

RECOMMENDATIONS

Revision of EU Green Taxonomy

Ensure accurate and comprehensive representation of the biogas and biomethane sector under the EU Taxonomy

1. Introduction

The European Biogas Association (EBA) welcomes the Commission's efforts to revise the Taxonomy, enhancing its clarity and usability. This paper is intended to describe the issues identified by our sector in the current technical screening criteria, while providing concrete suggestions for improvements.

2. Climate Delegated Act

2.1 General remarks

The current structure of the Climate Delegated Act includes several activities relevant to our sector, spread across Chapter 4 on Energy and Chapter 5 on Water and waste. In total, we have identified 8 different activities directly related to our sector:

- 1) 4.8. Electricity generation from bioenergy
- 2) 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids
- 3) 4.14. Transmission and distribution networks for renewable and low-carbon gases
- 4) 4.20. Cogeneration of heat/cool and power from bioenergy
- 5) 4.24. Production of heat/cool from bioenergy
- 6) 5.6. Anaerobic digestion of sewage sludge
- 7) 5.7. Anaerobic digestion of bio-waste
- 8) 5.10. Landfill gas capture and utilisation

While some other activities are indirectly relevant:

- 1) Manufacturing activities under Chapter 3
- 2) Transport activities under Chapter 6
- 3) Activity 5.11 on Transport of CO₂

In particular, these activities share **one common and highly critical issue**: they fragment the different business cases related to the biogas/biomethane sector, based on the specific feedstock used and/or the final use of the energy carrier. While we understand the intention to reflect the diversity of the sector, the current structure makes it very difficult to correctly classify biogas and biomethane activities as Taxonomy-aligned.

This is confirmed by the many interpretation questions received every day from EBA members, who point out both the complexity and the incompleteness of the existing criteria. These criteria do not reflect many operators' business models and often prevent them from claiming Taxonomy alignment, despite being duly certified under the RED framework as sustainable biogas or biomethane producers.

For example, the focus on biowaste or sewage sludge as eligible feedstocks under activities 5.6 and 5.7 overlooks other materials that can bring significant climate/environmental benefits. These include manure – which delivers substantial GHG emissions reductions under the Renewable Energy Directive (RED) – as well as crop residues, industrial solid wastes and sludges from agri-food, feed, and beverage processing, and sewage sludge.

Similarly, the limitation of activity 4.13 to biogas and biomethane used in transport prevents operators from reporting their activities as taxonomy-aligned in cases where the final use of the fuel is either unknown at the production stage (as this information is often available only later in the value chain, typically to traders or final buyers) or differs from transport altogether (see applications in hard-to-abate industries, hybrid heating systems and electricity grid balancing.).

Considering the above, EBA strongly recommends revising the current structure and establishing **one clear and comprehensive activity** representing the biogas and biomethane sector under the Climate Delegated Act. This approach is also logical given that this delegated act mainly addresses one environmental objective (i.e. climate); therefore, the current fragmentation of activities does not reflect a need to valorise contributions to multiple environmental objectives – unlike it would be under the Environmental Delegated Act, which covers four distinct objectives.

As proof of our commitment to collaborate and find a solution that ensures both high environmental standards and practical usability of the Taxonomy, **EBA proposes below a single comprehensive activity for the biogas and biomethane sector under the Climate Delegated Act:**

Manufacture of biogas and biomethane	
Description of the activity	Manufacture of biogas or biomethane. The economic activities in this category could be associated with NACE code D35.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.
Substantial contribution	<ol style="list-style-type: none"> The produced biogas or biomethane fulfil the sustainability and the greenhouse gas emissions saving criteria laid down in paragraphs 1 to 7 and 10 of Article 29 of Directive (EU) 2018/2001. The compliance with the criteria laid down in paragraphs 1 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 is assessed in accordance with Articles 30 and 31(1) of that Directive¹.
DNSH (pollution prevention and control)	The produced digestate meets the requirements for fertilising materials set out in CMC 1 for Virgin material substances and mixtures, CMC 4 and 5 for digestate, CMC 3 for compost, CMC 10 for Derived products, CMC 11 for By-products within the meaning of Directive 2008/98/EC, CMC 12 for precipitated phosphate salts and derivatives or CMC 14 for Pyrolysis and gasification materials in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use. In the absence of national rules on fertilisers or soil improvers

¹ Please note that this wording draws inspiration from an existing EU legal source: the Monitoring and Reporting Regulation (MRR), Article 38.

	for agricultural use, the digestate shall comply with relevant national legal requirements for waste.
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Please note that all recommendations made to the Climate Delegated act are mainly referred to the content of Annex I on climate mitigation, but for full consistency they should be reflected in the titles of the activities of Annex II on climate adaptation as well.

2.2 Specific comments

Besides our main recommendation for a single comprehensive activity, EBA has analysed each of the issues identified in the current version of Annex I and proposes targeted amendments. Below is a summary of the issues identified:

- 1) **Regulatory restrictions on digestate use**
- 2) **Incomplete coverage of commonly used sustainable feedstock**
- 3) **Incomplete coverage of all existing end-use cases for biogas and biomethane**
- 4) **Divergent GHG emission saving threshold compared to RED legislation**
- 5) **Legislative gap for biomethane injection into transmission and distribution networks**
- 6) **Lack of coherence in emissions calculations for the activities falling under Transport chapter**
- 7) **Eligibility of gas capture from newly authorised landfills**
- 8) **Incomplete description of transport modes for captured CO₂**
- 9) **Lack of reference to sustainable biogas and biomethane as fuels ensuring Taxonomy compliance of manufacturing activities under Chapter 3**
- 10) **Inability to comply with certain Best Available Techniques (BAT)**

The full descriptions and recommendations for each of these critical points are provided below.

