

Liquid Gas Ireland Submission

Public Consultation on the Development of New Solid Fuel Regulations for Ireland

April 2nd 2021

Introduction

Liquid Gas Ireland (LGI) welcomes the opportunity to respond to the Department of the Environment, Climate and Communications' public consultation on the development of new Solid Fuel Regulations for Ireland.

LGI welcomes the proposal to develop legislation to regulate the broader use of solid fuels in the residential sector and the commitment in the Programme for Government to develop a Clean Air Strategy for Ireland.

LGI welcomes the acknowledgement by DECC that all sources of air pollution arising from the residential sector need to be tackled and that choices made in heating Ireland's homes can impact on health and that of families, and the communities in which we live.

LGI also notes from DECC that research indicates that the contribution of peat and wood to levels of particulate matter in the air around us can be considerable and the importance of considering the health benefits to be achieved by extending regulations to other residential solid fuels.

Ireland needs a strong vision for a regional approach to delivering on air quality targets. This must include a clear commitment to cleaner, lower carbon alternatives to solid fuel burning for home heating. Communities off the natural gas grid need support to make the change.

LGI members can support the Government's low carbon and clean air strategy through the supply of LPG and BioLPG. LPG is a clean burning, smoke free fuel that supports cleaner air quality and can play a role in improving the health of rural communities across Ireland.

Our society demands an energy transition that is fair, affordable, and convenient. Liquid Gas Ireland's member companies have the experience and expertise to help deliver it.

We look forward to engaging with Government and energy sector stakeholders in the coming weeks and months on the development of Ireland's Clean Air Strategy and the role that LPG and BioLPG can play.

About LGI

Liquid Gas Ireland (LGI) was established in 1969 as the ILPGA and has recently rebranded to Liquid Gas Ireland. LGI is the association representing companies operating in the LPG and BioLPG industry in Ireland. Members include LPG and BioLPG producers, distributors, equipment manufacturers, and service providers.

Our mission is to ensure that policy makers continue to recognise LPG and BioLPG as the clean, versatile and alternative lower carbon energy of choice for off-grid energy users in the residential, commercial, industrial, agriculture, leisure and transport sectors in Ireland.

Liquid Gas Ireland is committed to working with consumers, stakeholders and policymakers to support Ireland's goal to tackle air quality, drive decarbonisation and achieve net zero emissions by 2050.

Supporting the Transition from Solid Fuels and Contributing to Cleaner Air

LGI notes the 2020 EPA Air Quality Report which highlights that the main source of the smaller and more dangerous particulate matter is solid fuel burning for home heating. Poor air quality causes premature deaths, with the European Environment Agency estimating that it caused 1,300 premature deaths in Ireland in 2017.

19% of Irish homes use solid fuel to heat their homes/water (peat 10%, coal 8% and wood 1%) (source: CSO). Most of these homes are in rural Ireland, with no access to the natural gas network. If peat and coal are to be banned by 2022/2023, these households need a clean and cost-similar alternative. Most of these homes are not new builds, making an investment in a heat pump solution prohibitively expensive for those households who relied on peat/coal/wood in the past.

That makes access to LPG and BioLPG more imperative in rural Ireland as a low-cost alternative to polluting solid fuels.

LGI notes that Minister Eamon Ryan is due to publish an updated 'Strategy to Combat Energy Poverty' later this year. The proportion of households in or at risk of energy poverty in 2020 is 17.5% according to the ESRI. With a ban on the burning of low-cost solid fuel, this Strategy will need to look beyond high-cost investment by households, to cleaner/similar cost alternatives.

In our sector's Vision 2040, LGI sets out how our industry can contribute to Ireland's 'Green New Deal', including the ambitious goal to reach net zero emissions by 2050, and to the Government's Clean Air Strategy.

Liquid Gas Ireland members are committed to working with Ireland's policymakers to develop a long-term supportive policy framework to achieve 'net zero' and address barriers to decarbonisation and cleaner air in the off-grid heat and transport sectors.

An Introduction to LPG and BioLPG

LPG is the lowest carbon conventional energy source available to off-grid homes and businesses in Ireland, which provides immediate, expedient and cost-effective heat and energy.

Liquefied petroleum gas (LPG) is a hydrocarbon gas that exists in a liquefied form. It is supplied in two main forms, butane (C₄H₁₀) or propane (C₃H₈), and comes in a tank or cylinder. This flexibility and portability allow LPG to reach places that other energies cannot.

LPG combustion emits 33% less carbon dioxide than coal and 11% less than heating oil¹.

LPG also emits almost no black carbon, which scientists now believe is the second biggest contributor to climate change, and very low levels of air and particulate pollutant emissions (e.g. nitrogen oxides, sulphur oxides).

BioLPG, or biopropane, is chemically indistinct from LPG and provides the same heating and fuel properties. It is made from sustainably sourced renewable vegetable oils, wastes, and residues, and delivers up to 90% certified carbon emission savings compared to conventional LPG¹.

BioLPG is certified as renewable by the EU and Irish Government and is exempt from carbon tax, meaning it is a great investment for the future. As BioLPG is a 'drop-in' fuel, LPG infrastructure is already prepared for the future, so no new equipment is required.

