

EBA recommendations for the Delegated Regulation on taxonomy

The European Biogas Association (EBA) warmly welcomes the EU's efforts to engage the financial sector to support the European Green Deal and to invest in the transition to a carbon neutral economy. It is important that the future Delegated Regulation is in line with the overall objectives of the Green Deal as well as the existing legislative framework, therefore

the EBA calls for the following principles guiding the work of the European Commission:

- **Consistency with the existing legislative framework:** Businesses, governments and financial market participants should not be faced with different targets, standards or thresholds that could disrupt markets, distort competition and result in excessive costs linked to burdensome implementation. The taxonomy should not go beyond criteria set in the EU law like the stringent EU-wide sustainability criteria introduced by the RED II, but not yet transposed into national law.
- **A comprehensive system-approach:** A holistic approach is necessary to adapt the energy and climate transition to a variety of national settings and avoid shortcomings in affordability, sustainability and security of supply. It would enable complementary technologies in energy production and end-use equipment to be eligible because of their relative contribution to climate change mitigation. It would rightly value positive externalities of renewable energies such as biomethane across sectors, including mobility, waste treatment, agriculture and buildings.
- **Technology-neutrality:** A comprehensive methodology looking at all solutions that contribute to meeting the EU energy, environmental, climate and circular economy goals is required to ensure a technology neutral approach and a level-playing field. Life-Cycle Assessments (LCA) should be consistently applied to different technologies across sectors, including transportation and heat. For example, vehicle standards should cover the whole life-cycle emissions and not just the tailpipe emissions to capture the true impact of energy use along the value chain. This means that in transportation, at least a well-to-wheel approach should be adopted, in order to weigh the carbon intensity of the energy used. This way, a level-playing field can be created for all sustainable transport solutions including electricity and different gases.
- **Environmental, social and economic sustainability:** The scope of sustainability should be kept broader that encompasses not only carbon emissions reduction but also other environmental, economic, social and public health benefits such as better air quality, resource efficiency, waste recycling and reduced resource depletion, etc. This broader sustainability criteria would enable fully informed investment decisions that are completely in line with major EU policy priorities and help to steer the EU out of the current economic crisis caused by the COVID19 outbreak.
- **Equal treatment of gas and electricity networks – both need further investments:** Continued investments in the gas networks to support their transition to fully renewable and decarbonized energy must be considered sustainable. Connections of biomethane plants to

the gas networks (equally to renewable hydrogen) and network reinforcement, including smart grids, should be explicitly categorized as sustainable.

- **Adapted criteria for activities running both on natural gas, biomethane and other renewable gases**, whether it is about the network, gas and appliances, as well as vehicles and refuelling infrastructure. Renewable methane does not face any technical boundaries and can be blended with natural fossil gas at an increasing share. Criteria for refuelling infrastructure should be aligned with the Alternative Fuels' Infrastructure Directive 2014/94/EU and include low-carbon transport such as (Bio-)CNG, (Bio-)LNG and (Bio-) LPG filling stations and vehicles.
- **Compatibility with current practices of agro-ecology:** Criteria on the growing of non-perennial crops should encourage practices of agro-ecology since they are beneficial to the environment and the climate. They include the growing of secondary crops and their use for biogas production, with carbon capture as a climate benefit. This should lead to tailoring criteria enabling such crop growing.
- **Promotion of innovation and complementarity:** The range of the activities in the taxonomy should be wide enough to include relatively mature technologies of biogas and biomethane production as well as emerging ones. In addition, criteria should not be excessively detailed in order to afford new, low-carbon and renewable innovation, including biomass gasification and power-to-methane, to be deemed sustainable

ANNEX: EBA comments on the final TEG report

Feedback open - EU classification system for green investments (Sustainable Finance)

New prescriptive technical requirements shall be based on existing evidence, existing EU legislation and the technological neutrality principle. They should also ensure a level playing field and be proportionate. Prevention principle should find application only if the certainly or potentially generated negative impact is greater than the achieved benefit. Whilst harnessing the potential of the Single Market, harmonised legislation should not penalize producers that mainly operate at national scale, especially SMEs.

