

Position paper



VDZ response to the public consultation on the draft Climate, Energy and Environmental Aid Guidelines (CEEAG)

VDZ (Verein Deutscher Zementwerke) 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 and to promote technology and science, including pre-competitive research and development in the field of manufacture and use of hydraulic binders.

The German cement industry is committed to reaching climate neutrality within the first half of the century as shown by our recently published roadmap (vdz-online.de/dekarbonisierung). Against this background we welcome the new focus of the draft CEEAG on funding and supporting the decarbonisation of the industry.

However, we note with great concern that the Commission plans to remove the cement industry from the list of eligible sectors for aid in the form of reductions from electricity levies for energy-intensive users (Chapter 4.11, Annex 1 of draft CEEAG).

For the German cement industry alone this would mean a direct increase in electricity costs by about 260 million euros¹, which is more than 20 % of the Gross Value Added (GVA) of the sector or more than 30,000 Euro per employee. At this rate of additional cost burden, many German cement plants will not be able to cope with cheaper production both in other EU countries and in third countries like Norway, the UK and Turkey. Under these circumstances, any investments into German cement plants (let alone additional electro-intensive processes like CCUS for decarbonizing the industry) will be stalled. This comes at a crucial point in time where both private and public investment is urgently needed to foster CO₂ mitigation throughout Europe. We do not understand the Commission's motivation to increase electricity prices for a vast number of industrial sectors throughout Europe when electricity is the main transformation energy on our way to carbon neutrality. **We therefore call on the Commission to reconsider its draft guidelines and the methodology used and to add the cement industry back on the list of eligible sectors in annex 1 of the CEEAG.** In the following, please find our position on the individual chapters of the draft CEEAG in more detail.

¹ Calculation based on current EEG-Umlage of 6.5 ct/kWh, current KWKG-Umlage of 0.254 ct/kWh and current Offshore-Netzumlage of 0.395 ct/kWh. Total annual electricity demand is at about 3,84 TWh. A deductible of 1 GWh per levy for each German cement plant is taken into account. The cost burden beyond this deductible is at 0.5 % of GVA in case of the EEG-Umlage and 15% of the regular levy in case of the KWKG-Umlage and the Offshore-Netzumlage. The GVA of the German cement industry is at about 1.2 billion Euros, the count of employees at about 8,000. Not included is the effect of the §19 StromNEV-Umlage, a levy that is currently not connected to the EEG-Umlage reduction but at risk of being linked as well (cp. paragraph 355 of the draft CEEAG). This levy accounts for another 15 million Euro of potential additional cost burden.

Chapter 4.11 Aid in the form of reductions from electricity levies for energy-intensive users

Germany features among the highest electricity prices in the EU which are mainly driven by national levies on electricity due to the energy transition (Energiewende). Reductions from these levies for energy intensive producers are a precondition for competitiveness on the internal market and vis-à-vis third countries. Among those levies the main cost driver for electricity prices in Germany has been the EEG-Umlage which is currently at 65 Euro/MWh. The reduction of the EEG-Umlage for energy intensive industries is based on the current EEAG (recently approved by the Commission under SA.57779). The reduction of other electricity levies (KWKG-Umlage, Offshore-Netzzumlage) is also bound to the EEG reduction. Removing the cement industry from the list of eligible sectors in annex 1 of the CEEAG would therefore directly add up to about 260 million Euros or 22 % of the GVA of the sector. Furthermore, in [paragraph 355](#) the Commission states that member states should “include all [...] reductions in a single scheme”. If the reduction from the § 19 StromNEV-Umlage, which is currently not linked to the EEG-Umlage reduction, was also to be at risk, this would correspond to another 15 million Euro of additional cost burden.^{2,3}

The consequences of this electricity price shock would be severe. It would directly lead to huge competition distortions both on the EU internal market and in trade with third countries. It even risks the closure of cement plants in Germany as a direct consequence, and replacement of part of the cement production by imports (also from third countries like Turkey).⁴ In addition, an indirect carbon leakage effect is also to be expected: Paying higher levies on electricity withdraws part of the necessary capital for the continuous modernisation of plants in order to meet the increasing environmental standards inside the EU. With less capital available for such measures enterprises will have to choose which sites to invest into and where to reduce capacities in the medium term.

