European Engine Power Plants Association

Draft Taxonomy Delegated Act

EUGINE comments

17 December 2020

EUGINE welcomes the approach of the EU Taxonomy but believes that the suggested criteria for gas-based electricity and heat generation in the draft delegated act on climate change mitigation and the "do no significant harm" criterion under climate change adaptation fall short of being in line with the energy and climate policy and ambitions of the EU. It does not sufficiently take into account a decarbonisation path that leads to immediate cuts in GHG emissions in the short-term.

The comments submitted hereby are complemented by specific amendment proposals annexed at the end of the document.

1. Electricity generation and cogeneration with climate-neutral and renewable gas must be treated like other renewable energy

In annex I of the draft delegated act points 4.7 and 4.19, the use of all gases – may they be climate-neutral or may they be fossil – is classified as "transitional activity". The proposal ignores the fact that these plants can operate with climate-neutral and renewable gases and discriminates electricity generation and cogeneration with clean gases against other types of clean electricity and cogeneration.

The value of gas power generation and co-generation for the energy system is widely recognised: It provides the essential flexible dispatchable power and heat/cold generation capacity needed to ensure that supply and demand are balanced at all times in an electricity system dominated by wind and PV, both variable sources – from short imbalance periods throughout the day to long-term and seasonal gaps, where batteries are not suitable.

At the same time, cogeneration plants support the decarbonisation of heat supply. In cases where heat and electricity are simultaneously needed, cogeneration with gas is the by far most efficient technological solution – helping to achieve the EU energy efficiency targets.

Despite their essential contribution to an efficient and reliable balanced energy system, electricity generation and cogeneration with gas are today regarded as critical to the climate mitigation efforts due to their predominant use of natural gas as main source at the moment.

EUGINE

Transparency Register
ID number 033807913798-84

www.eugine.eu

European Engine Power Plants Association
President
Hermann Kröger
Secretary General
Ralf Wezel

Brussels Office
Boulevard A. Reyers 80
1030 Brussels
Belgium
Phone +32 (0)2 706-8297
Fax +32 (0)2 706-8210
annette.jantzen@eugine.eu

Head Office
Lyoner Str. 18
60528 Frankfurt am Main
Germany
Phone +49 (0)69 6603-1936
Fax +49 (0)69 6603-2936
info@eugine.eu

However, gas power plants and cogeneration plants do also allow the operation with climate-neutral or renewable gases, like clean hydrogen or biomethane.

Proposed change:

Both activities – 4.7 and 4.19 – must clearly state that operating a gas power plant or a cogeneration plant is **fully sustainable according to article 10(1)** of Regulation (EU) 2020/852, when using climate-neutral or renewable gases – applying the proposed threshold of 100g CO2e/kWh.

2. Electricity generation and cogeneration with gaseous fuels as transitional activity

Regulation (EU) 2020/852 in Art 10(2) foresees "transitional activities". These need to substantially contribute to climate change mitigation, represent best available technology and exclude a carbon lock-in.

The path to a swift decarbonisation can only be implemented if we do not delay the process and already today utilise existing technologies to the best of their capacity. Electricity generation and cogeneration with natural gas can immediately replace more polluting coal plants and cut GHG emissions in half. As gas power plants will switch to clean gases whenever these become available in sufficient quantities, they do not lead to a carbon lock-in.

The 100g CO2e/kWh threshold suggested in annex I of the draft delegated acts cannot be met even by the most modern and efficient installations when operating with natural gas. Abatement technologies like CCU/S are not mature, lack economic feasibility and cannot be applied widely to decentralised generation plants. In consequence, the taxonomy effectively excludes gas power and cogeneration plants and hampers the contribution of this technology in the transition.

The future role of gas power plants which only provide electricity will mainly be the provision of reliable dispatchable electricity for the periods, when meeting the demand cannot be ensured by variable renewable power generation. The 100g CO2e/kWh approach is based on constant operation, while these plants would operate limited hours and therefore also not emit constantly.

It is therefore suggested to allow these gas power plants during the transitional period to emit an annual amount equal to the constant emission of the allowed 100g CO2e/kWh. This ensures that over a year those plants would not emit more greenhouse gases than a constant emitter of 100g CO2e/kWh but allows the plants to act as flexible backup.

Proposed change for electricity generation with gaseous fuels (4.7):

Foresee as **transitional activity according to article 10(2)** of Regulation (EU) 2020/852 a threshold of annual life-cycle GHG emissions of 876kg CO2e per kW, decreasing over time in line with the limit of 100g CO2e/kWh for fully sustainable activities. These plants shall be ready for the operation with climate-neutral gases whenever these become available.

