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EU Taxonomy

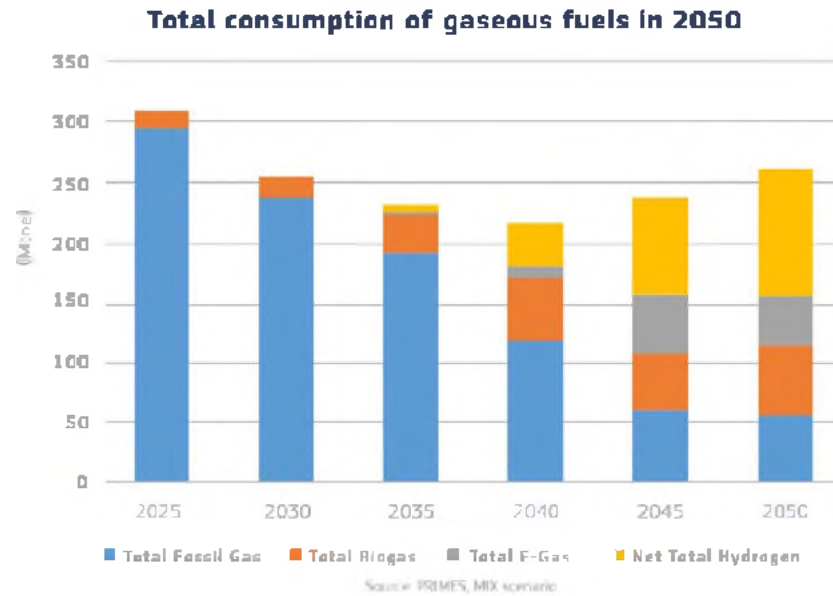
Draft Complementary Delegated Act (DA)

EUTurbines welcomes the recognition of the importance of gas power generation in the transition in the draft complementary DA. The document is an essential part of the Taxonomy, to enable the journey to a climate-neutral energy system and society. At this stage, we would like to highlight and propose a limited number of changes to the draft, to ensure the proper role of gas power generation in the energy transition. In the longer term, gas power plants will provide climate-neutral energy thanks to the use of renewable and low-carbon gases, or in combination with the Carbon Capture Use and Storage technologies.

Main points:

- The replacement of coal installations is an important step to support a fast overall GHG reduction in the transition to a decarbonised energy sector. Given the trend towards the decentralisation of the energy system and the fact that coal-fired power plants are very large installations, **it should be acknowledged throughout the technical screening criteria that the replacement may be made by several, smaller facilities in aggregate.**
- The proposal lacks the recognition of the role of gas power plants to enable the further build up renewable energy, while ensuring the stability of the electricity grid and security of supply. This is an increasingly important aspect as more intermittent renewables are introduced into the energy system. **The role of gas power plants as back-up to enable more intermittent renewables in the system needs to be included in the technical screening criteria in addition to coal-to-gas switching.**
- The compatibility with the co-firing of low-carbon and renewable gases is an important feature, which can be ensured with the equipment of our members – guaranteeing that investments are future-proof. However, **the proposed timeline and % shares deviate from the evolution communicated in the EU Gas Decarbonisation & Hydrogen package** (see the graph from the European Commission's [Fact Sheet](#) in the next page) and published national plans regarding the decarbonisation of gas networks.





A full switch to renewable or low-carbon gases will depend on their availability – and at the moment is not clear that this will happen in the same timeframe as the implementation of the DA. Therefore, meeting the timeline and % share of renewable and low-carbon gases requires a commitment of the EU and Member States to provide the necessary gases in time, and periodic reviews and adjustments to the DA to reflect reality (see suggested new Article 2a).

About EUTurbines:

EUTurbines is the only association of European gas and steam turbine manufacturers. Its members are Ansaldo Energia, Baker Hughes, GE Power, MAN Energy Solutions, Mitsubishi Power Europe, Siemens Energy and Solar Turbines. EUTurbines advocates an economic and legislative environment for European turbine manufacturers to develop and grow R&I and manufacturing in Europe and promotes the role of turbine-based power generation in a sustainable, decarbonised European and global energy mix. For more information please see www.euturbines.eu