VDZ is an accredited certifier of energy and environmental management systems (DIN EN ISO 14001, DIN EN ISO 50001). Our clients are both from the cement and related industries as well as other sectors. The EEG reduction in Germany is the principal reason why most undertakings maintain an energy management system in Germany. Once the list of eligible sectors is reduced, we expect most enterprises to discontinue their energy management systems. In the cement industry this development will be less prevalent since energy demand is particularly high. However, for various other sectors this is another effect that the Commission should consider.

4.11.1 / 4.11.3.1 Methodology used to determine the list of eligible sectors

In total, the Commission plans to shorten the list of eligible sectors by 77 % in terms of the number of sectors (from 220 to only 51).⁵ Of the 68 sectors currently included in annex 3 of the EEAG, i.e. the sectors most exposed to electricity induced costs and to trade, the Commission plans to remove about one third (22 sectors).

² Calculation based on current § 19 StromNEV-Umlage of 0.432 ct/kWh. Total annual electricity demand is at about 3,84 TWh. A deductible of 1 GWh for each German cement plant is taken into account. The cost burden beyond this deductible currently is at 0.025 ct/kWh.

³ Not including potential other reduction schemes being bound to the CEEAG list of eligible sectors in the future. The German finance ministry is currently assessing whether to link reductions from the electricity tax for energy-intensive industry to the EEAG sector list. Also, the Commission aims to widen the scope of chapter 4.11 to any potential decarbonisation levies.

⁴ In addition, the „Fit-for-55“ package of the Commission would impose even more costs on the German cement industry, notably 40 million Euros by selectively including mineralogical processes into the scope of the draft energy taxation directive. The Commission also aims to reduce the Benchmark allocation for the cement industry leaving carbon leakage protection within the context of EU emissions trading up to the yet untested Carbon Border Adjustment Mechanism (CBAM).

⁵ Taking into account both annex 3 and annex 5 of the current EEAG.

Paragraph 351 identifies the main risks associated with the additional burden of electricity levies:

- “risk of activities [...] moving outside the European Union to locations where environmental disciplines are absent or less ambitious”
- “increase [in] the cost of electricity compared to the cost of direct emissions and [discouragement of] the electrification of production processes, which is central to the successful decarbonisation of the Union economy”

In our view, this covers only part of the actual risk to be addressed by the CEEAG:

First, the CEEAG should not only address the risk of carbon leakage (i.e. relocation of industry to countries with less stringent environmental standards) but also the risk of de-industrialisation of the EU (i.e. relocation of industry to any third countries). Existing and well-developed industrial value chains are an integral part of European economic stability and prosperity. Cement plants in Germany are integrated into wider industrial networks (e.g. waste management, district heating, markets for secondary raw materials) and help to reduce CO₂ emissions in other sectors. They have attained a global leadership position in many technologies that are key for the decarbonisation. However, further achievements in these areas are contingent on cement and clinker production still taking place in Germany and Europe. The state aid guidelines should not only aim to prevent carbon leakage but also investment, technology and industry leakage.⁶

Second, the CEEAG should not only address the risk of competition distortions between the EU and third countries but also aim to avoid competition distortions within the EU internal market. Breaking up existing local industrial value chains cannot be in the interest of the European Commission. In fact, rather than only considering the distortive effect of state aid the Commission should also take into account the distortive effect of the state-imposed cost burdens that create the need for state aid in the first place. For energy-intensive industry, levies on electricity can significantly impact competitiveness between the EU member states if not reduced. In this context, the Commission should pay particular attention to member states with a cumulative state-induced cost burden on electricity above the EU average.

Third, it is true that any increase in electricity cost will discourage investment in electro-intensive decarbonisation technologies (in case of the cement industry in particular CCUS). However, unlike stated in paragraph 353 the Commission has *not* addressed this risk appropriately by the criteria described in paragraph 357 because they are disproportionately focussed on trade intensity instead of electro-intensity. Furthermore, the Commission has not provided any assessment on the effect of electricity levies on investments into electro-intensive decarbonisation technologies. The EEAG revision support study does not consider this topic and takes a very limited view on sector-coupling in industry, i.e. “processes that can switch between electricity and other energy carriers”. However, the direct electrification of combustion processes has limited potential in case of the cement industry. Rather than switching existing processes from fuels to electricity, it is additional electro-intensive processes (e.g. air separation units) that will need to be installed in order to reach carbon neutrality in the sector. In our roadmap we have conservatively estimated an increase in the total electricity demand of the German cement industry by around 40 % until 2050. A full electrification of the combustion processes could multiply today’s electricity demand by a factor of about 6. As it stands the CEEAG would make electricity more expensive for industry and not less expensive – as would be required for a successful transformation. The draft CEEAG therefore threaten the economic viability of decarbonisation projects and counteract the EU climate targets as well as the EU green deal.

