

## Removal activities under the Article 6.4 mechanism

## Inversion Point Technologies Ltd. response to information note

Inversion Point Technologies Ltd. (Inversion Point) is working to develop atmospheric methane removal technology using the hydroxyl radical. This molecule, known as the 'detergent of the atmosphere', keeps the air clean for all life on earth, and is responsible for removal of 90% of methane, carbon monoxide, and VOC's from the atmosphere globally. Without this naturally occurring chemistry, global warming would have already rendered Earth inhospitable. Decades of policy in North America and Europe have improved combustion efficiencies and reduced emissions, improving air quality and restoring this natural chemistry to help hold methane levels in check. Despite this work, methane levels continue to rise worldwide, driving short term global warming effects and decreases in air quality. Temperature dependent feedback loops magnify the extend of methane increases, including biogenic methane production and methane release from melting arctic ice. Risk exists that these effects will outpace our efforts to reduce methane emissions, and that we will not see atmospheric methane decrease fast enough through point source emissions reductions alone.

To allow for future generations to manage climate risk, it is important that 'carbon removals' or 'greenhouse gas removals' terminology be kept open:

- 1. To all technologies which may be developed and proven with adequate MRV
- 2. To all greenhouse gases covered by the Kyoto agreement, including carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, perfluorocarbons, SF6 and NF3
- 3. To greenhouse gases which may form a part of present and future agreements such as the Paris Agreement

Inversion Point is grateful for the opportunity to provide feedback on the Article 6.4 Supervisory Body's Information note on Removal activities under the Article 6.4 mechanism Version 04.0, which can help shape the future of our planet by allowing GHG removal technologies the opportunity to scale. Without this, nascent companies working to improve climate outcomes worldwide will be challenged by trying to create markets for themselves while also building their technologies. This may slow or entirely prevent development of solutions with potential to benefit humanity at international scales. It may also prevent climate focus on key objectives like air quality from taking root in less developed nations which may lack fully developed carbon markets and regulations locally.



To summarise, Inversion Point's main concerns with the information note are as follows:

- 1. The consideration of excluding non-CO2 greenhouse gases from removal definitions on the basis of perceived likely contribution (Table 1, page 13, row 1, "Cons")
- 2. The exclusion of other Pros from non-CO2 greenhouse gas addition removal definitions (Table 1, page 13, row 1, "Pros"), including:
  - a. Air quality improvement co-benefits
  - b. Increased impact on short term warming effects relative to CO2
  - c. Need for solutions capable of keeping pace with increased natural emissions (CH4/N2O)
- 3. Framing of CDR as either "engineering-based activities" or "land-based activities" (A).
- 4. Misrepresentation of the benefits of long-term storage and its foreseen role according to scientific assessments, e.g. via discount rates (B).

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

Yours sincerely,

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Scott Bell, P. Eng., M. Eng. Co-Founder & CEO Inversion Point Technologies Ltd.

## inversion point TECHNOLOGIES

- A. Framing of CDR as either "engineering-based activities" or "land-based activities". We do not believe that it is appropriate to distinguish between CDR activities that are "engineering-based or land-based". Any framing that seeks to distinguish qualitatively between CDR methods is likely to come up against edge cases and grey areas where a method could be considered one or the other. But more importantly, this kind of framing doesn't provide for meaningful conclusions about the value of an activity in the fight against climate change. Co-benefits should also be understood and taken into account, but they should not be the criterion for classification. It may be more useful to simply define approaches as "new" to Article 6.4, and to manage intake via protocol approval.
  - Biochar, for example, relies on engineered furnaces to prevent unnecessary emissions during production.
  - Enhanced rock weathering is arguably land based and occurs naturally.
  - Ocean Alkalinity enhancement is also arguably land based and naturally occuring.
- B. Misrepresentation of the benefits of long-term storage and its foreseen role according to scientific assessments, e.g. via discount rates

We worry mainly about potential for abuse via flexible interest rates and carbon removal terms, along with a new layer of complexity and perceived risk by project financiers. This might be better reflected in carbon pricing arrangements and schedules. The amount of human capital required to retrain the carbon conscious workforce on a new mechanism would need to outweigh the cost of implementation. Why encompass this in credits themselves when carbon pricing arrangements are already dealt with by qualified financial professionals and more familiar regulatory mechanisms like cap & trade and scheduled price increases?