

**Subject:** Feedback on the Article 6.4 Supervisory Body's  
Information Note on Removal activities under the Article 6.4  
Mechanism Version 04.0

To UNFCC Representatives,

The signatories of this letter call on you to address the unbalanced representation of engineered carbon removal benefits, discrepancies in CO2 quantification, and misrepresentation of long-term storage benefits and its role.

In summary, our chief concerns are:

1. Unbalanced representation of the benefits of engineered carbon removals;
2. Discrepancies between the currently active IPCC accounting guidance and the foreseen quantification of CO2 within engineered removal activities;
3. Misrepresentation of the benefits of long-term storage and its foreseen role according to scientific assessments, e.g. via the inclusion of tonne-year crediting.

We trust that our response can be of use to the Supervisory Body as it moves forward with its work.

Yours sincerely,

Chris Sherwood, Secretary-General



OPENAIR

AIRMINERS



Direct Air Capture  
Coalition



Carbon Removal Alliance



## Unbalanced representation of the benefits of engineered carbon removals within the mechanism

NEP supports an approach to Article 6 that is technology neutral and aligned with scientific assessments of keeping the 1.5°C target. The recently published report on the state of CDR is clear: Virtually all current CDR [...] comes from conventional management of land[...]. However, the report highlights that **the bulk of CDR needed** according to scenarios assessed to be 1.5°C or 2°C compliant by the IPCC are indeed requiring further **contributions by engineered CDR methods**.

In this vein, **the mechanism should support both land-based and engineering-based removal activities**. Despite this, the note contains a significant amount of material which appears to discount the eligibility of engineering-based activities and suggests that those methods are not to be targeted via the A6.4 mechanism, as they are considered too costly.

We strongly believe that durability should be welcomed within the A6.4 market as it is inherent in all the IPCC definitions of CDR, as discussed in Paragraph 15: “Anthropogenic activities removing CO<sub>2</sub> from the atmosphere and durably storing it [...]”.

Correspondingly, the challenge of defining a time horizon for this mechanism should be done in a way that isn't putting the inclusion of highly durable methods at risk (We highly encourage the A6.4 body to find a **well-balanced storage threshold**, reflecting both economic and scientific implications).

Table 3 in Section 3.2 also dedicates significant space to arguments against engineered CDR. We believe this to be an unbalanced representation of public input and stress the exclusion of scientific assessments referenced in favour of engineered CDR methods (c.f. IPCC AR6: WG1 Chapter 4 and 5 or WG3 Chapter 12.3; or the State of CDR Report. For aspects directly related to market based mechanisms or “offsetting”, also confer, the Oxford Principles for a Net Zero Aligned Carbon Offsetting). We suggest the following changes to the row that addresses engineering-based activities.

## Unbalanced representation of the benefits of engineered carbon removals within the mechanism

### Activity Type

### Pros and Cons

#### Engineered-based activities

#### Pros

– Engineering-based removal activities can result in permanent net removal of carbon dioxide from the atmosphere.

*- These activities are varied in nature and can be deployed in a manner that is sensitive to the prevailing economic, social, and environmental conditions in the relevant states just as land-based activities can mitigate risks by avoiding monocultures of inappropriate species.*

*- These activities represent a removal potential that is many times greater than land-based activities because of the size of the various sinks, and in most cases, are likely to be more efficient in terms of tonnes removed per square km of the Earth's surface than land-based activities.*

*- These activities can contribute to sustainable development, including for example thanks to co-benefits such as ocean de-acidification, soil enhancement, and others.*

*- While many of these activities are currently costlier than traditional land-based activities, they are permanent measures. Furthermore, costs are likely to come down over time just as the costs of renewable energy have done.*

## Unbalanced representation of the benefits of engineered carbon removals within the mechanism

### Activity Type

### Pros and Cons

#### Engineered-based activities

#### Cons

- ~~Not all aspects of e~~Engineering-based removal activities are yet technologically and economically ~~un~~improved, ~~especially~~ at scale. ~~and pose unknown~~ Relevant environmental and social risks (P-12, R-83:a, R-84:a, R-50:c,d) are ~~still being researched~~. Currently these activities account for removals equivalent to 0.01 MtCO<sub>2</sub> per year (P-15:a) compared to 2,000 MtCO<sub>2</sub> per year removed by land-based activities.
- ~~These activities do not contribute to sustainable development, are not suitable for implementation in the developing countries and do not contribute to reducing the global mitigation costs, and therefore do not serve any of the objectives of the Article 6.4 mechanism.~~