⁶ Compare COM(2020) 102: „A New Industrial Strategy for Europe“.

For this reason, in our view, the statement in [paragraph 353](#) is not justified because the Commission has *not* “used appropriate measures to identify those sectors which find themselves particularly exposed to the risks mentioned in point 351”.

[Paragraph 357](#) provides two sets of criteria for sectors to be eligible for the list in annex 1:

- 20 % trade intensity and 10 % electro-intensity
- 80 % trade intensity and 7 % electro-intensity
- The additional criterion of 4 % trade intensity and 20 % electro-intensity under the current EEAG has been omitted, therefore putting emphasis only on trade intensity. This excludes sectors in which a particularly high exposure to electricity cost outweighs less trade intensity.

In our view, the disproportionate emphasis on trade intensity is not justified:

First, the measure of trade intensity in itself is not fit to identify sectors at risk of carbon leakage or relocation / disinvestment. For example, in the period 2017-2019, clinker imports in the EU have doubled, cement imports have increased by 50% and importers have consistently applied lower prices than EU operators, therewith directly impacting the latter's market share; clinker exports have dropped by more than 50% and cement exports by 20% with export prices no longer competitive on the destination markets; yet, the effect of increased imports and decreasing exports, based on the trade intensity formula, is a decrease of trade intensity from 10.3% in 2017 to 9.2% in 2019. Eliminating the reductions of electricity levies will further exacerbate this situation.

Second, historical data on trade intensity cannot account for future shifts in trade patterns. In fact, the Commission has used outdated 2013-2015 data in order to determine the carbon leakage risk for the period 2022 to at least 2030, which is very questionable from a methodological viewpoint. In addition, data obtained in years with a functioning carbon leakage protection in place cannot give any indication on what trade patterns will look like once this carbon leakage protection is withdrawn.

Third, the Commission has provided no justification for increasing the threshold for trade intensity from 10 % in the current EEAG to 20 % in the draft CEEAG. It has only made reference to the EU ETS carbon leakage list and to the guidelines on indirect CO₂ costs. However, the EU ETS carbon leakage list is based on a combined factor of trade and emission intensity and – by way of derogation – on a specific threshold focussing on the subject at hand, which is emission intensity (Article 10b(3) of directive 2003/87/EC). It is therefore not a fit reference in order to justify the opposite – i.e. a bias towards trade intensity while neglecting (in relative terms) the subject at hand, which is electro-intensity. Meanwhile, the thresholds for the guidelines on indirect costs have deliberately been chosen in order to keep the list of eligible sectors to a minimum – thereby excluding many sectors which are also exposed to indirect CO₂ costs passed on through electricity prices. There has been no substantive assessment on why 20 % is a suitable threshold to determine relocation risk. Therefore, the reference to the guidelines on indirect CO₂ costs cannot provide any substantive justification regarding the 20 % trade intensity threshold in the draft CEEAG. Short of a reason why the current criteria apparently do not measure relocation risk adequately, the increase seems arbitrary. Given the importance of the electricity levy reductions for industry and jobs throughout Europe we are deeply worried by this over-simplistic approach of the Commission. In addition, with the Brexit there is now a competing third country just outside the EU with very intense trade flows to member countries and a government that has just recently announced to foster its economy by state aid. This new situation cannot be ignored by simply applying a higher threshold on trade intensity.

For all these reasons, the criteria that the Commission has applied are not appropriate to identify sectors at risk of relocation (as suggested in [paragraph 353](#)).

We ask the Commission to reconsider the methodology used for determining the sectors eligible under chapter 4.11. In any case, this methodology should not fall behind the criteria applied for the current EEAG (i.e. sectors with a trade intensity of 4 % but an electro-intensity of 20 % should continue to be part of the list in annex 1 of CEEAG as well as sectors with a trade intensity of 10 % and an electro-intensity of 10 %).

