LPG and renewable fuels can help reach the EU's climate and energy goals

Position on the Proposal for the revision of CO2 Standards for Cars and Vans Regulation

The European LPG industry is fully committed to reaching carbon neutrality in road transport by 2050 at the latest. LPG is the number one alternative fuel in Europe and with its clean burning properties, it has provided more environmental benefits to date than any other alternative fuel. On a well-to-wheel basis, LPG's carbon footprint is up to 23%[1] lower compared to petrol and has been observed to emits significantly less carbon dioxide (CO2) and particulates compared to gasoline and lower oxides of nitrogen (NOx) and particulates compared to diesel[2].

Now and beyond 2030, LPG can be readily replaced with its defossilised version bioLPG or be increasingly blended with renewable DME (rDME). BioLPG is produced from renewable and organic feedstocks and can reduce LPG's carbon footprint by up to 80%, depending on the feedstock used. Chemically identical to conventional LPG, it carries the same emissions properties, significantly contributing to better air quality. BioLPG can be blended at any rate with LPG and still be used in existing infrastructure. It means that distributors and consumers do not need to change or upgrade their equipment to switch to a renewable alternative energy solution. Similarly, rDME is a gaseous fuel produced from a wide range of renewable feedstock, including waste streams and residues. Chemically similar to LPG, it can be blended with LPG up to 20% and used in existing vehicles[3].

The proposal for the revision of the CO2 Standards for Cars and Vans presents a crucial opportunity to ensure a technologically neutral approach in road transport and ensure all viable technologies, including LPG, bioLPG and rDME, can play a role in affordably decarbonising EU's transport sector. We believe the inclusion of a crediting system for renewable fuels would mitigate such limitations of the revised CO2 Standards Regulation.

Liquid Gas Europe calls on EU policymakers to take the following legislative recommendations into account:

1. **Respect the principle of technological neutrality** and allow LPG and renewable fuels to play their role in decarbonising the transport sector.
2. **Introduce measures to incentivise the uptake of renewable fuels** in road transport.
3. **Consider the social aspects of the energy transition and ensure "no one is left behind"** by retaining access to affordable mobility and the capability of LPG, together with its defossilised variants to progressively decarbonise the legacy vehicle fleet.
4. **Ensure consistency across legislation** to promote and develop alternative fuels in Europe.

[1] LPG's Carbon Footprint Relative to Other Fuels. (2019). Atlantic Consulting

[2] Ryskamp R. (2017). Emissions and Performance of Liquefied Petroleum Gas as a Transportation Fuel: A Review.

[3] https://www.aboutdme.org/aboutdme/files/cclibraryfiles/filename/000000004184/rDME_Fact_Sheet_Transport.pdf

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1. **Respect the principle of technological neutrality** and allow LPG and renewable fuels to play their role in decarbonising the transport sector.

Liquid Gas Europe believes that the proposed revised regulation on CO2 Standards for Cars and Vans is a missed opportunity to establish the principle of technological neutrality and to recognise the role of low carbon and renewable fuels in decarbonising the transport sector. The Commission's decision to introduce a 2035 target of zero tailpipe emissions is a *de facto* ban on the sales of any internal combustion engine (ICE) vehicles, regardless of the overall emissions profile of the vehicle. By focusing solely on tailpipe emissions (Tank-To-Wheel), the CO2 standards misleadingly label battery electric and fuel cell vehicles as 'zero emission', distorts competition and contradicts the principle of technological neutrality. More importantly, it completely ignores the life cycle carbon impacts of electric vehicles and the life cycle carbon benefits of renewable fuelled vehicles.

LPG as a transport fuel has a significant role to play in delivering on the EU's decarbonisation and air quality objectives, both from the new and the existing fleet, which can be retrofitted to run on LPG. Beyond 2030, replacing conventional LPG with bioLPG and blending it with rDME has the potential to additionally lower its carbon footprint. However, the environmental benefits of such renewable fuels can only be fully delivered if their market share reaches a critical mass and are spread across all transport segments. Because such fuels are at different stages of market penetration, and many pathways need a strong commitment from the industry to start investing in their production, the role of CO2 Standards for Cars and Vans should be to support a spectrum of solutions available to decarbonise road transport. Therefore, **industrial investments in low carbon and renewable fuels shall be supported with clear political messages that encourage the use of all the possible solutions valuable for achieving the final target.**

To address this situation and allow LPG and renewable fuels such as BioLPG and rDME to help to decarbonise the transport sector now and beyond 2035, we urge the policy makers to swiftly move beyond the Tank-to-Wheel approach and **to consider emissions on a Well-to-Wheel basis, with gradually moving to a Life Cycle Assessment (LCA) approach in EU vehicle legislation.**

2. **Introduce measures to incentivise the uptake of renewable fuels** in road transport.

To meet the 2050 climate-neutrality goal, Liquid Gas Europe believes that Europe and its consumers need a holistic plan where low carbon and renewable fuels, electrification and hydrogen in road transport sit side by side. It is therefore important to consider LPG in the context of renewable fuels such as bioLPG and rDME, which could complement the EU's efforts to zero-emission mobility.

