**Cement Guidance Document**

10. The scope and applicability of the proposed target setting approach for the cement sector is clear and reasonable. To what extent do you agree? \*

a. Strongly Agree

b. Agree

c. Neutral

~~d.~~ Disagree

e. Strongly disagree

11. If you disagree, why?

a. a. The requirements are not clear

b. The sector definition is not appropriate

c. It does not incentivize urgent action by companies

d. It is too demanding for the companies

~~e.~~ Other(describe):

*Several axes of reduction recognized by science and governments of the region (NDC and NAMAS) have not been recognized, such as their potential for implementation that derive from local and regional differences.*

*Specifically, we refer to: (1) natural recarbonation in the life cycle of cement and concrete as a way to capture and sequester carbon; (2) alternative fossil fuels as a means to displace and mitigate emissions from the combustion of fossil fuels (NDC's Colombia and NAMA's Peru and the Dominican Republic); c) CCU derived from the capture of CO2 in chimney to be used as a raw material in other processes, such as when its use is associated with the recovery of CO2 through the production of synthetic fuels, or the production of chemical compounds, and d) With respect to regional solutions, we consider that avoiding the methanization of waste as a means to avoid the generation of GHGs derived from the decomposition of the fraction Biogenic methane, as well as nature-based solutions, should be part of the trajectories to achieve carbon neutrality in our region.*

*Another lever that must be adjusted is the one that refers to industrial mineralization, which must be considered independent of the site where its CO2 fixation is generated to the extent that this process is generated in the complete life cycle of the cement.*

12. The project team has chosen the IEA Net Zero Report (2021) as its source for the 1.5ºC emissions scenario for cement, as this was considered the most transparent, credible and consistent source that meets SBTi requirements. Other options, which were ruled out, included modifying the IEA pathway to make near-term targets even more ambitious; modifying the IEA pathway to change the boundaries; and using alternative sources of scenarios, such as One Earth Climate Model. Do you agree with the choice of IEA Net Zero Report as the source of 1.5ºC pathways for cement?

Strongly Agree

a. Agree

b. Neutral

~~c.~~ Disagree

d. Strongly Disagree

13. If you disagree, why?

a. It does not incentivize urgent actions needed by the companies

b. It is too demanding for companies

c. The sector definition is not appropriate

d. The boundaries are not appropriate

~~e.~~ Other(describe):

*We agree with the source for the establishment of objectives, but to the extent that the differences in the demand for cement and its associated emissions budget are incorporated (in LAC it is estimated that cement consumption will grow by 70% by 2050, unlike regions such as Europe and China that project a decrease), and also the axes of natural recarbonation, the use of alternative fossil fuels and nature-based solutions.*

1. Do the guidance and pathway choose sufficiently to incentivise near-term emissions reductions in the cement industry? \*

a. yes

~~b.~~ No

15. Please briefly explain your answer to the above question. \* (describe)

*Not enough, because four essential levers are not recognized in this guide: a) natural recarbonation, b) carbon capture and use (CCU), c) avoiding emissions produced in methanization avoided by the use of alternative fuels, and d) nature-based solutions.*

16. The guidance document provides criteria for GHG accounting, in addition to those provided by the GHG Protocol and SBTi general criteria, that are specific to this sector. Are these clear and consistent in your view? \* (Rate 1 to 5)

a. 1 – No not clear and consistent at all

~~b.~~ 2

c. 3

d. 4

e. 5 – Yes very clear and consistent

17. If you do not think the above is clear and consistent, why?

a. They introduce requirements that are not in line with the GHG Protocol

~~b.~~ They introduce requirements that are not in line with industry practice

c. Further industry-specific accounting criteria are needed

d. Other(describe):

*The current "Scope 1" GCCA/CSI CO2 Protocol guide should be considered, as well as the Scope 3 GHG guide. On the other hand, it cannot be considered only the cement indicator since it would leave out the emissions of clinker and / or cementitious products that are dispatched in our plants.*

[*http://docs.wbcsd.org/2016/11/Cement\_Sector\_Scope3.pdf*](http://docs.wbcsd.org/2016/11/Cement_Sector_Scope3.pdf)

