

## Consultation Response – Citizens Energy Package: Protecting and Empowering Consumers in the Just Transition

Submitted by Liquid Gas Europe

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### Introduction

Liquid Gas Europe (LGE) strongly supports the goal of an inclusive energy transition that leaves no one behind, especially vulnerable households in rural and off-grid areas. With 137 million Europeans living in rural or remote areas it is vital that EU policies address the specific challenges they face – from higher rates of energy poverty to limited access to clean energy infrastructure.

In this response, we outline how renewable liquid gases (such as bioLPG and renewable DME (rDME)) can play a pivotal role in reducing energy poverty and delivering affordable decarbonisation for off-grid consumers. We also highlight the importance of a technology-neutral approach in EU energy policy – including the design of the new ETS II carbon market for buildings and transport – to ensure rural households and businesses have the freedom to choose cost-effective clean solutions that best meet their needs. Our comments are supported by recent data and evidence from the European Commission's Joint Research Centre (JRC), Eurostat, and other official sources, and we offer concrete policy recommendations to protect and empower consumers in the just transition.

### Energy Poverty in Rural Areas: A Critical Challenge

- Energy poverty remains a pressing issue across Europe, disproportionately affecting rural areas. According to the European Commission's JRC, "rural areas experience higher levels of energy poverty" than towns or cities. Around 48 million Europeans (10.6% of the EU population) were unable to keep their homes adequately warm in 2023<sup>1</sup>, and rural households spend on average about 7% of their total expenditure on energy, a higher burden than urban residents. Lower incomes in rural areas, combined with older, larger and less energy-efficient homes, contribute to this inequity. Indeed, in several Member States with above-average energy poverty (e.g. Bulgaria, Romania, Greece), rural communities are the most impacted, while cities are the least affected<sup>2</sup>.
- These findings underscore the need for targeted measures to protect vulnerable rural consumers. Eurostat data cited by Liquid Gas Europe shows that roughly 22.5% of people in rural areas are affected by energy poverty under various indicators<sup>3</sup>. High heating costs and inefficient heating systems are a major factor. Many rural households still rely on high-polluting, high-carbon fuels like heating oil or coal for lack of alternatives. It is notable that over a quarter of Germany's population lives in rural areas, and 25% of those rural homes use heating oil as their primary heating fuel<sup>4</sup> – a pattern mirrored in many European countries. If the EU's Just

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<sup>1</sup> [joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu)

<sup>2</sup> ([joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu))

<sup>3</sup> [liquidgaseurope.eu](https://liquidgaseurope.eu)

<sup>4</sup> [europeanbiogas.eu](https://europeanbiogas.eu)

Transition is to truly protect consumers, we must address this rural energy gap with solutions that reduce both emissions and energy bills.

- The JRC's analysis also highlights opportunities: rural areas have high potential for energy efficiency upgrades and renewables deployment, given the prevalence of home ownership and available space. In fact, rural Europeans have been investing in energy improvements at a faster rate than urban dwellers – 29% of rural households made energy efficiency renovations between 2018 and 2023, outpacing cities (23%). This spirit of proactive improvement should be supported through policies that empower consumers – for example, by providing financial incentives, technical assistance, and inclusive financing schemes for home renovations, efficient appliances, and renewable self-generation (such as rooftop solar, which could cover ~37% of an average rural home's energy needs). However, we must complement efficiency and electrification efforts with other clean energy options to ensure every household, regardless of location or income, can transition affordably <sup>5</sup>.

### **Renewable Liquid Gases: Delivering Affordable Decarbonisation for Off-Grid Consumers**

Renewable liquid gases like bioLPG (biopropane) and rDME are available, scalable solutions that can cut emissions in off-grid homes and businesses without sacrificing affordability or energy security<sup>6</sup> Liquid Gas Europe stresses that these fuels offer a “cost-effective decarbonization route for rural off-grid communities”, helping ensure no citizen is left behind in the transition<sup>7</sup>. We urge the Commission to fully recognize and leverage the benefits of renewable liquid gases in the Citizens Energy Package, as part of a technology-neutral strategy to tackle energy poverty and decarbonize heating.