Proposed Amendments to the advanced Draft of the Complementary Delegated Act

4.29. Electricity generation from fossil gaseous fuels

Technical screening criteria

Substantial contribution to climate change mitigation

Proposals for modification	Justification
<p>b) for facilities, for which the construction permit is submitted granted by 31 December 2030:</p>	<p>More time is needed to properly accompany the transition and allow gas power plants to contribute to the energy transition in an efficient manner – this is especially relevant for balancing/back-up purposes.</p>
<p>i. direct GHG emissions of the activity are lower than 270g CO₂e/kWh of the output energy, or annual GHG emissions of the activity do not exceed an average of 550kgCO₂e/kW of the output energy of the facility's capacity over 20 years, and</p>	<p>The annual GHG emissions need to be aligned with point v – in connection with a realistic timeline and expected % shares of renewable and low-carbon gases in the future. The following wording could be added to this point to better reflect this aspect:</p> <p><i>‘The average annual emissions threshold of 550KgCO₂e/kW should be reconsidered per the described review process in Article 2 if renewable and low-carbon gases are not available in sufficient quantities for the facility(ies)’</i></p>
<p>ii. the power generated by the activity may not yet efficiently be replaced by power generated from renewable energy sources, for the same capacity, and</p>	
<p>iii. one or several the facilityies replaces the capacity of an existing high emitting electricity generation facility that uses solid or liquid fossil fuels or are deemed necessary to ensure grid reliability and stability, and</p>	<ol style="list-style-type: none"> 1. Keeping in mind the trend towards the decentralisation of the energy system and given the typical size of coal power plants, it should be envisaged that multiple, smaller installations/units could be aggregated to replace the older, more polluting power plants. 2. The role of gas power plants will become even more important as the share of variable renewable sources increases – to ensure flexible balancing over different time periods. Their use needs to be recognised as a key contributor to the energy transition, enabling additional variable renewables to be introduced into the system. This aspect needs to be introduced in the list of criteria, as it is currently missing.
<p>iv. in the event of a replacement, the production capacity of the facilityies does not exceed the capacity of the replaced facility by more than 15%, and</p>	<p>Keeping in mind the trend towards the decentralisation of the energy system and given the typical size of coal power plants, it should be envisaged that multiple, smaller</p>

	<p>installations could be aggregated to replace the older, more polluting power plant.</p>
<p>v. the facility ies demonstrates compatibility with co-firing of low carbon gaseous fuels and there are effective plans or commitments, approved by the management body, to use at least 30% of renewable or low-carbon gases as of 1 January 2026 and at least 55% of renewable or low-carbon gases as of 1 January 2030, and to switch to renewable or low-carbon gases and the switch takes place by 31 December 2035, subject to the availability of these gaseous fuels, and</p>	<p>The compatibility with the co-firing of renewable and low-carbon gases is an important feature, which can be ensured in the timeframe proposed.</p> <p>However, the proposed timeline and % shares deviate from the evolution communicated in the EU Gas Decarbonisation & Hydrogen Package and published national plans regarding the decarbonisation of gas networks.</p> <p>A full switch to renewable or low-carbon gases will depend on their availability – and at the moment is not clear when this will happen.</p> <p>Therefore, meeting the timeline and % share of renewable and low-carbon gases requires a commitment of the EU and Member States to provide the necessary hydrogen production, transportation and storage infrastructure as well as sufficient amounts of these gases in time.</p>
<p>vi. in the event of a the replacement, this leads to a reduction in emissions of at least 55% GHG per kWh of output energy, and</p>	<p>The GHG reduction proposed here would only be relevant for a coal/oil-to-gas switch. It cannot be applicable to a new gas power plant for balancing/back-up as the purpose is different.</p>
<p>vii. the activity takes place on the territory of a Member State that has committed to phase-out the use of energy generation from coal and has reported this in its integrated national energy and climate plan referred to in Article 3 of Regulation EU/2018/1999 or in another instrument or is needed to ensure security of supply and is consistent with European and/or national resource adequacy assessments and balancing needs</p>	<p>The role of gas power plants will become even more important as the share of variable renewable sources increases – to ensure flexible balancing over different time periods. Their use needs to be recognised as a key contributor in the transition, enabling additional variable renewables to be introduced into the system.</p> <p>This aspect needs to be introduced in the list of criteria, as it is currently missing.</p>
<p><i>Compliance with the above criteria is verified by an independent third party. In particular, every year the independent third party shall publish and transmit to the Commission a report certifying the level of direct GHG emissions referred to in point i) or assessing whether the lifecycle annual GHG emissions of the activity are on a credible trajectory to comply with the average threshold over 20 years referred to in point i). On the basis of the reports transmitted to it, the Commission may address an opinion to the relevant operators. The Commission shall take those reports into account when performing the review referred to in Article 19(5) of Regulation (EU) 2020/852.</i></p>	

