Statement

VDZ statement on the draft implementing regulation updating the Monitoring and Reporting Regulation (MRR) in response to the revision of the European Emissions trading system (EU ETS)

In the context of the “Fit for 55” package of EU legislation, the ETS Directive has been revised with the EU target set out in the European Climate Law to reduce net greenhouse gas (GHG) emissions by 55% by 2030, compared to 1990 levels. Following this revision, the European Commission needs to update several regulatory acts for the implementation of the EU ETS. This involves an expected additional tightening of the EU ETS allocation market. It seems possible that a complete reduction to 0% availability of new emission allowances is envisaged at or before 2040. This could de-facto advance climate neutrality requirements for industrial installations in Europe to the end of the decade of 2030 to 2040.

The processes of the cement and lime industries as well as the waste incineration are characterised by high unavoidable CO_2 generation. In cement and lime production, it is primarily the CO_2 emissions from the use of limestone as a raw material. To decarbonise, manufacturers, will reduce CO_2 emissions through a broad mix of conventional measures including use of recycled alternative materials and efficient product use along the entire value chain. Nevertheless, significant quantities of unavoidable CO_2 will remain, for which carbon capture with subsequent storage and utilisation (CCS/CCU) will be required in order to achieve climate neutrality. This has been discussed extensively in cement industry climate neutrality roadmaps (cf. VDZ roadmap and CEMBUREAU roadmap).

In this context, the draft implementing regulation updating the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (Monitoring and Reporting Regulation, MRR) is of high importance. It has to set and establish appropriate rules of accounting for use of zero-rated alternative input materials and fuels and especially for the capture and transfer of CO_2, which should provide the required basis for timely investments in CO_2 mitigation technologies including CCS/CCU at industrial installations subject to the EU ETS.

With regard to the accounting of emissions and subtraction for the transfer of CO_2 for storage or utilisation for products with permanent storage, instead of simply referring to the biogenic carbon content as before (Art. 39, 39a) a comprehensive mass balance or carbon balance for “zero-rating” is now required in certain cases according to Art. 3 (23c), (38e) und (38b).

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The MRR must address questions of the deductibility of the quantities of CO_2 and the handling of possible losses during capture, transport or transfer. Additionally, a comprehensive regulation of CCU is necessary, which must go beyond the "permanent" CO_2 sequestration in the product and addresses the reuse of CO_2 in sustainable carbon management cycles. The accounting for negative emissions and the use of "carbon removal" certificates must be integrated in the EU ETS. Technical standards and regulations for CO_2 transport are currently developed to ensure efficient control of the purity of CO_2 and measuring its mass flows with achievable uncertainties. The MRR needs to take right account of the availability of measurement technologies as well as considering the energy and cost efficiency along the new CCS/CCU value chains.

As a more general statement, when designing these implementing rules, it is important to ensure that these do not lead to additional requirements that create new barriers to the deployment of innovate climate technologies. The proposal of an additional proportionality requirement contradicts and legally prevents the achievability of the EU's goal of carbon neutrality under the EU ETS. This would lead to substantial additional uncertainty for strategic investment decisions and accounting at installation level. It will thus become an additional obstacle to investment in CCS/CCU technologies, while timely investments are essential for achieving climate neutrality in industrial processes with unavoidable CO_2 emissions. Many of them are already being implemented, e.g., in first projects of the EU Innovation Fund.

Against this background, the VDZ welcomes the opportunity to comment on the draft as part of the public consultation. However, there are a number of aspects that should be adjusted and specified in the draft law in order to enable the complete decarbonisation of cement and concrete production. We like to point out three issues and related requests as follows:

1 Adjustment of Art. 49(6) and correspondingly Art. 49a(1) subparagraph 2

The realisation of climate neutrality in industrial processes with unavoidable CO_2 emissions in the cement, lime and waste incineration sectors requires the implementation of capture and storage or utilisation with permanent CO_2 sequestration (CCS/CCU) at least in the amount of the remaining fossil CO_2 quantities (unavoidable CO_2 generation).

All fossil CO_2 emissions are subject to the EU ETS. If CCS or CCU with permanent storage of CO_2 is now implemented at precisely this level of fossil CO_2 generation, climate neutrality should also be achievable in the EU ETS. However, the new Art. 49(6) in relation to Art. 49(1) prevent climate neutrality from being effectively achieved in the EU ETS in such cases by imposing a new additional requirement for the proportional attribution of zero-rated carbon and thereby an obligation to produce "negative CO_2 emissions".

It is justifiable that a similar additional requirement could prevent the "enrichment of the biogenic CO_2 share" in the captured CO_2 stream by limiting the biogenic share to proportionality, as biogenic CO_2 emissions are not directly subject to the direct emissions trading obligation and regulation by the EU ETS. Consistently, the production of "negative emissions" will be regulated more specifically in the context of carbon dioxide removals (CDR) and other legislation.