1) **Regulatory restrictions on digestate use**

- The current Component Material Categories (CMCs) applicable to digestate exclude several types of input materials that are widely used in biogas production. These feedstocks include crop residues (i.e. from plants cultivated for food or feed), industrial solid wastes and sludges from agri-food, feed, and beverage processing as well as sewage sludge. Moreover, the anaerobic digestion (AD) processes prescribed under CMC 4 and CMC 5 are not commonly applied in most Member States. In addition, the anaerobic digestion (AD) processes prescribed under CMC 4 and CMC 5 are rarely applied in most Member States, where biogas producers typically rely on mesophilic AD with longer hydraulic retention times rather than thermophilic digestion or post-composting. As a result, producing digestate that complies with the requirements of CMC 4 or CMC 5 is extremely challenging. This largely explains why, to date, EBA is aware of only one example of a digestate-derived fertilising product in Europe that has successfully obtained CE marking.

In addition, it remains unclear how compliance with a given CMC could be ensured without undergoing a full FPR certification process, which also requires meeting the relevant Product Function Category (PFC) criteria.

- EBA welcomes the Delegated Act’s provision allowing digestate to comply with “national rules on fertilisers or soil improvers for agricultural use.” This flexibility is essential. However, many EU Member States – 10 out of the 20 surveyed for our [EBA White Paper on digestate](#) – have either not yet established national rules or have not included incorporated digestate into their national legislation. In some cases, the existing national criteria are so stringent that they are practically unattainable for digestate products. Consequently, enforcing these criteria might result in only a limited number of the producers being able to achieve compliance. This is why the use of digestate under national waste legislation, which is already well regulated, should also remain an available pathway.
 - Many other materials can be derived from digestate such as ammonium salts (CMC 1), struvite (CMC 1), mineral concentrates (CMC 1), , processed manure (CMC 10), by-products (CMC 11), phosphate salts (CMC 12) or biochar (CMC 14). These options must be included.
- On the other hand, the post-composting of digestate should not be overemphasised, as it is only one of many possible post-treatments applicable to digestate.

N.	Current criterion	Proposed amendment	All activities referencing the criterion
1a)	<i>The produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment.</i>	<i>The produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, or for the extraction of specific chemicals.</i>	<ul style="list-style-type: none"> 5.7. Anaerobic digestion of bio-waste.
1b)	<i>The produced digestate meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 for digestate or CMC 3 for compost, as applicable, in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use.</i>	<i>The produced digestate meets the requirements for fertilising materials set out in Component Material Category (CMC) 1 for Virgin material substances and mixtures, CMC 4 and 5 for digestate, CMC 3 for compost, CMC 10 for Derived products, CMC 11 for By-products within the meaning of Directive 2008/98/EC, CMC 12 for precipitated phosphate salts and derivatives or CMC 14 for Pyrolysis and gasification materials in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use. In the absence of national rules on fertilisers or soil improvers for agricultural use, the digestate shall comply with relevant national legal requirements for waste.</i>	<ul style="list-style-type: none"> 4.8. Electricity generation from bioenergy 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids 4.20. Cogeneration of heat/cool and power from bioenergy 4.24. Production of heat/cool from bioenergy 5.7. Anaerobic digestion of bio-waste.

2) Incomplete coverage of commonly used sustainable feedstock

The current structure of the Taxonomy includes several activities relevant to our sector, spread across two different chapters of the Climate Delegated Act: the chapter on energy and the chapter on waste management. The apparent logic for placing an activity in one chapter or the other is based on the nature of the feedstock used—whether it is a waste or biomass other than waste. While we understand the rationale for distinguishing between these two categories, this separation currently leads to overcomplexity and incomplete references to the full range of feedstocks used in our sector. This is also due to the unclear definition of waste under the Waste Framework Directive, which leads to inconsistent implementation across Member States regarding what is considered waste. Additionally, many biogas producers carry out co-digestion, often using a mix of different waste streams and/or other types of biomass. As a result, certain operators are currently unable to report their Taxonomy alignment at all.

- We note that the criteria used under the energy chapter provide an incomplete and misleading reference to the feedstocks eligible for Taxonomy-aligned activities. The wording does not cover the full spectrum of sustainable feedstocks permitted under the Renewable Energy Directive (RED), such as agricultural residues, manure (which delivers significant GHG emission reductions under the RED), industrial solid wastes and sludges from agri-food, feed and beverage processing, sewage sludge and others. Considering the foregoing, **our main recommendation** is to expand the current wording to include any biomass that complies with the sustainability requirements of Article 29 of RED III (see proposal in the table below).
- As a **less preferred option**, if separate activities for our sector are to remain under the energy and waste-management chapters, we recommend establishing one single, coherent activity under the waste-management chapter to cover biogas production from any type of waste. This would avoid the need to maintain two separate and incomplete activities—one limited to sewage sludge and another restricted to bio-waste. The current distinction creates unnecessary complexity for operators seeking to apply the Taxonomy and does not accurately reflect the sector, due to the incomplete and inconsistent criteria used in each case.