4.30. High-efficiency co- generation of heat/cool and power from fossil gaseous fuels

Technical screening criteria

Substantial contribution to climate change mitigation

Proposals for modification	Justification
<p><i>b) for facilities, for which the construction permit is submitted granted by 31 December 2030:</i></p>	<p>More time is needed to properly accompany the transition and allow gas power plants to contribute to the energy transition in an efficient manner – this is especially relevant for balancing/back-up purposes.</p>
<p><i>i. the activity achieves primary energy savings of at least 10% compared with the references to separate production of heat and electricity; the primary energy savings are calculated on the basis of formula provided in Directive 2012/27/EU, and</i></p>	
<p><i>ii. direct GHG emissions of the activity are lower than 270 g CO₂e/kWh of the output energy, or annual GHG emissions of the activity do not exceed an average of 550kgCO₂e/kWh of the output energy of the facility's capacity over 20 years, and</i></p>	<p>This harmonises the thresholds regarding the direct GHG emissions with activity 4.29 and allows cogeneration plants to operate during the non-heating season.</p>
<p><i>iii. the power and heat generated by the activity may not yet efficiently be replaced by power and heat generated from renewable energy sources, for the same capacity, and</i></p>	
<p><i>iv. one or several the facilities replaces an existing high emitting combined heat/cool and power generation facility, a separate heat/cool generation facility, or a separate power generation facility that uses solid or liquid fossil fuels or is deemed necessary to ensure grid reliability and stability and reach the EU energy efficiency goals where heat/cool is also needed, and</i></p>	<ol style="list-style-type: none"> 1. Keeping in mind the trend towards the decentralisation of the energy system and given the typical size of coal power plants, it should be envisaged that multiple, smaller installations/units could be aggregated to replace the older, more polluting power plants. 2. The replacement of a less efficient plant by a highly-efficiency cogeneration plant is the best option where power and heat/cold are needed simultaneously. With this, the energy efficient principle of cogeneration can be maintained, and the existing district heating networks can support a cost-efficient decarbonisation of the heating/cooling sector. Their use needs to be recognised as a key contributor to the energy transition, enabling additional variable renewables to be introduced into the system. This aspect needs to be introduced in the list of criteria, as it is currently missing.
<p><i>v. in the event of a replacement, the production capacity of the facilities does not exceed the capacity of the replaced facility by more than 15%, and</i></p>	<p>Keeping in mind the trend towards the decentralisation of the energy system and given the typical size of coal power plants, it should be envisaged that multiple, smaller</p>

	<p>installations could be aggregated to replace the older, more polluting power plant.</p> <p>The addition of the production capacity % harmonises the requirements with activity 4.29.</p>
<p>vi. the facility ies demonstrates compatibility with co-firing of low carbon gaseous fuels and there are effective plans or commitments, approved by the management body, to use at least 30% of renewable or low-carbon gases as of 1 January 2026, and at least 55% of renewable or low-carbon gases as of 1 January 2030, and to switch to renewable or low-carbon gases and the switch takes place by 31 December 2035, subject to the availability of these gaseous fuels, and</p>	<p>The compatibility with the co-firing of renewable and low-carbon gases is an important feature, which can be ensured in the timeframe proposed.</p> <p>However, the proposed timeline and % shares deviate from the evolution communicated in the EU Gas Decarbonisation & Hydrogen Package and published national plans regarding the decarbonisation of gas networks.</p> <p>A full switch to renewable or low-carbon gases will depend on their availability – and at the moment is not clear when this will happen.</p> <p>Therefore, meeting the timeline and % share of renewable and low-carbon gases requires a commitment of the EU and Member States to provide the necessary hydrogen production, transportation and storage infrastructure as well as sufficient amounts of these gases in time.</p>
<p>vii. in the event of a the replacement, this leads to a reduction in emissions of at least 55% GHG per kWh of output energy, and</p>	<p>The GHG reduction proposed here would only be relevant for a coal/oil-to-gas switch.</p>
<p>viii. the refurbishment of the facility does not increase production capacity of the facility, and</p>	
<p>ix. the activity takes place on the territory of a Member State that has committed to phase-out the use of energy generation from coal and has reported this in its integrated national energy and climate plan referred to in Article 3 of Regulation EU/2018/1999 or in another instrument or is needed to ensure security of supply where both power and heat/cool are needed, being consistent with European and/or national resource adequacy assessments and balancing needs.</p>	<p>The role of gas power plants will become even more important as the share of variable renewable sources increases – to ensure flexible balancing over different time periods. Their use needs to be recognised as a key contributor in the transition, enabling additional variable renewables to be introduced into the system.</p> <p>Where both power and heat/cool are needed, cogeneration is the most appropriate solution. Cogeneration contributes to achieving the EU goals for energy efficiency while contributing to an integrated energy system and supporting a cost-efficient decarbonisation of the heating/cooling sector.</p> <p>This aspect needs to be introduced in the list of criteria, as it is currently missing.</p>
<p>Compliance with the above criteria is verified by an independent third party.</p>	