4.11.2 Scope: Levies from which reductions can be granted

Paragraph 354 of the draft CEEAG specifically excludes network charges from the scope of chapter 4.11. This falls short on visible developments on the electricity market in Germany during the past years. Given the advanced transition from both coal and nuclear power plants to fluctuating renewables like wind and solar energy, the need for both active grid management and grid expansion continuously increases. Transmission system operators (TSOs) already pass on these additional costs to electricity consumers and will continue to do so. Network charges therefore threaten to become the “new major cost burden associated with renewable energies” and in that respect seamlessly take over from the levies financing the direct funding of renewables. This development is already foreseeable today and will likely be shared in many other EU member states as soon as fluctuating renewable energies provide a major share of electricity. In view of the long-term applicability of the CEEAG for the upcoming years, this issue should be addressed – either in chapter 4.11 or in chapter 4.9 (aid for energy infrastructure). However, in the draft CEEAG paragraph 334 of chapter 4.9 also excludes indirect relief of electricity users by way of infrastructure funding.

We therefore ask the Commission to explicitly allow for reductions in network charges for energy-intensive users in order to mitigate the risk of relocation stemming from this growing cost burden.

Paragraph 355 of the draft CEEAG asks member states to include all levies on electricity into a single relief scheme. Generally, we support this approach of the Commission since the cost burden on energy-intensive industries has to be assessed cumulatively in order to provide a meaningful estimate for the risk of relocation. In fact, the cost burden should ideally be examined even across different policy areas. The minimum threshold proposed in paragraph 356, however, is not a sensible approach in our view because it only focusses on the absolute amount of levies – not taking into account varying electricity price levels across the EU and relative price differences (intra- and extra EU). Also, in case a member state was to reduce levies on electricity in order to support decarbonisation this effect could be counteracted by the threshold.

In order to create an actual level playing field for energy-intensive industry sectors across the EU and in order to support the electrification and decarbonisation of industrial processes the cumulative cost burden on electricity should be taken into account. We do not support the proposed absolute minimum threshold as a precondition for introducing relief schemes.

4.11.3.2 Maximum reduction of electricity levies

Paragraph 359 proposes to decrease aid intensity from 85 % to 75 %. Paragraph 360 proposes to increase the maximum burden from 0.5 % of GVA under the current EEAG to 1.5 % of GVA. The reasoning behind this significant increase again is not comprehensible. Electro-intensity of the industry will increase over the coming years as decarbonisation technologies are installed. Increasing the electricity cost burden for energy-intensive industries discourages investments into these electro-intensive technologies. Since electricity is the main transformation energy on our way to carbon neutrality the aim of CEEAG should be to decrease its price and not to increase it.

We therefore ask the Commission again to reconsider its plans to increase the electricity cost burden on energy-intensive industries and to maintain the current level of aid intensity.

4.11.3.4 State induced investment requirements

Paragraph 365 proposes that undertakings be obliged to invest into certain publically determined objectives, stipulating a pay-back period of 3 years for energy efficiency measures, setting a target of 30 % green electricity consumption and directing at least 50 % of “aid” into decarbonisation measures. We strongly object to this kind of public investment control as it significantly curtails entrepreneurial independence. The aid under chapter 4.11 is not to be confused with investment funding. Instead it must offset state induced cost disadvantages vis-à-vis competitors inside and outside the EU. Offsetting cost disadvantages implies that EU undertakings are free in their investment decisions in the same way as their competitors. Otherwise, aid provided under chapter 4.11 does not actually create a level playing field (which should be the aim).

We therefore ask the Commission to delete paragraph 365 and to not condition safeguards for the competitiveness of the European industry on certain investment objectives.

Chapter 2.4 Definitions

Paragraph 18 (13) and (14): Carbon Capture and Storage / Carbon Capture and Use

The formulation “industrial plants based on fossil fuels or biomass, including power plants and waste-to-energy plants” is ambiguous. It can be read as if only fuel emissions were meant by these two definitions. It should be clarified that CCS and CCU also involve CO₂ emissions from industrial processes.⁷ In fact, in the cement industry process emissions from the raw material limestone make up roughly two thirds of the total emissions and they are the principal reason why climate neutrality cannot be achieved in our sector without CCS or CCU.

We appreciate the explicit mentioning of CO₂ transport between its source and the sink, because this step is currently a major hurdle for demonstration projects and must not be neglected. However, the CCU definition might be too much focused on constellations where CO₂ has to be transported from one site (the source) to a specific “CO₂ consumption or utilisation site”. There might be constellations where the CO₂ utilisation takes place at the same site as the CO₂ capture. It should be made clear that such constellations are not excluded.