N.	Current criterion	Proposed amendment	All activities referencing the criterion
2)	Agricultural biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001. Forest biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 6 and 7, of that Directive.	Agricultural biomass used in the activity complies with the criteria laid down All biomass used in the activity complies with the sustainability criteria laid down in Article 29, paragraphs 1 to 7-5, of Directive (EU) 2018/2001. Forest biomass used in the activity complies with the criteria laid	<ul style="list-style-type: none"> • 3.14. Manufacture of organic basic chemicals • 3.17. Manufacture of plastics in primary form • 4.7. Electricity generation from renewable non-fossil gaseous and liquid fuels • 4.8. Electricity generation from bioenergy

		<p><i>down in Article 29, paragraphs 6 of that Directive. of Directive (EU) 2018/2001.</i></p>	<ul style="list-style-type: none"> • 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids • 4.19. Cogeneration of heat/cool and power from renewable non-fossil gaseous and liquid fuels • 4.20. Cogeneration of heat/cool and power from bioenergy • 4.23. Production of heat/cool from renewable non-fossil gaseous and liquid fuels • 4.24. Production of heat/cool from bioenergy
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3) Incomplete coverage of all existing end-use cases for biogas and biomethane

The current structure of the Taxonomy identifies several activities relevant to our sector within the energy chapter, based on the final end-use of the fuel. We consider this approach highly problematic for two main reasons. First, operators are required to assess their compliance against multiple criteria for the same production process, which are not even covering all potential applications. Second, operators often cannot predict with certainty the final end-use of the fuel at the moment of production, making it extremely difficult to apply a criterion that depends on an unknown or variable end-use.

To simplify compliance and ensure proper recognition, we strongly recommend that a single economic activity be included in the Climate Delegated Act for the biogas and biomethane sector and that this single activity **does not make any explicit reference to the final end-use of the fuel**. This would allow for broader coverage of biogas and biomethane production for all end uses (e.g.: industry, transport, heating, etc) and for all sustainable feedstocks.

As a less preferred alternative, under the current structure with multiple economic activities, the wording should be amended either to avoid mentioning any final end-use or to expressly cover all existing end-uses. However, this approach is less practical and risks failing to capture innovative or emerging applications, such as biomethane use in the chemical sector or for biohydrogen production.

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
3)	<p>Title: <i>Manufacture of biogas and biofuels for use in transport and of bioliquids</i></p> <p>Description of the activity: <i>Manufacture of biogas or biofuels for use in transport and of bioliquids</i></p>	<p>Title: <i>Manufacture of biogas and biofuels for use in transport for all end-uses and of bioliquids</i></p> <p>Description of the activity: <i>Manufacture of biogas or biofuels for use in transport for all end-uses and of bioliquids</i></p>	<ul style="list-style-type: none"> • 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids <p>All other activities impacted</p> <ul style="list-style-type: none"> • 4.8. Electricity generation from bioenergy • 4.20. Cogeneration of heat/cool and power from bioenergy

			<ul style="list-style-type: none"> • 4.24. Production of heat/cool from bioenergy • 5.6. Anaerobic digestion of sewage sludge • 5.7. Anaerobic digestion of bio-waste
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4) Divergent GHG emission saving threshold compared to RED legislation: There is a misalignment between the thresholds indicated in the Taxonomy and the existing RED III requirements for biofuels, bioliquids and biomass fuels, which creates a legal divergence across EU legal frameworks and, as a consequence, additional administrative burden for economic operators already subject to very ambitious sustainability obligations and the related certification process who wish to have their activities properly recognised under the Taxonomy. It is therefore recommended to fully align the Taxonomy with RED III by directly referencing Article 10.

N.	Current criterion	Proposed amendment	All activities referencing the criterion
4a)	<i>The greenhouse gas emission savings from the use of biomass are at least 80 % in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex VI to Directive (EU) 2018/2001</i>	<i>The greenhouse gas emission savings from the manufacture of biofuels and biogas for use in transport and from the manufacture of bioliquids-respect the GHG saving criteria laid down in Article 10 of Directive (EU) 2018/2001</i>	<ul style="list-style-type: none"> • 4.8. Electricity generation from bioenergy • 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids
4b)	<i>The greenhouse gas emission savings from the manufacture of biofuels and biogas for use in transport and from the manufacture of bioliquids are at least 65 % in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex V to Directive (EU) 2018/2001.</i>	<i>are at least 80 % OR are at least 65 % in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex V and VI to Directive (EU) 2018/2001.</i>	

5) Legislative gap for biomethane injection into transmission and distribution networks: Under the current Taxonomy list of activities, an injection site using biomethane from sustainable feedstock does not seem to be covered by any eligible activity. We therefore recommend that activity 4.14 be amended to explicitly cover networks for sustainable biogas, biomethane and hydrogen from biogas reforming, as well as fuel injection into the infrastructure. Furthermore, we recommend integrating the clarification from the 29 November 2024 FAQ, as an extension of point c) of the ‘Substantial contribution’ criteria under activity 4.14. This would provide more clarity and certainty for investors engaging and further supporting investments in these activities.

