



**Liquid Gas Ireland Submission
to DECC's Consultation on the Introduction of a
Renewable Heat Obligation
29 October 2021**

*This document follows the format of the questions set out in the consultation document

About you

Name: Liquid Gas Ireland (LGI)

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.

As part of Liquid Gas Ireland's response to the Department of Environment, Climate and Communication's Consultation on the Introduction of a Renewable Heat Obligation Scheme, we wish to respond to the consultation questions as outlined below.

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10.1 Background

- **Do you think that a Renewable Heat Obligation is an appropriate measure to introduce?**

LGI supports, in principle, the proposal for a renewable heat obligation as a market mechanism to incentivise the development of renewable heat and specifically renewable gas, which addresses the EU's core principles of sustainability, security of supply and competitiveness.

Ireland is under increasing pressure to deliver its carbon emissions reductions targets and achieve Net Zero by 2050. Placing a focus on the decarbonisation of Ireland's heating sector by aligning the Renewable Heat Obligation with Ireland's current climate ambitions such as the Programme for Government (2020), the Climate Action Plan and Ireland's National Energy and Climate Plan, will better help Ireland achieve its targets.

LGI and its members currently play a key role in supporting Ireland's decarbonisation journey through the supply of BioLPG for heating rural homes and businesses. As outlined in our LGI Vision 2040 (LGI 2020), 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 LPG (LGI 2020).

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 lower carbon option for many households, especially older properties that are less energy efficient.

BioLPG carries the same low air and particulate pollutant emissions (NO_x, SO_x and PM) as conventional LPG, importantly contributing to improvements in local air quality. BioLPG should continue to be included in all Government initiatives that seek to reduce the carbon intensity of heating fuels supplied, as it already forms a key part of Ireland's transition to a cleaner, greener economy.

While LGI and its members support the move to a renewable heat obligation, we request that the Department considers the following important policy interventions, with specific recommendations agreed by the heating industry and set out in Renewable Energy Ireland's 40by30 report (2021) – "A 40% Renewable Heat Vision by 2030".

The 40by30 Renewable Heat Plan for Ireland, addresses policy makers at national and local level, as well as stakeholders in the heat market and in the community, to demonstrate why we need radical ambition for renewable heat to help decarbonise our economy and to advocate for their support in fulfilling this ambition.

In the enclosed response, while supporting the proposal for a Renewable Heat Obligation, LGI cautions on the burden of cost of the obligation on rural consumers and we advocate strongly for the necessary policy supports to ensure a Just Transition. Recommended measures on the supply and demand side, in line with the REI 40% Renewable Heat Vision, include:

Supply Side: The brunt of incentives should focus on empowering suppliers to meet their renewable obligation targets in the longer term, without assistance. Firstly, the Government should seek to incentivise the production of BioLPG, expanding the terms of reference for the Climate Action Fund to consider BioLPG, facilitating research and development funding for the sector, providing a platform for those entities intending to support domestic production to do so.

In addition, in line with the REI 40x30 report, we advocate for:

- An update to the building regulations and BER assessment methodology to accurately reflect the decarbonisation benefits of renewable heat.
- Implementation of Article 23 of the Renewable Energy Directive (REDII) under the EU Clean Energy Package with a mandatory high ambition of at least 3% per annum.

Demand Side: Following on from this, the Government should seek to adopt measures which target consumers, households, and rural businesses directly. These should include scrappage schemes which seek to finance the upgrade from older, inefficient higher carbon heating systems to newer ones. Furthermore, supporting fabric efficiency upgrades should also be a priority. Both should contribute to lower end-user energy consumption, and consequently reduce the financial pressures on rural business and residential consumers.

- Make it simpler and easier for consumers/businesses to apply for the financial incentives for renewable heat technologies.
- Widen the support for renewable heat in the Home Energy Grants and in the Support Scheme for Renewable Heat (SSRH) and incentivise large heat users to adopt renewable heat solutions
- Set Green Procurement targets for the public sector requiring a minimum annual increase in using renewable heat of 20% of demand and mandate that all new or replacement public sector heating systems must be 100% renewable.

As a sector, we favour a consumer-led switch to renewables, and we look forward to engaging with the Department on the proposed scheme. A switch to renewable gas solutions like BioLPG, as outlined above, will ensure that residential and business consumers in rural Ireland are given choice and affordability when making the effort to decarbonise their home heating systems.

- **If not, what alternative measures would you consider appropriate to increase the use of renewable energy in the heat sector?**

As outlined in LGI's response to the Energy Efficiency Obligation Scheme (April 2021), and as evident from our contribution to the current Biofuels Obligation Scheme led by the Department of

Transport, BioLPG can make a significant contribution to the decarbonisation of rural homes and businesses under a proposed Renewable Heat Obligation Scheme.

Already available on the market, BioLPG allows off-grid homes and businesses to significantly reduce their carbon footprint without expensive retrofitting or changes to heating systems. As BioLPG is a 'drop-in' fuel, LPG infrastructure is already prepared for the future, so no new equipment is required. It is also certified as renewable by the EU and Irish Government in accordance with the EU RED II Directive and is exempt from carbon tax. Delivering up to 90% carbon emission savings compared to conventional fossil fuels, such as oil, it carries the same low air and particulate pollutant emissions (NO_x, SO_x, and PM) as conventional LPG, importantly contributing to local air quality.

There is no single solution to decarbonising our heating system, but we can heat our homes, schools, hospitals, and businesses using a combination of several different heating technologies and creating a pathway to more energy efficient building stock.