1. “Drop-in” Replacement with Low Upfront Costs: A key advantage of bioLPG/rDME is that they can be used in existing LPG heating systems and supply chains. Millions of European homes are currently heated with LPG or fuel oil; these homes can switch to renewable molecules without needing costly new heating equipment or deep renovations. This is crucial for low-income households who cannot afford expensive retrofits. For example, conventional LPG boilers are 8–9 times cheaper to install than a ground-source heat pump system (liquidgaseurope.eu). Even more strikingly, an analysis by the European Commission found that gas boilers (compatible with renewable fuels) cost roughly only one-quarter of the upfront investment of a heat pump, making them far more affordable for families with limited disposable income. This affordability gap is significant – about 50% of EU citizens earn less per year (€18,200) than the cost of a typical heat pump installation (europeanbiogas.eu) – meaning that without accessible alternatives, half of Europeans would struggle to benefit from the energy transition. By allowing consumers to retain and repurpose their existing heating systems with cleaner fuels, renewable liquid gases directly address energy poverty concerns through lower upfront costs and immediate bill savings.
2. Concrete Savings and Emissions Reductions: Switching from oil or coal heating to LPG and bioLPG can deliver immediate improvements in both costs and emissions for off-grid consumers. For example, replacing an old heating oil boiler in a rural home with a modern

<sup>5</sup> (joint-research-centre.ec.europa.eu)

<sup>6</sup> liquidgaseurope.eu.

<sup>7</sup> liquidgaseurope.eu

bioLPG-ready boiler (plus basic insulation measures) can yield about €933 in annual energy cost savings for the homeowner, while cutting CO<sub>2</sub> emissions by roughly 63% (and up to 90% when running on 100% bioLPG)<sup>8</sup>. Such a retrofit also greatly improves local air quality – studies show 68% lower NO<sub>x</sub> emissions, and 66% less particulate matter compared to the old oil system. These co-benefits are vital for rural areas, where cleaner air means healthier communities (note that renewable liquid gases emit ~37% less fine particulate (PM<sub>2.5</sub>) than heating oil and 99% less than coal, helping prevent respiratory illnesses and thousands of premature deaths<sup>9</sup>. Even without full conversion to bioLPG, fossil LPG itself burns much cleaner than coal or oil – simply switching from oil to LPG can cut a building’s CO<sub>2</sub> emissions by ~25%, and from coal to LPG by ~50%, while NO<sub>x</sub> emissions drop 40–75% (theparliamentmagazine.eu). These are tangible gains in line with EU climate goals, achieved in a practical and timely manner for households that may not yet be able to afford a heat pump or deep retrofit.

3. **High Renewable Potential:** Renewable liquid gases are not a distant promise – they are already contributing to Europe’s energy transition. BioLPG (produced from sustainable biowaste, residues, or renewable energy via Power-to-X) is on the market in Europe, and its use is growing, providing up to 80–90% lifecycle greenhouse gas emission savings versus conventional LPG. Some bioLPG pathways even achieve net-negative emissions (over 100% GHG savings) by using certain waste feedstocks. Similarly, rDME (renewable dimethyl ether) can be made from biogenic sources or green methanol and offers 85% or more GHG reductions. Both fuels can be blended with or directly substitute LPG in applications like heating, cooking, and even transport, with no loss of performance. For instance, a French cosmetics factory fully switched from LPG to bioLPG with “a simple transition... no impact on performance”, enabling the site to reach carbon neutrality<sup>10</sup>. The scaling up of renewable liquid gas production is underway, but supportive policy frameworks are needed to accelerate it – including recognition under the Renewable Energy Directive targets, access to innovation funds and guarantees of origin, and incentives to drive demand. By supporting the expansion of bioLPG and rDME, the EU can ensure that rural consumers have a growing supply of affordable green fuels to displace the remaining oil and coal in off-grid areas and as an alternative to electrification with deep renovation.
4. **Compatibility with Hybrid Systems and Energy Communities:** Renewable liquid gases also complement other clean energy solutions, enabling a holistic approach to rural decarbonization. They can be integrated into hybrid heating systems – for example, pairing a heat pump or solar thermal unit with an LPG/bioLPG boiler for peak demand. This kind of “mixed technology” approach can deliver deep emissions cuts while ensuring reliability during cold spells or peak hours<sup>11</sup>. LPG is easily stored and transported, which means it can provide flexible backup fuel for villages with micro-grids or community energy projects. Indeed, LPG can