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
5)	<i>Title: Transmission and distribution networks for renewable and low-carbon gases.</i>	<i>Title: Transmission and distribution networks for renewable and low-carbon gases</i>	4.14. Transmission and distribution networks for renewable and low-carbon gases

<p><u>Description of the activity:</u> Conversion, repurposing or retrofit of gas networks for the transmission and distribution of renewable and lowcarbon gases.</p>	<p><u>Description of the activity:</u> Conversion, repurposing or retrofit of gas networks including regassification terminals for the transmission and distribution of renewable and lowcarbon gases, including sustainable biogas, biomethane and hydrogen from biogas reforming.</p>
<p>Construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen or other low-carbon gases.</p>	<p>Construction, operation and injection in transmission and distribution pipelines dedicated to the transport of hydrogen, sustainable biogas, biomethane and hydrogen from biogas reforming.</p>
<p><u>Substantial contribution to climate change mitigation</u></p>	<p><u>Substantial contribution to climate change mitigation</u></p>
<p>1. The activity consists in one of the following: (a) construction or operation of new transmission and distribution networks dedicated to hydrogen or other low-carbon gases; (b) conversion/repurposing of existing natural gas networks to 100 % hydrogen; (c) retrofit of gas transmission and distribution networks that enables the integration of hydrogen and other low-carbon gases in the network, including any gas transmission or distribution network activity that enables the increase of the blend of hydrogen or other low carbon gasses in the gas system;</p>	<p>1. The activity consists in one of the following: (a) construction or operation of new transmission and distribution networks dedicated to hydrogen or other low-carbon gases; (b) conversion/repurposing of existing natural gas networks to 100 % hydrogen; (c) retrofit of fossil gas transmission and distribution networks that enables the integration of hydrogen and other low-carbon gases in the network, including any gas transmission or distribution network activity that enables the increase of the blend of hydrogen or other low carbon gasses in the gas system, but excluding the operation of the relevant transmission and/or distribution network;</p>

6) Lack of coherence in emissions calculations for the activities falling under Transport chapter

Activities under Chapter 6 diverge from the rest of EU legislation when it comes to emission calculation. Unlike stationary activities, whose thresholds are based on life-cycle emissions, transport activities thresholds rely on stoichiometric direct emissions. This conflicts with RED, ETS and MRR, which assign zero emissions to biofuels. Indeed, excluding bioenergy from being Taxonomy-aligned undermines transport decarbonisation goals. We recommend that the entire Transport chapter be revised so that all transport activities include both the zero tailpipe CO2 emission criteria and the use of renewable/synthetic fuels. This revision is also necessary to ensure alignment with other EU legislation, such as RED III (Annex V and Annex VI) and the ETS Monitoring and Reporting Regulation, which assign zero-rated direct emissions to bioenergy fuels.

The Taxonomy should treat zero-emission vehicles (ZEVs) and vehicles running exclusively on renewable or synthetic fuels equivalently. In order to apply a zero-emission criteria to renewable or synthetic fuels, these fuels should align and comply with the definition given in RED III, where the same amount of CO₂ from biomass, ambient air or recycled carbon sources is bound in the fuel production as is released during combustion in the use phase. Those fuels shall include renewable and/or synthetic fuels, such as biofuel, biogas, biomass fuel, renewable liquid and gaseous transport fuel of non-biological origin (RFNBO) or a recycled carbon fuel (RCF). Indeed, when adopting a Well-to-Wheel methodology, emissions from biomethane can reach a negative emission potential depending on the type of feedstock used to produce biomethane and if all methane mitigation technologies are taken into consideration. Additionally, we recommend a specific amendment for activity 6.15, which covers infrastructure enabling low-carbon road transport and public transport (see proposal below).

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
6)	<p>The activity complies with one or more of the following criteria: (a) the infrastructure is dedicated to the operation of vehicles with zero tailpipe CO₂ emissions: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS);</p>	<p>The activity complies with one or more of the following criteria: the infrastructure is dedicated to the operation of vehicles with zero tailpipe CO₂ emissions or running exclusively on renewable and/or synthetic fuels: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS); refuelling infrastructures for renewable and/or synthetic fuels, where the use of renewable and/or synthetic fuels is ensured by the selected methodology among the available options.</p>	<p>6.15. Infrastructure enabling low-carbon road transport and public transport</p> <hr/> <p>All activities to be revised</p> <ul style="list-style-type: none"> • 3.3. Manufacture of low carbon technologies for transport • 6.3. Urban and suburban transport, road passenger transport • 6.5. Transport by motorbikes, passenger cars and light commercial vehicles • 6.6. Freight transport services by road • 6.7. Inland passenger water transport • 6.8. Inland freight water transport • 6.10. Sea and coastal freight water transport, vessels for port operations and auxiliary activities • 6.11. Sea and coastal passenger water transport • 6.15. Infrastructure enabling low-carbon road transport and public transport

7) Eligibility of gas capture from newly authorised landfills

There is a risk that the date restriction for landfills opened after 8 July 2020 included in activity 5.10, instead of ensuring higher environmental standards by preventing the authorisation of new

landfills, will simply exclude crucial gas capture projects at newer sites. Therefore, we recommend removing the date restriction, as it excludes crucial gas capture projects at newer landfills. We also suggest allowing eligibility for gas capture systems in open cells, as open landfills are actually those requiring most immediate action and their exclusion could undermine EU climate goals.

