversals via the purchasing of European Union allowances (EUA). Mandating additional buffer contributions will result in double coverage of the same risk and thus additional financial burdens to advance mitigation activities.
- 12. What are the options for circumstances/triggers and/or periodic milestones for reviewing and possibly updating activity baselines, risk assessments (so, risk ratings), and monitoring plans, including in relation to:
- (a) Verified reversals of removals; and
- (b) The stages of activity cycle implementation?

Methodologies and projects monitoring plans should be periodically reviewed to safeguard alignment with latest scientific evidence and findings in all cases. We understand this to be reflected in the principle of "ensuring ambition over time".

As regards verified reversals of removals, they shall trigger an overall re-assessment of the project leading towards a demonstration of i) how the project can continue to operate without facing similar reversal events again ii) how the project has addressed reversals in full iii) how the project has incorporated risks future.

For geological sequestration, there should be updates according to the project phase: Preinjection, during the crediting period/injection, post-closure requirements. As elaborated above, a performance based monitoring requirement will be better suited to address the different monitoring requirements and allow for flexibility in project planning.

- 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?
- (a) Activity type or category;
- (b) Risk rating level (e.g. above versus below a given %-based threshold);
- (c) Risk assessment contents (e.g. nature, number, variety of risk factors);
- (d) Monitoring plan (e.g. complexity, frequency, responsible entity).
  - a) Performance based monitoring obligations require both, a scientific assessment as well as empirically informed data samples. Thus, the real-world circumstances should

- be the basis for simplified or standardized elements. According to the storage timeframes outlined by the IPCC, a broader categorization could be done by activity types and categories (e.g. terrestrial vs. geological storage).
- b) We encourage the A6.4SB not to incorporate CDR methods that are above a certain risk-threshold in the first place. Additional simplifications if a specific %-threshold is reached could be incorporated with a performance based risk assessment.
- 14. Should procedures take the same or different approaches to instances of reversals that are
- (a) intentional/planned versus (b) unintentional / unplanned?

An intentional/planned reversal should be reflected within the quantification if they are happening during the crediting period. After a crediting period, intentional reversals shall be eliminated altogether. Unintentional reversals should also be respected in the respective amount of A6.4ERs credited as long as they happen during the crediting period. Post-crediting period, they should be addressed via different procedures, but in a manner that incentivizes long-term storage and effective management and monitoring of unintended reversals.

(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? We encourage the SB to incorporate such additional pools, as long as a clear responsibility and liability to address a reversal in full is maintained.

# 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;
- (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.

For projects that are relying on geological storage, there is differing precedents. Within the EU ETS, CCS is an eligible pathway, but conversely, reversal events require a storage operator to address all reversals in full via the cancellation of a corresponding amount of EUA. Additionally, there are provisions to transfer the liability towards national authorities, upon their acceptance. To permit activities in the first place an assessment of financial safeguards, insurances etc. present a firm and central requirement.

On the UNFCCC level, the Durban decisions made for an important incentive for effective long-term storage by allowing buffer credits to be reimbursed to project proponents, upon proof of permanence or a transfer of liabilities to competent authorities.

Within voluntary carbon markets, some standards are relying on the high amount of governmental regulations for geological storage and do not impose further buffer requirements. Others have been requesting buffer deductions that are presenting an overregulation and make for an additional burden for project developers, as risks are thus hedged twice, once via the VCM operator and once via relevant and competent national authorities.

Regardless of the approach, permanence hedging covers all, intentional and unintentional as well as during and beyond crediting period reversals.

#### 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.

As outlined above, buffer pools for geological sequestration are presenting a double coverage of risks in certain national context. Thus they should be restricted to places where no national authority is covering the risks to a sufficient amount. In case a buffer is used, it should be designed in a way to reflect project specific risks and allow for minimal pooling across activity types/categories, if at all. Given the broad range of CDR methods under discussion for the A6.4, we encourage the SB to not penalize low-risk methods via generally applicable buffer requirements. Furthermore, buffers accounts for CDR activites (in cases needed) should be (re)plenished with CDR credits only, as a general fungibility between CDR and emission reductions should not be seen as a given.

17. The need for additional procedures and guidance for the 6.4SB, PPs, insurers/ guarantors to implement options for direct ER replacement, including for insurance or guarantees. These requirements should be reflected within activity specific methodologies and can't be broadly generalized. CDR presents a variety of viable options, but all with their own needs and risk profiles.

#### 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? Yes, uncancelled ERs (or more specifically CDR outcomes) should be returned to the activity proponent in cases where permanence is highly likely. (E.g. confer the Durban CCS modalities). Based on a performance assessment, such returns should be following a flexible rather than pre-determined timeline.
- 19. Whether the options for treatment and timing are mutually exclusive or could be applied in combination (e.g. returning some but not all ERs to proponent).
- 20. Possible basis for periodically returning ERs to proponents (e.g. metrics for activity performance, activity cycle milestones). Permanence guarantees/likelihood, as presented within the CCS modalities. A similar logic should be installed for projects that aren't relying on geological sequestration, but present an equally safe and permanent storage approach (E.g. ex-situ mineralization).

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).