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To: Supervisory-Body <Supervisory-Body@unfccc.int>

Cc: Jasmin Kemper <Jasmin.Kemper@ieaghg.org>

Subject: Call for input 2022 - activities involving removals under the Article 6.4 Mechanism of the Paris Agreement

Dear 6.4 Supervisory Body

Please find attached further input from IEAGHG. Thank you for the opportunity to input and congratulations on your hard work and progress on this complex and broad area.

Best regards

Tim and Jasmin

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Call for input 2022 on Activities Involving Removals under the Article 6.4 Mechanism

Overall we congratulate the 6.4 Supervisory Body (SB) and UNFCCC secretariat with the hard work and progress made on all documents since the first meeting SB001.

The SB, at its first meeting, considered the Concept note “Removal activities under the Article 6.4 Mechanism” (A6.4-SB001-AA-A05). IEAGHG provided input in relation to this concept note which was presented by the secretariat at SB002. We are pleased to see that since then our input was considered useful and the points we made on the CDM Modalities and Procedures for CCS (decision 10/CMP.7 (2011)) and the IPCC GHG Guidelines (2006) have now been included in the Draft Recommendation on Methodologies A6.4-SB002-AA-A05 and in the Information Note A6.4-SB002-AA-A06.

With respect to the Information Note A6.4-SB002-AA-A06 we make the following additional comments:

- paragraph 223, on the IPCC GHG Inventory Guidelines and the lack of guidelines for many CDR methods, we suggest that the SB may want to engage and encourage the IPCC Task Force on National Greenhouse Gas Inventories (TFI) to develop guidelines for DACCS in particular, given the potential scale of DACCS use in climate models and the rapid developments in real DACCS projects, noting that the IPCC GHG guidance for the geological storage component already exists.
- We note that paragraph 267 on only using resources with no opportunity cost, that this principle would be challenging to apply for most if not all removal techniques.
- Paragraph 24 lists types of removal activities. A potentially significant removal activity, BECCS, is missing. It should be added either under ‘a) land-based activities’, ‘b) engineering-based activities’ or a new category ‘c) combined activities’. BECCS is mentioned later and even used as one of the worked examples, so should be specifically listed here.
- Paragraph 24(b)(i), it should be ‘Direct air capture (DAC)’, not ‘Direct air removal (DAC)’. Later paragraph 222 uses ‘Direct air carbon capture and storage (DACCS)’, which would be the better option to use here, too.
- Paragraph 208 should be clarified whether the 80% figure is the carbon capture efficiency across the whole BECCS chain or the capture rate of the carbon capture plant.
- Paragraph 275 on ‘Impacts on land, biodiversity and water’ gives DACCS as the only example. We suggest either not giving a single example or listing other removal activities to which the points apply.

Tim Dixon and Jasmin Kemper, 11 October 2022

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IEAGHG is an international collaborative research programme, established in 1991 by the International Energy Agency (IEA). The programme is funded by 18 member countries and 17 organisations. The technology of primary focus is carbon dioxide capture and geological storage (CCS). Our scope includes engineered carbon dioxide removal (CDR) techniques such as direct air capture with storage (DACCS) and bio-energy with CCS (BECCS). Our activities include producing over

360 technical reports on all aspects of CCS including technology development and deployment, running the largest conference series on CCS (the GHGT series), operating Networks of experts and Summer Schools, and instigating a scientific journal of impact factor up to 5.11. Our work is used, for example, to inform the IPCC, UNFCCC, IEA, London Convention and ISO, and by USDOE, US EPA and by our other members in the development of climate change mitigation policy and technologies. IEAGHG offers more information on DACCS in the report IEAGHG Technical Report 2021-05 “Global Assessment of DACCS Costs, Scale and Potential”, and on different aspects of BECCS in IEAGHG Technical Reports 2011-06, 2013-11, 2014-05, and 2021-01.

References

CDM Modalities and Procedures for CCS (2011, [10a02.pdf \(unfccc.int\)](#))

IPCC GHG 2006 <https://www.ipcc.ch/report/2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/>

IEAGHG Technical Report 2021-05 “Global Assessment of DACCS Costs, Scale and Potential

IEAGHG Technical Report 2011-06 “Global Potential of BECCS”

IEAGHG Technical Report 2013-11 “Global Potential for Biomethane with CCS”

IEAGHG Technical Report 2014-05 “Biomass and CCS – Guidance for Accounting for Negative Emissions”

IEAGHG Technical Report 2021-01 “Biorefineries with CCS”