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
7)	<p>1. The landfill has not been opened after 8 July 2020.</p> <p>2. The landfill or landfill cell where the gas capture system is newly installed, extended, or retrofitted is permanently closed and is not taking in further biodegradable waste.</p>	<p>1. The landfill has not been opened after 8 July 2020.</p> <p>2. The landfill or landfill cell where the gas capture system is newly installed, extended, or retrofitted is either permanently closed and is not taking in further biodegradable waste or still open.</p>	<ul style="list-style-type: none"> 5.10. Landfill gas capture and utilization

8) Incomplete description of transport modes and end-uses for captured CO₂

The relevant economic activity, under the substantial contribution section, does not currently include any reference to road transport for CO₂ nor to the possibility that CO₂ is transported for subsequent use in CCU applications, which today represent the most developed market for captured CO₂ (see applications in food and beverages sector, greenhouses, dry ice and medical uses).

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
8)	<p>1. The CO₂ transported from the installation where it is captured to the injection point does not lead to CO₂ leakages above 0.5 % of the mass of CO₂ transported.</p> <p>2. The CO₂ is delivered to a permanent CO₂ storage site that meets the criteria for underground geological storage of CO₂ set out in Section 5.12 of this Annex; or to other transport modalities, which lead to permanent CO₂ storage site that meet those criteria.</p>	<p>1. The CO₂ transported from the installation where it is captured to the injection point does not lead to CO₂ leakages above 0.5 % of the mass of CO₂ transported.</p> <p>2. The CO₂ is delivered to a permanent CO₂ storage site that meets the criteria for underground geological storage of CO₂ set out in Section 5.12 of this Annex; or to other transport modalities, which lead to permanent CO₂ storage site that meet those criteria; or to a CO₂ consumer site for direct reuse.</p> <p>3. The CO₂ is transported via truck for subsequent utilisation or permanent storage.</p>	<ul style="list-style-type: none"> 5.11. Transport of CO₂

9) Lack of reference to sustainable biogas and biomethane as sustainable fuels ensuring Taxonomy compliance of manufacturing activities under Chapter 3

The economic activities included under Chapter 3 reference GHG emission levels to be met in the production process. We recommend that the use of sustainable biomass fuels, such as biogas and biomethane compliant with RED requirements, be explicitly recognised as one of the possible criteria to demonstrate compliance with the Taxonomy for the manufacturing activities (i.e. to provide evidence of their substantial contribution to the climate change mitigation objective). Imposing limitations on the use of renewable gas in building heating systems does not recognise high-efficiency gas appliances or hybrid heat pumps as sustainable solutions. However, recognition of gas and hybrid heating technologies can still deliver value for both the energy system and consumers, providing greater flexibility and enhancing security of supply.

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
9)	<p>The economic activity manufactures one or more of the following products and their key components:</p> <p>(k) heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex</p> <p>(p) district heating exchangers and substations compliant with the district heating/cooling distribution activity set out in Section 4.15 of this Annex</p>	<p>The economic activity manufactures one or more of the following products and their key components:</p> <p>(k) heat pumps, including hybrid heat pumps, compliant with the technical screening criteria set out in Section 4.16 of this Annex</p> <p>(p) district heating exchangers and substations compliant with the district heating/cooling distribution activity set out in Section 4.15 of this Annex</p> <p>(r) Heating products compatible with the use of sustainable biomass fuels, such as biomethane, as a substitute for fossil-based sources.</p>	<ul style="list-style-type: none"> 3.5. Manufacture of energy efficiency equipment for buildings
	<p>The activity manufactures one of the following:</p> <p>(a)...</p> <p>(b)...</p>	<p>The activity manufactures one of the following:</p> <p>(a)...</p> <p>(b)...</p> <p>(c) Products in which the manufacturing process uses sustainable biomass fuels, such as biomethane, as a substitute for fossil-based sources.</p>	<ul style="list-style-type: none"> 3.7. Manufacture of cement 3.8. Manufacture of aluminium 3.9. Manufacture of iron and steel 3.17. Manufacture of plastics in primary form

10) Inability to comply with certain Best Available Techniques (BAT)

Anaerobic digestion plants treating more than 100 tonnes per day are required to implement several Best Available Techniques (BAT) related to emissions to air and water, including those applicable to waste treatment. In practice, these criteria are very challenging to meet at the required level of detail, and none of the biogas or biomethane producers are currently able to demonstrate full compliance. In many cases, the BAT requirements go well beyond what is

stipulated in environmental permits, even though these permits already reflect robust and widely implemented standards.

For example, BAT 34 and BAT 8 require ammonia (NH₃) and odour (ouE) emissions to be measured and monitored at least every six months. BAT 35 requires the use of three specific techniques to reduce wastewater generation and water use, which may not be relevant or feasible for all installations. BAT 2, which requires an inventory of waste gas streams, is also particularly demanding for many operators.

N.	Current criterion	Proposed amendment	Activity referencing the specific criterion
10)	For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for waste treatment (186). No significant cross-media effects occur.	For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for waste treatment (186). No significant cross-media effects occur.	<ul style="list-style-type: none"> • 4.8. Electricity generation from bioenergy • 4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids • 4.20. Cogeneration of heat/cool and power from bioenergy • 5.7. Anaerobic digestion of bio-waste

3. Environmental Delegated Act

3.1 General remarks

The Environmental Delegated Act (EDA) includes several activities relevant to our sector. Activity 2.2, Urban Wastewater Treatment, does not pose any issues. However, the role of biogas and biomethane in advancing a circular economy (Annex II) is underrepresented. Annex II highlights two relevant activities – 2.1 Phosphorus recovery from wastewater and 2.5. Recovery of bio-waste by anaerobic digestion or composting – but these do not cover the full range of current recycling solutions.

