July 27, 2023

Dear members of the Supervisory Body,

In response to your "call for inputs on recommendations for activities involving removals", we have included the three sections below:

1. Answers to the posed questions
2. Summary of the implications and issues
3. Proposed alternative solution: Carbon 2.0

Please pay especial attention to the second and third section below, which we feel are of utmost importance.

Thank you for your invitation and consideration,

Will Clayton
CEO, Sky Harvest

A. Answers to posed questions

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?**
   We think updates should be triggered by events that necessitate a change to the monitoring plan, rather than an arbitrary time threshold. Such events may be the end of the crediting period, a reversal, a change in roles or leadership at the proponent or one of its partners, MRV technological change, or a change to the standards.

   More importantly, the necessity of a monitoring plan is inherently problematic. It implies that credits have been issued prior to the impact they represent (*ex-ante*) and consequently carry a risk of never realizing the climate benefit attributed to them. A better solution is to issue credits *ex-post*, once the climate benefit has been delivered. While this may be more challenging for developers at first (though prices will adjust to accommodate this), it is the only approach to ensure the integrity of climate impact.

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**
   See answer to #5.

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]?**
   Notification should be faster than 30 days and a full report within 6 months.

   More importantly, the risk of reversals has never been appropriately solved and remains at the crux of the problematic implementation of both removal and reduction crediting schemes. A system relying on self-reporting by project proponents against their financial best interests is inherently problematic and must be reconsidered; it is the equivalent of asking the fox to watch the hen house.

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)**

    The proponents should be required to monitor reversals for more than 1,000 years after the crediting period, because the credits were sold to offset emissions that will be in the atmosphere for at least that long. A 1,000-year monitoring period is, of course, infeasible and unenforceable. If the Supervisory Body chooses any monitoring period short of that, however, they compromise the climate integrity of the program and the credits.

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

    Yes, this should be required throughout the crediting and monitoring periods, as is the norm in accounting elsewhere.

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, measures are required to address the residual risk of reversals. Options include poorly sized and managed buffer pools, the UN assuming a permanent liability, or a much simpler solution proposed at the end of this letter.

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)?**

    11(a) is problematic because of the obvious conflict of interest. 11(b) is problematic because of the generic nature of the rate that will inherently lead to over and under calculation across various types of projects, favoring specific projects and methodologies over others. 11(c) is problematic because the proponent will attempt to "game" the system in their financial interest. Across all three solutions and buffer pools in general, there is no principal agent that must bear the risk of miscalculation creating an inherent conflict of interest that jeopardizes the climate integrity of any credit issued under a buffer pool schema. This is the crux of the problem underlying the posed question and it cannot be addressed by buffer pools.

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?**

    Events that might trigger such circumstances include (i) reversals, (ii) the advent of new monitoring technology (e.g., availability of higher resolution satellite data in the forestry context), (iii) regular reassessment of any buffer pool's sizing versus its potential liability and retirement rate, (iv) change in geopolitical circumstances.

    More importantly, the question addresses an inherent risk of *ex-ante* credit issuance: namely, that there are many risks that may affect the project's ability to deliver the purported impact that are unforeseeable at the outset of the project, when the buffer pool is sized. Issuing credits prior to delivery of the impact unnecessarily creates a liability that must be borne by someone. Today that is neither the proponent, the buyer of the credit, the Supervisory Body, nor the UN. Today that is the common global citizen. Rather

than adding layers of complicated bureaucracy and cost to manage the risk marginally better, the risk should be eliminated in the most obvious way.

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).**

    No comment.

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?**

    Procedures should take the same approach, regardless of intentionality. The goal is to change outcomes, not intentions. Proponents are fully capable of assessing and pricing the risk of unintentional reversals.

    More importantly, the complexity of these interrelated mechanisms (buffer pools, insurance, guarantees, issuance hold-backs) add cost, time, barriers to participation, and the inevitability that they will be gamed to the detriment of the climate and the public. A simpler, more effective solution is to eliminate the risk of reversals by not allowing *ex-ante* issuances.

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.**

    See answer to #14.

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

    There have been several unsuccessful buffer pool management models to date. There have been no successful models proven to-date; and the managers will be in different roles or retired by the time that we can truly assess if the management was prudent. By choosing a buffer pool mechanism, the Supervisory Body is choosing to allow an avoidable risk for which no one is accountable.

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.**

    See answer to #14.

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?**

    A portion of uncancelled ERs should be cancelled to account for the extended duration in which the offset emissions remain in the atmosphere which is not measured nor monitored after the crediting period. The remaining uncancelled ERs should be returned to the proponent at the end of such monitoring period.

This assumes there will be uncancelled ERs, which has been empirically unproven in other buffer pool schemas. The alternative, that there is a negative account balance in the buffer pool, cannot be remediated. This liability is born by the common global citizen.

Ongoing management of the buffer pool, including accounting for credits by proponent, by project, and by issuance over decadal timelines, will carry an ongoing cost which too must be funded upfront by the project proponents in order for the system to be sustainable.

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).**
    See answer to #18.

20. **Possible basis for periodically returning ERs to proponents (e.g. metrics for activity performance, activity cycle milestones).**
    This should not be allowed.

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).**
    This should be informed by subject-matter experts with actuarial experience.

B. Summary of implications and issues

We applaud the Supervisory Body's thoughtful approach to designing solutions with the broadest of possible inputs. Moreover, we are concerned that the Supervisory Body is headed down a path that will compromise the integrity of Article 6.4 – that is maintaining the broken status quo of today's carbon market.