Paragraph 18 (16): CO₂ removal

The recarbonation of concrete is a chemical process by which CO₂ is taken up and chemically fixed in concrete according to the following formula: $\text{Ca(OH)}_2 + \text{CO}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$.⁸ This process either happens naturally (surfaces of concrete structures binding CO₂ from the ambient air)⁹ or forcibly (active recarbonation e.g. of fresh concrete, currently under development). It should be made sure that effects like these are also covered by the definition in order to reflect the variety of different CO₂ sinks.

Paragraph 18 (24): Demonstration project

In our view, the definition of demonstration project might be too stringent by only referring to “technology as a first of its kind in the Union”. It should be clarified that more than one demonstration project per technology can be eligible for funding. For example in the cement industry, there are different carbon capture technologies available (e.g. oxy-fuel combustion process, Leilac, Calcium-Looping).

⁷ The formulation in the definition of energy infrastructures in paragraph 18 (35) (d) (i) is better suited to cover also process emissions: „industrial installations (including power plants) that produce carbon dioxide gas from combustion or other chemical reactions involving fossil or non-fossil carbon-containing compounds”.

⁸ For a comprehensive study on this effect see: IVL Swedish Environmental Research Institute. 2018. „CO₂ uptake in cement-containing products. Background and calculation models for IPCC implementation.“ [Link](#)

⁹ In our recent VDZ decarbonisation roadmap we have conservatively estimated based on available literature on this subject that about 20 % of the process CO₂ emitted during the manufacturing of cement is taken up naturally during the service life of a concrete structure.

However, oxy-fuel installations might work differently under different conditions. A single demonstration project for the oxy-fuel combustion process in an EU cement plant will not be enough to actually demonstrate the full operational applicability across different cement plants.

Paragraph 18 (35) (d): Energy infrastructure – CO₂ infrastructure

We welcome the inclusion of CO₂ pipelines, CO₂ liquefaction and buffer storage facilities as well as geological CO₂ storage facilities and any support equipment needed as part of the definition on energy infrastructure. Lacking CO₂ infrastructure today is one of the most pressing impediments to starting carbon capture projects and therefore needs swift and non-bureaucratic support. However, the definition states that only “Assets [...], which are subject to third party access qualify as energy infrastructure”. Also the definition states that “Assets [...] which are built for one or a small group of *ex ante* identified users and tailored to their needs (‘dedicated infrastructure’) do not qualify as energy infrastructure.” We take a critical view of these restrictions as they might severely slow down or even inhibit the build-up of a usable CO₂ infrastructure. In particular during the very first stage of CO₂ infrastructure development, private projects (e.g. a private pipeline connecting a cement plant and a chemical plant; or a private pipeline connection between a cement plant and a (public) backbone CO₂ pipeline) might play an important role. “Dedicated CO₂ infrastructure” should therefore have an own definition under chapter 2.4 and be eligible for funding under the CEEAG in the same way as pipelines offering third-party access.

Furthermore, a focus on only pipelines for CO₂ transport is not sufficient. In the beginning it is likely that CO₂ transport will take place by other means such as ships, trains, trucks or similar. The CEEAG should take this into account in order to effectively support new CCUS value chains.

To foster a rapid build-up of CCUS value chains, the CEEAG should also allow for a full compensation of any CO₂ network charges as well as any electricity levies in the context of these projects.

The definitions of CCS, CCU and energy infrastructures for CO₂ should be aligned in their wording in order to prevent ambiguities (see footnote 7).

Chapter 3.2.2 Avoidance of undue negative effects on competition and trade

Paragraph 62 states that “By its very nature, any aid measure will generate distortions of competition and have an effect on trade between Member States as it reinforces the competitive position of the beneficiaries”. We strongly oppose this statement. Aid measures are often introduced only to alleviate nationally introduced cost burdens that competitors in other EU member states do not have to bear. In such cases, the aid measure actually contributes to the restoration of a level playing field that would otherwise not exist. In particular with a view to electricity levies and chapter 4.11 we ask the Commission to consider a paradigm shift in this very much simplified assessment of the nature of state aid. In the same way the Commission makes sure aid does not result in any negative effect on competition and trade, it should also prevent competition distortions within the EU single market due to the absence of aid.

