

Draft National Energy and Climate Plan – 2021-2030



The Irish Liquefied Petroleum Gas Association (ILPGA)

Supporting an environmentally friendly clean air policy for
Ireland

Introduction

The ILPGA welcomes the opportunity to respond to the Department of Communications, Climate Action and Energy (DCCAE) consultation on Ireland's Draft National Energy and Climate Plan for the period 2021 to 2030.

The transition to a low-carbon economy brings opportunities for clean technology growth, job creation and competitive advantage in FDI, as well as wider benefits including improved standard of living, clean air and better health. We recognise that if Ireland is to maximise these opportunities and deliver the benefits, a whole of government approach is critical, together with strong collaboration with energy suppliers, industry and local communities.

ILPGA member companies have been supplying low carbon liquefied petroleum gas (LPG) to rural homes, businesses and communities across Ireland for over 80 years. Sustainability is at the heart of the LPG business strategy.

The ILPGA supports a multi-technology pathway to decarbonisation in the heat and transport sectors in Ireland and is devoting significant resources to product innovation and diversification as part of the company's decarbonisation strategy. With the launch of a renewable liquefied petroleum gas (Biology) in 2018, the LPG industry demonstrated its commitment to playing an active role in Ireland's transition to a decarbonised economy. BioLPG offers up to 90% lower emissions than existing LPG products.

75% of rural areas in Ireland are without availability to the natural gas distribution network. We can ensure that low carbon fuels are available throughout the island of Ireland in communities, villages and towns which are not connected to the national natural gas network, ensuring greater access and greater adoption of low carbon fuels.

Importantly, the LPG industry bring considerable experience and a proven track record in delivering low carbon energy solutions to off-grid consumers, not only in Ireland but across Europe. Liquefied Petroleum Gas (LPG) and BioLPG, are low carbon emission technologies, proven as effective alternatives to heating oil, petrol and diesel.

The ILPGA member companies have the experience and the expertise to play a leading role in Ireland's energy transition. Our customers and our society demand that change and we look forward to delivering it for them. The Draft National Climate and Energy Plan is an extensive document. The ILPGA has focused its response on heating policy, transport policy and general policy, including fiscal policy. In our response, we have also focused on the five dimensions of the Energy Union.

- 1. Security, Solidarity and Trust**
- 2. A fully-integrated internal energy market**
- 3. Energy Efficiency first**
- 4. Climate Action**
- 5. Research, innovation and competitiveness**

Summary of ILPGA Policy Recommendations

ILPGA can actively support the government's policy goal to further reduce carbon intensity, increase renewable fuel use and tackle air quality challenges in the heat and transport sectors to 2030 and beyond.

ILPGA has a number of policy recommendations which it advocates to support the transition to low carbon fuels for off-grid rural communities across Ireland. Below is a summary of the policy recommendations for consideration in the development of Ireland's NECP to 2030, which are addressed in the enclosed submission.

Heat Sector

- **Support** the benefits that gas brings to Ireland's energy transition
- **Adopt** the updated RED II definition of biogas in accordance with Article 2 (28)
- **Adopt** a mixed technology pathway to heat decarbonisation under the SSRH
- **Remove** carbon tax for LPG used in high efficiency CHP installations
- **Establish** KPI's and regularly review heat policy initiatives
- **Assess** life cycle greenhouse gas emissions (GHG)
- **Align** climate and clean air policy

Transport Sector

- **Introduce** a range of tax and financial incentives to encourage a transition to low emissions gas propelled vehicles, including LPG and BioLPG
- **Expand** the current definition of transport, to allow eligible forms of 'non-road transport machinery' to contribute to Ireland's Biofuels Obligation Scheme targets
- **Deliver** a gas propelled vehicle awareness programme

General Policy

- **Take** a leadership role in renewable energy
- **Commit** to support measures which support the decarbonisation of rural homes and businesses
- **Implement** a carbon pricing regime which differentiates on the basis of full life cycle carbon emissions
- **Learn** from the experience of the 2020 targets and the challenges posed by Ireland's planning system and look to front load activity
- **Harness** the strength of private sector investment in addition to that of the public sector