10.2 Market Coverage

- **Do you agree that the obligation should apply to all non-renewable fossil fuels used for heating as set out above? [Oil, LPG, natural gas, coal, and peat]**

We agree that the obligation should apply to non-renewable fossil fuels used for heating as set out [Oil, LPG, natural gas, coal, and peat]. However, it is imperative to make sure that no market distortion takes place and that any such obligation does not:

1. Place additional costs on rural consumers
2. Favour urban over rural communities

For Ireland to decarbonise, a Just Transition must be prioritised to ensure that all rural and business consumers have the ability to decarbonise in a way that is affordable *for them*. In particular, note must be taken of the urban-rural divide in income, wealth, and energy poverty, which is expanded upon in section 10.10.

- **It is intended that electricity used for heating purposes and renewable/waste district heating systems would be exempt from this obligation, do you agree with this approach?**

LGI have no comment on the intended approach.

- **Do you agree that the portion of fossil fuel input used in CHP plants to generate heat would be considered to be part of the obligation?**

LGI will assess the proposal / request further detail.

10.3 Obligated Parties and Obligation Threshold

- **Are energy suppliers the most appropriate bodies to become the obligated parties in the heat sector?**

Yes, in line with similar obligation schemes.

- **Is the 400 GWh of energy supplied an appropriate level for a supplier to become obligated?**

LGI are of the view that the proposed 400GWh threshold level is appropriate.

10.4 Obligation Rate

- **Do you agree with the 2023 start date for the obligation?**

Yes, LGI feel that 2023 is an appropriate start date, which will allow a fair lead in time for obligated parties.

- **In terms of the obligation rate, do you agree with the proposed initial level of obligation of 0.5%?**

The obligation rate should be based on a feasibility analysis of what is available in the global biofuels market, which will change dramatically within the next ten years. Evidence of these forthcoming shifts can be seen in some of the significant investments being made in the area (Argus Media, 2021). An advanced biofuel obligation as a key incentive to promote research and innovation in this field is welcomed. A data and statistics led proposal is recommended, taking account of future biofuel alternatives, in addition to biomethane.

As per the SEAI (2021), 507 GWh of LPG was consumed in the residential sector. A 0.5% obligation requires around 2.5GWh of BioLPG to be supplied – equivalent to ~183 tonnes. LGI deems this to be an acceptable and realistic target.

- **In terms of ambition for a 2030 target, what level of ambition do you think is appropriate? 3% minimum 5% medium ambition 10% higher ambition - other?**

LGI believes that a 3% target is most appropriate in light of the financial issues presented towards rural customers (as described below in Section 10.6). However, given the urgent need to decarbonise as a country and an economy, we would be supportive of a higher obligation rate, such as 5% or 10%, provided that these issues are adequately tackled.

Given the disproportionate effect of the obligation on rural consumers, and the subsequent tendency for these rural households to suffer more frequently from energy poverty (SEAI, 2020, and highlighted in Figure 11) – we propose the following solutions, as set out in REI's 40by30 report, targeting specific points of the chain, from production to end-consumer:

Supply Side: The brunt of incentives should focus on empowering suppliers to meet their renewable obligation targets in the longer term, without assistance. Firstly, the Government should seek to incentivise the production of BioLPG, expanding the terms of reference for the Climate Action Fund to consider BioLPG, facilitating research and development funding for the sector, providing a platform for those entities intending to support domestic production to do so.

- Update the building regulations and BER assessment methodology to accurately reflect the decarbonisation benefits of renewable heat.
- Implement Article 23 of the Renewable Energy Directive (REDII) under the EU Clean Energy Package with a mandatory high ambition of at least 3% per annum.

Demand Side: Following on from this, the Government should seek to adopt measures which target consumers, households, and rural businesses directly. These should include scrappage schemes which seek to finance the upgrade from older, inefficient systems to newer ones. Furthermore, supporting fabric efficiency upgrades should also be a priority. Both of these should contribute to lower end-user energy consumption, and consequently reduce the financial pressures on rural business and residential consumers.

- Make it simpler and easier for consumers/businesses to apply for the financial incentives for renewable heat technologies.

- Widen the support for renewable heat in the Home Energy Grants and in the Support Scheme for Renewable Heat (SSRH) and incentivise large heat users to adopt renewable heat solutions.
- Set Green Procurement targets for the public sector requiring a minimum annual increase in using renewable heat of 20% of demand and mandate that all new or replacement public sector heating systems must be 100% renewable.

10.5 Meeting the Obligation

- **Do you agree with the first obligation period being multiple years 2023-2025 to give the industry time to develop supply lines?**

Yes, LGI agrees this would be the correct approach, as outlined in section 10.4.

- **Once the first period 2023-2025 expires, do you agree with the obligation then becoming an annual obligation?**

Yes. LGI agrees with this approach.

As referenced in section 10.1, LGI and its members play a key role in supporting Ireland's decarbonisation journey through the supply of BioLPG. BioLPG is a certified renewable fuel delivering up to 90% carbon emission savings compared to conventional fossil fuels such as oil. It carries the same low air and particulate pollutant emissions (NO_x, SO_x and PM) as conventional LPG, importantly contributing to improvements in local air quality. Therefore, BioLPG should be included in Government initiatives that seek to reduce the carbon intensity of fuels supplied, as it already forms a key part of Ireland's transition to a cleaner, greener economy.

- **Do you agree with suppliers being able to trade credits in order to meet their obligation?**

Yes, this initiative should be considered in consultation with energy suppliers. However, the trading of credits should not be seen as the solution to the inequalities in supplying different groups e.g., urban versus rural.