Chapter 3.3 Weighing the positive effects of the aid against the negative effects on competition and trade

Paragraph 68 makes reference to the European Climate Law against which state aid decisions have to be benchmarked. Similarly, we ask the Commission to also refer to the EU industrial strategy which is also part of the Green Deal. Meaningful climate protection can only succeed if at the same

time industrial production is kept inside the EU and functioning local industrial value chains are not disrupted.

Paragraph 69 makes reference to the recently introduced EU taxonomy on economic activities. We reiterate our concern that this taxonomy reduces very complex industrial processes and value chains to only a few selected technical screening criteria. In establishing these criteria industrial expertise has been taken into account only to a limited extent. Instead, the taxonomy is a project mainly driven by financial institutions. The cement industry and various other industry sectors concerned are not represented in the EU platform on sustainable finance. The significance of the technical screening criteria for the actual environmental performance of economic activities therefore is very limited from our perspective.

Chapter 4.1 Aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy

We welcome the focus of chapter 4.1 on (amongst others) carbon capture, storage and use (paragraph 74) including dedicated infrastructure for CO₂ transport (paragraph 75). Also, we welcome the proposed higher degree of flexibility given to member states in demonstrating the necessity and appropriateness of aid for decarbonisation (chapters 4.1.3.1 and 4.1.3.2). Regarding paragraph 85, however, it should be made clear that any estimates of costs per ton of CO₂ avoided will be provisional at the time of the public consultation. In general, we ask the Commission to treat the results from such public consultations with prudence. We are committed to an open and constructive dialogue with society on the necessity, costs, opportunities and risks of decarbonisation technologies like CCUS. Practical experience e.g. from the expansion of renewable energy has, however, shown that there are often societal reservations against new technologies or infrastructures.

Paragraph 89 states that aid “should in general be granted through a competitive bidding process”. While this requirement is understandable from a cost efficiency perspective it might not be suited for the selection of breakthrough demonstration projects – in particular not at the beginning of a funding programme. *First*, different technologies in different sectors have different CO₂ abatement costs. A cross-sector cross-technology bidding process for funding might result in the most cost-efficient technology being awarded the funding. However, we do not have the time to develop breakthrough technologies one at a time – they need to be developed in parallel and as soon as possible. So, in any case technology- and sector-specific bidding processes are more reasonable – even though they might be less competitive. *Second*, the very nature of breakthrough technologies means that many of the potential caveats and defining criteria for such projects cannot be known *ex ante*. Therefore, the CEEAG should allow for a pilot phase of individual project-specific public-private funding contracts enabling the necessary flexibility. Based on the experience gathered from this pilot phase, a transition to tenders might be possible.

We consider the rules for dedicated infrastructures in paragraphs 105 and 106 reasonable in that they allow for CO₂ infrastructures to be developed exclusively in the beginning with a view to opening them up to third parties in the long run. As said before on the definition of energy infrastructures: Exclusive CO₂ infrastructure, that does not allow third party access, must still be eligible for funding – at least in the ramp-up phase of such infrastructure – in order not to stall private initiatives. In addition, the CEEAG should allow for a full compensation of any CO₂ network charges as well as any electricity levies in the context of CCUS projects.

“Dedicated infrastructure” is not clearly defined in the draft CEEAG. In our view, this should include all means of transport for CO₂, including pipelines, trucks, trains and ships. The latter transport modes

might play an important role in developing CCUS value chains especially in the next ten years. The build-up of a CO₂ pipeline network is expected to be the second step once the CO₂ sources and sinks are better known.

In general, chapter 4.1 is not clear on which costs of projects are eligible for funding. In our view, it is indispensable that both capital expenditure (CAPEX) and operating costs (OPEX) of decarbonisation projects can be funded under chapter 4.1. This should be clarified.

Chapter 4.2 Aid for the improvement of the energy and environmental performance of buildings

We suggest to include a reference to thermal mass as part of [paragraph 116](#). Support for development of projects with structural thermal energy storage elements have a positive effect on the energy consumption of the built environment and therefore should be added as beneficiaries (e.g. Thermally Activated Building Structures TABS). The thermal storage capacity offered by concrete structures provides flexibility in energy grids and can boost the uptake of renewable energy (compare [Link](#)).