First, activity 2.1. Phosphorus recovery from wastewater is focused on the recovery of phosphorus from wastewater via incineration. However, phosphorus can be recovered from wastewater **through several routes other than incineration**. While incineration is used in some Member States, many others favour recycling sewage sludge through anaerobic digestion, with the resulting fertilisers returning nutrients to the soil. Additionally, wastewater can provide not only phosphorus **but also nitrogen**, another essential nutrient source.

Second – and arguably more importantly – **recovering nutrient and organic matter through anaerobic digestion is not limited to biowaste or sewage sludge**. Manure and other animal by-products are major feedstocks already recognised as inputs under CMC 5 – Digestate other than fresh crop digestate. Crop residues, industrial solid wastes and sludges from agri-food, feed, and

beverage processing also represent valuable raw materials with significant potential for nutrient and organic matter recovery through anaerobic digestion.

This is why, following the approach of the Climate Delegated Act proposal, EBA proposes a single, comprehensive activity for the recovery of waste via anaerobic digestion under the Environmental Delegated Act, which would set **higher standards for digestate, limiting its use exclusively as a fertilising product** rather than as waste:

Recovery of waste via anaerobic digestion	
Description of the activity	<p>Construction and operation of facilities for the treatment of non-hazardous waste through anaerobic digestion with the resulting production and utilisation of biogas, biomethane, digestate or chemicals.</p> <p>The economic activities in this category could be associated with NACE code D35.21 E38.21 or F42.9 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
Substantial contribution	<ol style="list-style-type: none"> 1. When bio-waste is used for anaerobic digestion, it is source segregated and collected separately. 2. The produced biogas or biomethane fulfil the sustainability and the greenhouse gas emissions saving criteria laid down in paragraphs 1 to 7 and 10 of Article 29 of Directive (EU) 2018/2001. 3. The compliance with the criteria laid down in paragraphs 1 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 is assessed in accordance with Articles 30 and 31(1) of that Directive². 4. The produced digestate is used as fertilising product, either directly or after any other treatment, or for the extraction of specific chemicals.
DNHS (pollution prevention and control)	<p>The produced digestate meets the requirements for fertilising materials set out in Component Material Category (CMC) 1 for Virgin material substances and mixtures, CMC 4 and 5 for digestate, CMC 3 for compost, CMC 10 for Derived products, CMC 11 for By-products within the meaning of Directive 2008/98/EC, CMC 12 for precipitated phosphate salts and derivatives or CMC 14 for Pyrolysis and gasification materials in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use.</p>

Under this approach, the current activities “2.1 Phosphorus recovery from wastewater” and “2.5 Recovery of bio-waste by anaerobic digestion or composting” would no longer be necessary from an anaerobic digestion perspective.

3.2 Activity-specific comments

- 11) Besides our main recommendation for a single comprehensive activity under the EDA, EBA provides detailed recommendations regarding several criteria under activity **2.5. Recovery of bio-waste by anaerobic digestion or composting**.

² Please note that this wording draws inspiration from an existing EU legal source: the Monitoring and Reporting Regulation (MRR), Article 38.

- The reference to the EN 13432 standard only applies to composting. It should not be extended to anaerobic digestion.

N.	Current criterion	Proposed amendment
11a)	The bio-waste that is used for anaerobic digestion or composting is source segregated and collected separately. Where bio-waste is collected in biodegradable bags, the bags have the appropriate compostable certification standard EN 13432:200058.	The bio-waste that is used for anaerobic digestion or composting is source segregated and collected separately. Where bio-waste is collected in biodegradable bags for composting , the bags have the appropriate compostable certification standard EN 13432:200058.

- The rationale behind the 30/70% co-digestion threshold seems not to be based on best practices in the sector and seem to be rather arbitrary. Even a 10% share of biowaste should be considered a positive outcome, as the primary goal is to incentivise the recycling of biowaste and prevent it from ending up in landfills.

The reference to the listing of feedstocks in Annex IX should be removed as this list is aimed at defining advanced feedstocks for the transport sector and should not be used as a proxy defining sustainability in the taxonomy regulation context.

The term “industrial waste” should not be used unless it is clearly defined in EU legislation; otherwise, it risks creating ambiguity around which feedstock categories fall under this requirement. As noted previously, industrial solid wastes and sludges from agri-food, feed, and beverage processing, are commonly used feedstocks for biogas production. Would these materials be considered industrial waste?

The reference to point (c) of CMC 4 and 5 is unclear and requires clarification. Our understanding is that it implies that biowaste cannot be mixed with inputs formally excluded under CMC 5, namely:

- (i) the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment;
- (ii) sewage sludge, industrial sludge or dredging sludge,
- (iii) animal by-products or derived products falling within the scope of Regulation (EC) No 1069/2009 for which no end point in the manufacturing.

However, sewage sludge is allowed as input material in many Member States.

N.	Current criterion	Proposed amendment
11b)	In these anaerobic digestion plants, source segregated bio-waste from separate collection constitutes at least 70 % of the input feedstock, measured in weight, as an annual average.	In these anaerobic digestion plants, source segregated bio-waste from separate collection constitutes at least 70 % of the input feedstock, measured in weight, as an annual average.