For cogeneration plants providing heat/cold as well as electricity in a very efficient combined manner, heat demand for industrial processes or district heating networks requires a more constant or a seasonal operation.

Recognising that these cogeneration plants with their efficiency contribute to climate change mitigation while, at the same time, setting incentives for a switch to clean gases whenever this

is possible, can best be done by defining an emission target connected to an average over the plant's lifetime.

Proposed change for cogeneration with gas (4.19):

A realistic threshold of 250g CO2e/kWhe on average over the lifetime of the plant provides plant operators with an ambitious target for the transition, requiring them to switch as fast as possible from natural gas to clean gases. The allocation of emissions to heat and electricity shall be done via the heat bonus method.

This approach is in line with the approach adopted last year by the European Investment Bank in its energy lending policy.

3. Electricity generation and cogeneration with gaseous fuels need realistic "do no significant harm" (DNSH) criteria

Annex II of the draft delegated act lists thresholds for DNSH for both categories 4.7 and 4.19. Annex II explicitly refers only to climate adaptation activities. In the public discussion they are, however, regarded as general thresholds that define whether an economic activity does significant harm to the climate ambitions. This has a potential impact far beyond the direct classification of sustainable investments: given the attention that the EU Taxonomy has received since its proposal, it is likely that it is used purposes other than those initially intended, where the classification is used as general eligibility criteria for EU funding and becomes a benchmark for lending or funding criteria of development banks or Export Credit Agencies (ECAs). Accordingly, the setting of an ambitious, yet realistic threshold, is essential.

The suggested threshold of 270g CO2e/kWh does not reflect the use of best available technologies of gas power plants and cogeneration plants and the availability of clean gases today. GHG emissions depend on the CO2 content of the gaseous fuel and the efficiency of the plant. The energy efficiency levels associated with the best available techniques (BAT-AEELs) are described in the Commission Implementing Decision (EU) 2017/1442 establishing best available techniques (BAT) conclusions for large combustion plants.

Proposed change:

The DNSH criteria must link to the best available technology. For a given gaseous fuel, it is the efficiency of the plant that determines the GHG emission level.

The DNSH criteria for 4.7 and 4.19 of annex II shall refer to the efficiency levels of the best available technology, described as BAT-AEELs in the Implementing Decision (EU) 2017/1442 for large combustion plants. For smaller plants below 50MW efficiency ranges of gas combustion ≥ 50MW should apply until these are defined in Directive 2015/2193

4. Electricity generation and cogeneration with biogas are sustainable activities

Points 4.8 and 4.20 in Annex I define, both, electricity generation and cogeneration with biofuels as "transitional activities". The proposal discriminates generation with biofuels against other solutions for the production of electricity and cogeneration with renewables.

Following a technology-neutral approach, the use of biofuels that comply with REDII must be treated equally to other REDII compliant solutions and be regarded sustainable in accordance with Art 10(1) of Regulation (EU) 2020/852.

Proposed change:

In points 4.8 and 4.20 of Annex I, electricity generation and cogeneration with biogas must be treated as sustainable according to Art 10(1) of Regulation (EU) 2020/852, instead of transitional according to Art 10(2)

5. Manufacture of multi-purpose (renewable) energy technologies

The delegated act does not provide a definition of renewable energy technologies in category 3.1. of annex I.

The technologies used to produce the electricity and heat or cold are not necessarily single-purpose technologies. Gas engines are used with a variety of gases, renewable gases like biogas, gas from sewage and sludge or waste deposit gases and non-renewable. The engine is essentially the same from a technology point of view. The Taxonomy must not penalise technologies that have different uses, when these are used in renewable applications.

Proposed change:

It should be clearly specified that technologies and core components used for the production of electricity and heat from renewable energy sources as defined in Art 2(1) of Directive (EU) 2018/2001 are included in the scope.

6. Manufacture of other low carbon and transitional technologies

The delegated act covers in point 3.4 to the manufacturing of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy. The Taxonomy needs to recognise the contribution of technologies used in transitional activities – when these can prove to be future-proof – and, accordingly, consider their manufacture an enabling activity in accordance with Article 10(1), point (i). For example, the manufacture of gas engines should be an enabling activity when the technology is capable of utilising low-carbon and renewable gases in the future.

Proposed change:

It should be clarified, that point 3.4 also covers the manufacturing of technologies used in transitional following Article 10(2) of Regulation (EU) 2020/852 and as identified in annex I of the delegated acts, provided they are future-proof.