Chapter 4.4 Aid for resource efficiency and for supporting the transition towards a circular economy

Next to CCUS, resource efficiency is the second pillar on which the cement and concrete industry aims to achieve carbon neutrality by 2050. We therefore support that the Commission addresses this topic in the draft CEEAG. There are three major topics connected to resource efficiency in the cement and concrete value chain: *First*, the market introduction of new clinker efficient cement and concretes. The production of cement clinker, the main constituent of cement, is the primary source of CO₂ emissions in the cement industry. However, there are significant CO₂ saving potentials associated with the share of clinker in cement, the share of cement in concrete and the specific use of concrete in buildings. To tap these potentials requires access to new alternative raw materials like calcined clay, it requires swift standardisation processes, market acceptance, training and information of key actors along the value chain as well as competitive pricing of new clinker-efficient cements and concretes. *Second*, the market for concrete recycling will need to further develop over the upcoming years. The recycling of concrete today saves primary raw materials like sand and gravel but has only limited effect on the CO₂ balance of cement and concrete manufacturing. However, the use of recarbonated concrete fines as an alternative raw material for cement clinker production as well as the recovery of cement stone from concrete could have an effect on overall CO₂ emissions and both technologies are currently subject to research. Prospectively, the advancement of these technologies also depends on favourable framework conditions like low electricity prices (separating cement stone from concrete is an electro-intensive process), sorted collection of construction wastes and competitive pricing of recycled material. The German and European cement industry is world-leading in this kind of research. This research and technology development, however, can only continue if cement (and clinker) production stays in Germany and Europe (see comments on chapter 4.11). *Third*, the use of alternative fuels in clinker manufacturing is another contribution to resource efficiency (next to other positive effects). The ashes of certain waste fuels can directly be used in the product clinker (e.g. iron oxide from burning used tyres) and therefore replace primary raw materials. It should be made sure, that these different approaches to resource efficiency in the cement and concrete value chain are also covered as part of chapter 4.4.

Chapter 4.7 Aid in the form of reductions in taxes of parafiscal levies

Since 1 January 2021, Germany has introduced a new separate emissions trading scheme for the sectors not covered by the EU ETS – much in the same way as proposed by the European Commission in its “Fit for 55” package. Given the upstream nature of the system, obligated parties under this new ETS cannot always know where their products (i.e. fuels) are finally used and will pass on CO₂ prices to all their customers. Therefore, there is a significant risk that installations falling under the scope of the EU ETS will pay the CO₂ price twice – once under the “fuel ETS” when they buy fuels and then again under the EU ETS when the fuels are used and the CO₂ is emitted. To avoid this double-payment, state aid guidelines should allow for a full compensation of the CO₂ price passed on in fuel prices for installations within the scope of the EU ETS.

Furthermore, since the national “fuel ETS” also covers industrial installations outside the scope of the EU ETS, these installations require a separate carbon leakage protection (as the Commission has acknowledged in its proposal for an EU-wide “fuel ETS”). The CEEAG should enable this carbon leakage protection.

Chapter 4.9 Aid for energy infrastructure

Paragraph 354 of the draft CEEAG specifically excludes network charges from the scope of chapter 4.11. This falls short on visible developments on the electricity market in Germany during the past years. Given the advanced transition from both coal and nuclear power plants to fluctuating renewables like wind and solar energy, the need for both active grid management and grid expansion continuously increases. Transmission system operators (TSOs) already pass on these additional costs to electricity consumers and will continue to do so. Network charges therefore threaten to become the “new major cost burden associated with renewable energies” and in that respect seamlessly take over from the levies financing the direct funding of renewables. This development is already foreseeable today and will likely be shared in many other EU member states as soon as fluctuating renewable energies provide a major share of electricity. In view of the long-term applicability of the CEEAG for the upcoming years, this issue should be addressed – either in chapter 4.11 or in chapter 4.9. However, in the draft CEEAG paragraph 334 of chapter 4.9 also excludes indirect relief of electricity users by way of infrastructure funding. We ask the Commission to include a reduction in network charges for energy-intensive industries in either chapter 4.11 or chapter 4.9.

We welcome the consideration of CO₂ pipelines in the context of energy infrastructure. However, we reiterate our concern with regard to third-party access mentioned above in relation to the definition of energy infrastructure as well as in relation to dedicated infrastructure in chapter 4.1.

Berlin, 02.08.2021