About the ILPGA

ILPGA member companies supply and distribute LPG (Liquefied Petroleum Gas) and BioLPG in Ireland, allowing homes and businesses, located off the natural gas network, to avail of the benefits of gas. One of our member companies will be launch in 2019 Liquefied Natural Gas (LNG) for the industrial and transport sectors. The LPG industry employs 500 staff throughout the island of Ireland serving circa 70,000 bulk customers across residential and industrial commercial sectors. Additionally, we serve c. 600,000-cylinder users and other customers, north and south.

Our member companies are a part of larger energy distributor groups distributing LPG across three continents serving 30 million. ILPGA firmly believes that LPG can create clean air quality and dramatically reduce carbon impact and is committed to working sustainably with communities, stakeholders and policymakers to advance energy, together.

About LPG

LPG is one of the cleanest fossil fuels. LPG is a by-product of oil and natural gas extraction. It can be supplied anywhere in Ireland and is the fuel of choice for homes and businesses in rural Ireland that are looking for a cleaner, more flexible fuel source. LPG is available in bulk tanks and cylinders storage, for domestic, commercial applications (such as heating, catering and manufacturing) and transport both in road (cars) and non-road (fork lift trucks) applications.

LPG contributes directly to climate and energy policy by reducing emissions from domestic, commercial, industrial and transport sectors, predominantly in rural areas where there is no alternative low carbon fuel. The LPG products (butane and propane), both of which are petroleum or natural gas constituents, are sourced from the Whitegate refinery in county Cork but also from refineries at Milford Haven in the United Kingdom and elsewhere in Europe.

The Irish infrastructure includes sea terminals in Cork, Dublin, Drogheda and Belfast, with additional strategic storage sites in Ballyhaunis, Claremorris and Sligo. These are supported by a modern and sophisticated LPG tanker fleet. Combined with logistics and automatic telemetry technology, LPG companies can ensure efficient, optimised fuel supply to rural energy users. For industrial and commercial sectors, member companies engineering teams are available to project manage each aspect of bulk LPG installation, from design and consultation through to delivery.

About BioLPG

BioLPG (biopropane) is the first renewable gas to be available to homes, businesses and transport on the island of Ireland. BioLPG is identical in appearance, performance and application to conventional LPG. It is made from a mix of sustainably-sourced renewable vegetable oils and waste materials. BioLPG is made in a manner which is consistent with best practice for sustainable land use in accordance with European guidance.

Importantly, it is certified in this regard. BioLPG is transported and stored in the same bulk tanks and cylinders and used in the same boilers and appliances as LPG. The transition from LPG to BioLPG is totally seamless, in the same way it was before for a company switching from electricity made from coal to electricity derived from green energy.

There is just one important difference - the production process. BioLPG contributes to Climate and Energy Policy by substantially reducing emissions and increasing the share of renewable heat and transport. This will help us achieve EU targets and avoid fines. Bio-LPG also enhances security of energy supply by creating a new energy source available to Irish businesses.

Produced by NESTE, a specialist in advanced biofuels, at a custom-built refinery in Rotterdam, feedstocks used in the production of BioLPG are verified with International Sustainability and Carbon Certification and are RED II compliant. Since the launch of BioLPG, 25 new facilities are in stages of planning for the production of BioLPG.

Prioritising the Needs of Off-Grid Rural Communities

Ireland still has a significantly rural character with a large rural population but low population density. Agriculture and agri business remains a key driver of Ireland's economy. There are 137,000 family farms in Ireland. Agriculture accounts for approximately 10% of Ireland's employment.

Ireland has one of the highest proportions of people living in rural areas among EU states, with a rural population of 36.4%, according to a 2016 Eurostat survey. Rural households and businesses face more complex fuel options and housing types than their on-grid counterparts. The unique needs of off-grid rural communities and businesses should be addressed in the development of Ireland's National Energy and Climate Plan for the period to 2030 and beyond.