EBA welcomes the opportunity to provide another input before the Commission adopt its proposal on technical requirements and warmly recommends to avoid creating new alternative conditions in conflict with the existing legislation. Such regulatory inconsistencies would not only generate a tremendous lack of legal clarity, but they would also provide a counter-productive political signal to companies and investors about the EU legislation ability – and willingness – to achieve the ambition of the EU Green Deal.

In line with the technological neutrality principle set out in the Taxonomy Regulation, the logic applying to gas networks and electricity networks should be the same when it comes to equipment and activities enabling the increasing integration of decentralized-produced renewable gases or electricity. Life-Cycle Assessments (LCA) and CO₂ accounting should be consistently applied to different technologies across sectors, including transportation and should consider whole life cycles and not only tailpipe emissions.

The new technical requirements should enable a genuine energy transition by recognising the potential of CO₂ emissions reduction of biomethane and other renewable gases in production of electricity, heat, and heat and power (cogeneration), as well as of low-carbon biofuels for heavy duty vehicles and other transports that are difficult to electrify, e.g. maritime transport.

Moreover, technical requirements should not be limited to mandatory prescriptive criteria but should provide for flexible and transparent evaluations of sustainability of economic activities. What is considered strictly as sustainable in the Technical Expert Group final report risks to lock the system in unfavourable and discriminatory playing field, and ultimately undermines the potential of decarbonising European economy.

In other words:

- Energy generation cannot rely exclusively on intermittent renewable electricity and heat pumps. Renewable gases are essential in industrial processes and needed to some extent also for CHP and heating as well as a prerequisite to achieve a 100 % renewable electricity system in terms of balancing and storage services to the system. Full GHG lifecycle assessment of all technologies is required to ensure fair and impartial consideration of environmental benefits and risks.
- In the transport sector, electric vehicles alone cannot deliver the expected results by 2050. In the short and mid term, renewable gas plays a crucial role to decarbonize the whole transport sector, including light vehicles, and will still be needed in the long term for long-haul heavy transport over both land and sea.

- Batteries alone cannot provide energy security to European industry, in particular for large and longer term energy storage where we will need gas networks and renewable gases. Full GHG lifecycle assessment of all technologies is required to ensure fair and impartial consideration of environmental benefits and risks.
- Sustainable and low carbon fuels such as biogas, biomethane and synthetic methane can integrate with other energy systems and link specifically with resource recovery including efficient waste treatment, fertiliser/soil improver and nutrient media generation and can enable interoperability of the power and gas grids and provide long term and large scale renewable energy storage. Anaerobic biotechnologies are able to make a considerable contribution to circular economy concepts and as new technological concepts develop and also further progress is made related to other energy systems (e.g. batteries and hydrogen), products from anaerobic biotechnologies could in the future be more directed at food/feed/chemicals and polymer production.

Therefore, we recommend the Commission to foster the potential of bioenergy to build a sustainable, secure and viable decarbonised economy, where gas supply is entirely renewable and provides a greater degree of flexibility to those sectors that are too expensive or technically difficult to electrify. Also, electricity is sustainable only when produced from renewable energy sources (which is far away from today's reality in the EU). All different technologies and sustainable feedstocks available to produce renewable gas should be considered; in the case of renewable methane, it can be produced by anaerobic digestion, biomass gasification and power-to-methane. The report should not limit the end uses: in addition to energy sectors and the chemicals sector (as mentioned in the report), feedstocks could be used for conversion to other products e.g. carboxylic acids or biopolymers¹. Renewable methane could be used not as a fuel but a feedstock for other products for example through conversion using methanotrophs from methane to a multitude of products e.g. proteins² or biopolymers³. Nutrient media could also enable other circular economy systems to develop in addition to land based plant growth e.g. hydroponics, bacterial fermentations and microalgae growth⁴.

More detailed recommendations can be found in the table below.

