

# Revision of Annexes V and VI Renewable Energy Directive

## *Eurogas position paper*

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## Introduction

Eurogas welcomes the opportunity to contribute to the public consultation on the revision of Annexes V and VI of the Renewable Energy Directive. Regular updates to these annexes are essential to ensure that the regulatory framework keeps pace with technological progress and innovation across the biofuels, bioliquids, and biomass fuels value chains. While Eurogas supports this objective, we would like to draw attention to some elements of the proposed revisions that could have negative repercussions in the market.

## Recommendations concerning the proposed text for Annex V

### Recommendation 1: Provide visibility to all co-products sold in the market

We understand the rationale behind Annex V.D clustering production pathways for biofuels and bioliquids. However, this approach reduces visibility and creates uncertainty for downstream co-products that are sold in the market. For example, **co-products of the HVO process, including bio-naphtha, biodiesel and bioLPG**, are not explicitly mentioned in the Annexes. Without clear confirmation, stakeholders may question whether and how these products are covered under the relevant pathways. Therefore, **Eurogas recommends including a footnote where these co-products are explicitly acknowledged.**

## Recommendations concerning the proposed text for Annex V/VI

### Recommendation 2: Recognise the better performance of electricity consumed in the liquid, solid or gaseous fuels supply chains

**Eurogas recommends extending the scope of Annex V, part C, point 11 to explicitly cover liquid biofuels**, in addition to solid and gaseous biomass fuels. Without an explicit reference to liquid biofuels, they would remain outside the scope of this provision, creating a regulatory gap and an inconsistency across biofuel pathways.

Additionally, **we ask that Annex provisions related to GHG emissions accounting for electricity consumption be aligned with the RFNBO Delegated Regulation (Annex A.5 and A.6) or, alternatively, that certified and zero-rated renewable electricity be recognised.** This would allow the growing share of renewable electricity in European grids to be properly reflected, thereby improving the calculated carbon intensity of grid electricity. Without such alignment, producers of biofuels, bioliquids and biomethane are effectively penalised by being tied to outdated, carbon-intensive default values that do not necessarily reflect current grid conditions. Either approach would better reflect today's reality and create a stronger incentive for the use of renewable power.

The same alignment should also be applied to the relevant provisions of Annex VI of the RED, including those related to electricity consumption of biomethane compression or liquefaction processes.

EC Proposal	Eurogas recommendation
In accounting for the consumption of electricity not produced within the solid or gaseous biomass fuel production plant, the greenhouse gas emissions intensity of the production and distribution of that electricity shall be assumed to be equal to the average	In accounting for the consumption of electricity not produced within the <b>liquid</b> , solid or gaseous biomass fuel production plant, the greenhouse gas emissions intensity of the production and distribution of that electricity shall be assumed to be equal to the average

<p>emission intensity of the production and distribution of electricity in a defined region.</p> <p>By way of derogation from this rule, producers may use an average value for an individual electricity production plant for electricity produced by that plant, if that plant is not connected to the electricity grid [Annex V, Part C, point 11].</p>	<p>emission intensity of the production and distribution of electricity in a defined region.</p> <p>By way of derogation from this rule, producers may <b>alternatively:</b></p> <ul style="list-style-type: none"> <li>a) <b>Use</b> an average value for an individual electricity production plant for electricity produced by that plant, if that plant is not connected to the electricity grid,</li> <li>b) <b>Rely on the same methods as in Delegated Regulation 2023/1185 (Annex A.5 and A.6) to attribute greenhouse gas emissions values to the electricity consumed by the production site, or</b></li> <li>c) <b>Recognise the use contractual instruments demonstrating the purchase of zero-emissions rated electricity (including via the purchase of Guarantees of Origin (GOs)).</b></li> </ul>
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**Recommendation 3: Include methanol and Fischer-Tropsch liquid fuels in the list of recognized production pathways (Annex V.B)**

The table in Annex V.B setting out estimated typical and default values for biofuels derived from lignocellulosic feedstock should be expanded to include methanol and Fischer-Tropsch liquid fuels produced from biogas.