The shift to a low carbon economy is as much and more about meeting consumer needs as it is about creating new energy supply. Policy should recognise the unique characteristics of rural homes and heating. If the end user's unique needs are not met, the change won't happen. We need to ensure that we adopt a mixed technology pathway to tackle the decarbonisation of off-grid rural homes and businesses in Ireland – with biogas playing its part. European studies have shown that adopting a mixed technology pathway is also considerably more cost effective.

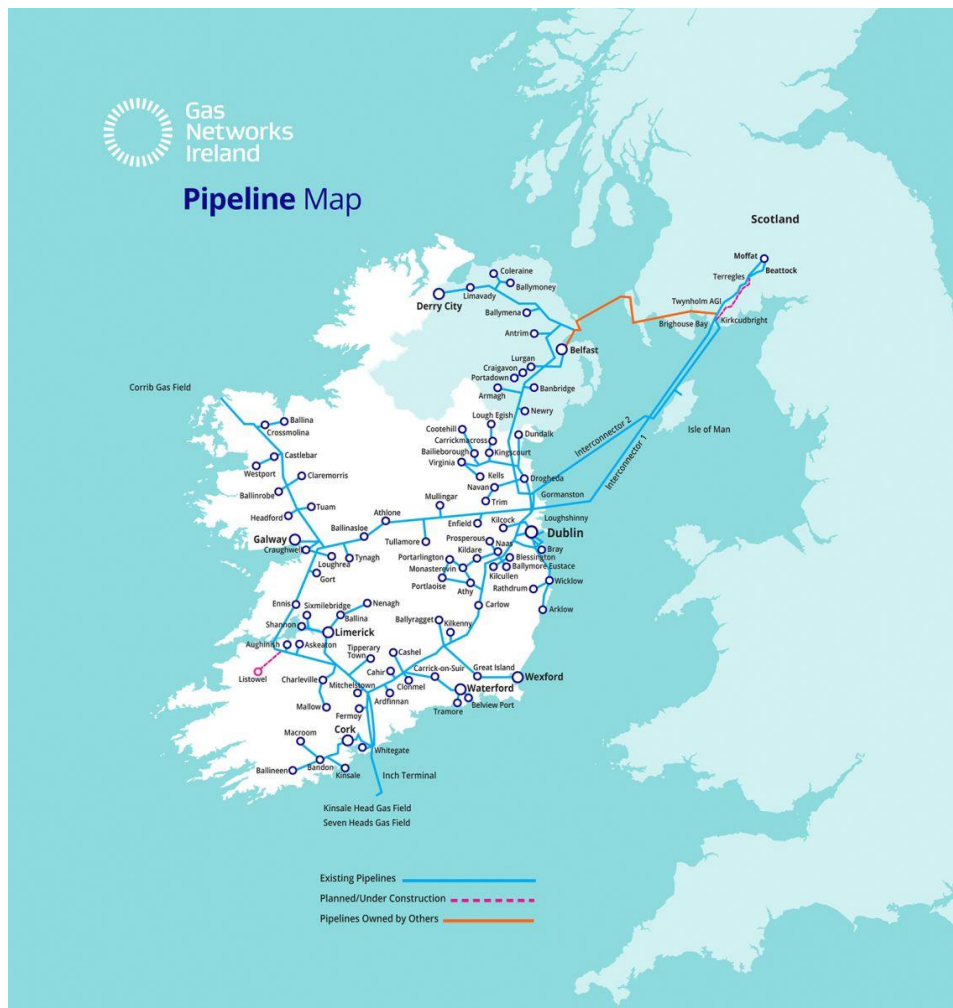
The ILPGA notes the government's Project Ireland 2040 strategy to direct a greater proportion of growth and investment to Ireland's regions and rural communities. By 2040, the government highlights that Ireland's population will have increased by a million and half of that growth will take place in rural Ireland - outside the five main cities. Low carbon and cost-effective energy will be a cornerstone to achieving this goal.