Many engineered approaches lead to permanent storage of CO<sub>2</sub>, that is not exposed to natural hazards, which offers enduring mitigation outcomes fundamental to achieving the Paris goal of limiting global warming to 1.5°C or 2°C. Please note that Decision 10/CMP.7 has reflected arguments currently listed against the eligibility of engineered removals and can be relied upon to safeguard against potential risks of geological storage.

These activities should be measured and credited on a full life cycle assessment and evaluated for expected permanence of storage and potential for leakage. We also highlight the importance of treating removals under the Article 6 mechanism in a dedicated manner and welcome current, as well as future work, safeguarding that CDR does not hamper unprecedented and far-reaching emission reductions by establishing a system that is clearly differentiating between mitigation in the form of reductions or removals.

Dismissing engineered removal activities as unsuitable for implementation in developing countries fails to recognise their potential to bring about equitable and inclusive climate action. By leveraging advancements in technology and global collaboration, engineered removals can be deployed in a manner that benefits both developed and developing nations. It is essential to foster knowledge sharing, capacity building, and financial support to enable developing countries to access and utilize these innovative solutions, thereby fostering sustainable development and creating opportunities for local communities.

With regard to the characterisation of the issue of cost, contrary to the claim that engineered removals do not contribute to reducing global mitigation costs, these technologies have the potential to significantly lower the overall costs of achieving climate targets. As they mature and scale up, their costs are expected to decrease, making them increasingly cost-competitive with traditional mitigation approaches. The deployment at a global scale, supported by investments in research, development, and deployment, can pave the way for cost-effective and efficient climate mitigation strategies.

## Discrepancies between the currently active IPCC accounting guidance and the foreseen quantification of CO<sub>2</sub> within engineered removal activities.

The note is also concerning as it introduces discrepancies between its envisaged carbon accounting for activities such as Bioenergy with Carbon Capture and Storage (BECCS) and existing IPCC guidance. In so doing, in Paragraphs 29-32 the note mistakes BECCS for an emissions reduction activity. This is at odds with its status as a removal activity under the IPCC and broader scientific consensus.

The guidelines for National Greenhouse Gas inventories attribute emissions associated with biomass to the land sector:

*"If the [CCS] plant is supplied with biofuels, the corresponding CO2 emissions will be zero (these are already included in national totals due to their treatment in the AFOLU sector), so the subtraction of the amount of gas transferred to long-term storage may give negative emissions. This is correct since if the biomass carbon is permanently stored, it is being removed from the atmosphere."*

Provided that carbon stocks are stable or rising, the above means that any "emissions" from a relevant bioenergy plant are "zero-rated". This prevents the same tonne of CO2 being counted twice (once in the land sector and once at the stack) and is also the basis for capture and storage of such emissions to be counted as removals. With this in mind, the information note would benefit from addressing its inconsistency with IPCC practices and reframing BECCS with sustainable biomass as a removal activity.

NEP welcomes efforts to quantify CDR based on a robust and complete value chain assessment (LCA). As this may lead to discrepancies with IPCC guidance on accounting for the AFOLU sector, further efforts of harmonization between the frameworks will be beneficial to limit the burden faced by project developers having to comply with both frameworks.

## Possibility of tonne-year crediting

NEP were surprised to note the revisiting of tonne-year crediting in the information note and would like to add to the widespread academic and stakeholder calls for it to no longer feature in the Supervisory Body's considerations. Relevant comments: <https://unfccc.int/sites/default/files/resource/SB004-call-for-input-Derik%20Broekhoff%2C%20Matthew%20Brander%2C%20Lambert%20Schneider.pdf>

Tonne-year crediting effectively creates a false equivalence between temporary and permanent carbon storage. As reflected in the academic reaction to it in the previous information note, tonne-year crediting has the potential to fall foul of the concept of a carbon budget and cumulative emissions. It therefore poses significant risks to the goal of the Paris Agreement by legitimising short term carbon storage.