

BioLPG

A Renewable Pathway Towards Climate Neutrality

Liquid Gas
Europe

LPG – The Smart
Alternative,
Everywhere
You Need It



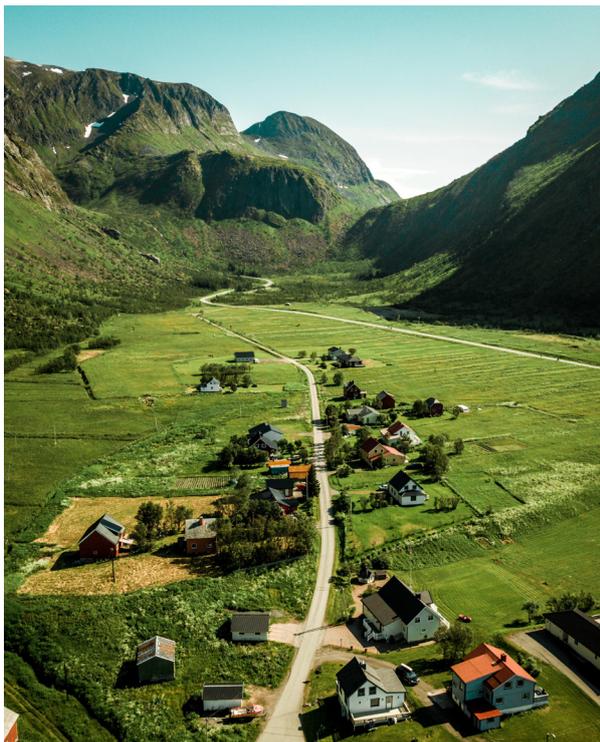
BioLPG is a viable solution to address the urgent climate crisis.

If we want the Green Deal to become a reality, we need to have the proper legislative landscape in place to enable the energy transition.

WHAT IS BIOLPG?

BioLPG is commonly used to describe **propane and butane produced from biological sources** or renewable electricity and CO₂. Launched in 2018, it is **available on the European market** in small, but growing quantities.

Most bioLPG today is a co-product of the **hydrogenated vegetable oil (HVO) process**, whereby vegetable oils are treated with hydrogen. There are several other promising technologies to produce bioLPG, but they are still under development. To further develop the technologies and scale up the production, **a stable and attractive investment climate is needed.**



WHAT ARE THE BENEFITS?

BioLPG is a clean-burning, versatile and resource-efficient gaseous fuel, which can help decarbonise a variety of sectors including transport, industry and heating. It is therefore perfectly placed to **immediately help reach Europe's climate goals**, especially in rural areas and road transport.

BioLPG is **identical in use and performance to conventional LPG** and can **lower its carbon footprint up to 80%** depending on the feedstocks used.

ROAD TRANSPORT



RESIDENTIAL HEATING, INDUSTRIAL POWER & HEAT GENERATION



**Improving
air quality
with LPG**

LPG cars have almost no pollutant emissions. They emit **98% less NOx than diesel cars and 90% less PM than gasoline cars** in real driving conditions*

Boilers using LPG emit **80-99% less PM and 50-75% less NOx** than solid and liquid fuels boilers (such as coal, heating oil, peat)



**Reducing
carbon
emissions
with LPG**

LPG well-to-wheel** carbon intensity as in the Fuel Quality Directive is also significantly lower than **diesel (-23%) and petrol (-21%)**

LPG is a lower carbon alternative to liquid and solid fuels for combustion purposes. Switching from an oil or coal boiler to an LPG one can reduce emissions respectively by **25% and 50%**

* Liquid Gas Europe (2016), Measuring emission performance of autogas cars in real driving conditions.

** A Well-to-Wheel analysis includes all emissions related to the entire process of energy flow, from fuel production, transport and distribution, to its end-use.



CHALLENGES & RECOMMENDATIONS

The European Union has set ambitious targets on the road to carbon neutrality. But for these climate goals to become a reality, we need the right policy landscape in place:

BioLPG should be recognised within the European policy framework.

- ▶ Given its variety of production pathways, feedstocks and applications, the lack of an explicit recognition in the Renewable Energy Directive (RED) proposal results in bioLPG being often overlooked in national transpositions. **Therefore, Liquid Gas Europe calls for all bioLPG variants included in the Annexes of the Directive.**

European and national policies should offer incentives for consumers to switch to LPG in the short term, and to bioLPG in the future.

- ▶ BioLPG is an **affordable and available solution** to enable the green transition, especially in off-grid areas.
- ▶ We therefore recommend **exempting bioLPG** from the proposed EU Emissions Trading System (ETS) extension and from the Energy Taxation Directive (ETD).

European and national policymakers should provide incentives for low-carbon liquid fuel and renewable gas producers to produce bioLPG.

- ▶ To scale up the production of bioLPG, there is a strong need for grants for pilot projects, investment and production support mechanisms. **This will contribute to economic growth and help reach the climate neutrality targets.**



THE LPG INDUSTRY'S PLEDGE

To further grow the bioLPG market, the industry will continue:

- ▶ **Advising** consumers and businesses on the possibility and advantages of switching to LPG in the short term and bioLPG in the future;
- ▶ **Educating** stakeholders and policymakers about bioLPG and its potential;
- ▶ **Investing** in the production of bioLPG;
- ▶ **Joining** consortia applying for EU funding of research projects;
- ▶ **Offering** research grants to explore new technology pathways for bioLPG.



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