The questions posed in this call for input inherently point to flaws in the proposed system:

- There is no assurance that reversals will be identified.
- There is no assurance that reversals, if identified, will be reported.
- There is an overt conflict of interest for the project proponent not to report reversals.
- There is no assurance that the buffer pool mechanism will adequately address reversals, if they are identified and reported.
- There is no assurance that the buffer pool will be sized appropriately.
- There is no assurance that the buffer pool, if sized appropriately, will have appropriately designed mechanics.
- There is no assurance that the buffer pool, if sized appropriately with properly designed mechanics, will be managed appropriately… over a period of several decades… with changing leadership.
- There is an inherent liability in the buffer pool mechanism.
- There is no accountability for who will bear that liability; the only backstop is the common global citizen who will bear the cost in the form of climate change.

These flaws point to the first conclusion of the Supervisory Body's recommendations to the rules, modalities, and procedures of Article 6.4, as proposed: **We cannot ensure the integrity of credits issued for impacts that have not yet been delivered.**

There are two more, equally problematic conclusions from the SB's recommendations, as proposed, which are not raised by the questions in this call for input:

- **The Supervisory Body has not equated the climate impact of credits to the climate impacts of emissions they are purported to offset.**
- **As a standard setting body, the Supervisory Body has not standardized removals of varying durations.**

These three conclusions undermine the integrity of the Supervisory Body's recommendations to the rules, modalities, and procedures of Article 6.4. In its Fifth Meeting, the Supervisory Body chose to maintain the status quo by adopting conventional mechanisms from today's broken voluntary carbon market, such as buffer pools for reversals.

We believe this decision in the Fifth Meeting was, in large part, due to a vocal minority (only 14 of 104 responses received) submitting criticism at the behest of its own interests – namely, lobbying for high-cost, engineered solutions that will take a decade or more to ramp up. These corporations, startups, and trade groups currently benefit in two ways: (i) upfront cash flow from selling credits prior to delivering climate impact, and (ii) ambiguity in how the permanence of those credits should be valued.

On behalf of the silent majority that did not recommend the Supervisory Body's Fifth Meeting decision (90 of 104 responses), we think the Supervisory Body must revisit this decision to answer the questions posed in this 'call for input' and address the climate integrity of its recommendations regarding Article 6.4.

C. Proposed alternative solution: Carbon 2.0

We call today's broken status quo "Carbon 1.0". Carbon 1.0 – despite its use by standards bodies such as Verra and The Gold Standard – fails to resolve the problems identified in the three conclusions above:

- **We cannot ensure the integrity of credits issued for impacts that have not yet been delivered.**
- **Credits with limited monitoring periods neither equate nor offset the climate impacts of emissions that endure into perpetuity.**
- **The standards do not standardize credits across removals of *varying* durations**

For example, in the world of Carbon 1.0, a 10-year soil removal credit – assuming no reversals – generates only 26% of the removals needed to offset one tonne of CO_2 emissions; yet that action is issued a carbon removal credit in today's Carbon 1.0 model[1].

Fortunately, there is an alternative to Carbon 1.0.

Leaders, such as The Climate Action Reserve and Quebec's compliance market, are early adopters of a better solution — "Carbon 2.0" — that resolves these problematic conclusions. Whereas Carbon 1.0 accounts for *volume* of greenhouse gases alone, Carbon 2.0 issues credits after accounting for *volume* and *duration* and *timing* of impact. In short, Carbon 2.0 is a more robust framework for ensuring the environmental integrity of carbon credits.

The Supervisory Body has already demonstrated its knowledge of this better solution here: A6.4-SB005-AA-A09.

Therefore, we humbly request that the members of the Supervisory Body consider the adoption of Carbon 2.0. Specifically, we request that they reconsider the adoption of a tonne-year accounting framework with the following characteristics:

- An infinite time horizon, not a limited time horizon of 100, 200, or 300 years. Infinity can be logically approximated as 1,000,000 years.
- A discount rate of 2-3.5%. We think there are arguments for rates throughout this range. More importantly, the only discount rate that we know is not right is the one used by the status quo: 0%. The UN is well situated to establish a precedent discount rate, reserving flexibility to adjust it as needed in the future.

[1] Assuming a 10-year duration of CO_2 storage, an infinite time horizon, and a 3.0% discount rate. See calculator

- *Ex-post* measurement, reporting, verification, and issuance.
- Minimum storage durations, determined on a methodology-specific basis.
- Lashof model of accounting, not Moura Costa model.

This will not be a popular decision. It will be opposed by the vocal lobby for engineered removals who currently benefit from *ex-ante* issuance and ambiguity in the value of permanence. It will also be opposed by incumbent project developers in the AFOLU space, who benefit from *ex-ante* issuances and yet unaccounted-for shorter storage durations.

However, the UN's role is not to facilitate a market that caters to the profitability of developers. The UN's role is to ensure climate integrity for its member nations. Namely, in this context, its role is to ensure that its definition of a carbon removal credit equates to the cost of the emissions that credit is purported to offset.

Doing so will reduce transaction costs, decrease confusion, minimize market manipulation, boost market integrity and thus credibility, and ultimately enable carbon markets to scale, mitigating climate change.

In conclusion, we ask that you, the members of the Supervisory Body, adopt Carbon 2.0 as a more robust carbon accounting framework to resolve the problematic conclusions of Article 6.4, as proposed. Please know that we would welcome the opportunity to answer questions and/or work with you and others towards this better solution. Thank you for your effort, time, and thoughtful consideration.

For further details we submit the following resources as part of this letter:

- Carbon 2.0: A Better Yardstick for Carbon Markets
- Carbon 2.0 Calculator