Based on the final recommendations included in the [technical annex](#) of the Technical Expert Group (TEG) on sustainable finance, EBA suggests the Commission to consider the following:

TEG Report	EBA proposal	Rationale
<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p>Mitigation Criteria <i>Metrics and threshold</i> Manufacture of Biomass, Biogas and Biofuels is eligible if:</p>	<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p><i>Metrics and threshold</i> Manufacture of Biomass, Biogas and Biofuels is eligible if:</p> <ul style="list-style-type: none"> • Produced from the advanced feedstock listed in Part A of 	<p>In order to maintain investment security, the common EU criteria laid down by the Renewable Energy Directive must be followed. Growing of secondary crops for biogas production is</p>

¹ e.g. <https://www.sciencedirect.com/science/article/pii/S1385894716302662>;
<https://www.sciencedirect.com/science/article/abs/pii/S0043135416303554>

² <http://calysta.com/about-us/>

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5029516/>

⁴ e.g. <http://www.wrap.org.uk/sites/files/wrap/Hydroponics%20Technical%20report%20-%20Notts.pdf>;
<https://www.sciencedirect.com/science/article/abs/pii/S0960852413012807>;
<https://www.sciencedirect.com/science/article/abs/pii/S0960852418310290>

<ul style="list-style-type: none"> Produced from the advanced feedstock listed in Part A of Annex IX of Directive (EU) 2018/2001. For Anaerobic Digestion of Biowaste and Sewage Sludge, refer to activities 5.5 and 5.3 respectively. <p>Any other anaerobic digestion of organic material (not covered under sections 5.3 and 5.5) is eligible provided that:</p> <ul style="list-style-type: none"> Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan. The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment <p><i>Rationale</i> The Manufacture of Biomass, Biogas and Biofuel can deliver mitigation benefits but, if done incorrectly can have no net positive impact or even a negative impact. Thus, the eligibility criteria are based on existing EU regulation but seek to advance the agenda by restricting eligibility to advanced bioenergy feedstocks</p>	<p>Annex IX of Directive (EU) 2018/2001.</p> <ul style="list-style-type: none"> <i>Produced in compliance with sustainability criteria laid down in Article 29(2) to (7) of Directive (EU) 2018/2001 and provisions of Commission Delegated Regulation (EU) 2019/807</i> For Anaerobic Digestion of Biowaste and Sewage Sludge, refer to activities 5.5 and 5.3 respectively. <p>Any other anaerobic digestion of organic material (not covered under sections 5.3 and 5.5) is eligible provided that:</p> <ul style="list-style-type: none"> Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan after an accurate and appropriate methodology for such facilities has been developed. The plan could potentially rely on on-site real-time monitoring for larger AD plants and by intermittent spot checks conducted using mobile monitoring/sampling methodologies and conducted by independent stakeholders in the case of smaller size AD plants. The digestate or nutrient media produced is used as fertilizer/soil improver – directly or after composting or any other treatment The digestate or nutrient media produced <i>is to be used as a recycled product, material or substance</i> <p><i>Rationale</i> The Manufacture of Biomass, Biogas and Biofuel can deliver mitigation benefits but, if done</p>	<p>environmentally and economically reasonable. This allows farming methods to move towards more innovative and sustainable farming practices. It increases the agricultural productivity of existing farmland without negative environmental impacts and without direct or indirect land use change. It leads to various benefits such as decreasing soil erosion risks, an increase in on-farm biodiversity and a potential increase of the soil carbon content by leaving more agricultural residues on the land. It could also result in negative carbon emissions. The second crop, in a sequential cropping scenario, can achieve 30% of additional biomass compared to the monocrop. In southern European countries such as Italy the additional biomass production amounts to 60%, as has been demonstrated in Italy.</p> <p>Moreover, according to a JRC study, dedicated energy crops represent only a minor fraction (< 0.1%) of the total biomass production. Regarding the monitoring system for methane leakage, this would need to be further defined. Biogas is often produced in small farm-based installations and it should not be the</p>
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	<p>incorrectly can have no net positive impact or even a negative impact. Thus, the eligibility criteria are based on existing EU regulation but seek to advance the agenda by restricting eligibility to advanced bioenergy feedstocks</p>	<p>responsibility of each individual biogas operator to introduce a monitoring system without standardization and sufficient accuracy being established for the monitoring system. A combined effort between government and industry should follow to develop an appropriate methodology.</p> <p>In general, the methane emissions of manure are greatly reduced when manure is digested leading to biogas production and nutrient recycling.</p> <p>Inclusion of additional uses for the digestate should not cause prejudice to provisions laid down in Directive 2008/98/CE for calculation of recycling targets.</p>
<p>2.3 Growing of non-perennial crops Mitigation criteria <i>Essential management practice</i> <i>Crop choice and rotation (to increase carbon sequestration in soil, reduce fertilizer need, and N2O emissions)</i></p> <p>“At least a 5 crop rotation, including at least one legume, where a multi-species cover crop between cash crops counts for 1”</p>	<p>2.3 Growing of non-perennial crops Mitigation criteria <i>Essential management practice</i> <i>Crop choice and rotation (to increase carbon sequestration in soil, reduce fertilizer need, and N2O emissions)</i></p> <p>“At least a 3 crop rotation, including at least one legume, where a multi-species cover crop between cash crops counts for 1”</p>	<p>Essential management practices required for farming to be sustainable should be compatible with the efficient growing of secondary/sequential crops.</p> <p>A “5 crop rotation” is too demanding for efficient sequential cropping.</p> <p>Crop rotation should be limited to 3, as to comply with current requirement of the Common Agricultural Policy</p>