<sup>8</sup> (<https://www.europeanbiogas.eu/wp-content/uploads/2022/10/STRATEGIC-ROLE-OF-OFF-GRID-RENEWABLE-GASES.pdf#:~:text=distribution%20requirements,many%20the%20higher%20costs%20are>)

<sup>9</sup> europeanbiogas.eu

<sup>10</sup> europeanbiogas.eu

<sup>11</sup> theparliamentmagazine.eu

partner with local renewables like solar to form resilient off-grid energy systems<sup>12</sup>. We encourage the Commission to consider the role of energy communities in rural areas – for instance, a cooperative could install solar panels for daytime power and use bioLPG in a combined heat-power unit or district heating for night/back-up. Such integrated solutions improve energy independence and security and empower consumers to become active participants in the transition. Importantly, fuel switching to LPG/bioLPG is an immediate “low-hanging fruit” to start cutting emissions and pollution in rural businesses and homes<sup>13</sup>, buying time for deeper efficiency upgrades to be rolled out in an affordable manner. Flexibility and choice are thus essential: every consumer and community should be able to choose the mix of technologies (be it insulation, heat pumps, solar, clean gases, biomass, etc.) that best suits their circumstances.

### **The Impact of ETS II on Rural Consumers and the Need for Fair, Technology-Neutral Policy**

- Liquid Gas Europe supports the EU’s climate objectives, including the new Emissions Trading System for buildings and road transport (ETS II) set to start in 2027. Carbon pricing can be an efficient tool to drive down emissions. However, it is paramount that ETS II be implemented in a socially fair way, with full consideration of its impact on vulnerable households and small businesses. Because suppliers will pass on the new carbon costs to end-users, heating and transport fuels are expected to rise in price, potentially burdening rural and low-income consumers disproportionately. Households in off-grid areas often depend on fuels like heating oil, coal, or LPG for heating – they risk facing higher bills from ETS II without the immediate means to reduce consumption (e.g. due to lack of access or funds for alternatives). In public discourse, there is understandable concern that ETS II could aggravate energy poverty if not coupled with robust safeguards<sup>14</sup>.
- Recognition of the use of mass balance to facilitate the transition to renewable liquid gases (rLGs): Ensure that the mass balance chain-of-custody method is formally recognized to account for renewable content in fuels, enabling the gradual integration of rLGs into existing LPG supply chains and supporting compliance with ETS II.
- We urge Member States to adopt a cautious, consumer-centric approach in rolling out ETS II, aligned with the principle of a just transition. Concretely, Liquid Gas Europe recommends:
- Thorough Impact Assessments and Mitigation Plans: Before ETS II fully impacts private heating fuel prices, conduct detailed assessments of the expected cost burden on different consumer groups (especially rural, low-income, and elderly households). Use these findings to calibrate the policy – for example, by phasing in the carbon price gradually and capping the price in initial years to prevent price shocks on heating fuel for households. The Commission and Member States should also trigger mitigation measures if price surges occur. As part of this, we welcome the establishment of the Social Climate Fund (SCF) – a €65 billion fund earmarked to help vulnerable Europeans absorb the costs of ETS II<sup>15</sup>. We stress that SCF resources must be deployed efficiently and reach those most in need. It should prioritize support for rural low-

<sup>12</sup> [liquidgaseurope.eu](https://liquidgaseurope.eu)

<sup>13</sup> [theparliamentmagazine.eu](https://theparliamentmagazine.eu)

<sup>14</sup> [bruegel.org](https://bruegel.org)

<sup>15</sup> [bruegel.org](https://bruegel.org)

income households (who often are hard to reach via traditional social programs), including through direct income support, heating vouchers, or subsidies for cleaner heating system upgrades. Member States' Social Climate Plans (due by end of June 2025) should explicitly address the rural dimension of energy poverty and heating costs, ensuring that communities facing the highest burdens receive commensurate support.

