

eNG Coalition contribution to Renewable energy – revising biofuel, bioliquid and biomass fuel production pathway values and modifying methodology, January 2026.

The eNG Coalition welcomes the European Commission’s initiative to revise Annexes V and VI of the Renewable Energy Directive (RED III), notably to improve methodological consistency, lifecycle GHG accounting, and traceability of renewable fuels.

We acknowledge positive developments in the draft text, including:

- clearer alignment of GHG accounting methodologies;
- strengthened links with the Union Database (UDB);
- clarification of transport and processing steps for gaseous fuels;
- improved consistency with existing sustainability frameworks.

However, we urge the Commission to explicitly address **the different liquefaction pathways for green liquid methane (e-LNG)**, and in particular to consider the opportunity **equivalence-based (or “virtual”) liquefaction mechanisms bring** in reducing system-level greenhouse gas emissions.

While Annexes V and VI are legally focused on biofuels and biomethane, the treatment of liquefaction and transport pathways in this revision will **set a precedent** for future RFNBO-based methane pathways (e-NG / e-LNG). It is therefore essential that the framework adopted is **technically accurate, system-efficient, and future-proof**.

1. The existing breath in liquefaction methodologies provide distinct advantages

The draft Annexes do not sufficiently recognize the inherent differences in liquefaction methodologies for green methane. The absence of explicit references to the different methodologies **leave room for interpretation and create uncertainty in the market**.

The following green methane liquefaction methods already exist today, alongside the corresponding certification pathway for biomethane.

- **Physical liquefaction:** The gaseous methane is liquefied and subsequently used in its liquid form. Energy is consumed in the local, often co-located, liquefaction unit. The greenhouse gas impact of the process therefore depends on the actual energy source which is used (e.g. electricity from the grid versus green electricity under a Power

Purchase Agreement).

- **Recondensed liquefaction or backhaul liquefaction:** This method relies on the available capacity in certified European regasification terminals. The gaseous molecule is liquefied via reverse nomination against the available LNG in the tank. At the same time, the green certificate is transferred from the green molecule in the grid to the LNG in the tank. Various terminals are already ISCC certified to provide this bio-LNG service. No physical energy is consumed, but capacity needs to be booked.
- **Liquefaction by equivalence or virtual liquefaction:** Liquefaction by equivalence also leverages existing European regasification infrastructure. The difference between liquefaction by equivalence and recondensed liquefaction is that no physical capacity needs to be reserved. Renewable methane injected into the gas grid is **administratively and traceably matched** with LNG volumes in the tank. The method leverages the mass balancing chain of custody approach and the fact that regasification terminals form an integral part of the EU interconnected gas network. No energy is consumed during the process.

Whereas the above definitions already illustrate fundamental differences in energy use, a treatment on system-level reveals further benefits:

- Liquid methane is imported for security of supply reasons and requires regasification before the molecule can be injected in the gas grid. Regasification of the full imported volumes and its associated emissions can be avoided via both recondensed liquefaction and liquefaction by equivalence. Both methods therefore reflect a **system-level optimization** where the liquid molecule remains liquid, and the gaseous molecule stays in the gas grid for distribution.
- **Existing shared infrastructure can be leveraged** to accelerate the energy transition in the transport sector. The available liquefaction capacity in European regasification terminals is significant and provides a **unique opportunity to scale at marginal costs**.
- Within transport, green methane is no longer mainly used in road transport. Green methane is increasingly adopted within the maritime sector since the EU ETS extension to shipping and the entry into force of FuelEU Maritime. LNG powered

vessels also represent the largest share of operational alternative fuel vessels and vessels on order¹. The **liquid green methane demand is expected to increase sharply** in the coming years. A scalable and pragmatic solution, based on existing infrastructure, as existing LNG terminals and ports provide immediate access to significant volumes for maritime and long-distance transport which will be required to keep up with the demand and to support the ambition of the EU in the decarbonization of the transport sector. A total of 275 ²orders for alternative-fuelled vessels were placed in 2025, representing a year-on-year decrease of 47%. This mirrored a broader drop in the overall newbuild market, which fell to 2,403 orders, from 4,405 in 2024. Despite this downturn, containership contracting showed resilience, rising to 547 new orders from 447 in 2024 and accounting for roughly 49 percent of all gross tonnage and 68 percent of alternative-fuel new orders. Within the container segment, alternative fuels dominated, with the fuel mix by tonnage approximately 58 percent LNG

2. Recommendations

The eNG Coalition respectfully recommends the Commission to:

Clarify the treatment of liquefaction pathways

Explicitly acknowledge that liquefaction can occur through **distinct pathways**, including physical and equivalence-based mechanisms, and that these must not be treated identically for GHG accounting purposes.

Avoid penalizing equivalence-based liquefaction

Ensure that default values or methodological assumptions do not assign artificial emissions to renewable molecules where no additional physical liquefaction energy is consumed.

Preserve technology neutrality and scalability

Ensure that the Annexes do not implicitly favor one infrastructure configuration over another, and that they support:

¹ LNG-fuelled container ships sustain alternative fuel share of global orderbook amid industry slowdown - <https://www.dnv.com/news/2026/LNG-fuelled-container-ships-sustain-alternative-fuel-share-of-global-orderbook-amid-industry-slowdown/>

² LNG carriers excluded as a ship type. RoPax vessels categorized under Car/Passenger ferries.

- Shared infrastructure use;
- Cross border supply chains;
- Early deployment of renewable methane and future RFNBO-based methane.

Ensure consistency with forthcoming implementing acts

Explicitly state that the treatment of liquefaction in Annexes V and VI should be read consistently with forthcoming implementing regulations on RFNBOs and the Union Database, to avoid future misalignment.

The eNG Coalition stands ready to support the Commission with further technical input and practical use cases.
