# Feedback on Commission draft implementing regulation amending and correcting Implementing Regulation (EU) 2018/2066 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council

## 1. Monitoring of Biomass Waste Derived Fuels

The European cement industry is a large user of waste and by-products utilizing approximately 36 million tonnes per year. In the EU in 2018, the sector substituted on average 48% of its fossil fuel consumption with non-recyclable waste derived fuels, 17% of which were biomass waste derived fuels. Within a cement kiln waste fuels are co-processed utilising the heat value from the waste fuel to substitute fossil fuels and incorporating the ash as a partial replacement of the raw materials, leaving no waste residue. In addition to providing sound solutions for the waste streams and strengthening the circular economy, this use of waste fuels and waste biomass fuels are also key for the cement industry to reduce its CO2 emissions and support our vision for a carbon neutral Europe for 2050 (please see our CEMBUREAU carbon neutrality roadmap for more information).

The use of waste biomass is highly important to the cement industry and increasingly so as the sector aims to become climate neutral by 2050. The sector is also providing a safe and affordable disposal route for national authorities and other industries by transforming the waste and by-products into alternative resources for cement production. The biomass and non-biomass waste fuels are derived from intermediary waste treatment processes which collect and process different waste streams to develop the final fuel to the specifications agreed by the authorities which can be used by the cement kilns.

**Importantly, it is not possible to determine the initial sources of the biomass for these waste products as highlighted in the following two examples:**

- **Animal Meal** – is a biomass waste fuel which is the residue from the slaughter houses processing of animal carcasses which for health reasons has to be incinerated. The process and use is carefully regulated by national authorities. Due to the nature of the process it would be impossible to determine the source of animals attributed to the animal meal resulting from the process.

- **Tyres** – biomass containing waste derived from used vehicle tyres that contain natural rubber comes from many different sources depending on the manufacturer and where they are located. Waste tyres are collected from numerous garages across Europe and processed. At the end of the life cycle of a tyre it is impossible to determine the exact conditions under which the raw materials for its production were sourced.

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As it is not possible to determine the initial sources of the biomass for these waste fuels, it would not be possible to comply with the sustainability criteria as proposed in the draft revised MRR. Likewise, it would also not be possible for the same reason to determine the GHG emissions saving criteria as the source of the biomass in the waste would need to be known. **Therefore, as things stand, the draft revised MRR would impose on biomass waste some requirements which cannot be met. This would discourage the use of waste fuels all across the European cement industry and a significant means of reducing fossil fuel emissions would be lost.**

We therefore propose the following amendments to the proposal of the commission for the MRR which was published for consultation:

Article 3 is amended as follows:

(b) the following points are inserted:

(21c) 'residue' means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it;

(21d) 'agricultural, aquaculture, fisheries and forestry residues' means residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing;

Article 38 is amended as follows:

(b) in paragraph 2, the first subparagraph is replaced with the following:

The emission factor of biomass shall be zero, provided that the biomass complies with paragraphs 2 to 7 and 10 of Article 29 of Directive (EU) 2018/2001.

However, biomass produced from waste and residues, other than agricultural, aquaculture, fisheries and forestry residues are required to fulfil only the criteria laid down in paragraph 10 of Article 29 of Directive (EU) 2018/2001. This also applies to waste and residues that are first processed into a product before being further processed into biofuels, bioliquids and biomass fuels. In addition, paragraph 10 of Article 29 of Directive (EU) 2018/2001 does not apply to biomass fuels in installations that started operation before 1 January 2021 including subsequent changes to and replacements of those installations.

Electricity, heating and cooling produced from municipal solid waste or biomass fuels derived from municipal solid waste shall not be subject to the criteria laid down in paragraph 10 of Article 29 of Directive (EU) 2018/2001.

The criteria laid down in paragraphs 2 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 shall apply irrespective of the geographical origin of the biomass.

The compliance with the criteria laid down in paragraphs 2 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 shall be assessed in accordance with Articles 30 and 31(1) of that Directive.

Where reference is made to this paragraph and the biomass used for combustion does not comply with this paragraph, it shall be considered as fossil carbon.';

*Justification*

*Definitions:*
*In addition to the definitions that have already been mentioned as such in article 3 of the original proposal for a revision of the MRR that was published for consultation furthermore the definitions for "residue" and "'agricultural, aquaculture, fisheries and forestry residues'" need to be incorporated. They include important clarifications towards exemptions for residues from related industries or processing in context of the proposed changes to article 38 of the MRR.*

*Exemptions from the sustainability and the greenhouse gas emissions saving criteria:*
*When it comes to the sustainability and the greenhouse gas emissions saving criteria, the provisions in article 29 of Directive (EU) 2018/2001 specifically exclude certain waste and residues from the scope of paragraphs 2 to 7 and 10 within that article. Important examples for exemptions are municipal waste fuels, waste and residues that are first processed into a product before being further processed into biomass fuels, as well as waste and residues including agricultural, aquaculture, fisheries and forestry residues from related industries or processing. The reason for this exemption is that in case of wastes and residues there is no information available in order to determine sustainability and greenhouse gas savings according to Art. 30 and 31 (1) of Directive (EU) 2018/2001.*