- **Energy Taxation Reforms to Protect Vulnerable Consumers:** LGE advocates aligning the Energy Taxation Directive with climate goals in a way that keeps energy affordable for those who need it most. Specifically, taxation should be lower on the most efficient, low-carbon fuels to create positive price signals. This principle – taxing fuels relative to their emissions – can complement ETS II and prevent double burdens. We recommend that Member States be given flexibility to provide targeted tax reductions or exemptions for heating fuels used in rural households and micro-businesses, at least during the transition period. The revised taxation framework should allow such rural heating derogations to avoid exacerbating energy poverty in areas where 22.5% of people are already affected. Ensuring “the most energy-efficient fuels are less highly taxed” will help keep cleaner alternatives like LPG and bioLPG accessible and affordable for all ([liquidgaseurope.eu](http://liquidgaseurope.eu)), while still incentivizing a switch away from dirtier fuels. It is crucial that taxation and ETS pricing work hand-in-hand to reward lower-carbon choices rather than simply making all forms of energy more expensive for vulnerable groups.
- **Technology-Neutral Decarbonization Framework:** Liquid Gas Europe strongly supports a technology-neutral approach across all relevant policies (Energy Performance of Buildings Directive, Renewable Energy Directive, Ecodesign, etc.). No single solution can fit every consumer – for instance, expecting an old rural cottage and a modern urban apartment to use the same heating technology is unrealistic and inefficient. We must accommodate diverse pathways to decarbonization. In practice, this means recognizing the contributions of sustainable fuels alongside electrification. Policymakers should avoid one-size-fits-all mandates that de facto exclude off-grid consumers from affordable options. For example, while electric heat pumps are an excellent solution in many cases, they may not be immediately viable for a low-income family in a farmhouse with poor insulation and limited electrical capacity. That family should have the option to switch from oil to a bioLPG boiler as an interim step, cutting emissions now, rather than being forced into a prohibitively expensive renovation or left stuck with their old furnace. A technology-neutral approach would also ensure that renewable liquid gases count toward EU renewable energy targets in heating (under RED III) and are eligible for any support schemes for clean heating upgrades. It will “ensure a level playing field for heating fuels”, spurring competition and innovation across all low-carbon solutions<sup>16</sup>. In summary, we call on the Commission to explicitly acknowledge in the Citizens Energy Package that the just transition will require multiple technologies working in tandem – from improved efficiency and electrification to cleaner gases, sustainable bioenergy and heat networks – and that consumers and communities should be empowered to choose the most suitable mix.
- **Monitoring and Adjusting ETS II:** As ETS II comes into force, continuous monitoring is essential. We propose establishing a review mechanism to assess its socioeconomic impacts year by year. If rural fuel poverty worsens or if emission reductions are not materializing due to slow turnover of heating systems, the Commission should be ready to adjust the policy. This could involve

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<sup>16</sup> [liquidgaseurope.eu](http://liquidgaseurope.eu)

recycling more ETS revenue into direct support, temporarily lowering other charges (grid fees, VAT) on heating fuels, or providing additional free allowances specifically to suppliers serving vulnerable populations (with the requirement that they pass on the benefit). Full cooperation between industry and the Commission will be needed to implement ETS II in a “fair and fruitful way”<sup>17</sup> – LGE and its members stand ready to work constructively on solutions such as carbon-aware customer outreach, facilitation of fuel switching, and innovative financing (e.g. on-bill financing for new equipment, using carbon revenues).

