



## **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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub>. 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<sub>2</sub> in 2030, and beyond that.

[www.neustark.com](http://www.neustark.com)



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

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.

The note contains a significant amount of material which appears to discount the eligibility of engineering-based activities and suggests that those methods are perhaps not worthy of being targeted via the A6.4 mechanism – at least in part because they are considered too costly.

We would like to propose alternative wordings to the table proposed in the information note:

Activity Type	Pros and Cons
<b>Engineering-based activities</b>	<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>– Engineering-based removal activities <i>can</i> result in permanent net removal of carbon dioxide from the atmosphere.</li>   <li>- <i>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.</i></li>   <li>- <i>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.</i></li>   <li>- <i>These activities can contribute to sustainable development, including for example thanks to co-benefits such as ocean de-acidification, soil enhancement, and others.</i></li>   <li>- <i>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.</i></li> </ul>

	<p><b>Cons</b></p> <p>– <del>Not all aspects of eE</del>Engineering-based removal activities are <b>yet</b> technologically and economically <del>un</del>proven, <del>especially</del> at scale. <del>and pose unknown</del><b>Relevant</b> environmental and social risks (P-12, R-83:a, R-84:a, R-50:c,d) <b>are still being researched</b>. 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.</p> <p><del>– 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.</del></p>
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Neustark calls for a well-established distinction between mitigation in the form of reductions or removals. In addition, we strongly believe that durability should be prioritised as it is inherent in all the IPCC definitions of CDR. “Anthropogenic activities removing CO<sub>2</sub> from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products.”

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.

With regard to the characterisation of the issue of cost, as removal technologies mature and scale up, costs are expected to decrease, making them increasingly cost-competitive with traditional mitigation approaches. The deployment at a global scale, supported by recent increased investments in research, development, and deployment, can pave the way for cost-effective and efficient climate mitigation strategies.

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

Neustark welcomes efforts to quantify CDR based on a robust and complete value chain assessment (LCA).

Nonetheless, the note is concerning in that 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 information note would benefit from addressing its inconsistency with IPCC practices and reframing BECCS with sustainable biomass as a removal activity.



Further efforts of harmonization between the frameworks will be beneficial to limit the burden faced by project developers having to comply with different frameworks. Framework and legislative inconsistencies create costly administrative burdens for market player hindering innovation and investments into green 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**

Neustark joins a widespread academic and stakeholder community and calls for the Supervisory Body not to revise tonne-year crediting. Tonne-year crediting effectively creates a false equivalence between temporary and permanent carbon storage. 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.