[*https://www.cement-co2-protocol.org/en/Content/Resources/Downloads/GCCA\_Internet\_Manual.pdf*](https://www.cement-co2-protocol.org/en/Content/Resources/Downloads/GCCA_Internet_Manual.pdf)

18. The project team has discussed advantages and disadvantages of including natural cement recarbonation in the SBT framework. On the one hand, its inclusion could more accurately represent real world carbon balances. On the other hand, its inclusion risks weakening climate action by, for example, overestimating or double-counting the CO2 uptake; creating confusion regarding which companies can claim a benefit from the phenomenon; or reducing cement companies’ incentives to make real production emissions reductions. Please indicate your view on how/if natural cement recarbonation could be dealt with (see cement guidance document for details): \*

a. Do not allow for accounting for natural recarbonation as part of science-based target-setting of companies

b. Do not allow for accounting for natural recarbonation as an emission reduction to meet SBTs, but instead allow it to be cited by cement companies as a way to neutralize residual emissions to reach net zero once a long-term target SBT is met

~~c.~~ Other(describe):

19. Provide additional comments as relevant (describe):

*We believe that the natural recarbonation potential of concrete should be part of setting targets based on business science: a methodology has been developed that meets IPCC guidelines for accounting for recarbonation potential.*

*There is no risk of double counting since natural recarbonation is clearly in that method associated with clinker production, therefore, only a clinker producer could claim the neutralization of those emissions.*

[*https://www.ivl.se/download/18.72aeb1b0166c003cd0d64/1541160245484/B2309.pdf*](https://www.ivl.se/download/18.72aeb1b0166c003cd0d64/1541160245484/B2309.pdf)

*Recarbonation is linked to the clinker and is a natural feature of our product, although it occurs outside the limits of the plant.*

20. Currently, Scope 3 targets are only required for near-term targets when Scope 3 emissions make up more than 40% of Scope 1, 2 and 3. To harmonize with other sectors (such as transport, which uses a well-to-wheel approach), this guidance introduces mandatory near-term Scope 3 targets covering upstream emissions from fuels for cement companies. Do you agree with this approach? \*Currently, Scope 3 targets are only required for near-term targets when Scope 3 emissions make up more than 40% of Scope 1, 2 and 3. To harmonize with other sectors (such as transport, which uses a well-to-wheel approach), this guidance introduces mandatory near-term Scope 3 targets covering upstream emissions from fuels for cement companies. Do you agree with this approach? \*

a. Agree

b. Disagree

~~c.~~ If you disagree, why?(describir):

*Only the provisions of SBTi TWG INF 002 Version 5.0 of October 2021 should be considered and these emissions should be considered when those corresponding to Scope 3 of a company are 40% or more of the total scope of emissions 1, 2 and 3; a situation that in the case of the cement sector, the decarbonation of limestone already represents more than 60% of emissions, therefore, Scope 3 emissions from fuels turn out to be marginal to the total emissions.*

21. Currently, Scope 3 targets are only required for near-term targets when Scope 3 emissions make up more than 40% of Scope 1, 2 and 3. To harmonize between companies that produce most of their clinker and cement and those that mostly buy it, as well as to avoid invisible “leakage” of emissions from Scope 1 to Scope 3, this guidance introduces recommended near-term Scope 3 targets covering emissions from purchased clinker and cement. Is your preference for: \*

a. Recommended Scope 3 targets covering purchased clinker and cement

b. Mandatory Scope 3 targets covering purchased clinker and cement

~~c.~~ No new requirement

*We understand that with the current requirement to consider Scope 3 when it exceeds more than 40% of total emissions, it would be covering the cases of imported clinker and cement, so that the carbon leakage produced by this type of imports can be determined. In this same sense, the effects of shipping should also be considered when the clinker and/or cement come from distant regions, such as Asia. According to the 2021 version of the FICEM paper on carbon pricing instruments in the cement industry, the transport of clinker from Asia to the Pacific coasts in Latin America incorporates between 12 and 18% of emissions with respect to total clinker emissions.*

