Bright Blue Call for Evidence: Maturing the Market for ULEVs

Liquid Gas UK submission
August 2020

About us

Liquid Gas UK is the trade association for the Liquefied Petroleum Gas (LPG) and biopropane (bioLPG) industry in the UK, representing companies who are LPG producers, distributors, equipment and service providers, and vehicle convertors. It is dedicated to the safe and effective development of LPG. Member companies cover 99% of the total LPG distributed in the UK. Our members have a collective turnover of £1bn and together plan to invest around £600m in the next 5 years.

Executive summary

- Liquid Gas UK welcomes the opportunity to respond to Bright Blue's Call for Evidence.
- Liquid Gas UK advocates a mixed technology approach to decarbonisation, whether for domestic heating, industrial processing or transport.
- Liquid Gas UK believes Government should actively promote LPG to taxis and PHVs, in addition to electric vehicles.

Introduction to LPG and bioLPG

As a key component of the UK's energy mix, LPG is a popular choice for heating homes and businesses in areas not connected to the gas grid, predominantly in rural locations[1]. LPG is the lowest carbon conventional fuel source available to homes and businesses off the grid. LPG is also used by vehicles as an alternative to petrol or diesel; is it used by over 120,000 motorists in the UK and available in over 1,000 UK-wide refuelling stations.

As LPG emits more than 33% fewer carbon emissions than coal and 15-20% fewer carbon emissions than oil[2], LPG is a transitional solution in its own right. It emits virtually no NOx, SOx and Particulate Matter, enabling immediate air quality improvements.

LPG is a gaseous fuel, but it is stored under pressure that turns it into a liquid. This makes it very easy to transport and to store, another advantage over other fuel options. The fuel has therefore been used widely by homes and businesses who value its flexibility and ease of use, from heating buildings to agricultural processes, and even fuelling forklift trucks and street food vendors. The list of applications and processes which LPG and bioLPG can power is endless.[3]

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[1] LPG and bioLPG can be used for space heating, hot water, cooking and process heating
[2] UKLPG, Response to A Future Framework for Heat in Buildings (June 2018)
[3] World LPG Association, 'The role of LPG and bioLPG in Europe (2019). www.wlpga.org/wp-content/uploads/2019/09/The-Role-of-LPG-Bio-LPG-in-Europe-2019-Report.pdf.

It is the industry's ambition to offer 100% renewable energy solutions by 2040.[4] BioLPG, alternatively known as biopropane, is a **versatile, 'drop-in' renewable solution which can provide up to 90% emissions reduction** compared to fossil based LPG.[5] Already available on the market today, bioLPG is chemically indistinct from LPG and can be used as it is, just like conventional LPG. This means it can be 'dropped-in' to existing supply chains and used by consumers in their existing heating appliances, stored in existing bulk tanks and cylinders, and transported using today's infrastructure and skilled workforce.

What are the policy recommendations that would help mature the ULEV market?

Liquid Gas UK advocates a mixed technology approach to decarbonisation, whether for domestic heating, industrial processing or transport. LPG, often termed 'autogas' is currently used to fuel a variety of vehicles in the UK, predominantly in cars, taxis and vans, which are served by an existing network of over 1,100 fuelling sites. Across Europe it is one of the most widely used alternative fuels.

LPG vehicles have far lower emissions of NOx (80% fewer) and PM (99% fewer) than diesel[6], and far lower emissions of CO_2 (21-23% fewer) than petrol. One diesel vehicle emits the same quantities of NOx as over 20 LPG vehicles, and PM emissions from LPG vehicles on an urban cycle are so low that they are below reliably measurable levels.[7]

In larger towns and cities in particular, it makes sense to encourage a shift in low carbon publicly available transport, and to incentivise taxi and private hire vehicle operators to move to alternative that bring air pollution right down. **Liquid Gas UK believes Government should actively promote LPG to taxis and PHVs, in addition to electric vehicles.**

As a transport fuel with lower NOx and PM emissions than diesel and lower CO_2 emissions than petrol, LPG is perfectly placed to support cities and towns across the UK, while other solutions, such as EVs find their feet. Presently, is it used by over 120,000 motorists in the UK and available in over 1,100 UK-wide refuelling stations.

On the basis of LPG's lower NOx and PM emissions, a number of UK city administrations (London, Leeds, Birmingham, Edinburgh, Aberdeen, Dundee and Glasgow currently) are offering publicly funded rebates whereby taxi drivers are encouraged to convert their diesel taxis to run on LPG, since the costs are far lower than buying a new electric vehicle. As such, this offers drivers a choice depending on how new their current vehicle is, how long they plan on working as a taxi driver for, their driving preference, available refuelling points, available funds and earning potential.

If you would like to discuss this response further, please do not hesitate to get in touch with Sophia Haywood, Director of Public Affairs at Liquid Gas UK on sophia.haywood@liquidgasuk.org

[4] Liquid Gas UK, 2040 Vision (July 2019)
[5] NNFCC, Biopropane: Feedstocks, Feasibility & our Future Pathway (2019)
[6] Independent testing, undertaken by Millbrook, commissioned by Autogas Ltd found that repowered LPG taxis emitted 99% less particulate matter and 80% less NOx.
[7] Liquid Gas Europe, an LPG Industry Roadmap (2013), page 8.