EUROMOT

The European Association of Internal Combustion Engine and Alternative Powertrain Manufacturers

EUROMOT POSITION

COMMENTS ON PSF FEEDBACK CALL - REVIEW OF THE CLIMATE DELEGATED ACT AND THE ADDITION OF ACTIVITIES TO THE EU TAXONOMY

03 February 2025

EUROMOT, the European Association of Internal Combustion Engine and Alternative Powertrain Manufacturers, represents the key manufacturers of internal combustion engines and alternative powertrains installed in industrial non-road mobile machinery, marine and stationary applications that are operating in Europe and worldwide.

1. Introduction

On 08 January 2025, the Platform of Sustainable Finance (PSF) published a draft report on preliminary recommendations for the review of the Climate Delegated Act and the addition of activities to the EU taxonomy.

According to Page 12 of the PSF report[1]:

> *"The current Platform's mandate only covers a review of the Climate Delegated Act adopted in 2021. Therefore, this report exclusively addresses SRM feedback on this Climate Delegated Act. Feedback related to existing activities covered either by the Complementary Delegated Act or the Environmental Delegated Act, or by activities added to the Climate Delegated Act in 2023, is not part of the report. "*

EUROMOT has studied the document and gives some feedback related to:

- Discussed in section 3 of this paper: the recommendations on the future substantial contribution and DNSH criteria in table 5 of the PSF draft report.
  - Key request: the criteria proposal needs re-evaluation to allow for more technically feasible options with a mix of energy solutions. Also, other aspects besides EU climate ambitions need to be considered when setting future criteria thresholds.
- Discussed in section 4 of this paper: Activity 4.8.

- Key request: biogenic CO_2 should be treated differently from fossil CO_2, as is the case in EU rulings. In EU regulations such as the ETS, biogenic CO_2 is not counted if it meets certain criteria, such as those outlined in the RED II Directive[7].

2. Selected quotes of the "Platform on Sustainable Finance draft report on activities and technical screening criteria to be updated or included in the EU taxonomy"

In this section of this paper, we have selected some quotes sourced from the Platform on Sustainable Finance draft report on activities and technical screening criteria to be updated or included in the EU taxonomy[1] to get a better understanding of our feedback found below.

- Page 14:
  - "6. Ambition level of the Technical screening Criteria": "... the criteria proposed in this report are based on scientific evidence, **available technologies**, **market information and data gathered**, where available, for the respective activities, and a strong focus on the usability of the criteria…. The ambition level of the criteria takes into consideration the dynamic nature of the Taxonomy, accounting for recent scientific developments, legislative processes, **newly available technologies**, strategies and targets related to the EU's environmental objectives, and market practices. … "
- Pages 17 - 18:
  - Scope of consultation: "In this public consultation, **the Platform invites comments** on the **usability of the criteria** as well as their scientific and **technical basis**. It also welcomes the identification of inconsistencies with EU legislation, strategies, international treaties, and agreements. To be considered for the Platform's work on finalising the technical screening criteria, comments must be substantiated **by evidence** and references to scientific, technical, or legal documents"
- Pages 19 - 20:
  - Energy related Thresholds: "In its final report, the TEG recommended that the substantial contribution to climate change mitigation threshold should be set at „[a]n overarching, technology-agnostic emissions intensity threshold of 100g CO_2e / kWh […] **for electricity generation, heat production and the co-generation of heat and electricity**. This threshold will be reduced **every five years** in line with political targets set out to achieve net-zero emissions by 2050" … threshold for substantial contribution is expected to be reduced „in five-year increments to 0 g CO_2e/kWh by 2050"). ...In order to stay in line with the political targets towards climate neutrality, a recommendation to reduce the substantial contribution as well as the DNSH thresholds is necessary. … The Platform had to make decisions to focus our work and thus prioritize activities for this review…. In order to provide a meaningful, substantive review that addressed pressing issues in **the energy sector, the Platform prioritized the review of g CO_2e/kWh thresholds in the energy sector (substantial contribution and DNSH) as well as the bioenergy activities**. "

