

Call for input 2022 - Activities involving removals under the Article 6.4 Mechanism of the Paris Agreement

Team – We appreciate your continued efforts on the subject matters concerning Article 6, thank you for providing an opportunity to global audience to respond to the process.

We would like to note our observations as following :

Observation #1:

Information Note: Removal activities under the Article 6.4 mechanism, does not consider point source CCS solutions as one of the engineering-based removal activities. The note excludes point-source CCS solutions (also referred to as **Conventional CCS** in paragraph 2, page 59 of the note) as a potential engineering-based removal activity. This definition and exclusion fail to consider several facts:

1. CCS solutions have the ability to remove CO₂ from high concentration flue gases of power plants (4-8 %mol for gas plants and up to 15 %mol for coal fired plants) as well process streams of industrial plants with much higher CO₂ concentrations providing more effective and efficient removal of the CO₂ prior to it entering the atmosphere and diluting to atmospheric CO₂ concentrations (0.03-0.04 %mol) where its capture becomes harder to achieve with other removal technologies .
2. CCS solutions have the potential to scale into various arrangements that can provide CO₂ removal from various streams of power plant flue gases and process plants. Developing CCS clusters where multiple high concentration CO₂-carrying streams are fed into a centralized capture plant with integrated transport and storage facilities will achieve the decarbonization effects needed urgently today to tackle emissions from hard-to-abate sectors at a scale that cannot be achieved by any of the land-based or engineering-based solutions identified in the information note.
3. Hard-to-abate sectors like steel, cement, and other industrial plants will continue to operate with a considerable emission intensities for the foreseen future. CCS solutions need to be deployed as swift as possible to enable an impactful change to such industries. Providing proper incentive to implementing these solutions as quickly as possible starts with proper classification.
4. When it comes to decarbonizing the power sector, where there is a number of decarb pathways available (e.g., phasing out coal, deployment of more renewables, use low or zero carbon fuels), it is well understood that this will be a phased-out approach towards decarbonized energy generation. Approaches that will vary significantly depending on a magnitude of factors. Decarbonizing the power sector remains an international priority

with Common But Differentiated Responsibilities. For developing and least developing nations energy security and economic development remain a top priority and hence their ability to reduce dependence on fossil fuels cannot be compared to those in developed countries consequently resulting in completely different pathways for decarbonizing the power sectors. According to IEA CCS is a key solution for achieving decarbonized power generation. CCS deployment in non-developed countries will require incentives from carbon credit mechanism, and that again, starts with proper classification of its impact.

Observation #2:

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Paragraph 25 Lists out the considered methods for long term storage of carbon stocks, two further means of long-term carbon storage should be considered as they have potential to store CO₂ for climate relevant durations and produce desired climate impact:

1. Storage in non-bio products such as in cements and plastics (Under CO₂ utilization methods)
2. Underground Mineralization (Under Geologic Storage Methods)

Generic Commentary

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Paragraph 239. More detailed definition of “Simplified Reporting” is required.

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Paragraph 245. Definition of capacity additions is required in order to understand the context of baseline removals being equal to the removals prior to the activity.

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Paragraph 256. More context should be provided on how to use removal geolocations to prevent double counting.

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Paragraph 26. A more specific definition to what the listed carbon stocks include. When it comes to equipment and material used in the activity; does this refer to embodied carbon? or construction/ commissioning emissions?

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Paragraph 12.b. Quantification of the amount of seepage that would cause net reversal is required.

Are there any established guidelines for what needs to be implemented in the case of a net reversal event after the end of the last crediting period?

Additionally we would like to note that :

- There will be a shared infrastructure for transporting and storing CO₂ between the two capture technologies and hence it's necessary to develop that infrastructure now in combination w/ CCS while DAC is being scaled up
- It's critical for us to also acknowledge that there has to be (and hopefully will be) a strong link between VCM and compliance markets going forward . This gives the ability for CCS OEMs and sector players , to establish and scale technology based (CCS, DAC) emissions reductions projects across global geographies – in turn enabling them to make available the emissions reductions credits to meet compliance obligations while encompassing and addressing the corresponding adjustments