

EBA response to the Call for Evidence for the Energy efficiency – legal framework after 2030

The European Biogas Association (EBA) welcomes the opportunity by the Commission to strengthen the legal framework after 2030 for energy efficiency. Representing the entire biogas and biomethane value chain, from production to end uses, EBA urges the Commission to recognise our sector as being a key contributor to delivering energy-efficient solutions to producers and consumers. Specifically, in the following recommendations EBA wants to highlight the role of biogas and biomethane in providing solutions for energy system optimisation, by enabling different energy sectors to work together to achieve a more effective defossilisation potential of all end uses.

The Energy Efficiency Framework should recognise the following benefits of biogases in end uses:

1. Cost-competitive, readily available decarbonisation pathway

Biomethane is an energy- and cost- efficient solution to decarbonise Europe's energy system, particularly in buildings and heating, as well as for the road and maritime transport sectors. Being compatible with existing gas infrastructure, storage facilities and heating appliances, biomethane enables a rapid transition away from fossil fuels. To scale up renewable gases, it is essential to create the right conditions to accelerate the consumption of biomethane. For example, instruments such as green gas contracts and blending obligations for biomethane in industries can further accelerate the deployment of renewable gas and become an alternative, green solution to fossil-based heating.

2. Enabler of energy flexibility and peak demand management

A resilient energy system requires flexibility, particularly when facing high electrification costs due to peak demands and grid congestion. As such, biomethane must be seen as playing a complementary role to electrification. This is especially important for the buildings and heating sectors, where consumers can use electricity when available, and switch to renewable gas when electricity grids are congested or during peak demand, especially in cold periods with no sun and wind. Moreover, energy efficient systems like hybrid heating systems, which combine heat pumps with gas-based solutions (e.g., biomethane-fuelled boilers), are an important contributor to recognising the value of biomethane as a complementary solution to electric-based systems. In

fact, hybrid heat pumps enable consumers to switch between electricity and gas-fuelled heating appliances based on energy availability and price.

3. Energy system integration

Biomethane strengthens energy system integration due to its ability to be either used directly, stored or dispatched. Energy systems can be optimized by using biomethane as a source of flexibility and contribute to various energy outputs, such as electricity, heat and transport. For example, biogas cogeneration plants allow for the simultaneous production of electricity and heat. Upgrading biogas into biomethane can also fulfil the functions of decarbonising the transport sector or providing seasonal energy storage to buildings. Furthermore, in industrial use cases biomethane can support the decarbonisation in energy and material use –especially in hard-to-abate applications already today.

4. Energy efficiency first principle

The Energy Efficiency Framework should abide by the Energy Efficiency First (EEF) principle, which was already introduced in the revised Energy Efficiency Directive (EED) in 2022 (Article 3). The EEF principle is key to effective energy planning and investment decisions, because it prioritises the most cost-effective measures to improve energy efficiency across supply and demand. In this context, biomethane shows to be a highly important and energy efficient solution for industries, especially for hard-to-abate sectors. The main interlinkages between biogases and the EEF principle are listed below:

- Biogases contribute to a sustainable waste management practice, valorising organic and industrial waste resources and transforming them into renewable energy vectors. This system contributes to the circular economy model of biomass and promotes sustainable agricultural and waste management activities.
- Biogas and biomethane transmission and distribution do not require infrastructure upgrading nor additional costs to improve or retrofit the existing gas grid, as it can be seamlessly integrated into the existing network.
- Biogas and biomethane complement other renewable energy sources by increasing energy resilience, security and flexibility. It strengthens demand flexibility and provides consumers with reliable and dispatchable renewable energy when other sources are not available.

The Energy Efficiency Framework should include enabling measures to ensure the role of biomethane in end-uses:

1. Recognise the role of biomethane as a catalyst for investment

The more explicit recognition of biomethane within relevant legislation, will also work in favour of accelerating investments into energy efficient solutions, a key aim highlighted in this Call for Evidence. To drive investment into energy efficient technologies, coherent and long-term policy direction is needed.