- Page 21:
  - General technical feasibility of lower CO_2e thresholds: "Reflecting the recommendations from the TEG (TEG 2020a, 2020b) and the current Climate DA (European Commission 2021a), **reducing CO_2e thresholds** in **the energy sector should generally be technically feasible**. The majority of Taxonomy-aligned energy utilities currently covered by the Climate DA is **expected to be already significantly below the 100g CO_2e/kWh life cycle emission threshold for substantial contribution** (see table 1 for an overview). The majority of energy installations that are currently Taxonomy-aligned should therefore continue to be Taxonomy-aligned if lower thresholds were to be applied. **Only a small group** of existing energy installations could potentially have more difficulties of complying with lower thresholds (depending on where the threshold lies)...."
  - Potential thresholds: For substantial contribution, a threshold needs to be found that matches the political goals for CO_2e emission reductions and is technically and politically feasible, with the majority of CO_2e reductions in the energy sector achieved until 2040…"
  - **In Annex 1 of this paper** chart "Net electricity generation", EU 2021 (from page 26[1] of the PSF draft report), and table 1 "Emissions of selected supply technologies – g/CO2eq/kWh" (from page 29[1] of the PSF draft report) can be found.
- Page 32:
  - "DNSH criteria for climate change mitigation": "Based on the assessment of direct emission for selected energy supply technologies (see table 1), it can be expected that lower thresholds do not necessarily lead to issues with compliance to DNSH in the energy sector."
- Page 34:
  - Conclusion: "*Based on the findings above, **lower CO_2e thresholds for substantial contribution and do no significant harm for energy activities can be regarded as possible without creating friction across the sector**. In addition, lower CO_2e thresholds across the energy sector can also be regarded **in order to secure alignment with the EU's climate goals**. In order to ensure criteria that are aligned with a net zero trajectory by 2050, emission reduction measures need to be front-loaded in order to give more time for those emissions that are harder to reduce."*
- Page 36:
  - Conclusion: *"... Technology/fuel neutrality is a key element of the EU Taxonomy. To meet this requirement and maintain a coherent energy system perspective and to avoid adverse impacts in the energy sector, the current life-cycle GHG emission threshold for Substantial Contribution of 100 g CO^2e/kWh and the direct emissions DNSH criteria of 270g CO_2e/kWh should **be correspondingly lowered in all activities that refer to them in the energy sector**, for consistency and the aforementioned technology/fuel neutrality.*

- *Some of these activities lie **outside the scope of this 2021 Climate DA Review**, in several cases **because they are found in the Complementary Delegated Act from 2022** and the more recent DAs from 2023. These activities include the activity **Electricity generation from fossil gaseous fuels (4.29.) as well as activity 4.30 and 4.31, where both the 100g and 270g TSC are used, 100g in Annex I and 270g in Annex II of the Complementary Delegated Act ((EU) 2022/1214)**. Activities 4.26, 4.27, and 4.28 furthermore use the 100g threshold as additional criteria pertaining to substantial contribution to climate change mitigation (Annex I) and 270g for DNSH to climate change mitigation (Annex II).*

- Concerning activities 4.26, 4.27, 4.28, 4.29, 4.30. and 4.31, the Platform reiterates its critical position on the Complementary Delegated Act from January 21, 2022 (Platform on Sustainable Finance 2022). Nevertheless, and whilst reiterating this position, the Platform would highlight to the Commission the need for revision of the energy TSC in a consistent manner across energy activities in all DAs, so that capital flows are not exposed to an undesirable inconsistency that would undermine EU Taxonomy objectives and EU climate policies… "

3. Technical Substantial Contribution (TSC) and Do No Significant Harm (DNSH) criteria for energy activities

In the draft report[1] a recommendation for future substantial contribution and DNSH is given (page 35, table 5) – Energy Related Thresholds:

	Current Value	Recommendation for 2025	Recommendation for 2023
Substantial Contribution	100g CO_2e/kWh	45g CO_2e/kWh	25g CO_2e/kWh
DNSH	270g CO_2e/kWh	240g CO_2e/kWh[8]	115g CO_2e/kWh

Source: Platform

a. Discussion on Technical Substantial Contribution (TSC) and Do No Significant Harm (DNSH) criteria for energy activities

In the section on "**General technical feasibility of lower CO_2e thresholds**" found on page 21 of the PSF draft report[1], reference is made to the values found in Table 1 (page 29 on Emissions of selected supply technologies (gCO2eq/kWh) by Schlömer et al. 2015, copied to Annex 1 of this paper).