- **Do you agree with allowing 10% carry over of renewable credits to be used in the following year's obligation?**

Yes. LGI would agree with this approach, as is the case in other similar obligations schemes.

10.6 Sustainability

- **What are the sustainable energy sources likely to meet the Renewable Heat Obligation at an obligation rate of (i) 3%, (ii) 5%, (iii) 10% by 2030?**

LPG has been a key part of Ireland's energy mix for almost a century. Our sector has demonstrated significant progress in feedstock development since the product's introduction to the Irish market in 2018. In 2020, 22.5% of the BioLPG in the Biofuels Obligation Scheme (BOS) was made from Used Cooking Oil and our sector continues to invest in significant research and development to progress advanced feedstock options, including the potential for future supply of BioLPG from local feedstock pathways which include the gasification of

municipal solid waste. LGI member R&D teams are currently engaged with several Irish universities on future pathway development opportunities.

Going forward, we believe LPG and BioLPG can support the Irish Government's commitment to transition to a low-carbon economy and fulfil its binding obligations under the 2015 Paris Agreement on climate change.

As natural gas network penetration in Ireland is relatively low at approximately 39% of households (Ervia, 2018), the full potential of lower-carbon gaseous fuels like LPG needs to be further exploited. Over 40% of households in Ireland rely on oil to heat their homes. This share varies significantly by region, with roughly 26% of households located in towns using oil for central heating compared to 65% in rural areas (CSO, 2016; SEAI, 2019).

While LPG already offers significant reductions in carbon and air pollutant emissions, BioLPG is the future, providing up to 90% certified carbon emission savings compared to conventional LPG. Already available on the market today, BioLPG allows off-grid homes and businesses to significantly reduce their carbon footprint without expensive retrofitting or changes to heating systems.

BioLPG supplied on the market today is approved in accordance with 'EU-RED II', is a fully traceable renewable fuel and is certified under the International Sustainable Carbon Certification (ISCC) scheme. 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.

In addition to BioLPG, the industry is developing new fuels such as renewable DME (Argus, 2021), which have similar molecular properties to conventional LPG, and can support the decarbonisation of heat in off-grid areas. This investment in new production processes and new fuels, creates the opportunity to utilise a wider array of waste feedstocks with a higher conversion yield. More needs to be done, however, to reach Government targets, and policy has a role to play in supporting the development of new technology and production facilities.

These novel fuels and production routes are well-placed to play a key role for off-grid consumers in the future. BioLPG production utilises Used Cooking Oil¹ as a key feedstock and energy source, and rDME production utilises waste methanol, biogas from dairy waste and other food/agricultural wastes to produce renewable fuels.

- **Will there be enough sustainable indigenous supply to meet this demand?**

LGI estimates that it needs 5 to 10 years to supply second generation/advanced biofuels in Ireland. This ambition involves a vertical integration strategy with producers to gain more control of the Bio-LPG supply-chain. However, these conversion technologies are still in pilot phase, and time is needed to develop these industrial processes at scale with affordable energy prices. As outlined in 10.4, the Government should seek to incentivise the production of BioLPG, expanding the terms of reference for the Climate Action Fund to consider BioLPG, facilitating research and development funding for the sector, providing a platform for those entities intending to support domestic production to do so.

LGI seeks alignment with the EU position in order to mature, alongside the EU biodiesel market, to advanced biofuel feedstocks in the medium term and to ensure stability and competitive prices for rural consumers in the transport and heat sectors as we strive to reach our 100% decarbonisation goal by 2037.

10.7 Traceability

Option A: Renewable energy is traced to the end consumer. For renewable gas, this would work similar to other fuels with individual customers being supplied the gas (verified by a certification system). This would allow consumers who value the 'greenness' more to pay slightly more and thus reduce the cost for other consumers. However, it could lead to some gas consumers funding the obligation but being credited with no 'greenness'

Option B: Renewable energy is equally proportioned to all of the supplier's consumers. For a supplier of natural gas, the same proportion of renewable gas would be deemed to be supplied to its consumers in the heat sector.

- **Do you agree that for renewable fuel delivered directly to a consumer that this will be the point of supply?**

This method appears to be a sensible way to determine whether a fuel is renewable or not.

- **Which option to you think should be applied for renewable energy that is indirectly supplied (e.g., via the natural gas grid)?**

LGI is not in a position to comment on this issue.

10.8 Estimated Costs for Consumers

- **Do you think the costs set out above are reflective of likely costs?**

The analysis presented in the consultation makes several heavy-handed assumptions, many of which fail to consider the nuances of the rural market.

Firstly, it is important to make clear the differences between the rural and urban housing stocks. Rural houses tend to have been built earlier, as seen in the age distributions of both urban and rural houses (Figures 1 and 2).

