

Feedback on the revised **Climate, Energy and Environmental Aid Guidelines (CEEAG)**

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The European Union intends to become climate-neutral by 2050. This will only work if we do everything, we can do right now to bring new energy-transition technologies onto the market **on a scale that's relevant to industrial applications. This won't work without a more targeted framework for state aid that facilitates the innovation and implementation of climate-neutral technologies.**

Becoming carbon-neutral is technologically feasible, but market and regulatory conditions will be decisive for these technologies to compete. Climate technologies still face significant market failures because the current boundary conditions don't give meaningful signals to support investments for market uptake. This market failure also becomes apparent in companies' internal budget allocations: Improving the outlook of a business will immediately stimulate a shift toward new climate technologies. **Therefore, industrial scaling and demonstrating technological feasibility require more focus and tailored political frameworks, including state aid rules. In fact, the legal clarity and scope of state aid rules need to match Europe's determination to become climate-neutral by 2050.**

Siemens Energy welcomes the European Commission's draft guidelines, and we would like to highlight some aspects and propose some adjustments to the proposed text.

Proposed adjustments:

- **Aid for eligible costs to support the operation of environmentally friendly solutions:** Eligible costs shall consider the additional capital and operational expenditures compared to a reference power generation solution considering carbon-based fuels. **While the funding for capital expenditures is related to short term investment activities, the funding for operational expenditures shall support the operation of the plant on a mid to long-term perspective until the cost gap between the environmentally harmful and friendly solution is fully closed.**

The funding for the eligible cost shall motivate the plant operators to invest in existing and new plants and therefore accelerate the market development for environmentally friendly solutions such as investments into industrial

scale renewable hydrogen producing facilities. (Points 82,103,329,334,340)

- **Reference to the EU Taxonomy:** The European Commission has emphasized on many occasions that the EU Taxonomy's primary objective is to create more transparency for investors about sustainability. The basis for the assessment of environmental impacts however should be environmental standards, not a general principle set out in the EU Taxonomy Regulation. As the delegated acts under the EU Taxonomy are still under development and, once they are in place, can only be reviewed within short timeframes and without going through a thorough political screening, such a reference would provide great uncertainty for Member States while designing state aid schemes. **The European Commission should refrain from referring to the EU Taxonomy Regulation and the "do no significant harm" principle.** (E.g., points 69, 113)
- **Lock-in of gas-fired energy generation:** Gas-fired power generation is not bound to natural gas but is in principle also capable of operating with renewable and decarbonized gases / fuels, including hydrogen. This will avoid stranded assets of existing power plants and at the same time provide certainty for the plant operators. If today new build gas power plants are prepared accordingly, they can be converted to fully climate neutral operation at a later point in time when sufficient climate neutral Hydrogen is available to secure grid stability and to provide back-up power when there is no wind and no sun. **Therefore, hydrogen-readiness should be the criteria to show "no lock-ins" of investments in gas infrastructure.** The possibility of upgrading existing plants at a later point in time will avoid stranded assets and significantly contributes to grid stability. (Points 110, 326, 348)
- **Extension to decarbonization:** The extension to include aid for decarbonization is a **positive signal and we welcome the explicit reference to 'carbon contracts for difference' in the context of carbon reductions.** (Point 103)

Draft CEEAG	Proposed Changes
<p>Section 4.1, Point 82</p> <p>Decarbonisation measures targeting specific activities which compete with other unsubsidised activities can be expected to lead to greater distortions of competition, compared to measures open to all competing activities. Therefore, Member States should give reasons for measures which do not include all technologies and projects that are in competition – for example all projects operating in the electricity market, or all undertakings producing substitutable products and which are technically capable of contributing efficiently to greenhouse gas emissions reductions. These reasons should be based on objective considerations linked, for example, to efficiency or costs or other relevant circumstances. Such reasons may draw on evidence gathered in the public consultation pursuant to Section 4.1.3.4 where applicable.</p>	<p>Eligible costs include the full operating cost gap between the environmentally friendly and the established environmental harmful solution. Decarbonisation measures targeting specific activities which compete with other unsubsidised activities can be expected to lead to greater distortions of competition, compared to measures open to all competing activities. Therefore, Member States should give reasons for measures which do not include all technologies and projects that are in competition – for example all projects operating in the electricity market, or all undertakings producing substitutable products and which are technically capable of contributing efficiently to greenhouse gas emissions reductions. These reasons should be based on objective considerations linked, for example, to efficiency or costs or other relevant circumstances. Such reasons may draw on evidence gathered in the public consultation pursuant to Section 4.1.3.4 where applicable.</p>
<p>Section 4.1, Point 103</p> <p>Aid for decarbonisation can take a variety of forms including up front grants and contracts for ongoing aid payments such as contracts for difference. Aid which covers costs mostly linked to operation rather than investment should only be used where the Member State clearly demonstrates that this results in more environmentally friendly operating decisions</p>	<p>Aid for decarbonisation can take a variety of forms including up front grants and contracts for ongoing aid payments such as contracts for difference. Aid which covers costs mostly linked to operation rather than investment should only be used where the Member State clearly demonstrates that this results in more environmentally friendly operating decisions. Under certain boundary conditions (e.g. time constraints), the operating cost gap between the environmentally friendly and the established environmental harmful solution can be covered by state aid up to 100% to initiate economy of scale effects.</p>
<p>Section 4.9, Point 329</p> <p>Where market operators cannot deliver the infrastructure needed, State aid may be necessary in order to overcome market failures and to ensure that the Union's considerable infrastructure needs are met. One market failure that may arise in the field of energy infrastructure is related to problems of coordination. Diverging interests among investors, uncertainty about the collaborative outcome and network effects may prevent the development of a project or its effective design. At the same time, energy infrastructure may generate substantial positive externalities, whereby the costs and benefits of the infrastructure may occur asymmetrically among the different market participants and Member States. The Commission therefore considers that aid to</p>	<p>Where market operators cannot deliver the infrastructure needed, State aid may be necessary in order to overcome market failures and to ensure that the Union's considerable infrastructure needs are met. One market failure that may arise in the field of energy infrastructure is related to problems of coordination. Diverging interests among investors, uncertainty about the collaborative outcome and network effects may prevent the development of a project or its effective design. At the same time, energy infrastructure may generate substantial positive externalities, whereby the costs and benefits of the infrastructure may occur asymmetrically among the different market participants and Member States. The Commission therefore considers that aid to</p>