### Empowering Consumers and Communities in the Transition

- To truly protect and empower consumers, the Citizens Energy Package should blend ambitious climate action with pragmatic support mechanisms that reflect consumers’ realities. We wish to highlight additional policy considerations that will help ensure energy justice and consumer engagement, particularly for those in remote areas:
- Consumer Awareness and Information: Many rural consumers are not fully aware of the new options available to them – whether it’s financial help for renovations or the existence of renewable fuels like bioLPG. The EU and national authorities should invest in outreach campaigns and one-stop-shop advisory services tailored for rural areas. These should provide neutral guidance on how households can save energy (efficiency tips), access support funds, or switch to cleaner heating. Empowered with the right information, consumers can make choices that lower their bills and carbon footprint. We also suggest supporting community initiatives (like local demonstration projects of hybrid renewable heating, or cooperatives that bulk-purchase bioLPG for a village to get better prices). Sharing success stories and best practices – for example, how a certain region significantly cut home heating costs and emissions using mixed solutions – can inspire others to act.
- Energy Communities and Micro-Generation: The Citizens Energy Package should reinforce provisions that make it easier for citizens to generate their own energy or cooperate in communities. While this often focuses on solar panels or wind in collective projects, renewable gases can also play a role. We recommend facilitating small-scale biogas or bioLPG production projects in rural areas (e.g. farmers producing biogas that is then turned into bioLPG for local use). Support schemes and technical assistance for “prosumers” should be inclusive of all viable renewable energy carriers. A biogas cooperative that upgrades biogas to bioLPG or injects biomethane into a local micro-grid can be an innovative model to explore, marrying circular economy principles (using local waste/resources) with consumer empowerment. Furthermore, simplifying permitting and standards for hybrid systems (such as combined solar and LPG micro-cogeneration for a cluster of buildings) could unlock new community-driven solutions. The Rural Observatory and the EU long-term rural vision already call for boosting local renewables and reducing energy poverty in rural territories<sup>18</sup> – the Citizens Energy Package is an opportunity to put those principles into action with concrete support for on-the-ground projects.
- Protecting Consumers from Unfair Costs: During the transition, it is important to shield consumers from any unfair or excessive costs. This includes preventing penalising bans or

<sup>17</sup> [liquidgaseurope.eu](https://liquidgaseurope.eu)

<sup>18</sup> [joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu)



restrictions that would force households into expensive changes without support. For instance, proposals in some jurisdictions to ban all new combustion boilers by a certain date must be paired with viable alternatives and financial aid; otherwise they risk penalising law-abiding citizens who cannot afford a heat pump outright. Instead of outright bans, a preferable approach is to set performance-based standards (e.g. emissions or efficiency standards for heating systems) and allow multiple ways to comply – including using certified renewable fuels in adapted boilers. Likewise, consumer protection means ensuring that the energy market remains competitive and transparent. Off-grid energy consumers (like those buying LPG in cylinders or tanks) should benefit from clear price information and competition. The EU could consider measures to enhance price transparency in delivered fuels and encourage group purchasing schemes or social tariffs for low-income off-grid consumers. Regulators and consumer bodies should also keep a close eye on the pass-through of ETS II costs – ensuring that companies do not use carbon pricing as a cover to unfairly increase margins on customers. An empowered consumer is one who has both the knowledge and the market power to make choices in their best interest.