From the LCA column found in table 1 it can be concluded that one can conclude that ***only wind, solar, some geothermal, some hydro, ocean and nuclear categories meet the future recommendations outlined in the TSC and DNSH criteria.*** Fossil thermal power which in year 2021 produced almost 42 % of the electricity in EU (see Annex 1 of this document and copied from page 26[1] of the PSF draft report), **does not meet these criteria**. With regard to

Carbon Capture and Storage (CCS) being listed in table 1 by the PSF as a "pre-commercial technology", please refer to source 6 of this paper which argues: "Findings include a litany of missed carbon capture targets; costs-overruns, and billions of dollars of costs to taxpayers in the form of subsidies." In other words, CCS cannot be regarded today as a technically feasible option in light of this. Therefore, solar and wind energy solutions need to be substantially expanded to replace fossil-fired plants. Hydro power is already extensively utilized in the EU, geothermal has a very low share, ocean energy is still largely in the R&D phase, and nuclear power has a long construction time and may face political resistance in some countries. These factors highlight the urgency of expanding solar and wind energy by 2030.

According to the literature, global warming will also impact prevailing wind conditions. For example, source 2 states:

> *"The biggest changes in the intra-annual variability are anticipated in regions with projected decreases in wind power density, i.e., regions in the Northern Hemisphere: North America, Europe, and Northern Asia. In these areas, the most notable decreases in wind power density occur in JJA and SON (up to 50%), in contrast with the weak changes predicted in DJF. Given that JJA and SON are the periods with the weakest energy resource, a substantial increase in the intra-annual variability is predicted."*

Germany recently faced prolonged **"dunkelflaute" periods** due to little wind and solar power generation in November[3] and December[4] 2024, leading to high electrical power prices. Neighbouring countries were also affected by these high price spikes.

In the PSF draft report[1], the following points are amongst all stated:

- page 21: "...threshold needs to be found that matches the political goals for CO2e emission reductions and is technically and politically feasible,"
- page 34: "Based on the findings above, lower CO_2e thresholds for substantial contribution and do no significant harm for energy activities can be regarded as possible without creating friction across the sector. In addition, lower CO_2e thresholds across the energy sector can also be regarded in order to secure alignment with the EU's climate goals."

Unfortunately, the recommended future TSC and DNSH thresholds (in the above table) are not fully aligned with these statements, except for the EU climate goals. The recent example of power shortages in Germany highlights that such cases will become more common if fossil-fired thermal power plants are phased out.

Page 36 of the PSF draft report[1] calls for a coherent energy sector system perspective to lower thresholds in all activities where these are referred to. **The PSF is also targeting the Complementary CDA 2022 (though not part of this consultation) with this text.** In fact, the PSF expresses its critical position on the Complementary Delegated Act from January 21, 2022, where activities 4.26 ("Electricity generation from fossil gaseous fuels"), 4.27, 4.28, 4.29, 4.30, and 4.31 are included. The PSF recommends:

> *"Nevertheless, and whilst reiterating this position, the Platform would highlight to the Commission the need for revision of the energy TSC in a consistent manner across energy activities in all DAs."*

This is not in line with the statements and ambitions quoted earlier (e.g., from pages 21, 34, etc.) found in the preliminary recommendation of the PSF draft report[1]. Note also the text from source[3] where the "dunkelflaute" case was discussed:

> *"New Clean backup capacity... The German government coalition of Olaf Scholz, before its collapse, was about to decide on a law package regulating the construction of new gas-fired power plants that can later be converted to run on hydrogen, the Power Plant Security Act. These plants are regarded as indispensable for ensuring a smooth implementation of the country's coal phase-out, which is scheduled to end no later than 2038."*

This highlights the significant need for the activities specified in the Complementary CDA 2022 to enable a cost-effective transition to a future climate-neutral Europe

b. Conclusion on the technical substantial contribution (TSC) and do not significant harm (DNSH) criteria for energy activities

To conclude, the above discussion highlights that the recommended TSC and DNSH criteria need a re-evaluation. A cost-effective, climate neutral Europe requires a diversified energy sector not relying almost solely on intermittent energy sources such as wind and solar. Criteria thresholds should also enable the use of sustainable electro fuels, such as methane and methanol, in the power sector as backup fuels for grid stabilization thermal power plants. Future TSC and DNSH criteria should reflect this need.