energy infrastructure can be beneficial to the internal market by contributing to addressing the market failures. This is particularly true for infrastructure projects having a cross-border impact such as Projects of Common Interest, as defined by Article 4 of Regulation (EC) No 347/2013.	energy infrastructure (aid for eligible costs, i.e. capital cost for hardware and the full operating cost gap between the environmentally friendly and the established environmental harmful solution) can be beneficial to the internal market by contributing to addressing the market failures. This is particularly true for infrastructure projects having a cross-border impact such as Projects of Common Interest, as defined by Article 4 of Regulation (EC) No 347/2013.
<p>Section 4.9, Point 334</p> <p>Member States also have to ensure that the funding provided for the construction of the energy network infrastructure cannot be used to cross-subsidise or indirectly subsidise other economic activities, including the operation of the infrastructure. For electricity and gas infrastructure, see point 332 (d).</p>	<p>Member States also have to ensure that the funding provided for the construction of the energy network infrastructure cannot be used to cross-subsidise or indirectly subsidise other economic activities, including the operation of the infrastructure. Under certain boundary conditions (e.g. time constraints), the operating cost gap between the environmentally friendly and the established environmental harmful solution can be covered by state aid up to 100% to initiate economy of scale effects. For electricity and gas infrastructure, see point 332 (d)</p>
<p>Section 4.10, Point 340</p> <p>The construction or the upgrade of district heating and cooling systems can make a positive contribution to environmental protection by increasing the energy efficiency and sustainability of the supported system. However, the environmental externalities associated with the operation of district heating and cooling can lead to inefficient underinvestment in the construction and upgrade of district heating and cooling systems. State aid can contribute to addressing this market failure by triggering additional efficient investment.</p>	<p>The construction or the upgrade of district heating and cooling systems can make a positive contribution to environmental protection by increasing the energy efficiency and sustainability of the supported system. However, the environmental externalities associated with the operation of district heating and cooling can lead to inefficient underinvestment in the construction and upgrade of district heating and cooling systems. State aid can contribute to addressing this market failure by triggering additional efficient investment. Under certain boundary conditions (e.g. time constraints), the operating cost gap between the environmentally friendly and the established environmental harmful solution can be covered by state aid up to 100% to initiate economy of scale effects.</p>
<p>Section 3.3, Point 69</p> <p>In that balancing exercise, the Commission will pay particular attention to Article 3 of Regulation (EU) 2020/852 of the European Parliament and of the Council⁵⁰, including the ‘do no significant harm’ principle, or other comparable methodologies. Furthermore, as part of the assessment of the negative effects on competition and trade, the Commission may take into account, where relevant, negative externalities of the aided activity where such externalities adversely affect competition and trade between Member States to an extent contrary to the common interest by creating or</p>	<p>In that balancing exercise, the Commission will pay particular attention to Article 3 of Regulation (EU) 2020/852 of the European Parliament and of the Council⁵⁰, including the ‘do no significant harm’ principle, or other comparable methodologies. Furthermore, as part of the assessment of the negative effects on competition and trade, the Commission may take into account, where relevant, negative externalities of the aided activity where such externalities adversely affect competition and trade between Member States to an</p>