Annex – Specific text amendment proposals

ANNEX I

Technical screening criteria for determining under which conditions an economic activity qualifies as contributing substantially to climate change mitigation and whether an economic activity causes significant harm to any of the other environmental objectives

4. ENERGY

4.7. Electricity generation from gaseous and liquid fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

~~The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.~~

Technical screening criteria

Substantial contribution to climate change mitigation

The activity complies with either of the following criteria:

1. Life-cycle GHG emissions from the generation of electricity using gaseous and liquid fuels are lower than 100gCO_2e/kWh.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

2. Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the criteria set out in the relevant section of this Annex, where applicable. Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the criteria set out in the relevant Section of this Annex, where applicable. Where the CO2 emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO2 is transported and stored underground in a way that meets the technical screening criteria for transport of CO2 and storage of CO2 set out in Sections 5.11 and 5.12, respectively of this Annex.

3. The activity meets either of the following criteria:

(a) at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;

(b) at operation, physical measurement of emissions are reported and leak is eliminated.

4. The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where the annual life-cycle GHG emissions are lower than 876kg CO2e per kW.

The annual limit shall be decreased stepwise – in line with a reduction of the 100gCO2e/kWh threshold for sustainable activities according to (1) and the growing availability of clean hydrogen and other climate-neutral and renewable gases.

[…]

4.19 Cogeneration of heat/cool and power from gaseous and liquid fuels

Description of the activity

Construction and operation of combined heat/cool and power generation facilities using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

~~The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.~~

Technical screening criteria

Substantial contribution to climate change mitigation

1. The life-cycle GHG emissions from the co-generation of heat/cool and power[338] from gaseous and liquid fuels[339] are lower than 100gCO_2e per 1 kWh of energy input to the co- generation.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

2 Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the relevant Sections of this Annex, where applicable.

Where the CO_2 emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO_2 is transported and stored underground in a way that meets the technical screening criteria for transport of CO_2 and storage of CO_2 set out in Sections 5.11 and 5.12, respectively of this Annex.

3. The activity meets either of the following criteria:

(a) at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;

(b) at operation, physical measurement of emissions are reported and leak is eliminated.

4. The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where life-cycle GHG emissions from the cogeneration of heat/cool and power using gaseous and liquid fuels averaged over the life-time of the asset are lower than 250gCO2e/kWhe. GHG emissions are allocated between heat/cold and power using the heat bonus approach[1].

Cogeneration plants reach the efficiency levels of best available technologies.

[1] Following the EIB energy lending criteria for high efficiency co/tri-generation: (https://www.eib.org/attachments/strategies/eib_energy_lending_policy_en.pdf)

3. MANUFACTURING

3.1. Manufacture of renewable energy technologies

Description of the activity

Manufacture of renewable energy technologies.

The activity is classified under NACE codes C.25, C.27, C.28 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity manufactures **technologies and core components for the production of electricity and heat from** renewable energy ~~technologies~~ **sources as outlined in Art 2(1) of Directive (EU) 2018/2001.**

[…]

3.5. Manufacture of other low carbon technologies

Description of the activity

Manufacture of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy **or that are used in transitional activities as referred to in Article 10(2) of Regulation (EU) 2020/852**.

The activity is classified under NACE codes from C10 to C33, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity manufactures technologies that are used for transitional activities following Article 10(2) of Regulation (EU) 2020/852, which show to be future-proof.

The economic activity manufactures low carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market.

Life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU[127] or, alternatively, ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emission savings are verified by an independent third party.

ANNEX II

Technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

4. ENERGY

4.7. Electricity generation from gaseous and liquid fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation
[…]
Do no significant harm (‘DNSH’)

(1) Climate change mitigation	**Power plants reach GHG emission levels connected to the energy efficiency levels associated with the best available techniques (BAT-AEELs) set out in IMPLEMENTING DECISION (EU) 2017/1442 for large combustion plants.** **For gas combustion <50MW, efficiency ranges for gas combustion ≥ 50MW should apply until the efficiency standards for medium combustion plants have been defined as per Article 12 of DIRECTIVE (EU) 2015/2193**

[…]

4.19. Cogeneration of heat/cool and power from gaseous and liquid fuels

Description of the activity

Construction and operation of combined heat/cool and power generation facilities using gaseous and liquid fuels (not exclusive to natural gas, oil and other refined products).

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation	
[…]	
Do no significant harm ('DNSH')	
(1) Climate change mitigation	**Cogeneration plants reach GHG emission levels connected to the energy efficiency levels associated with the best available techniques (BAT-AEELs) set out in IMPLEMENTING DECISION (EU) 2017/1442 for large combustion plants.** **For gas combustion <50MW, efficiency ranges for gas combustion ≥ 50MW should apply until the efficiency standards for medium combustion plants have been defined as per Article 12 of DIRECTIVE (EU) 2015/2193**