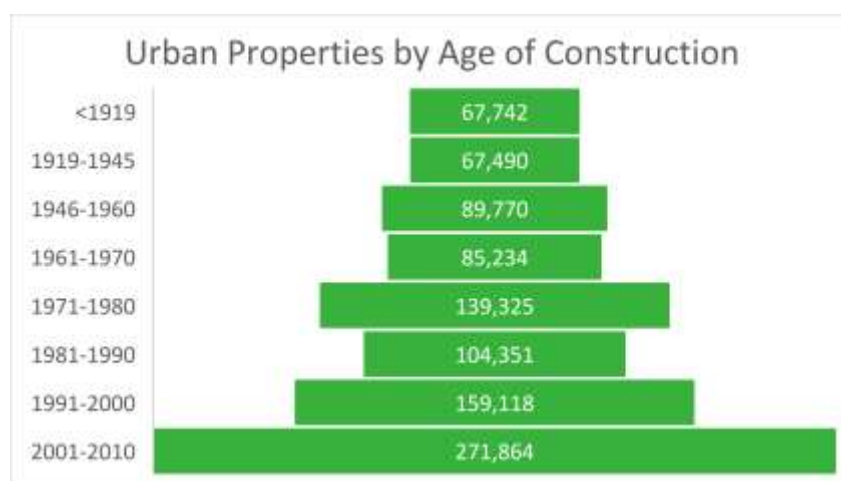


Figure 1: Age of Construction Distribution – Urban (CSO, 2021b)

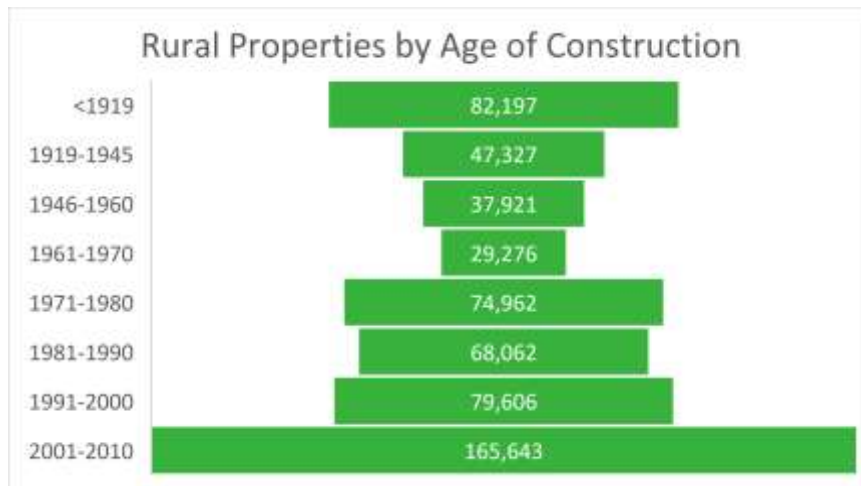


Figure 2: Age of Construction Distribution – Rural (CSO, 2021b)

As seen between Figures 2 and 3, rural houses tend to be older than urban houses. This is an important fact to consider, because older properties tend to require more energy to heat. The same fact is true of house size and type, the distribution of which is shown in Figures 3 and 4:

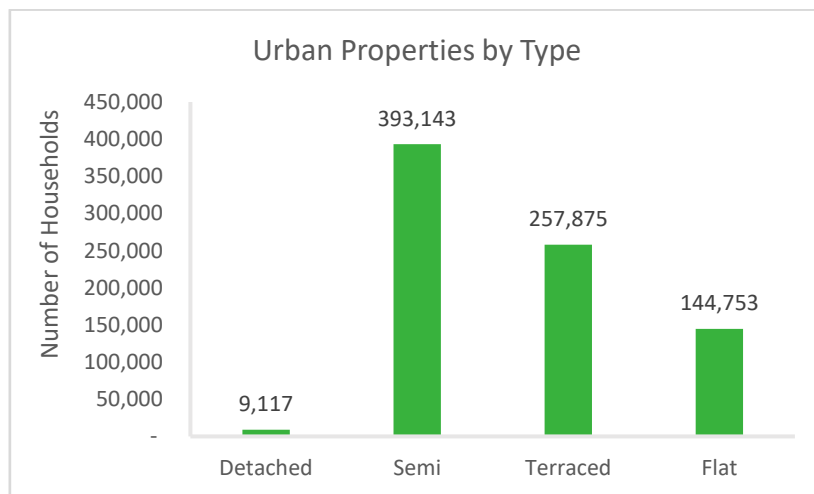


Figure 3: Property Type – Urban (CSO, 2021b)

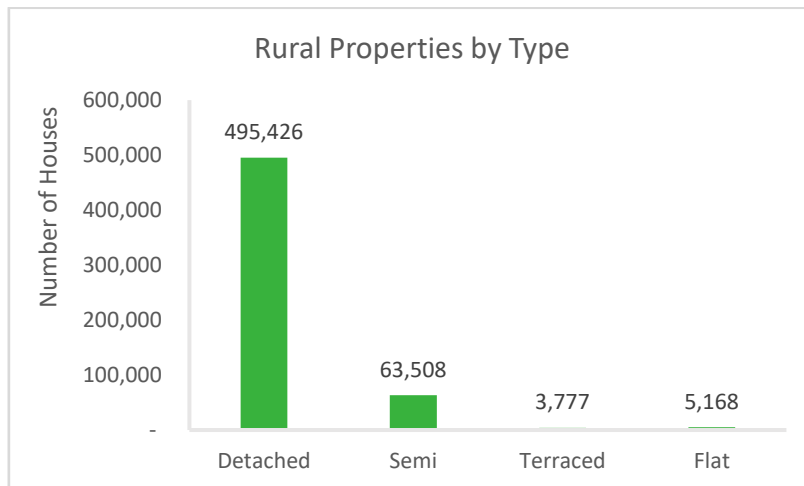


Figure 4: Property Type – Rural (CSO, 2021b)

The difference in house type is incredibly pronounced - rural houses are overwhelmingly detached (which tend to be larger), whilst urban houses tend towards the smaller types (the median being a terraced house). Moving onto Figures 5 and 6, there is a tendency for rural properties to have worse energy efficiency ratings, albeit slightly:

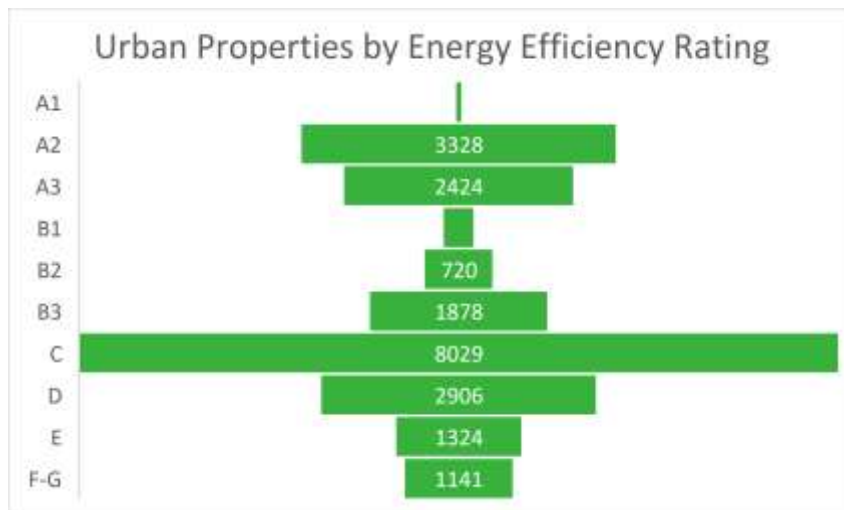


Figure 5: Energy Efficiency Rating Distribution – Urban (CSO, 2021a)

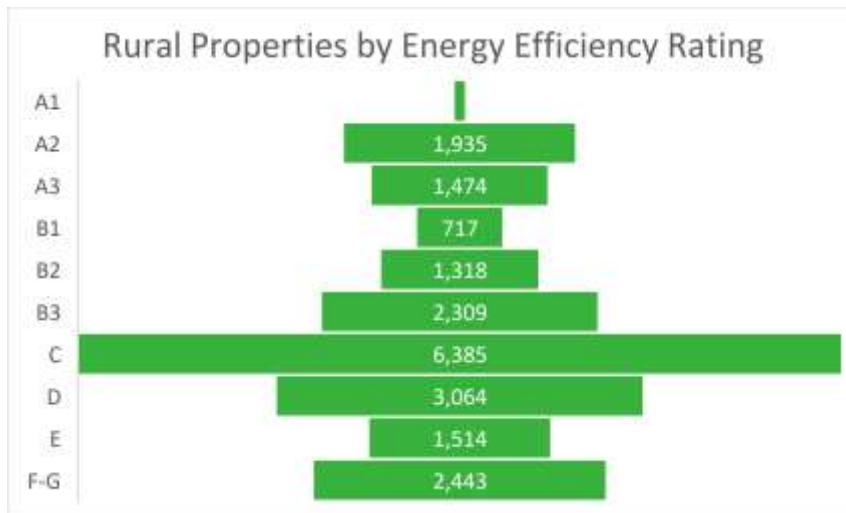


Figure 6: Energy Efficiency Rating Distribution – Rural (CSO, 2021a)

Overall, rural houses in Ireland tend to be older, larger, and less energy efficient, than the urban housing stock. The energy usage values used in the consultation document (9,000, 11,000 and 13,000 kWh), are debatable if they accurately represent the full distribution of energy usage profiles across Ireland. However, taking them to be true:

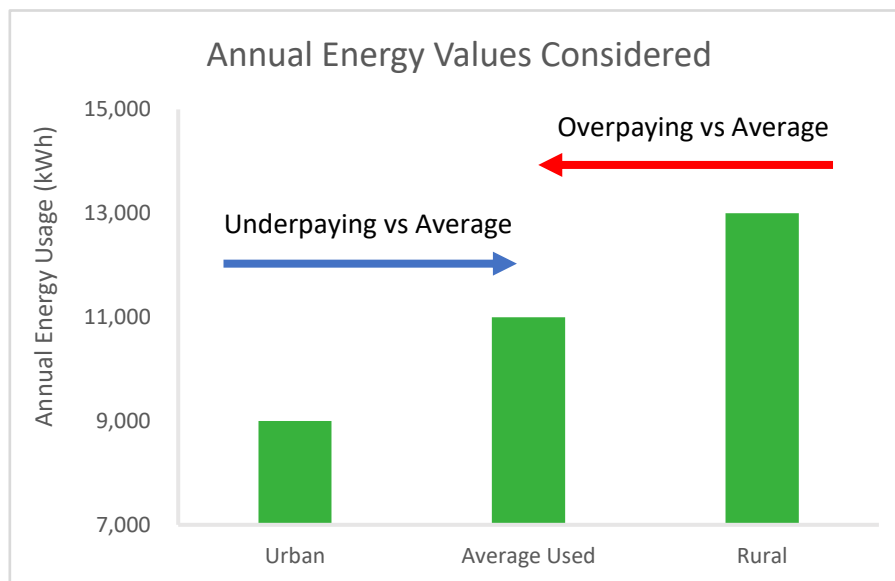




Figure 7: Annual Energy Values Considered by the Consultation

What Figure 7 demonstrates is that, using the average value to calculate costs ultimately obfuscates an imbalance in the financial burden of the obligation. Considering the evidence presented in Figures 1 to 6, this can be confidently interpreted as the imbalance in costs faced by urban and rural households. Returning to the energy values used, we believe these to be underestimates at the higher end. Using the TABULA web tool, which contains housing information – localised to Ireland, an urban and rural archetype can be designated:

Table 1: Urban and Rural Housing Archetypes (TABULA, 2021).