aggravating market inefficiencies including in particular those externalities that may hinder the achievement of climate objectives set under EU law 51.	extent contrary to the common interest by creating or aggravating market inefficiencies including in particular those externalities that may hinder the achievement of climate objectives set under EU law.
<p>Section 4.1, Point 113</p> <p>Provided that all other compatibility conditions are met, the Commission will typically find the balance for decarbonisation measures to be positive (that is to say, distortions to the internal market are outweighed by positive effects) in the light of their contribution to climate change mitigation, which is defined as an environmental objective in Regulation (EU) 2020/852, as long as there are no obvious indications of non-compliance with the do no significant harm principle.</p>	Delete
<p>Section 4.1, Point 110:</p> <p>Similarly, measures that incentivise new investments in energy or industrial production based on natural gas may reduce greenhouse gas emissions and other pollutants in the short term but aggravate negative environmental externalities in the longer term, compared to alternative investments. For investments in natural gas to be seen as having positive environmental effects, Member States must explain how they will ensure that the investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target. In particular, the Member States should explain how a lock in of this gas-fired energy generation or gas-fired production equipment will be avoided. For example, this may include binding commitments by the beneficiary to implement decarbonisation technologies such as CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>	<p>Similarly, measures that incentivise new investments in energy or industrial production based on natural gas may reduce greenhouse gas emissions and other pollutants in the short term but aggravate negative environmental externalities in the longer term, compared to alternative investments. For investments in natural gas to be seen as having positive environmental effects, Member States must explain how they will ensure that the investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target. In particular, the Member States should explain how a lock in of this gas-fired energy generation or gas-fired production equipment into natural gas will be avoided. For example, this may include binding commitments by the beneficiary to install technology prepared to be upgraded for the use with renewable and climate-neutral gases / fuels (for example, "hydrogen-ready" technology) and ensure the substitution of natural gas by renewable or low carbon gas, or to implement decarbonisation technologies such as CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>
<p>Section 4.8, Point 326:</p> <p>Measures that incentivise new investments in energy generation based on natural gas may support security of electricity supply but aggravate negative environmental externalities in the longer term, compared to alternative investments in non-emitting technologies. To enable the Commission to verify that the negative effects of such measures can be offset by positive effects in the balancing test, Member States should explain how they will ensure that such investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target. In particular, the Member States should explain how a lock-in of this gas-fired energy generation will be avoided. For</p>	<p>Measures that incentivise new investments in energy generation based on natural gas may support security of electricity supply but aggravate negative environmental externalities in the longer term, compared to alternative investments in non-emitting technologies. To enable the Commission to verify that the negative effects of such measures can be offset by positive effects in the balancing test, Member States should explain how they will ensure that such investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target. In particular, the</p>

<p>example, this may include binding commitments by the beneficiary to implement decarbonisation technologies such as CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>	<p>Member States should explain how a lock-in of this gas-fired energy generation into natural gas will be avoided. For example, this may include binding commitments by the beneficiary to install technology prepared to be upgraded for the use with renewable and climate-neutral gases/fuels (for example, "hydrogen-ready" technology) and ensure the substitution of natural gas by renewable or low carbon gas, or to implement decarbonisation technologies such as CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>
<p>Section 4.10, Point 348:</p> <p>As regards the construction or upgrade of district heating generation installations, measures that incentivise new investments in energy based on natural gas may reduce greenhouse gas emissions in the short run but aggravate negative environmental externalities in the longer run, compared to alternative investments. For those investments in natural gas to be seen as having positive environmental effects, Member States must explain how they will ensure that the investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target and, in particular, how a lock-in of the gas-fired energy generation or gas-fired production equipment will be avoided. For example, this may include binding commitments by/from the beneficiary to implement CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>	<p>As regards the construction or upgrade of district heating generation installations, measures that incentivise new investments in energy based on natural gas may reduce greenhouse gas emissions in the short run but aggravate negative environmental externalities in the longer run, compared to alternative investments. For those investments in natural gas to be seen as having positive environmental effects, Member States must explain how they will ensure that the investment contributes to achieving the Union's 2030 climate target and 2050 climate neutrality target and, in particular, how a lock-in of the gas-fired energy generation or gas-fired production equipment into natural gas will be avoided. For example, this may include binding commitments by/from the beneficiary to install technology prepared to be upgraded for the use with renewable and climate-neutral gases /fuels (for example, "hydrogen-ready" technology) and ensure the substitution of natural gas by renewable or low carbon gas, or to implement CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union's climate targets.</p>
<p>Section 4.12, Point 372</p> <p>Measures covered by this Section can facilitate the development of certain economic activities or areas. For instance, such measures can create space for the development of other, likely environmentally friendly, activities in order to offset the reduction in the power generation capacity caused by the early closure. In the absence of the measure, this development may not take place to the same extent. In addition, the predictability and legal certainty introduced by such measures can help to facilitate the ordered closure of coal, peat and oil shale activities.</p>	<p>Measures covered by this Section can facilitate the development of certain economic activities or areas. For instance, such measures can create space for the development of other, likely environmentally friendly, activities in order to offset the reduction in the power generation capacity caused by the early closure, such as new built gas fired power generation plants. In the absence of the measure, this development may not take place to the same extent. In addition, the predictability and legal certainty introduced by such measures can help to facilitate the ordered closure of coal, peat and oil shale activities.</p>