	<p>Co-digestion may cover up to 30 % of the input feedstock of advanced bioenergy feedstock listed in Annex IX to Directive (EU) 2018/2001, which may not include contaminated feedstock coming from biomass fraction of mixed municipal and industrial waste.</p> <p>The input does not include feedstock excluded in Part II of Annex II to Regulation (EU) 2019/1009, for Component Material Category (CMC) 3 (Compost) in accordance with point (c) of that category and for Component Material Category (CMC) 5 (Digestate other than fresh crop digestate) in accordance with point (c) of that category.</p>	<p>Co-digestion may cover up to 30% of the input feedstock of advanced bioenergy feedstock listed in Annex IX to Directive (EU) 2018/2001, which may not include contaminated feedstock coming from biomass fraction of mixed municipal and industrial waste.</p> <p>The input does not include feedstock excluded in Part II of Annex II to Regulation (EU) 2019/1009, for Component Material Category (CMC) 3 (Compost) in accordance with point (c) of that category and for Component Material Category (CMC) 5 (Digestate other than fresh crop digestate) in accordance with point (c) of that category, unless such input is expressly permitted under national rules on fertilisers or soil improvers for agricultural use.</p>
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- As outlined in Section 1, all activities involving anaerobic digestion – namely 4.8 (Electricity generation from bioenergy), 4.13 (Manufacture of biogas and biofuels for transport and of bioliquids), 4.20 (Cogeneration of heat/cool and power from bioenergy), and 5.7 (Anaerobic digestion of bio-waste) – currently apply the following criterion to digestate:

“The produced digestate meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 for digestate, or CMC 3 for compost, as applicable, in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use”.

It is therefore unclear why, for this specific activity, an additional requirement has been introduced stating that national rules must impose *“equal or stricter requirements compared to those of Regulation (EU) 2019/1009”*. Furthermore, it is practically uncertain how a producer could demonstrate compliance with this criterion, given that it would require proving that national rules are equivalent to, or more stringent than, the Fertilising Products Regulation (FPR).

At present, the FPR remains an optional framework, as its implementation is still incomplete and has not yet enabled the functioning of a harmonised market for organic fertilisers and soil improvers. In the context of CMC 4 and 5, commonly used input materials at national level are not yet fully covered, and several routinely applied AD processes are also not included, which justifies the continued reliance on national rules.

Imposing a requirement aligned with – or stricter than – the FPR would in practice prevent digestate producers from achieving taxonomy compliance under this activity.

N.	Current criterion	Proposed amendment
11c)	(a) compost or digestate complying with Regulation (EU) 2019/1009, in particular with requirements of Annex II on the Component Material Categories (CMC), referring specifically to CMC 3 (Compost) and CMC 5 (Digestate other than fresh crop digestate) or with national rules on fertilisers or soil improvers, with equal or stricter requirements compared to those of Regulation 2019/1009;	(a) compost or digestate complying with Regulation (EU) 2019/1009, in particular with requirements of Annex II on the Component Material Categories (CMC), referring specifically to CMC 3 (Compost) and CMC 5 (Digestate other than fresh crop digestate) or with national rules on fertilisers or soil improvers, with equal or stricter requirements compared to those of Regulation 2019/1009;

- There are many other products that can be derived from anaerobic digestion of biowaste such as ammonium salts (CMC 1), struvite (CMC 1), mineral concentrates (CMC 1), processed manure (CMC 10), by-products (CMC 11), phosphate salts (CMC 12) or biochar (CMC 14).

N.	Current criterion	Proposed amendment
11d)	3. The activity produces one of the following: (a) compost or digestate complying with Regulation (EU) 2019/1009, in particular with requirements of Annex II on the Component Material Categories (CMC), referring specifically to CMC 3 (Compost) and CMC 5 (Digestate other than fresh crop digestate) or with national rules on fertilisers or soil improvers, with equal or stricter requirements compared to those of Regulation 2019/1009; (b) chemicals through the conversion of organic waste to carboxylates, carboxylic acids or polymers by fermentation with mixed cultures.	3. The activity produces one of the following: (a) compost or digestate complying with Regulation (EU) 2019/1009, in particular with requirements of Annex II on the Component Material Category (CMC) 1 for Virgin material substances and mixtures, CMC 4 and 5 for digestate, CMC 3 for compost, CMC 10 for Derived products, CMC 11 for By-products within the meaning of Directive 2008/98/EC, CMC 12 for precipitated phosphate salts and derivatives or CMC 14 for Pyrolysis and gasification materials or with national rules on fertilisers or soil improvers, with equal or stricter requirements compared to those of Regulation 2019/1009; (b) chemicals through the conversion of organic waste to carboxylates, carboxylic acids or polymers by fermentation with mixed cultures.

- The criterion related to the quality assurance of the production process is entirely illogical. First, it effectively requires products to obtain full FPR certification, rather than merely comply with the technical requirements of CMC 4 or CMC 5 (as seems to be the rationale under the Climate Delegated Act). In addition, the decision to mandate conformity assessment under Module D1 appears completely arbitrary.

As previously noted, the FPR certification process is so complex and costly that, to our knowledge, only a single digestate-derived fertilising product in Europe has successfully obtained CE marking to date. Introducing such a requirement would therefore significantly restrict the number of producers capable of complying with this Taxonomy activity.