4. Activity 4.8 (Electricity generation from bioenergy")

Activity 4.8 is discussed on pages 38-63 of PSF draft report[1]. Some quotes found in EU rulings include:

- Source 5: European Union (2024) Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC5.
  - ETS quote "M15... Those implementing acts shall provide for the application of the sustainability and greenhouse gas emission-saving criteria for the use of biomass established by Directive (EU) 2018/2001, with any necessary adjustments for application under this Directive, in order for such biomass to be zero-rated ... "
- On page 60, the PSF[1] provides GHG emission savings recommendations in a table for bioenergy activities (see table 5 below).

Table 5: GHG emission savings recommendations

Activity	Name	Current GHG emission savings target	Proposal
4.8	Electricity production from bioenergy	≥ 80%	≥ 85 %
4.13	Manufacture of biogas and biofuels for use in transport and of bioliquids	≥ 65%	≥ 70 %
4.20	Cogeneration of heat/cool and power from bioenergy	≥ 80 %	≥ 85 %
4.24	Production from heat/cool from renewable non-fossil gaseous and liquid fuels	≥ 80 %	≥ 85 %

Source: Authors'

a. Discussion on Activity 4.8 (Electricity generation from bioenergy")

Page 59 of the PSF[1] emphasizes the need for an impact assessment of the proposed GHG emission saving requirements on feedstock markets and changes in the usage of biomass sources for bioenergy.

According to source 5 from the EU[5], CO2 emissions from the combustion of biofuels are not counted. Therefore, a less strict approach for biofuels compared to fossil fuels is justified. The current approach in the Taxonomy, which references the RED Directive, is practical and should be maintained. An update according to RED III[8], which is stricter than RED II[7], will be sufficient.

5. Overall Conclusion

On the recommended future DNSH and STC criteria[1], the criteria proposal will lead to significant frictions in the energy sector. For instance, "dunkelflaute" has recently occurred several times in Germany, highlighting the vulnerabilities of relying too heavily on intermittent renewables such as wind and solar. Therefore, the criteria proposal needs a re-evaluation to allow for more technically feasible options with a mix of energy solutions. Also, other aspects besides EU climate ambitions need to be considered when setting future criteria thresholds.

As for activity 4.8 ("electricity generation from biofuels"), biogenic CO_2 should be treated differently from fossil CO_2, as is the case in EU rulings. In EU regulation such as the ETS, biogenic CO_2 is not counted if it meets certain criteria, such as those outlined in the RED II[7] Directive. The future implementation of RED III[8], which is stricter than RED II[7], will be a sufficient next step.

6. Sources:

1 - European Commission (2025) Sustainable Finance Platform Draft Taxonomy Report. Available at: https://finance.ec.europa.eu/document/download/a3e72e4c-f2fb-4400-b06f-f7f10dc2cd09_en?filename=250108-sustainable-finance-platform-draft-taxonomy-report_en.pdf

2 - Martinez.A and Iglesias.G (2024) Global wind energy resources decline under climate change. Volume 288, 129765, ISSN 0360-5442, https://doi.org/10.1016/j.energy.2023.129765. Available at: https://www.sciencedirect.com/science/article/pii/S0360544223031596

3 - Wehrmann.B (2024) Prolonged 'Dunkelflaute' shrinks Germany's renewables output in early November. Clean Energy Wire. Available at: https://www.cleanenergywire.org/news/prolonged-dunkelflaute-shrinks-germanys-renewables-output-early-november

4 - Wehrmann.B (2024) Short-term power prices spike amid new 'Dunkelflaute' in Germany, most customers unaffected. Clean Energy Wire. Available at: https://www.cleanenergywire.org/news/short-term-power-prices-spike-amid-new-dunkelflaute-germany-most-customers-unaffected

5 - European Union (2024) Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02003L0087-20240301

6 - Buchsbaum.M and Donnelly.E (2023) Fossil Fuel Companies Made Bold Promises to Capture Carbon. Here's What Actually Happened. Available at link: https://www.desmog.com/2023/09/25/fossil-fuel-companies-made-bold-promises-to-capture-carbon-heres-what-actually-happened/

7 - European Commission (2018) Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast). Official Journal of the European Union, L 328, 82-209.

8 - European Commission (2023) Directive (EU) 2023/2413 of the European Parliament and of the Council of 31 October 2023 on the promotion of the use of energy from renewable sources (recast). Official Journal of the European Union, L 328, 82-209.