**Recommendations concerning the proposed text for Annex VI**

**Recommendation 4: Recognise all liquefaction pathways as viable enablers for decarbonisation**

- a. The paragraphs related to bioLNG (Annex VI, Part III, A3, p.19) set a default value for liquefaction at 4.9 gCO<sub>2</sub>eq/MJ. However, **all physical biomethane liquefaction projects and virtual liquefaction alternatives should have the possibility to demonstrate better environmental performance already today.** Their decarbonisation efforts should be recognised by enabling deviation from the default value in all circumstances. This optionality shall be preserved in the national transposition of this Delegated Directive.
- b. The paragraph should **explicitly acknowledge that liquefaction by equivalence is a viable decarbonisation pathway**, notably for LNG-shipping and industrial users (including LNG trucking). In this regard, we would support an explicit clarification in the text, whereby equivalence liquefaction carried out at interconnected EU terminals is eligible for the referenced default value or for a methodology based on typical EU liquefier energy consumption data multiplied by the carbon intensity of the national electricity grid mix, provided the underlying biomethane meets the RED sustainability and GHG criteria.
- c. The paragraph in question should also **clarify that the 2.4 g CO<sub>2</sub>eq/MJ shall be used as compression emission default value, whereas the 4.9 g CO<sub>2</sub>eq/MJ as default value for liquefaction** in either of its forms. The current wording may be misleading and appear to refer to transport emissions.
- d. **Emissions after the production of biomethane should be accounted for by the downstream economic operators** (i.e., compression and liquefaction emissions). Indeed, the producer may not know the future

application of the biomethane produced, including whether its consignment(s) will be compressed or liquefied.

- e. The second part of the paragraph specifies that in cases where the liquefaction does not take place in the EU or is not powered by electricity, actual values should be calculated. The reference methodology to determine such actual values for liquefaction is, however, not specified in the draft.

EC Proposal	Eurogas recommendation
<p>If biomethane is transported in either its compressed or liquefied form, an additional disaggregated value of 2.4 or 4.9 g CO<sub>2</sub>eq/MJ shall be added, respectively. The liquefaction value is only applicable if liquefaction takes place in the EU and is powered by electricity. In all other cases, actual values shall be calculated. In addition, emissions from the transport and distribution of such biomethane shall be added as actual values. (Annex VI, Part III, A3, p.19)</p>	<p><del>If <b>Where</b> biomethane is transported in either its compressed <b>and used as a transport fuel</b>, or liquefied form, an additional disaggregated value of 2.4 or 4.9 g CO<sub>2</sub>eq/MJ shall be added, respectively;</del></p> <p><b><i>Where biomethane is liquefied, process emissions (E<sub>p</sub>) associated with the conversion to liquefied biomethane shall be added. They shall be calculated as follows:</i></b></p> <ul style="list-style-type: none"> <li><b><i>i. For biomethane liquefied in a liquefaction plant directly connected to the European biomethane production site, or in a liquefaction plant connected to the gas network (excluding LNG terminals), an actual value or disaggregated default value of 4.9 g CO<sub>2</sub>eq/MJ shall be added;</i></b></li> <li><b><i>ii. For grid-injected biomethane which is withdrawn by mass balance and liquified within an EU interconnected LNG terminal, an actual value or disaggregated default value of 4.9 g CO<sub>2</sub>eq/MJ shall be added;</i></b></li> <li><b><i>iii. For biomethane liquefied by equivalence, in an EU interconnected LNG terminal (without using a liquefier), the value shall be either:</i></b> <ul style="list-style-type: none"> <li><b><i>a. Computed by a methodology based on typical EU liquefier energy consumption data multiplied by the carbon intensity of the national electricity mix, where available, or</i></b></li> <li><b><i>b. An additional disaggregated value of 4.9 g CO<sub>2</sub>eq/MJ.</i></b></li> </ul> </li> <li><b><i>iv. For biomethane liquefied outside the EU and imported in a liquefied form, an actual value shall be added.</i></b></li> </ul> <p><del>The liquefaction value is only applicable if the liquefaction takes place in the EU and is powered by electricity.</del></p>

	<p><i>When transposing these provisions, Member States shall ensure that economic operators are not prevented from making use of the optionality described above.</i></p> <p>In addition, emissions from the transport and distribution of such <b>compressed or liquefied</b> biomethane shall be added <b>to the calculation of the overall emissions</b> as actual <b>or default</b> values.</p>
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**Recommendation 5: Foresee an approach to co-digestion that allows biomethane producers the flexibility to choose between the averaging methodology and a feedstock-specific calculation**

The current draft text still foresees the possibility to apply an averaging formula in the case of co-digestion. This risks penalising the biomethane business case in certain European markets. In this regard, **we support an approach that allows biomethane producers the flexibility to choose between the averaging methodology and a feedstock-specific calculation for the respective mass balance period.**

Such flexibility would help foster a competitive biomethane business case across all Member States by accommodating the particularities of national markets, while maintaining cohesion through a shared European framework. At the same time, it is essential that in applying these rules, Member States ensure that the implementation does not create barriers to cross-border trade.