However, for precisely this distinction of legislative scope it is not appropriate to put forward in the framework of the EU ETS and by means of the MRR new Art. 49(6) an additional indirect obligation to produce such "negative emissions". We therefore propose to adjust Art. 49(6) as follows:

New requirements for proportional accounting with far reaching consequences are proposed by a new Art. 49(6):	VDZ proposes to adjust the new Art. 49(6) as follows:
6. In the case of the transfer of CO_2 to a capture installation resulting from materials or fuels containing a fraction of zero-rated carbon, the transferring installation shall only subtract from its reported emissions in accordance with the first paragraph of this Article the quantity of CO_2 proportional to the fraction of carbon that does not originate from zero-rated carbon.	*6. In the case of the transfer of CO_2 to a capture installation resulting from materials or fuels containing a fraction of zero-rated carbon, the transferring installation shall only subtract from its reported emissions in accordance with the first paragraph of this Article no more than the quantity of CO_2 ~~proportional to the fraction of carbon~~ that does not originate from zero-rated carbon.*

Three fundamental arguments against the additional proportionality requirement of 49(6) must be regarded in the scope of the EU ETS:

1) While there is no chemical difference between zero-rated and non-zero-rated carbon, there are also no techniques for selected capturing. Thus, the accounting according to the MRR must assure that capturing CO_2 in the size of the complete amount of generated fossil CO_2 is able to effectively establish carbon neutrality at the installation level. Furthermore, 100% capture of an installation's total emissions is never physically and technically possible. In certain operating situations, e.g., when starting up an emitting plant, the conditions for the simultaneous operation of a separation system are not yet met, so that CO_2 emissions occur temporarily. The same applies to situations in which the separation system cannot be operated due to a malfunction. Very high CO_2 capture rates at industrial processes are expected to reach about 95%, so that always minor CO_2 emissions will remain. To cover these remaining CO_2 emissions an operator will probably decide to use zero-rated inputs (biomass) to cover the gap, i.e., to achieve the goal of "technical carbon neutrality". In such a case, full accounting of zero-rated inputs against the remaining emissions must be possible. In contrary, the proposed additional proportionality requirement according to the new draft of Art. 49(6) would ultimately legally prevent the achievement of climate neutrality at the relevant installation level even if zero-rated carbon sources are used and even if CO_2 capture with permanent storage or utilisation is implemented to the full extent of the entire fossil CO_2 quantities generated. In other words: the proposal of an additional proportionality requirement contradicts and legally prevents the achievability of the EU's goal of carbon neutrality under the EU ETS.
2) The new draft of Art. 49(6) in MRR indirectly extends the scope of the emissions trading directive, which relates to pricing fossil CO_2 emissions. The described proportionality of accounting would de-facto form new obligations for additional proportional capturing of zero-rated CO_2 amounts and would force the operator to additionally scale CO_2 capture equipment and infrastructures for zero-rated CO_2 sources, negating their original zero-rating. It refuses to recognise the mitigation efforts made and potential additional costs by using zero-rated carbon sources. Also, the secondary recognition of negative emissions by capturing and permanently storing zero-rated carbon and the possibility of offsetting the remaining primary fossil CO_2 emissions at installation level is currently unregulated and will foreseeably be dealt with in completely different legal acts. Thus, with an additional proportionality requirement there is no immediate clarity, that consistent accounting will be achieved at installation level in the EU ETS.

3) The VDZ counterproposal, on the other hand, allows full recognition of the achievement of climate neutrality within the EU ETS, without contradicting the EU ETS requirement that no negative emissions are recognized in the EU ETS. Even if an operator uses more zero-rated inputs than would be necessary to close the gap between the technically feasible CO_2 capture and its total emissions, only the emissions captured can be deducted, but not the (negative) emissions that go beyond that. In addition, the counterproposal sets an upper limit (a cap) for the deductibility of captured CO_2 emissions, which achieves the goal of avoiding the recognition of negative emissions in the EU ETS just as effectively as the proportionality requirement contained in the Commission proposal.

The consistent subtraction of captured remaining fossil CO_2 is also and especially prevented in case that the operator uses sustainable biomass from local waste streams in order to reduce the use of fossil fuels in a targeted manner and in full accordance with the EU ETS requirements.

It is clear that climate neutrality in some industrial processes such as cement, lime and waste incineration can only be achieved through the combination of reduction measures using CCS/CCU and the use of zero-rated carbon such as sustainable biomass. Thus, the effective achievement of the climate neutrality target by capturing the entire amount of fossil CO_2 must under no circumstances be hindered by additional proportionality requirements in the new Art. 49(6), which would neglect the effect of use of zero-rated carbon at installation level.