#### Policy Recommendations

- In summary, Liquid Gas Europe calls on the Commission to incorporate the following recommendations into the Citizens Energy Package and related policies, to safeguard consumers and promote an inclusive, affordable transition:
  1. **Acknowledge and Address Rural Energy Poverty:** Recognize the specific needs of rural and off-grid consumers in all measures. Set EU-level targets or indicators for reducing energy poverty in rural areas (building on the JRC's new energy poverty index<sup>19</sup> and require Member States to tailor their alleviation strategies to these communities. Ensure funding (e.g. under the Social Climate Fund and structural funds) is proportionately directed to rural areas, where energy poverty rates are highest.
  2. **Leverage Renewable Liquid Gases as Part of the Solution:** Endorse a technology-neutral approach that includes sustainable liquid gases (bioLPG, rDME) as approved solutions for clean heating and cooking in the revised EU framework. This includes counting their use toward renewable energy targets, and encouraging Member States to integrate renewable gas options in building renovation programs and heating incentives. Support the scaling up of renewable gas production through research, innovation funding, and removing regulatory barriers (for example, facilitate cross-border trade of bioLPG with an EU-wide Guarantee of Origin system). By unlocking supply and encouraging demand for these fuels, the EU can drive down costs and increase availability for consumers who need them.
  3. **Make Climate Policies Fair and Gradual for Consumers:** Implement ETS II for buildings and transport in a carefully calibrated way. Set up a mechanism to monitor price impacts on consumers and allow adjustment (such as temporary rebates or releasing additional allowances to stabilize prices if needed) to prevent hardship. Use ETS II revenues to strengthen social support: the Social Climate Fund should be operationalized swiftly and target measures like instant rebates for low-income households' energy bills, grants for switching to cleaner heating systems (including bioLPG boilers or hybrid heat pump systems), and community energy

<sup>19</sup> [joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu)

projects in poor regions. In revising energy taxation, apply the principle that cleaner = cheaper: lower excise duties for low-carbon fuels (like bioLPG blends) and consider zero-rating sustainable heating fuels for vulnerable households. Allow Member States to exempt or reduce taxes on heating fuel for households at risk of energy poverty ([liquidgaseurope.eu](https://liquidgaseurope.eu)), especially in remote areas, as a transitional measure.

4. **Protect Consumer Choice and Empowerment:** Ensure that regulations like the Energy Performance of Buildings Directive (EPBD) and Ecodesign facilitate multiple pathways to decarbonisation. Avoid mandates that would, in effect, outlaw affordable interim solutions. Instead, promote performance standards and inclusive incentives. For instance, rather than mandating one technology, set emission reduction goals for heating systems – if a rural homeowner meets the target by switching to bioLPG or a hybrid system, that should be counted as a success just as much as installing a heat pump. Empower consumers by providing transparent information on the carbon intensity of various heating options (through energy labels or certificates for heating systems/fuels), so they can make informed decisions. Enhance support for energy communities and collective actions that allow citizens to team up for better pricing or to invest jointly in clean energy. Finally, strengthen the role of consumer protection agencies and ombudspersons in the energy sector to handle complaints and ensure energy is supplied to all consumers on fair, reasonable terms during the transition.
- **Continuous Stakeholder Engagement:** Establish a formal dialogue under the Citizens Energy Package to continue gathering input from consumer groups, rural representatives, and industry on the implementation of these policies. Liquid Gas Europe and its members are committed to working constructively with EU and national authorities. We specifically offer our expertise to help design effective schemes for fuel switching in off-grid areas, public awareness campaigns on clean heating, and data-sharing on market trends to inform policy. Ongoing engagement will help fine-tune measures to real-world conditions and build broad support for the transition.

## Conclusion

- Liquid Gas Europe appreciates the Commission's focus on protecting and empowering consumers as we advance towards climate neutrality. The energy transition must be socially balanced: policies should cut emissions at the pace required by our climate goals, yet also ensure that energy remains accessible and affordable, and that all Europeans see tangible benefits in their daily lives – cleaner air, warmer homes, and lower bills. By acknowledging the unique challenges of rural and off-grid communities and by embracing a diverse set of solutions – including renewable liquid gases – the Citizens Energy Package can truly make the Just Transition a reality for millions of citizens.
- We urge the European Commission to adopt an integrated approach that combines ambition with pragmatism. This means coupling carbon pricing and efficiency targets with targeted consumer protections and support, and letting every proven technology contribute its best towards our common objectives. Renewable liquid gases are ready to play their part in ending energy poverty and delivering affordable decarbonization for Europe's off-grid households and businesses<sup>20</sup>. With the right policy framework, we can ensure that the transition to a green

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<sup>20</sup> [liquidgaseurope.eu](https://liquidgaseurope.eu)



economy not only achieves emissions reductions, but also improves quality of life for consumers – from inner cities to the most remote villages. Liquid Gas Europe stands ready to support policymakers in this endeavor, helping to craft measures that keep all European citizens warm, empowered, and included on the path to 2050.