This shift in the rules’ implementation could be done either:

- **By clarifying the interpretation of Annex VI(B)(1)** so that “*n* feedstocks” refers to a “defined mixture of *n* substrates” comprised of any *n* feedstocks’- any feedstocks chosen by the producer – rather than implying the use of “all feedstocks”. Or,
- This could be addressed with the **revision of the formula in the RED Annex VI** legal text.

**Recommendation 6: Ensure that the  $e_{me,i}$  factor accurately reflects the performance of best available technologies**

For manure-based biomethane, the draft text foresees a GHG reduction value of 104%, which is considerably lower than the value currently applicable to closed digesters (202%). However, according to the new draft rules, the same GHG emissions savings could be potentially achieved with the improvement factor ( $e_{me,i}$ ) accounting for the reduction in methane emissions in the calculation of the process’ GHG footprint (Point 15a in Part B, Annex VI). Eurogas welcomes the recognition of methane mitigation measures.

However, it seems that there is a mistake in the improvement factors attributed to the biogas and biomethane upgrading section (Point 15a, Part B, Annex VI), as **the improvement for any technology is currently higher than the improvement foreseen for the best practices available.**

**The text should also better clarify the eligibility of the biomethane producers for the improvement factors,** by explicitly stating which are the recognised technologies and practices and if the improvement factors referenced in the Table question can be stacked.

### Recommendation 7: Clarify the meaning of $C_{stor}$ factor in the GHG emissions calculation for biomass fuels

The formula to calculate the GHG emissions for production and use of biomass fuels (Annex VI) now includes a correction factor reflecting the preservation of lower heating value of feedstock delivered at the gate. However, its exact meaning and impact should be clarified. In this regard, the definition of the  $C_{stor}$  factor should be elaborated further.

### Recommendation 8: Include a definition of biowaste aligned with the existing EU regulatory framework

The current draft of Annex VI lacks an explicit definition of biowaste, which could represent a risk for regulatory transparency and certainty. We recommend including a definition that is aligned with the RED (Directive 2018/2001) and the Waste Directive (Directive 2008/98/EC).

### Recommendation 9: Ensure that typical and default values are applicable to all biogas/biomethane produced

The wording at the end of tables including typical and default values for biomethane seems to indicate that they are only applicable where the biomethane production process is fueled by biogas/biomethane. If this is the case, it could lead to unintended consequences on the business case for biomethane. We suggest that these factors can be applied by all biomethane producers, while emissions from the energy used onsite shall be properly accounted for in the  $E_p$  factor.

EC Proposal	Eurogas recommendation
All settings assume that process energy is supplied from own biogas/biomethane. Other solutions should be calculated with actual values [pages 18, 37 and 43].	All settings <del>assume that process energy is supplied from own</del> <b>can apply to all</b> biogas/biomethane <b>produced</b> . Other solutions <b>Biomethane producers</b> should be calculated with <b>may use</b> actual values <b>where available</b> .

### Recommendation 10: Distinguish between EU and third-country production in the accounting of the $E_{td}$ factor

The  $E_{td}$  factor should foresee different approaches based on the location of the supply chain. If EU-based supply chains are considered, they may choose between default/typical values and actual values. Third country-based supply chains shall use the actual values to reflect a more accurate GHG emission footprint of the transport and distribution.

## Questions for clarifications to the European Commission

### Question 1: Annex VI, Table A3, p.17

We ask the Commission to clarify how solid and liquid biomass can be combined.

We also ask the Commission clarification as regards to the limitation of feedstocks for gasification to short rotation coppice and waste wood, when in practice, other liquid feedstocks can be used for this process such as digestate and sewage sludge.

In addition, we believe that methanation should not be included in this table, as the methanation process for injection in the grid is not always used and in addition, it is already covered in the RFNBO Delegated Regulation.

**Question 2: Explain the rationale behind the inclusion of the new fossil fuel comparator for grid-injected biomethane**

A fossil fuel comparator of 94 g CO<sub>2</sub>eq/MJ for biomethane injected into the gas grid for the purposes of the calculation referred to in point 3 has been added. We would welcome clarifications on the rationale for including this new fossil fuel comparator.

**Question 3: Clarify the impact of the 75% conversion efficiency to heat and cold on existing provisions of Annex VI**

The draft Annex VI A.3 introduces a new efficiency factor for conversion to heat and cold. Eurogas would welcome clarification on how this change would affect the existing provision in Annex VI, Part B, point (d), which addresses GHG emissions from biomass fuels used for heating and cooling, including their conversion to heat and cooling.