N.	Current criterion	Proposed amendment
11e)	4. Quality assurance of the production process is performed using Module D1 set out in Regulation (EU) 2019/1009.	4. Quality assurance of the production process is performed using Module D1 set out in Regulation (EU) 2019/1009.

- The primary advantage of post-composting digestate lies in its sanitary effect. However, other treatments—such as pasteurisation or extended hydraulic retention times—are equally effective and are more commonly applied in many Member States. These treatment options are already included in the requirements for anaerobic digestion under CMC 4 and 5. Therefore, recommending post-composting is unnecessary, and operators should retain the flexibility to choose the most appropriate processing method for their digestate, depending on local needs and agronomic specificities

Additionally, the claimed benefits of post-composting in mitigating ammonia emissions and nitrate leaching lack scientific evidence. The impact of post-composting highly depends on factors such as the substrate used, the fermentation process and the composting conditions. Promoting post-composting is also inconsistent with the European Commission’s strategy, which tends to favour more mineralised forms of nitrogen to reduce leaching risks and improve control over nutrient availability.

N.	Current criterion	Proposed amendment
11f)	The digestate is preferably composted after anaerobic digestion to maximise benefits to the soil it is applied to afterwards, and minimises some potential agro-environmental issues such as release of ammonia and nitrates.	The digestate is preferably can be post- composted after anaerobic digestion to maximise benefits to the soil it is applied to afterwards, and minimises some potential agro-environmental issues such as release of ammonia and nitrates.

- The criterion should not specify the final use of the anaerobic digestion or composting, it is not in the scope of the circular economy criteria. If the aim is to screen which activity contributes to circular economy, this criteria is not relevant.

N.	Current criterion	Proposed amendment
11h)	6. Where anaerobic digestion is installed, the produced biogas is used directly for the generation of electricity or heat, upgraded to bio-methane for use as a fuel, directly injected in the gas grid and further used for energy purposes by replacing natural gas, used as industry feedstock to produce other chemicals or converted into hydrogen for use as a fuel.	6. Where anaerobic digestion is installed, the produced biogas is used directly for the generation of electricity or heat, upgraded to bio-methane for use as a fuel, directly injected in the gas grid and further used for energy purposes by replacing natural gas, used as industry feedstock to produce other chemicals or converted into hydrogen for use as a fuel.

- Anaerobic digestion plants treating more than 100 tonnes per day are required to implement several Best Available Techniques (BAT) related to emissions to air and water, including those applicable to waste treatment. In practice, these criteria are very challenging to meet at the required level of detail, and none of the biogas or biomethane producers are currently able to demonstrate full compliance. In many cases, the BAT requirements go well beyond what is stipulated in environmental permits, even though these permits already reflect robust and widely implemented standards. For example, BAT 34 and BAT 8 require ammonia (NH₃) and odour (ouE) emissions to be measured and monitored at least every six months. BAT 35 requires the use of three specific techniques to reduce wastewater generation and water use, which may not be relevant or feasible for all installations. BAT 2, which requires an inventory of waste gas streams, is also particularly demanding for many operators.

N.	Current criterion	Proposed amendment
11i)	<p>For anaerobic digestion plants treating over 100 tonnes per day and for composting plants treating over 75 tonnes per day, the activity complies with best available techniques (BAT) conclusions for waste treatment(59)or equal or stricter national regulation, in order to reduce emissions to air and to improve the overall environmental performance as well as to select the waste input and to monitor or control the key waste and process parameters.</p> <p>Emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for, respectively, anaerobic and aerobic treatment of waste in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for waste treatment(60).</p>	<p>For anaerobic digestion plants treating over 100 tonnes per day and for composting plants treating over 75 tonnes per day, the activity complies with best available techniques (BAT) conclusions for waste treatment(59)or equal or stricter national regulation, in order to reduce emissions to air and to improve the overall environmental performance as well as to select the waste input and to monitor or control the key waste and process parameters.</p> <p>Emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for, respectively, anaerobic and aerobic treatment of waste in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for waste treatment(60).</p>

- This criterion should likewise apply to compost, which also contains nutrients, even if typically lower than in digestate.

N.	Current criterion	Proposed amendment
11j)	<p>For anaerobic digestion, the nitrogen content of the digestate used as fertilisers or soil improver is communicated to the buyer or the entity in charge of taking off the digestate, either in compliance with Regulation (EU) 2019/1009, or with tolerance level ± 25 %.</p>	<p>For anaerobic digestion, The nitrogen content of the compost or digestate used as fertilisers or soil improver is communicated to the buyer or the entity in charge of taking off the digestate, either in compliance with Regulation (EU) 2019/1009, or with tolerance level ± 25 %.</p>

Conclusions

EBA appreciates the opportunity to provide its feedback on the ongoing revision of the Taxonomy and remains fully committed to continuing the discussion with the European Commission on how to improve the technical screening criteria relevant to the biogas and biomethane sector.

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About the European Biogas Association (EBA)

EBA fully believes in the future potential of renewable gas in Europe. Founded in 2009, the association is committed to the deployment of sustainable biogas and biomethane production and use throughout the continent. EBA counts today on a well-established network of over 300 national associations and other organisations covering the whole biogas and biomethane value chain across Europe and beyond.