## Summary of the consultation response

Liquid Gas Europe (LGE), representing the European liquefied gas sector, welcomes the European Commission's Citizens Energy Package initiative. We strongly support a just and inclusive energy transition, particularly for rural and off-grid communities, which often face higher energy poverty and limited access to clean energy solutions. With over 137 million EU citizens living in rural areas, tailored policies are essential to ensure no one is left behind.

Rural households tend to spend more on energy, rely on high-carbon fuels, and live in older, less efficient homes. According to data from the European Commission and Eurostat, rural areas are disproportionately affected by energy poverty. At the same time, they show strong potential: between 2018 and 2023, 29% of rural households made energy upgrades—more than their urban counterparts. This demonstrates that, with the right support, rural consumers are ready to engage in the transition. Policies must provide financial incentives and ensure access to a broad range of clean energy options.

Renewable liquid gases (rLGs), such as bioLPG and renewable DME (rDME), present immediate, cost-effective, and scalable solutions for decarbonising off-grid buildings. These fuels are “drop-in” compatible with existing LPG infrastructure, avoiding the need for costly equipment replacements—a critical advantage for low-income households. For example, switching from heating oil to a bioLPG-ready system can lead to annual savings of up to €933 and reduce CO<sub>2</sub> emissions by as much as 90%.

Beyond emissions reduction, rLGs contribute to better air quality by lowering NO<sub>x</sub> and particulate emissions. They are already commercially available across Europe and can be scaled up rapidly with the right policy framework. Support measures such as recognition under the Renewable Energy Directive (RED), the establishment of Guarantees of Origin, and incentives for production and use will be key to accelerating their deployment and phasing out coal and oil in rural homes.

While LGE supports the introduction of the Emissions Trading System for buildings and transport (ETS II), we underline the importance of protecting vulnerable consumers. If not properly designed, ETS II could place an undue burden on rural and low-income households. To avoid this, implementation should be preceded by impact assessments and accompanied by gradual price increases, caps to prevent sudden cost spikes, and efficient use of the Social Climate Fund (SCF), with a focus on rural and low-income beneficiaries. Tax reforms should reflect carbon content, favouring low-carbon options, and Member States should have flexibility to exempt vulnerable groups during the transition.

A one-size-fits-all approach will not deliver a fair transition. Decarbonization policies must reflect the diversity of Europe's building stock and allow for a mix of low-carbon technologies. Electrification is not always technically or economically feasible in rural areas. Initiatives such as the Energy Performance of Buildings Directive (EPBD) and RED III should enable all efficient, low-carbon solutions—whether renewable gases, hybrid systems, or sustainable biomass. Consumers must have the freedom to choose the technologies that best meet their needs and financial capacities.

To ensure real citizen empowerment, access to clear information and advisory services should be strengthened, particularly in rural regions. Community energy models, such as solar panels combined with LPG systems or the local production of upgraded biogas into bioLPG, offer promising avenues. Supporting micro-generation, demonstration projects, and collective purchasing schemes can further accelerate the uptake of clean technologies. Transparency and consumer protection, especially regarding fuel pricing and ETS pass-through, must also be guaranteed.

In summary, the Citizens Energy Package must combine ambition with practicality, aiming to reduce emissions while improving affordability and living conditions. Renewable liquid gases offer a viable, already-available solution to cut emissions and energy poverty in rural areas. With the right policy support, they can play a central role in a transition that includes and empowers all citizens, both urban and rural.

Liquid Gas Europe remains committed to working with EU institutions to deliver a fair, inclusive, and effective energy transition.