

Sustainable finance – Technical screening criteria should promote sustainable bioenergy and circular economy

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 certainty or the potential generated negative impact bigger 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 heat 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.
- In the transport sector, electric vehicles alone cannot deliver the expected results by 2050.
- Batteries alone cannot provide energy security to European industry, in particular for large and longer-term energy storage.
- Sustainable and low carbon biofuels such as biogas, biomethane and synthetic methane can integrate with other energy systems and link specifically with resource recovery including efficient waste treatment, fertiliser and soil improver and nutrient media generation. They can also 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.

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</p> <p><i>Metrics and threshold</i></p> <p>Manufacture of Biomass, Biogas and Biofuels is eligible if:</p> <p>Produced from the advanced feedstock listed in Part A of Annex IX of Directive (EU) 2018/2001.</p> <p>For Anaerobic Digestion of Biowaste and Sewage Sludge, refer to activities 5.5 and 5.3 respectively.</p> <p>Any other anaerobic digestion of organic material (not covered under sections 5.3 and 5.5) is eligible provided that:</p> <p>Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan.</p> <p>The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment</p> <p><i>Rationale</i></p>	<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p><i>Metrics and threshold</i></p> <p>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 Annex IX of Directive (EU) 2018/2001. • 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 • 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 	<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 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>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>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.</p> <ul style="list-style-type: none"> The digestate produced , <i>or other output with a similar quantity of recycled content in relation to input, is to be used as a recycled product, material or substance – for instance, but not limited to, it can be on land applied as fertilizer or soil improver or it can be used to support other nutritional growth activities such as nutrient media for hydroponics, bacterial fermentations or microalgae production.</i> <p><i>Rationale</i></p> <p>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. <i>Thus, the eligibility criteria are based on existing EU regulation but seek to advance the agenda by restricting eligibility to advanced bioenergy feedstocks</i></p>	<p>Moreover, according to a JRC study, dedicated energy crops represent only a minor fraction (< 0.1%) of the total biomass production.</p> <p>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 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>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</p> <p>Mitigation criteria</p> <p><i>Essential management practice</i></p>	<p>2.3 Growing of non-perennial crops</p> <p>Mitigation criteria</p> <p><i>Essential management practice</i></p>	<p>Essential management practices required for farming to be sustainable should be compatible with the efficient growing of secondary/sequential crops.</p>

<p><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><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>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</p> <p><i>(6) Ecosystems</i></p> <p>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>	<p>4.13 Manufacture of Biomass, Biogas or Biofuels</p> <p>Do no significant harm assessment</p> <p><i>(6) Ecosystems</i></p> <p>In case of AD, the resulting digestate meets the requirements for fertilizing materials in Regulation EU 2019/1009 OR respective national rules on fertilizing products.</p>	<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</p> <p><i>Metrics and threshold</i></p> <p>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>	<p>4.24. Production of Heat/Cool from Bioenergy (Biomass, Biogas and Biofuels)</p> <p>Mitigation criteria</p> <p><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. For category L vehicles: Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric). <p>Brief rationale:</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>Instead of tailpipe emissions, 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>Such initiatives as the taxonomy report favouring only certain technologies cannot be in line with the EU's principle of technology-neutrality.</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>6.1 : Passenger rail transport (interurban)</p>	<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>	
<p>6.2 : Freight rail transport</p>	<p>6.2 : Freight rail transport</p> <p>Criteria must be technology neutral and allow innovation in low-carbon engines to emerge</p>	

	on markets, as CNG and bioCNG-powered train engines are a solution for non-electrified railways to go low-carbon.	
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>	
4.14 : Retrofit of Gas Transmission and Distribution Networks	4.14 : Retrofit of Gas Transmission and Distribution Networks	<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.</p> <p>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</p>

		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).
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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 biopolymers

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

Green 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. proteins <http://calysta.com/about-us/> or biopolymers <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5029516/>.

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 growth

- <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>.