**Using the tool**

1. Have you tried using the Excel-based cement target setting tool? \*

~~a.~~ Yes

b. No

1. The instructions in the tool are easy to understand and follow?\* (Rate 1 to 5)

a. 1 – Not easy to understand and follow at all

b. 2

c. 3

~~d.~~ 4

e. 5 – Very easy to understand and follow

1. If you do not think the above is easy to understand and follow, why? (*describe)*:

**General Comments**

1. Please select all that apply: \*
   1. The cement target setting tool and guidance are clear and understandable
   2. The pathways described in the guidance seem scientifically robust
   3. The assumptions described in the guidance seem reasonable
   4. The tool and guidance can help the decarbonization of the cement sector
   5. None of the above statements are relevant
2. Please share any comments that have not been captured in the questions above (describe):

*We generally disagree with what is stated in this guide because: (1) it ignores science-based reduction axes and does not consider regional differences, both to define emission budgets and to implement CO2 reductions. (2) all CO2eq emissions avoided by co-processing technology must be recognized. In ALyC, according to the UN\*, 540,000 tons of urban waste are generated per day, of which only 4% are recovered and 27% are disposed of in a totally inadequate way, therefore, the levels of methanization and CO2 by outdoor combustion are relevant; and this is declared by the different NDCs of the countries of the region, such as the NDC of Colombia updated to the year 2020, recognizes co-processing as a CO2 mitigation measure. The co-processing of alternative fuels containing a fraction of biomass helps mitigate methane emissions generated in the landfill, which makes it essential to recognize their accounting, and this is of particular impact for non-Annex 1 countries, where primary separation measures as well as incentives to promote co-processing are generally lacking. Therefore, restricting co-processing to only some types of biomasses would be counterproductive with health and GHG mitigation challenges in our region.*

*(3) not considering the recycling of CO2 captured in our plants for the preparation of synthetic fuels would disable one of the main levers to achieve carbon neutrality of our industry, considering, in addition, that in our region there are areas in which the production of green hydrogen through solar and / or wind energy has one of the greatest potentials worldwide, therefore, not having the CO2 captured in our plants would significantly discourage the production of these synthetic fuels. The proposed scope limited to subsurface sequestration or mineralization will discourage investment in research and development of technologies for the further use of captured CO2, which will contribute in the long run not prevent the extraction and use of fossil fuels. It is to be recognized, however, that the quantification of the potential of the benefits derived from the subsequent use of CO2 requires an in-depth study of life cycle analysis, considering that in principle it is based on the concept of displacing a product or service with one that has an associated extended life, through synthetic fuels, chemicals, or reinforcement of biological processes. This is reinforced by the International Energy Agency (IEA) itself, and its publication 'Putting CO2 to Use' (2019), there are five key considerations in the assessment of benefits derived from the subsequent use of CO2:*

[*https://www.iea.org/reports/putting-co2-to-use*](https://www.iea.org/reports/putting-co2-to-use)

1. *To the origin of CO2 (from natural deposits, fossil fuels)*
2. *The product or service that the recovered CO2 displaces or replaces*
3. *How much energy and how it is used to convert CO2*
4. *How long the carbon content is retained or trapped in the product And. The scalability of the opportunity to use captured CO2*

*(4) natural recarbonation should be included in this standard, as it is part of the life cycle of cement; in addition, it should be accounted for in the clinker produced to avoid double counting; In addition, this CO2 sink has been recognized by science in the IPCC Sixth Report of 2021.*

*(5) this guide incorporates methodological aspects, such as determining Scope 3 for all fuels, in emissions that are also not relevant to our final footprint, significantly complicating its application; which could discourage its global use, which cannot be a barrier to this type of standard.*

*(6) given the high availability of residual biomass in our region, such as in tropical areas - unlike other regions - these biomasses should be considered as eco-fuels, as well as other nature-based solutions.*

*(7) this guide does not systematically consider the axes established in the ECRA 2017 paper\*\*, which were the basis for the elaboration of the EIA roadmap for the cement sector published in 2018, which generates a relevant inconsistency for our sector*

*\** [*https://www.unep.org/es/resources/informe/perspectiva-de-la-gestion-de-residuos-en-america-latina-y-el-caribe*](https://www.unep.org/es/resources/informe/perspectiva-de-la-gestion-de-residuos-en-america-latina-y-el-caribe)

*\*\** [*https://docs.wbcsd.org/2017/06/CSI\_ECRA\_Technology\_Papers\_2017.pdf*](https://docs.wbcsd.org/2017/06/CSI_ECRA_Technology_Papers_2017.pdf)