Variable	Unit	Urban	Rural
Representative Picture			
Year of Construction		1978 - 1982	1967 - 1977
Housing Type		Terraced	Detached
Area	m ²	83	115
Annual Energy Demand (Inc. Hot Water)	kWh	7,055	13,984
Heating Fuel		Natural Gas	LPG
Renewable Alternative		Biomethane	Bio-LPG

These archetypes encapsulate the differences highlighted prior, with the rural house being older, larger, and less energy efficient. The end result are two archetypes with annual heat demands even further apart than the existing values used. Regardless, analysis can be conducted using the above archetypes in Table 1, and the nominal price increase of 10 cents per kWh.

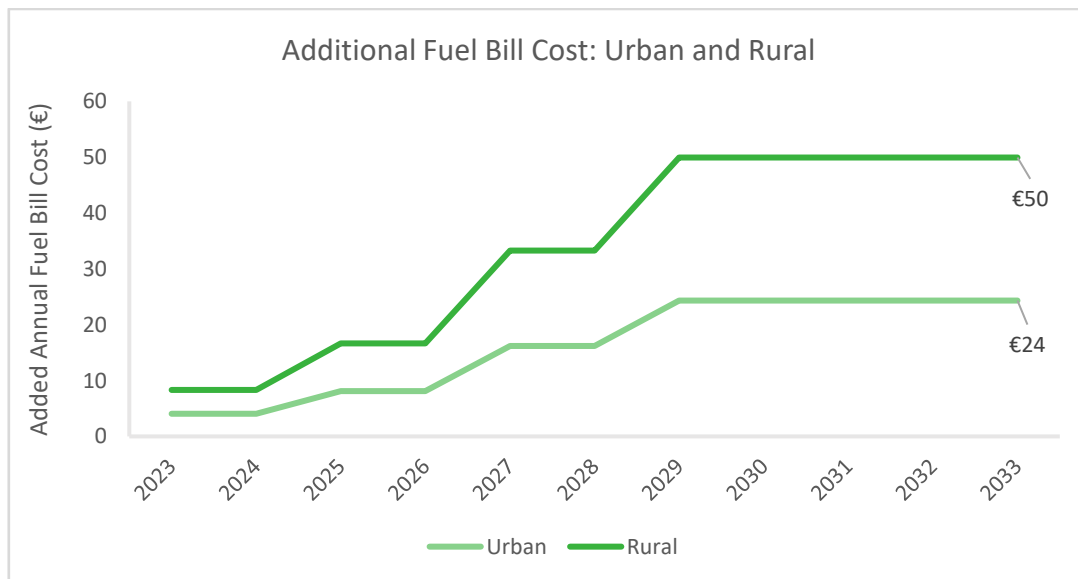


Figure 8: Urban vs Rural Estimated Cost, Running Values

As Figure 8 demonstrates, rural households can expect to pay twice as much as urban households, given central estimates at the 3% obligation rate. This effect is compounded when considering the cumulative cost of these obligations, costing rural customers an additional €400. This difference is greater than the one highlighted in the initial consultation document.

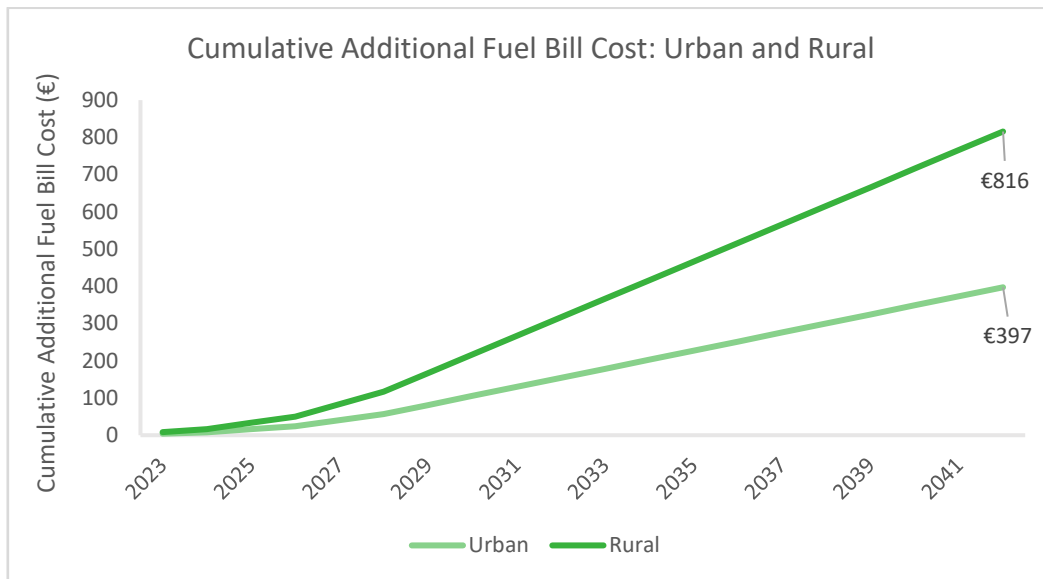


Figure 9: Cumulative Cost of Obligation

Figure 9 shows that under the obligation (over two decades), rural consumers can expect to pay an extra €816, whilst urban consumers pay €397 (half as much). Importantly, these figures are for the archetypes mentioned above – these would be even higher for some of the older rural buildings in Ireland.

Pivoting towards the methodology used in the initial calculations by the Department– we take issue with the estimating of costs for the added renewable obligation. There is a clear lack of consideration for rural consumers in the approach towards this calculation, as the added cost of supplying biomethane is used. This situation clearly does not apply to rural consumers without a connection to the gas grid (Gas Networks Ireland, 2021).