7. Annex 1:

Below information source, see pages 26, 29 of the PSF[1] report.

Figure 4: Net electricity generation, EU, 2021

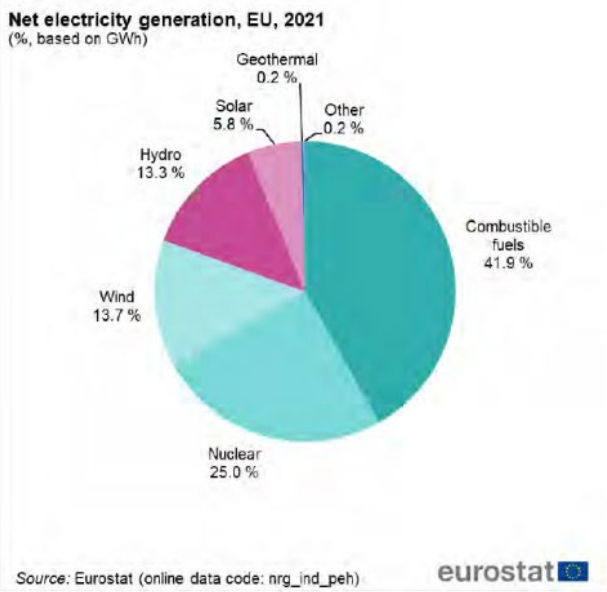

Table 1: Emissions of selected supply technologies (gCO2eq/kWh)

Table A.III.2 | Emissions of selected electricity supply technologies (gCO_2eq/kWh)[i]

Options	Direct emissions	Infrastructure & supply chain emissions	Biogenic CO_2 emissions and albedo effect	Methane emissions	Lifecycle emissions (incl. albedo effect)
	Min/Median/Max	Typical values			Min/Median/Max
Currently Commercially Available Technologies					
Coal—PC	670/760/870	9.6	0	47	740/820/910
Gas—Combined Cycle	350/370/490	1.6	0	91	410/490/650
Biomass—cofiring	n.a.[k]	–	–	–	620/740/890[l]
Biomass—dedicated	n.a.[l]	210	27	0	130/230/420[k]
Geothermal	0	45	0	0	6.0/38/79
Hydropower	0	19	0	88	1.0/24/2200
Nuclear	0	18	0	0	3.7/12/110
Concentrated Solar Power	0	29	0	0	8.8/27/63
Solar PV—rooftop	0	42	0	0	26/41/60
Solar PV—utility	0	66	0	0	18/48/180
Wind onshore	0	15	0	0	7.0/11/56
Wind offshore	0	17	0	0	8.0/12/35
Pre-commercial Technologies					
CCS—Coal—Oxyfuel	14/76/110	17	0	67	100/160/200
CCS—Coal—PC	95/120/140	28	0	68	190/220/250
CCS—Coal—IGCC	100/120/150	9.9	0	62	170/200/230
CCS—Gas—Combined Cycle	30/57/98	8.9	0	110	94/170/340
Ocean	0	17	0	0	5.6/17/28

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THIS IS EUROMOT

EUROMOT, the European Association of Internal Combustion Engine and Alternative Powertrain Manufacturers, represents the key manufacturers of internal combustion engines and alternative powertrains installed in industrial non-road mobile machinery, marine and stationary applications that are operating in Europe and worldwide.

Founded in 1991, we provide an unparalleled heritage and hub of expertise for businesses, authorities, regulators, and public stakeholders worldwide. In partnership with major sector associations and institutions, it is our mission to drive smart regulation and sustainable innovation.

Delivering dependable power for society at high energy conversion efficiency with low emissions remains a key objective of EUROMOT member companies. EUROMOT asserts internal combustion engines and alternative powertrains are a key enabler to address the additional societal need for decarbonisation across multiple industry sectors. This can be achieved by continuing to advance the development of highly efficient energy conversion systems capable of operating on low and net-zero Greenhouse Gas (GHG) energy carriers.

Headquartered in Brussels, EUROMOT is a European interest group, and our profile is registered in the EU Transparency Register under the identification number 6284937371-73. We have been granted consultative status at the United Nations IMO (International Maritime Organization, London) and United Nations ECE (Economic Commission for Europe - Geneva) and other relevant stakeholders.

OUR MEMBERS

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