For customers in rural off-grid homes and businesses, this is an easy and affordable switch to make, and the environmental benefits are immediate.

Affordability of cleaner, lower carbon energy solutions will be key for the economic recovery of rural households and businesses. LPG/BioLPG boilers are the most cost-effective low carbon option for many households, especially older properties that are less energy efficient.

42% of the rural building stock is relatively old, built before 1980. Older homes are also typically less energy efficient and have higher fuel bills than modern homes.

For an average household, the upfront cost of an electric heat pump unit is €15,000 versus €4,000 for a new LPG or BioLPG boiler. Implementing the necessary energy efficiency upgrades to accommodate heat pump technology in an average older rural home would add an additional €15,000- €20,000 to the upfront costⁱⁱⁱ.

LPG boilers offer a long-term, cost effective pathway to decarbonisation through the gradual introduction of BioLPG into the mix; this means over time carbon emissions will increasingly reduce while contributing to cleaner air quality.

LPG and BioLPG can also be used seamlessly in cutting edge heating systems, such as gas driven heat pumps and hybrid heat pumps.

It is the industry's ambition to offer 100% renewable energy solutions by 2040^{iv}. As BioLPG becomes increasingly available to the market in Ireland, LGI wants to work in partnership with the Government to drive consumer behaviour in rural areas towards cleaner, lower carbon solutions.

LGI Key Policy Recommendations

It is crucial that the Government brings both urban and rural communities on the decarbonisation journey, providing them with technology choices that meet their unique needs through secure, clean, efficient, and reliable lower-carbon fuels.

When DECC considers the needs of those affected by any ban on solid fuels, LGI has a number of observations and recommendations:

- Ireland does not have a national testing regime / capability in Ireland for solid fuel emissions standards. In a solid fuel regulation environment, the State Laboratory should be tasked with testing emissions from low smoke solid fuel to ensure compliance.
- There is little to no enforcement of the current Low Smoke Zones in Ireland with only 6 fines issued in 2019 in relation to breaches of the regulations for offences relating to the marketing, sale and distribution of prohibited fuels in low-smoke zones (source: EPA).
- A nationwide ban on the sale, distribution and burning of smoky coal is the only measure that will bring about the CO₂ emissions savings and air quality improvements sought in this area, so it should be supported.
- Once the ban is implemented, alternative cost-effective heating fuel will be required, and this will be required by heating season 2022/2023.



- The Government must consider what low-carbon heating options are capable of providing immediate, clean and cost-effective heat and energy without significant retrofit costs.
- Policy makers need to ensure that as it starts to move households and businesses away from solid fuels, it does not encourage a switch to carbon intensive fuels such as kerosene, instead it needs to encourage off grid homes to use low carbon heating technologies such as LPG, or risk meeting net zero targets.
- LPG is the lowest carbon conventional energy source available to off-grid homes in Ireland and it enables immediate air quality improvements.
- For off-grid domestic consumers, an active choice on how to decarbonise heat and increase the energy efficiency in their homes is needed.
- As consideration is given to how homes are made more energy efficient, the Government cannot adopt a one-size-fits all approach that ignores the realities faced by off-grid homeowners.
- For many older, often more rural homes, their method of construction and lack of insulation can make retrofitting electrified technology very expensive or practically challenging, without achieving real heating benefits.
- LPG and BioLPG offer viable routes to decarbonise the heating of homes in the case where electrified heat pumps cannot be retrofitted or provide consistent heating. Its cost-effectiveness also makes it viable.
- As part of this, biomass should not be positioned as the sole alternative fuel for off-grid areas; not only are there higher upfront costs for the homeowner, but the use of certain wood products also poses a challenge in addressing air quality.
- LGI believes financial incentives are a useful tool in encouraging households to take responsibility for their fuel use.
- For example, the Welsh Government has recently proposed a boiler scrappage scheme applying to solid fuels, something that we support (and indeed could be extended to the scrappage of oil boiler (and tank) systems).
- Another incentive is for LPG Hybrid Heat Pumps and standalone BioLPG boilers to be included in the Government's future subsidy schemes (such as the SSRH) for both domestic and non-domestic buildings.
- In addition, the production of BioLPG, alongside biomethane, should also be supported, to help encourage an indigenous production market in Ireland.

Contact Details

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(Our web site includes Vision 2040, LPG/BioLPG consumer testimonials and a recent rural energy policy roundtable discussion).

References

ⁱ <https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/>

ⁱⁱ BioLPG reduces GHG by at least 50% and up to 90% against set values of fossil fuels, in accordance with the European Union Renewable Energy Directive ('EU-RED'). Actual figure is dependent upon input feedstocks.

ⁱⁱⁱ [https://www.teagasc.ie/media/website/crops/crops/Renewable Heat in Ireland to 2020.pdf](https://www.teagasc.ie/media/website/crops/crops/Renewable%20Heat%20in%20Ireland%20to%202020.pdf)

^{iv} www.lgi.ie

^v <https://gov.wales/sites/default/files/consultations/2021-01/reducing-emissions-from-domestic-burning-of-solid-fuels.pdf>