Since its creation in 2010, an initiative called the Future of Rural Energy in Europe (FREE) has concentrated on raising awareness about the importance of European rural areas when it comes to energy provision and energy use. With its network of supporting organisations and regions, FREE aims to alert policymakers both at EU and national levels – about the series of challenges faced by rural energy users. In rural areas, due to their limited access to the natural gas grid, consumers are left with fewer energy choices and as a consequence they often have to rely on relatively high carbon solid and liquid fuels which are being used with aging technologies.

Despite significant extension of the national gas network in the 1990s and the early part of the current century, there are still many energy customers in rural Ireland, and indeed customers close to towns and cities, that are not connected to the natural gas grid. According to Gas Networks Ireland and the Commission for Utility Regulation, only about 648,000 businesses and households have natural gas connections in the Republic, out of a potential total exceeding 2 million. Natural gas availability in Ireland is lower, and reliance on LPG is higher, than the European average.

It is also important to note that where a town is served by the Natural Gas network it is often only the main commercial areas and urban centre that is connected. In many cases the strongest demand for LPG comes in areas adjacent to connected towns, where there is a strong understanding of the benefits of gas, but where there is no economic basis to extend the network into housing estates and satellite communities.

Accordingly, it is reasonable to assume that the geographical pattern of LPG usage in Irish small business units and in households is unlikely to be greatly altered for the foreseeable future through further extension of the natural gas distribution network.



Source: Gas Networks Ireland

Rural consumers who are not connected to the gas network, must rely on the available alternatives, which include electricity for cooking as well as oil and solid fuel for heating. LPG and BioLPG will play a key role in Ireland’s energy transition by providing off-grid communities and businesses with an alternative to carbon-intensive fuels.

All told, the ILPGA estimates that the LPG market in Ireland comprises of just under one million customers. The market share for LPG is growing in Ireland and across Europe, with the main factor driving this growth the desire among businesses, homeowners and policy makers to transition to cleaner energy solutions. ILPGA estimates that if 500,000 homes switched from using oil-fired central heating to LPG, it would save about 2.5 million tonnes of CO2 emissions per year – equivalent to taking 1.25 million cars off the road.

Off-grid rural communities should form a central part of Ireland’s decarbonisation agenda and their unique needs should be addressed and recognised as part of Ireland’s National Energy and Climate Plan for the period to 2030 and beyond. A multi-

technology pathway, which recognises the central role that gas and bio-gas will play in the decarbonisation of rural Ireland, is crucial. It offers the opportunity to decarbonise agriculture and assist rural Ireland in making the transition from polluting fuels to low carbon alternatives, without costly infrastructure investment.

Heat Decarbonisation Policy

Thermal energy accounts for approximately one third of Ireland's total energy use. From a climate and energy perspective, there are two key targets in relation to thermal energy – the target for renewable heat deployment and the target to reduce overall emissions. Under the 2009 Renewable Energy Directive, Ireland has a target of 12% energy for heat to come from renewable energy sources, by 2020. Currently, c. 6.8% is renewable.

While the key drivers of Ireland's overall emissions are transport and agriculture, heating remains a challenge. Domestic heating accounts for approximately 9% of Ireland's carbon emissions. Ireland's domestic heating is still substantially delivered by heavy emitting fossil fuels, home heating oil, coal and peat.

The Government's Support Scheme for Renewable Heat (SSRH) is a key measure to increase renewable energy in the heat sector and decrease emissions. ILPGA notes that the National Development Plan sets out an indicative allocation of €300 million for the roll-out of the scheme for the period 2018-2027.

An ILPGA member company has made formal representations during the Department's consultation and design process, seeking the inclusion of BioLPG in the government's scheme and continues to engage with officials at the Department of Communications, Climate Action and Environment on future phases of the scheme. A number of industry associations have also represented their membership in seeking the inclusion of Biogas and BioLPG in the government's scheme to date including the Irish Business and Employers Confederation (IBEC), