Unlocking the Role of Renewable Liquid Gases in Delivering the EU 2040 Climate Target: Liquid Gas Europe's Response to the Proposed Amendment of the European Climate Law

(On behalf of Liquid Gas Europe)

Introduction

Liquid Gas Europe supports the EU's long-term ambition to achieve climate neutrality by 2050 and recognises the need for interim milestones to maintain momentum. However, achieving a 90% reduction in greenhouse gas emissions by 2040 will only be feasible if the policy framework includes all available and effective decarbonisation solutions.

Renewable liquid gases (rLG)—including renewable LPG and renewable DME—are immediately deployable, cost-effective, and essential for decarbonising sectors that electrification and hydrogen cannot realistically reach in the near to medium term: rural and off-grid households, agricultural processes, and hard-to-abate industries. In transport, rLGs can provide a complementary role in certain use cases—such as existing Autogas fleets or areas where charging infrastructure remains limited—helping to avoid a continued reliance on fossil fuels during the transition. Without their inclusion, the 2040 target risks becoming unachievable in a way that is socially fair, geographically inclusive, and technically feasible. Yet today, regulatory fragmentation—across definitions, emissions accounting, and taxation—continues to hinder investment and deployment of these scalable solutions. If the EU is serious about delivering a fair, resilient, cost-effective transition, renewable liquid gases must be explicitly recognised and integrated into the climate policy architecture.

In particular, emissions accounting rules need urgent reform. As highlighted in the recent *"Let Green Gas Count"* initiative led by the European Biogas Association, the GHG Protocol should explicitly allow biomethane and renewable liquid gases sold via mass balance and backed by Guarantees of Origin to reduce reported Scope 1 emissions. Under the current regime, only the physical consumption of renewable molecules is recognised, penalising companies investing in certified renewable gases. Aligning the GHG Protocol with EU certification systems would ensure that the climate benefits of renewable molecules are fully captured, providing a fair basis for companies to decarbonise and invest.

Key Points of Conditional Support

- Technology Neutrality in Implementation
    - The reference in Recital 5 of the proposed text rightly acknowledges the need to decarbonise the energy system with *all zero- and low-carbon energy solutions*—including renewables, nuclear, energy efficiency, storage, CCS, CCU, carbon removals, geothermal and hydro-energy, and other current and future net-zero energy technologies. To translate this principle into effective market outcomes, the Commission should ensure that the implementation of the Climate Law operates within a coherent, technology-neutral framework that treats renewable liquid gases on an equal footing with other renewable energy solutions. Our

Outlook study demonstrates that—with a robust policy framework—Europe could produce up to 27 Mt of renewable liquid gases (bioLPG, renewable DME) by 2050, sufficient to meet nearly all current LPG demand. These fuels deliver more than 80% GHG savings compared to their fossil counterparts and are critical for decarbonising off-grid heating, rural and industrial applications, and Autogas where electrification or hydrogen remain infeasible.

- However, inconsistent definitions and divergent approaches across EU legislation—such as the RED, EPBD, CO_2 standards, ETD, and ETS II—threaten to disadvantage renewable liquid gases. To address this, the Commission should:
  - The Commission should ensure clarity and consistency across renewable fuel categories—such as biofuels, biogases, and renewable fuels of non-biological origin—so that renewable liquid gases are not only explicitly recognised but also receive equivalent treatment and support. At present, renewable molecules like bioLPG and biomethane are mentioned in instruments such as the RED and EPBD, yet they lack the accompanying incentives, investment frameworks, and tax advantages granted to green electricity. For example, renewable liquid gases remain taxed on par with fossil gas, excluded from industrial support schemes like the Industrial Process Heat Decarbonisation Auction, and face the absence of a pragmatic certification system to exempt them from CO_2 taxation. Addressing these gaps is essential to unlock investment and ensure a level playing field.
  - Apply the lifecycle emissions methodology to CO_2 vehicle standards, to ensure a fair comparison and treatment of renewable fuels alongside electrification and other options. Leverage the EU Taxonomy to recognise renewable liquid gases as sustainable investments, thus unlocking private capital for deployment.

This alignment is for creating a level playing field—enabling renewable liquid gases to compete effectively alongside electrification, hydrogen, and other solutions in supporting a just and resilient decarbonisation of Europe's rural and hard-to-abate sectors.

Flexibility Across Sectors

- Cross-sectoral flexibility is essential to ensure that climate action remains cost-efficient, resilient, and socially fair. Europe's diverse energy needs cannot be met by a single pathway. Renewable liquid gases provide this flexibility by delivering immediate and deep emissions reductions in areas where electrification or hydrogen face structural limitations.

- In off-grid and rural heating, rLGs offer a drop-in renewable solution that avoids costly infrastructure upgrades and ensures no communities are left behind.
- In agriculture and food processing, rLGs provide the energy density and storage properties needed for reliable operations, particularly where continuous heat demand is required.
- In small and medium-sized industries, rLGs supply clean combustion and high-temperature heat where electrification is technically or economically unviable.
- In transport, Autogas and renewable DME can support the decarbonisation of fleets and logistics, complementing electrification.

Ensuring flexibility across sectors therefore means recognising the role of renewable liquid gases as both a bridging and long-term solution, preventing lock-in to fossil fuels while enabling a just and inclusive transition across Europe.

Recognition of International Developments

- We support the Commission's acknowledgement of international frameworks for climate accounting and carbon removals, which is important to ensure transparency and avoid double counting. For renewable liquid gases, global trade and investment will also play a crucial role in scaling up supply by 2040–2050. Ensuring coherence between EU rules and international standards will therefore be essential for both environmental integrity and supply security.

Offsetting Provisions

- Carbon Removals: Liquid Gas Europe welcomes the integration of permanent domestic CO_2 removals into the EU ETS, provided they are high-quality, additional, transparent, and verifiable to ensure environmental integrity.
- International Carbon Credits: These should remain strictly supplementary and used only for residual emissions that are technically or economically unavoidable. While the current 3% ceiling may need review after 2030, any future adjustment must not undermine the deployment of renewable liquid gases (rLGs), which already deliver significant and verifiable GHG savings in Europe.

Concerns and Structural Recommendations

Delivering a 90% reduction by 2040 requires not only ambition but also a coherent, predictable, and technology-neutral policy environment. Today's climate framework remains fragmented, which risks undermining investment and slowing the scale-up of renewable solutions. We highlight two sets of priorities:

- **Systemic Principles**
  - Consistency across legislation: Renewable liquid gases should be recognised clearly within existing renewable fuel categories, avoiding contradictory definitions across RED, ETD, ETS II and CO_2 standards.
  - To ensure fair comparison of all renewable options, the lifecycle emissions methodology already applied in the Renewable Energy Directive (RED) should also be integrated into the CO_2 vehicle standards, allowing renewable liquid gases to be adequately recognised alongside electrification and other technologies.
- **Investment predictability:**
  - Long-term policy clarity and certification mechanisms are essential to unlock the scaling of renewable liquid gases foreseen in the 2050 Outlook. In particular, the EU should establish a pragmatic mass balance and certification system, comparable to that applied in the natural gas sector, to provide transparency, reduce administrative burdens, and give investors the confidence needed to accelerate deployment. Carbon pricing: The current ETS II design carries a high risk of excessive price increases, particularly for households in rural and off-grid areas that already face higher energy costs. Around 30 million EU citizens rely on LPG for heating and cooking, and in many Member States LPG is the primary energy source for rural homes. A sudden rise in prices risks fuelling strong consumer opposition and undermining acceptance of the transition. To safeguard affordability and social fairness, ETS II must therefore be adapted to recognise the contribution of renewable liquid gases and provide simple, proportionate compliance pathways for decentralised actors.

- **Policy Applications:**
  - Taxation: The Energy Taxation Directive should ensure renewable fuels receive fair treatment compared to electricity and other options.
  - Carbon pricing: ETS II design must safeguard affordability and recognise the contribution of renewable liquid gases, while keeping compliance pathways simple for decentralised actors.
  - Transport standards: Vehicle CO_2 regulation should incorporate a Carbon Correction Factor and allow recognition of cars and vans operating on 100% certified renewable fuels, supported by robust tracking methodologies.
  - Sectoral demand: EU transition planning should fully integrate renewable liquid gases in rural heating, agriculture, and hard-to-abate industry as part of a balanced technology mix.

Conclusion

Achieving a 90% emissions reduction by 2040 is an ambitious step toward climate neutrality. Success will depend not only on the target itself, but on creating a coherent, predictable, and technology-neutral framework that unlocks all available solutions.

Renewable liquid gases (rLGs) are a proven, scalable, and cost-effective pathway to decarbonisation. They are uniquely positioned to reach sectors where electrification and hydrogen face structural limits—off-grid households, agriculture, SMEs, Autogas and hard-to-abate industries. Without their contribution, the 2040 target risks becoming unattainable in a way that is fair, affordable, and geographically inclusive.

We therefore call on the European Commission to:

- Ensure consistency and clarity across legislation, so renewable liquid gases are fully recognised within existing categories of renewable fuels, avoiding contradictory definitions across RED, ETD, ETS II, and CO_2 standards;
- Apply the lifecycle emissions methodology used in the Renewable Energy Directive (RED) to CO_2 vehicle standards, to ensure renewable liquid gases are fairly recognised alongside electrification and other technologies;
- Ensure taxation and carbon pricing frameworks provide fair treatment for renewable fuels, rewarding their verified emissions reductions while maintaining zero-rating under ETS I and II to safeguard affordability—particularly for rural and off-grid households that already face higher energy costs;
- Provide predictable policy and establish a pragmatic mass balance and certification system, comparable to that applied in the natural gas sector, to unlock private investment and enable scaling of renewable liquid gases;
- Treat international carbon credits as strictly supplementary, limited to high-quality removals and used only for residual emissions, while prioritising the direct deployment of renewable solutions such as renewable liquid gases already available in Europe.
- With a supportive and coherent framework, renewable liquid gases can deliver immediate, deep, and fair decarbonisation, helping Europe achieve its 2040 climate target while safeguarding affordability, competitiveness, and inclusiveness across all regions.