- **Are these costs reasonable to impose on consumers?**

We believe there are two fundamental issues with the burden of cost of the obligation. Firstly, is the issue of *fairness*, the idea that rural customers are expected to pay more towards reaching net-zero based on where they live is clearly *unfair*. Secondly is the ability for people to pay towards these costs. Again, given that households in urban areas tend to be wealthier than those in rural areas (SEAI, 2019), there is again an imbalance (the energy poverty urban-rural divide is expanded upon in 10.10). When the two are combined, rural consumers are burdened with higher costs – this clearly conflicts with the principle of a just transition, something which Ireland has agreed to.

As described above, in principle we also support, with conditions, the obligation being set at the 10% level. However, it is extremely important to highlight the additional cost burden that this places on rural customers (and urban customers, but to a significantly lesser extent). As seen in Figure 10, moving the obligation rate percentage up to the 5% rate adds an extra €33 to an annual rural fuel bill. Increasing it all the way up to the 10% level adds a further €83 – a total of €116 from the three percent level.

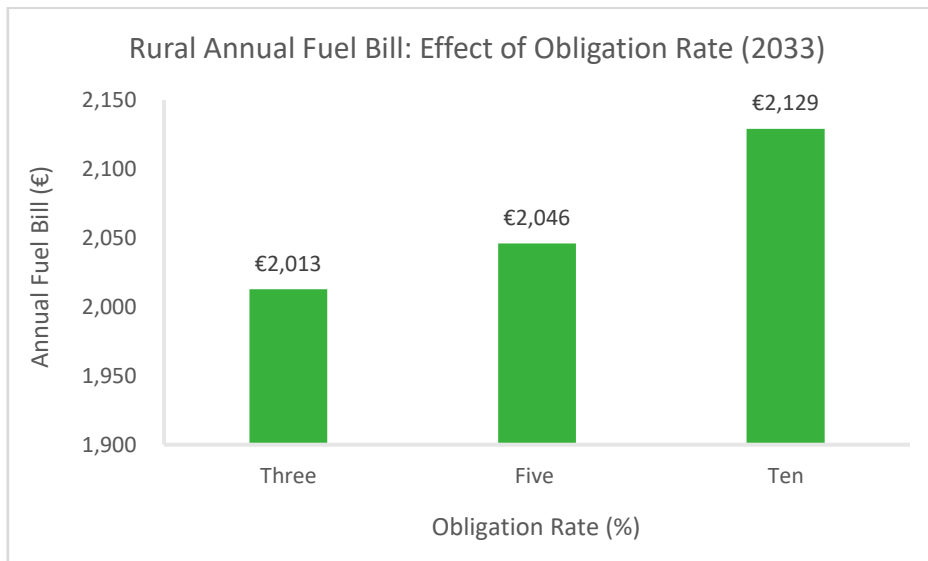


Figure 10: Effect of the Obligation Rate on Rural Fuel Bills

10.9 Penalties



- **Do you agree with the intended position in relation to penalties for non-compliance?**

The method of penalty application is suitable. However, for a new obligation, with little precedence, and subsequent evidence of outcomes elsewhere, penalties of this relative size are disproportionately high.

10.10 Energy Poverty

- **Do you think the proposed obligation poses a significant risk to increased energy poverty?**

As highlighted in our response to 10.6, the obligation will pose significant costs, but will impose an added fuel bill for rural customers twice that of urban customers. This is an issue in itself but becomes even more important when considering the differences in energy poverty between the two areas.

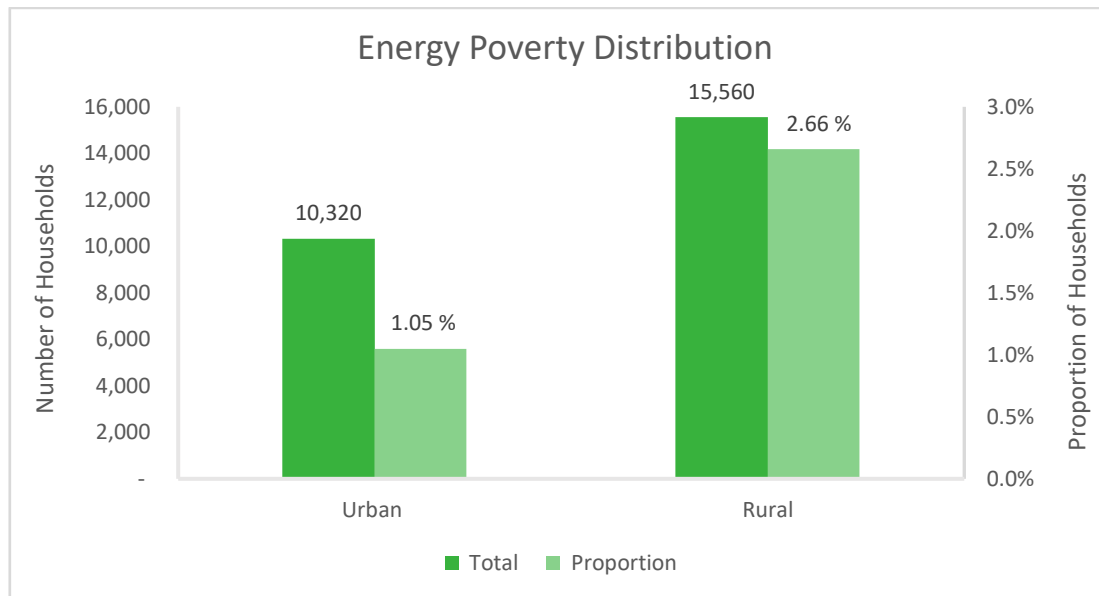


Figure 11: Energy Poverty Across Urban and Rural Areas (SEAI, 2020)