This is particularly relevant in the case of the Energy Efficiency Directive (EED) which should clarify the status of biomethane technologies within its key provisions. The EED should incorporate biogas technologies in rural and district heating and cooling plans, to ensure technology neutrality amongst all energy carriers. Municipalities would also benefit from a wider array of available technologies, thus choosing the most convenient, cost-effective and locally available renewable energy source. To enforce this, biomethane-fuelled heating appliances and hybrid heating systems should be included in Annex X to the EED, which lists the technologies that Member States are required to consider when developing policies and measures related to heating and cooling plans. Solidifying the role of biomethane within heating and cooling end-uses will provide strong demand-side signals to investors, thereby unlocking funding into the sector and energy efficiency more broadly.

Moreover, the Energy Efficiency Framework should ensure greater alignment with other pieces of legislation, which will have a compound and positive effect in promoting investment into energy efficiency technologies. The Renewable Energy Directive for instance sets out specific targets for renewable energy use in heating and cooling. These targets should be further enhanced by providing supporting measures like biomethane purchase agreements and blending obligations. These measures would create a demand pull for renewable gases and provide long-term security of supply and availability for biogas and biomethane in the heating industry.

2. Ensure consistency between energy efficiency legislation and state aid frameworks

Access to public funding, such as grants or tax exemptions, regulated through state aid frameworks, has a key role to play in supporting the uptake of biogases and enhancing the sector's contributions to energy efficiency. Recognising the benefits of biogases within the Energy Efficiency Framework therefore requires corresponding state aid frameworks that are aligned with these aims.

Legislation such as the EED, which requires Member States to facilitate the financing of energy efficiency measures (Article 30), lacks coherence with certain state aid rules that currently undermine the role biogases can play towards energy efficiency. A notable example is the Climate, Energy and Environmental Aid Guidelines (CEEAG), which excludes hybrid heating systems from its scope. To this end, a revised Energy Efficiency Framework should ensure that legislation and state aid frameworks are consistent with each other and provide for a technology neutral approach towards all heating technologies.

Conclusions:

The Energy Efficiency Framework should take a holistic approach to energy efficiency for the biogases value chain

The recommendations above have underscored the role of the biogases sector in promoting energy efficiency as it is understood by the current framework and highlights some enabling measures that would allow to meet its potential. As part of a revision of the Energy Efficiency Framework, however, EBA calls on the Commission to adopt a more holistic approach to energy efficiency that allows for a better integration of the biogases value chain.

Specifically, the revised framework should promote the link between renewable energy production and resource efficiency. In particular, biogas production offers two co-products, namely digestate and biogenic CO₂, which must be valorised and seen as contributors to resource and energy system efficiency. Digestate is a sustainable fertiliser that promotes a circular economy and replaces synthetic based fertilisers used for the agricultural sector. Biogenic CO₂ is produced and captured when biogas is upgraded into biomethane. It can be used as a sustainable feedstock for heavy-industries, such as chemicals, fuel manufacturing, food and beverage and building materials, and thus replace fossil-based CO₂ as a feedstock.

These co-products can enhance energy efficiency, by reducing energy consumption that would otherwise be required for the import or production of synthetic fertilisers, as well as the sourcing of fossil-based CO₂ for various industrial end-uses. When viewed in this holistic manner, the energy efficiency attributes of biogases become much greater through to their ability to maximise resource efficiency.

This multi-output nature of biomethane has not been effectively recognised by the current Energy Efficiency Framework, or by state aid frameworks, with co-products often ineligible for investment support under frameworks. This is the case under the General Block Exemption Regulations (GBER), which excludes both digestate and biogenic CO₂ from its scope, despite dedicated investment aid categories for energy efficiency (Articles 38, 38a, and 46) and resource efficiency (Article 47). Accordingly, the revised framework should integrate resource efficiency within its scope and provide dedicated financing mechanisms to support it.

Contact

Sebastian Wren, Policy Officer, wren@europeanbiogas.eu

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.