A reference to subsequent regulations for captured biogenic CO_2 quantities and possible later compensation options cannot compensate for the resulting legal uncertainty regarding the effective implementation of climate neutrality at installation level. On the contrary, the current draft of Art. 49(6) creates additional uncertainty for strategic investment decisions and accounting at installation level. It will thus become an additional obstacle to investment in CCS/CCU technologies, while time investments are essential for achieving climate neutrality in industrial processes with unavoidable CO_2 emissions and are already being implemented in some cases, e.g., in the first projects of the EU Innovation Fund.

Correspondingly, the changes to Art. 49(6) need to be applied also to Art. 49a(1), subparagraph 2:

New requirements for proportional accounting with far reaching consequences are proposed by a new Art. 49a(1), subparagraph 2:	VDZ proposes to adjust the new Art. 49a(1), subparagraph 2 as follows:
1. […] *In the case of CO_2 resulting from materials or fuels containing a fraction of zero-rated carbon, the operator shall only subtract from the emissions of the installation the share of the CO_2 permanently chemically bound in a product listed in the Delegated Regulation adopted pursuant to Article 12(3b) of Directive 2003/87/EC, proportional to the fraction of carbon that does not originate from zero-rated carbon.*	*1. […]* *In the case of CO_2 resulting from materials or fuels containing a fraction of zero-rated carbon, the operator shall only subtract from the emissions of the installation no more than the quantity of the CO_2 permanently chemically bound in a product listed in the Delegated Regulation adopted pursuant to Article 12(3b) of Directive 2003/87/EC~~, proportional to the fraction of carbon that does not originate from zero-rated carbon~~.*

2 Recognise available technologies and achievable uncertainties for CO_2 transfer

The draft MRR Annex II sets out a new amendment of the tier level table for CO_2 mass balances referring to CO_2 transfers, capture, transport and storage. Mass flow measurement equipment applying the Coriolis principle at high standards and under national metrological are described to achieve uncertainties and operational error limits of at best 1.5%. Determination of the CO_2 mass flow must account additional measurements and uncertainties of the CO_2 content of the mass flow. It is thus technically not plausible, how or with which equipment a combined uncertainty of the CO_2 mass flow at tier level 4 with <= 1.5% uncertainty could realistically be achieved.

In consequence, the amendments to the tier level table and new described uncertainties should be checked for consistency with available measurement technologies and be revised. It seems necessary to delete tier level 4 or to limit its application specifically to only those areas or elements of CO_2 mass balances, for which extremely low uncertainties <= 1.5% can realistically be achieved by available technology. This has already been acknowledged for the last line of the table, where tier level 4 is missing. Alternatively, a new line for measuring CO_2 transferred will be required, to acknowledge the existing limitations of technologies for its measurement:

CO_2 capture, transfer and geological storage in storage site permitted under Directive 2009/31/EC					
Mass balance of CO_2 ~~transferred~~	CO_2 transferred into or out from an installation, transport infrastructure or storage site, vented, leaked or fugitive emissions [t]	± 7,5 %	± 5 %	± 2,5 %	± 1,5 %?*
Measurements of CO_2 transferred	CO_2 transferred into or out from an installation, transport infrastructure or storage site, vented, leaked or fugitive emissions [t]	± 7,5 %	± 5 %	± 2,5 %	
CO_2 venting, leakage, and fugitive emissions	CO_2 vented, leaked or from fugitive emissions [t]	± 7,5 %	± 5 %	± 2,5 %	

*Feasibility to be checked against available measurement technologies

3 More clarity in the definition of emissions

From the VDZ's point of view, the terms "emission" and "release" lose clarity of their legal definition and scope.

The planned amendments to the MRR essentially follow the changed new definition of emissions in the ETS Directive (Art. 3 (b)). Previously, emissions were clearly defined as "the release of GHG into the atmosphere". The new ETS directive defines "emissions" in terms of "release". However, the ETS Directive and also the draft MRR fail to clearly define the new term of "release" from materials or

facilities, thereby creating legal uncertainty and ambiguity. Especially, it becomes obvious that some inconsistency is emerging with regard to the treatment of “release” and “transfer” of the two most important greenhouse gases, namely CO_2 and Methane, CH_4. The amendment of a clear definition of the term “release” used in the definition of “emissions” would avoid the legal uncertainty and ambiguity described.

Berlin, 26 July 2024

About VDZ

The German Cement Works Association (Verein Deutscher Zementwerke, VDZ) is the economic, technical and scientific association for the German cement industry. Its aim is to uphold and promote the joint economic interests of the cement industry as well as technology and science, including pre-competitive research and development in the field of manufacture and use of hydraulic binders. VDZ supports cement manufacturers in reducing CO_2 emissions and conserving natural resources. By employing innovative technologies, the industry is facing up to the challenge of producing climate-neutral cement and concrete. VDZ cooperates with leading cement organisations and research institutions worldwide and has 24 national and international associate members.