*In addition, article 29 of Directive (EU) 2018/2001 clarifies in paragraph 10 that installations which have started the physical production of heating from biomass fuels before 1 January 2021 do not need to comply with the greenhouse gas emissions savings criteria. This exemption must also be extended to changes to as well as replacements of existing installations. The reason is that industrial plants might need to retrofit or even replace entire production installations in order to install the breakthrough technologies needed to significantly reduce $CO_2$ emissions. When doing so these retrofitted or new installations should not have a disadvantage in comparison to existing ones.*

## 2. Carbon Capture and Use

The recently published Innovation Fund call[1] stipulates that environmentally safe carbon capture and utilisation (CCU) is part of the technologies that can substantially contribute to mitigating climate change. It also stipulates that CCU can be funded if the capture of CO2 occurs within one of the activities under the ETS directive, or if the utilisation of CO2 results in products substituting carbon intensive ones from the ETS sectors, even if carbon is captured outside the activities of Annex I.

Such projects require large-scale industrial cooperation to develop the necessary business case in order for such projects to emerge and scale-up. The "WestKüste100" project in Germany or 'Carbon2ProductAustria' (C2PAT) project in Austria are examples of such cross-industry cooperation on carbon capture and use that would enable decarbonisation on a large industrial and regional scale.

The business case of large-scale CCU projects relies on the ability of the plant that captures the CO2 to account for it, regardless of the downstream use of the carbon (incl. for permanent geological storage, for mineralization (such as precipitated calcium carbonate) as well as other uses (e.g. production of chemical products or e-fuels). The investments and operational costs of such capture technology (that are a key enabler of the hydrogen economy) are born at the industrial site capturing the CO2 and must be accounted for at the same site.

[1] Regulation (EU) 2018/2066 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC
[2] Innovation Fund Large-scale Projects, InnovFund-LSC-2020-two-stage, Version 1.0, 3 July 2020

For this reason, the MRR should explicitly mention the fact that the use of CO2, when not released into the atmosphere by the capturing installation, should allow the capturing installations to deduct it. We therefore suggest adding a point C in article 49 for that purpose.

## Mineralisation & CO2 Transport

CEMBUREAU requests that CO2 from an ETS installation which is permanently stored through mineralisation is recognised as not having been emitted according to ETS (see Annex 2) and discounted from the installation's surrendering obligations (see Annex 3). Put another way, if CO2 from an ETS installation is ultimately not released in the atmosphere, either because it is transferred for geological storage or through mineralisation, that amount should be subtracted from the emissions of the originating ETS installation. This is already recognised for a mineralisation product: precipitated calcium carbonate (PCC) following the case initiated by Schaefer Kalk (C-460/15, EU:C:2017:29).

It should also be recognised that other forms of CO2 transport in addition to pipelines (as already mentioned in the MRR) will be needed from capture sites to the ultimate storage or use on site. These will include road tankers, barges and shipping. To account for both mineralisation and different transport methods for CO2, Article 3 of (EU) 2018/2066 **(MRR)** should be amended as proposed below.

### CEMBUREAU's Proposed Amendments

| Draft MRR | Proposed amendment |
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| **Article 3** | |
| (54) 'CO2 capture' means the activity of capturing from gas streams CO2 that would otherwise be emitted, for the purposes of transport and geological storage in a storage site permitted under Directive 2009/31/EC;<br><br>(55) 'CO2 transport' means the transport of CO2 by pipelines for geological storage in a storage site permitted under Directive 2009/31/EC; *Article 30* | (54) 'CO2 capture' means the activity of capturing from gas streams CO2 that would otherwise be emitted, for the purposes of transport, **utilisation or** geological storage in a storage site permitted under Directive 2009/31/EC;<br><br>(55) 'CO2 transport' means the transport of CO2 ~~**by pipelines**~~ for **utilisation or** geological storage in a storage site permitted under Directive 2009/31/EC;<br>**New:**<br>**(64): 'CO2 utilisation' means the use of CO2 for e.g.**<br>**the production of energy carriers (e-fuels), chemicals and carbon-based materials [, as well as the use as a technological fluid.]**<br><br>**(65) e-fuels include gaseous or liquid fuels produced from water, renewable electricity and captured CO2.** |
| **Article 49 - Transferred CO2** | |
| 1. The operator shall subtract from the emissions of the installation any amount of CO2 originating from fossil carbon in activities covered by Annex I to Directive 2003/87/EC that is not emitted from the installation, but:<br>(a) transferred out of the installation to any of the following:<br>[…] | 1. The operator shall subtract from the emissions of the installation any amount of CO2 ~~**originating from fossil carbon**~~ in activities covered by Annex I to<br>Directive 2003/87/EC that is not emitted from the installation, but:<br>(a) transferred out of the installation to any of the following: |

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| (b) transferred out of the installation and used to produce precipitated calcium carbonate, in which the used CO2 is chemically bound.<br>[…]<br>4. For determining the quantity of CO2 chemically bound in precipitated calcium carbonate, the operator shall use data sources representing highest achievable accuracy. | […]<br>(b) transferred out of the installation and used to produce **a stable product through mineralisation** **(such as** precipitated calcium carbonate**)**, in which the used CO2 is chemically bound.<br>[…]<br>**(C) transferred out of the installation for uses in products substituting more carbon intensive ones, incl. in sectors listed in Annex I to Directive 2003/87/EC.**<br><br>4. For determining the quantity of CO2 chemically bound in **mineralisation products such as** precipitated calcium carbonate, the operator shall use data sources representing highest achievable accuracy. |
| *Annex IV*<br>*21. Determination of greenhouse gas emissions from CO2 capture activities for the purposes of transport and geological storage in a storage site permitted under Directive 2009/31/EC* | *Annex IV*<br>*21. Determination of greenhouse gas emissions fromCO2 capture activities for the purposes of transport and **storage via mineralisation or** geological storage in a storage site permitted under Directive 2009/31/EC* |
| A. SCOPE<br>[…] All parts of the installation related to CO2 capture, intermediate storage, transfer to a CO2 transport network or to a site for geological storage of CO2 greenhouse gas emissions shall be included in the greenhouse gas emissions permit and accounted for in the associated monitoring plan. […] | A. SCOPE<br>[…] All parts of the installation related to CO2 capture, intermediate storage, transfer to a CO2 transport network or to a site for **the mineralisation or** geological storage of CO2 greenhouse gas emissions shall be included in the greenhouse gas emissions permit and accounted for in the associated monitoring plan. […] |
| $T_{for\ storage}$ = Amount of CO2 transferred to a transport network or a storage site, determined in accordance with Article 40 to 46 and Article 49.[…] | $T_{for\ storage}$ = Amount of CO2 transferred to a transport network**, a mineralisation site** or a storage site, determined in accordance with Article 40 to 46 and Article 49. […] |
| *22. DETERMINATION OF GREENHOUSE GAS EMISSIONS FROM THE TRANSPORT OF CO2 BY PIPELINES FOR GEOLOGICAL STORAGE IN A STORAGE SITE PERMITTED UNDER DIRECTIVE 2009/31/EC* | *22. DETERMINATION OF GREENHOUSE GAS EMISSIONS FROM THE TRANSPORT OF CO2 ~~BY PIPELINES~~ FOR **STORAGE VIA MINERALISATION OR** GEOLOGICAL STORAGE IN A STORAGE SITE PERMITTED UNDER DIRECTIVE 2009/31/EC* |
| A. SCOPE<br>The boundaries for monitoring and reporting emissions from CO2 transport by pipeline shall be laid down in the transport network's greenhouse gas emissions permit, including all ancillary plant functionally connected to the transport network, | A. Scope<br>The boundaries for monitoring and reporting emissions from CO2 transport by pipeline shall be laid down in the transport network's greenhouse gas emissions permit, including all ancillary plant functionally connected to the transport network, |

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| including booster stations and heaters. Each transport network shall have a minimum of one start point and one end point, each connected to other installations carrying out one or more of the activities: capture, transport or geological storage of CO2. | including booster stations and heaters. Each transport network shall have a minimum of one start point and one end point, each connected to other installations carrying out one or more of the activities: capture, transport**, storage via mineralisation** or geological storage of CO2. |
| *Annex IX*<br>Operators and aircraft operators shall retain at least the following:<br>[…]<br>2. SPECIFIC ELEMENTS FOR STATIONARY SOURCE INSTALLATIONS:<br>[…]<br>(7) For CO2 capture, transport and geological storage activities, where applicable, the following additional elements:<br>(a) documentation of the amount of CO2 injected into the storage complex by installations carrying out geological storage of CO2;<br>(b)representatively aggregated pressure and temperature data from a transport network;<br>(c) a copy of the storage permit, including the approved monitoring plan, pursuant to Article 9 of Directive 2009/31/EC;<br>(d) the reports submitted in accordance with Article 14 of Directive 2009/31/EC; (e) reports on the results of the inspections carried out in accordance with Article 15 of Directive 2009/31/EC;<br>(f)documentation on corrective measures taken in accordance with Article 16 of Directive 2009/31/EC. | *Annex IX*<br>Operators and aircraft operators shall retain at least the following:<br>[…]<br>2. SPECIFIC ELEMENTS FOR STATIONARY SOURCE INSTALLATIONS:<br>[…]<br>(7) For CO2 capture, transport and **mineralisation or** geological storage activities, where applicable, the following additional elements:<br>(a) documentation of the amount of **CO2 permanently bound by installations carrying out mineralisation, or** CO2 injected into the storage complex by installations carrying out geological storage of CO2;<br>(b) representatively aggregated pressure and temperature data from a transport network;<br>(c) a copy of the storage permit, including the approved monitoring plan, pursuant to Article 9 of Directive 2009/31/EC;<br>(d) the reports submitted in accordance with Article 14 of Directive 2009/31/EC;<br>(e) reports on the results of the inspections carried out in accordance with Article 15 of Directive 2009/31/EC;<br>(f) documentation on corrective measures taken in accordance with Article 16 of Directive 2009/31/EC. |