Liquid Gas Europe is therefore concerned over the lack of recognition of such low carbon and renewable fuels in the proposal for CO2 Standards for Cars and Vans Regulation as an option to decarbonise the EU's transport sector. Under the current proposal, mainly the electric vehicles are encouraged as the emission standards favour their technical characteristics. It is necessary for the EU to recognise the barriers to the market uptake of low-emission vehicles, namely those running on renewable fuels.

To demonstrate the investments in certain technologies, such as BioLPG and rDME, and their contribution beyond tailpipe benefit, the vehicles manufacturers should have access to the CO2 credits generated by the sustainable renewable fuels consumed by the vehicle. **A complementary tool is needed and**

therefore, a crediting mechanism[4] and the acknowledgement of beyond tailpipe benefit should lead to a 'net-zero' life-cycle emission vehicle labelling, equivalent to the current 'zero' level recognized to EVs. Installing a mechanism within the Regulation that would reward the use of sustainable fuels would not halt the development of zero-emission vehicles but would encourage collaboration between the vehicle manufacturers and sustainable fuels producers, contributing to faster sector decarbonisation.

3. **Consider the social aspects of the energy transition and ensure "no one is left behind"** by retaining access to affordable mobility and the capability of bioLPG and rDME to progressively decarbonise the legacy vehicle fleet.

The scale of the effort required by the 2050 decarbonisation objective is not the same for all 27 EU Member States. Indeed, millions of EU citizens and businesses, especially in many Central, Eastern and Southern EU Countries rely on older, inexpensive and often second-hand vehicles. With technological alternatives out of their reach, these EU citizens will be left behind during the transition and more significantly, low-income families will find it harder to preserve their fundamental mobility rights. Reducing pollutant emissions while enabling access to affordable mobility are key advantages of LPG and cannot be overlooked.

With over 8 million vehicles[5] running on LPG in the EU, either through new car purchases or retrofits of existing cars, LPG is already clearly consumer oriented and has provided more environmental benefits to date than any other alternative fuel. Beyond 2030, LPG can be replaced with its defossilised version bioLPG or be increasingly blended with rDME, demonstrating the ability of such renewable fuels to further decarbonise the existing LPG vehicles fleet and ensure "no-one is left behind".

At the same time, de-fossilising the legacy fleet of existing vehicles is critical to achieving climate targets as they will dominate the CO2 emissions of European traffic in the upcoming years[6]. There are almost 180 million petrol vehicles in use in the EU[7], which could be retrofitted to LPG. **Retrofitting of existing petrol vehicles to LPG and further replacing and blending with BioLPG and rDME could contribute to CO2 reduction on a Well-to-Wheel and Tank-to-Wheel basis significantly to achieve the climate targets.**

Liquid Gas Europe urges the EU Institutions to revise the proposal with the above-mentioned recommendation and work out an enabling regulatory framework that values and supports all technologies. **By supporting fuels with a track record of success, such as LPG, and incentivising the uptake of renewable fuels such as BioLPG and rDME, we help the most vulnerable citizens to keep their fundamental mobility rights while decreasing their mobility carbon footprint.**

4. **Ensure consistency across legislation** to promote and develop alternative fuels in Europe.

To ensure rapid uptake of renewable fuels in the EU market across all sectors, including bioLPG and rDME, it is important to send a consistent market signal. This can only be achieved if incentives are consistent

[4] Crediting system for low-carbon fuels. Critical review of the European Commission's Impact Assessment. (2021) Frontier Economics.

[5] Statistical Review of Global LPG. (2020). WLPGA/Argus. Largest markets for LPG in transport are Italy (2,5 million vehicles), Poland (3,2 million vehicles) and Germany 370 000 vehicles). Data refers to vehicles in circulation in 2019.

[6] Future fuels: FVV Fuels Study IV. (2021). Frontier Economics. FVV Funds.

[7] Data refers to 2015. Vehicles in use in Europe 2017. (2017). European Automobile Manufacturers Associations.

across legislative files, especially those part of the Fit for 55 Package. If the Renewable Energy Directive supports the uptake of renewable and low carbon fuels, CO2 Standards legislation must do the same.

CO2 Standards for Cars and Vans Regulation should be revised to incentivise the uptake of renewable fuels, consistently with the Alternative Fuels Infrastructure Regulation, which includes renewable fuels in the definition of alternative fuels. Similarly, the Renewable Energy Directive incentivises the uptake of renewable fuels while the Energy taxation Directive provides a favourable tax incentive for the use of renewable fuels.

A stable policy environment is essential to scale up renewable and low carbon fuels production and use, which can immediately reduce GHG emissions from vehicles across the transport segment.

About us:

Liquid Gas Europe is the authoritative voice for the European Liquefied Petroleum Gas (LPG) industry and is composed of national LPG associations, main European LPG suppliers, distributors and equipment manufacturers. With the support of its Taskforces of industry experts, Liquid Gas Europe is actively involved in concrete initiatives and programmes to ensure the sustainable, safe and efficient development of LPG in Europe.

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