<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p>Do no significant harm assessment <i>(6) Ecosystems</i></p> <ul style="list-style-type: none"> In case of AD, the resulting digestate meets the requirements for fertilizing materials in Regulation EU 2019/1009 and respective national rules on fertilising products. 	<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p>Do no significant harm assessment <i>(6) Ecosystems</i></p> <ul style="list-style-type: none"> In case of AD, the resulting digestate meets the requirements for fertilizing materials in Regulation EU 2019/1009263 OR respective national rules on fertilizing products. 	<p>The EU fertilizer regulation creates an optional harmonization system and producers are free to manufacture either fertilizing products:</p> <ul style="list-style-type: none"> Complying with national requirements – hence to sell their product on the national market; or Complying with the European requirements – hence to sell their products on the European Market. <p>We are concerned that the current wording would create unjustified discrimination between products supplied on the Single Market and those supplied on the National Market.</p> <p>This discrimination would harm those manufacturers that supply their products only on the National Market.</p>
<p>4.24. Production of Heat/Cool from Bioenergy (Biomass, Biogas and Biofuels)</p> <p>Mitigation criteria <i>Metrics and threshold</i></p> <ul style="list-style-type: none"> Facilities operating above 80% of GHG emissions-reduction in relation to the relative fossil fuel comparator set out in RED II increasing to 100% by 2050, are eligible, 	<p>4.24. Production of Heat/Cool from Bioenergy (Biomass, Biogas and Biofuels)</p> <p>Mitigation criteria <i>Metrics and threshold</i></p> <ul style="list-style-type: none"> Facilities operating in compliance with sustainability criteria laid down in Article 29(2) to (7) of Directive (EU) 2018/2001 and provisions of Commission Delegated Regulation (EU) 2019/807 	