- **How best could the impacts on energy poverty be minimised?**

Given the disproportionate effect of the obligation on rural consumers, and the subsequent tendency for these rural households to suffer more frequently from energy poverty – we propose the following solutions², targeting specific points of the supply chain, from production to end-consumer:

While LGI and its members support the move to a renewable heat obligation, we request that the Department considers the following policy interventions to help alleviate the impacts on energy poverty, with specific recommendations agreed by the heating industry, and set out in Renewable Energy Ireland's 40by30 report:

Supply Side: The brunt of incentives should focus on empowering suppliers to meet their renewable obligation targets in the longer term, without assistance. Firstly, the Government should seek to incentivise the production of BioLPG, expanding the terms of reference for the Climate Action Fund to consider BioLPG, facilitating research and development funding for the sector, providing a platform for those entities intending to support domestic production to do so.

- Update the building regulations and BER assessment methodology to accurately reflect the decarbonisation benefits of renewable heat.

- Implement Article 23 of the Renewable Energy Directive (REDII) under the EU Clean Energy Package with a mandatory high ambition of at least 3% per annum.

Demand Side: Following on from this, the Government should seek to adopt measures which target consumers, households, and rural businesses directly. These should include scrappage schemes which seek to finance the upgrade from older, inefficient systems to newer ones. Furthermore, supporting fabric efficiency upgrades should also be a priority. Both of these should contribute to lower end-user energy consumption, and consequently reduce the financial pressures on rural business and residential consumers.

- Make it simpler and easier for consumers/businesses to apply for the financial incentives for renewable heat technologies.
- Widen the support for renewable heat in the Home Energy Grants and in the Support Scheme for Renewable Heat (SSRH) and incentivise large heat users to adopt renewable heat solutions
- Set Green Procurement targets for the public sector requiring a minimum annual increase in using renewable heat of 20% of demand and mandate that all new or replacement public sector heating systems must be 100% renewable.

10.11 Supporting New Green Fuels

- **Do you agree with the outlined approach for additional support for green hydrogen?**

LGI is generally supportive of the recognition, and subsequent incentivisation of novel renewable fuels. However, we note that green hydrogen is unlikely to play a role in the decarbonisation of rural communities, given recognised challenges compressing, storing, and transporting hydrogen economically. Furthermore, the level of detail in the proposal seems premature, given the uncertainty surrounding the viability of green hydrogen.

- **Do you think that offering multiple credits for green hydrogen in the heat sector might have unintended consequences for supply in other sectors such as transport?**

LGI reiterates its answer to the above question, in this instance.

10.12 General Input

LGI would like to draw DECC's attention to LGI's Vision 2040 as well as the Renewable Energy Ireland's (REI) 40by30 report, which both outline the role that BioLPG can play as cleaner, greener fuels in helping Ireland to meet its decarbonisation targets. We have also included a section on our sector's efforts in relation to Research and Development.

Vision 2040

In September 2020, Liquid Gas Ireland launched its Vision 2040 document, which 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 in the off-grid heat and transport sectors.

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.

40by30

Renewable Energy Ireland launched its 40by30 report launched in 2021, which sets out REI's roadmap to an Ireland where 40 per cent of heat can come from renewables by 2030 and outlines the role that renewable gas (BioLPG) can play. If 500,000 rural homes switched from using oil-fired central heating to BioLPG by 2040, it would save about 1.9 million tonnes of CO₂ emissions per year.

Research and Development

BioLPG currently used in Ireland is a by-product of a conventional hydrotreated vegetable oil (HVO) process that mainly produces renewable biodiesel. It is made at Neste's renewable product refinery in Rotterdam from a mix of sustainably sourced renewable vegetable oils, residues, and waste materials. In the next five to ten years, HVO and co-processing are likely to be the dominant sources of BioLPG, after which the focus will be on second generation pathway development by using existing technologies re-engineered to produce BioLPG.

BioLPG supplied on the market today is approved in accordance with 'EU-RED II', is a fully traceable renewable fuel and is certified under the International Sustainable Carbon Certification (ISCC) scheme.

Our sector has demonstrated significant progress in feedstock development since the product's introduction to the Irish market in 2018. In 2020, 22.5% of the BioLPG in the Biofuels Obligation Scheme (BOS) was made from Used Cooking Oil and our sector continues to invest in significant research and development to progress advanced feedstock options, including the potential for future supply of BioLPG from local feedstock pathways which include the gasification of municipal solid waste. LGI member R&D teams are currently engaged with a number of Irish universities on future pathway development opportunities.

LGI members recognise the importance of close collaboration with both EU and national industry stakeholders and policymakers to ensure the necessary policy support for the production or use of BioLPG in Ireland, and to provide investment confidence to producers, suppliers, and investors across the bio propane supply chain.

Time is however required to deliver these innovations, a fact recognised by the European Union when setting the transition period to 2030 to the phasing out of first-generation feedstocks, in line with the revision of EU RED II timelines covering transportation. We expect a similar timeline to be afforded to us in Ireland, not least in the context of the role our sector plays in incentivising consumer switching from higher carbon, polluting fuels to lower carbon, clean burning fuels like LPG and BioLPG.

ENDS 29.10.21

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