<p>6.5 Passenger cars and commercial vehicles</p> <p>CO₂ emissions per vehicle kilometer (gCO₂/km). For passenger cars and light commercial vehicles:</p> <ul style="list-style-type: none"> • Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric). These are automatically eligible. • Vehicles with tailpipe emission intensity of max 50 g CO₂/km (WLTP) are eligible until 2025. • From 2026 onwards only vehicles with emission intensity of 0g CO₂/km (WLTP) are eligible. <p>For category L vehicles: Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric).</p> <p>Brief rationale:</p> <p>Zero direct emissions vehicles (e.g. electric, hydrogen) are eligible because the generation of the energy carriers used by zero tailpipe emissions vehicles is assumed to become low or zero carbon in the near future. Vehicles with tailpipe emission intensity of max 50 g CO₂/km (WLTP) are eligible until 2025 because the post-2020 CO₂ Regulation for cars and vans sets this threshold as an ambitious mid-term target that is significantly below the expected average emissions of new cars and vans. The 50 g CO₂/km threshold does not apply to L vehicles (e.g. motorcycles) due to their lower weight and high electrification potential.</p>	<p>6.5 Passenger cars and commercial vehicles</p> <p>(Vehicles below a certain limit of CO₂ emissions over the entire life-cycle, including generation of energy as well as production and recycling of the vehicles, are eligible.)</p>	<p>Criteria based on tailpipe CO₂ emissions, as proposed in the TEG report favouring only certain technologies cannot be in line with the EU's principle of technology-neutrality. Life-cycle emissions should be calculated for all vehicles and fuels to ensure technology neutrality and a level playing field for all different sustainable solutions.</p> <p>There is not enough research evidence in place about sustainability of electric cars (production and recycling of batteries). Existing calculations in fact indicate almost double as high emissions for the production of electric cars (47 gCO₂/km) than CNG cars (24 gCO₂/km), source: Volkswagen.</p> <p>If LCA-based criteria may not be chosen for a methodological reason, we recommend then the criteria to be based on a well-to-wheel approach for fuels across transport modes (road, water-borne, rail) to ensure a level playing field between technologies and a right assessment of climate benefits of alternative fuels.</p> <p>This would weigh the carbon intensity of the energy used at national level.</p>
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6.1 : Passenger rail transport (interurban)	<p>6.1 : Passenger rail transport (interurban)</p> <p>Criteria must be technology neutral and allow innovation in low-carbon engines to emerge on markets, as CNG and bioCNG-powered train engines are a solution for non-electrified railways to go low-carbon.</p> <p>Direct emissions criteria, if eventually chosen, must allow for these innovations to rise.</p>	
6.2 : Freight rail transport	<p>6.2 : Freight rail transport</p> <p>Criteria must be technology neutral and allow innovation in low-carbon engines to emerge on markets, as CNG and bioCNG-powered train engines are a solution for non-electrified railways to go low-carbon.</p>	
6.4 : Infrastructure for low carbon transport (land transport)	<p>6.4 : Infrastructure for low carbon transport (land transport)</p> <p>Criteria are not in line with the Directive on Alternative Fuels Infrastructure as they leave out public CNG and bioCNG refuelling points.</p> <p>Infrastructure of CNG refuelling of trains can be an “enabling” activity for the low-carbon transition of non-electrified railways through the use of CNG trains.</p>	

<p>4.14 : Retrofit of Gas Transmission and Distribution Networks</p>	<p>4.14 : Retrofit of Gas Transmission and Distribution Networks</p> <p>Gaseous renewable energy is not adequately covered by the TEG. As with renewable electricity production sources needing to be accommodated on the electricity networks, gas from renewable sources must equally be accommodated on the gas networks. The directly equivalent technologies and infrastructure necessary to facilitate renewable electricity need to be applied here to ensure non-discriminatory level playing field for all decarbonisation solutions.</p> <p>This would need to include;</p> <ul style="list-style-type: none"> • Direct connection of gas generation from renewable sources compliant with DIRECTIVE (EU) 2018/2001. • Gas network infrastructure required to enable connection of gas from renewable sources compliant with the directive. • CNG/LNG Filling Stations to accommodate low carbon gaseous transport and access for gas from renewable sources compliant with the directive. 	<p>Biomethane or synthetic methane integrates well with gas networks across Europe, without the need for infrastructure or appliances changes and without a maximum % concentration restriction. The Description and requirements of this activity should be clearer in order to qualify as “enabling” works on the gas networks that enables the integration of biomethane (upgraded biogas) into the network, thereby replacing imported natural gas. It should explicitly include : connections of biomethane plants to the gas network; network reinforcement like meshing (used to increase the potential of local distribution of locally produced biomethane), reverse flows units (used to send back from the distribution to the transmission grid surplus of biomethane) and network instrumentation (smart grid).</p>
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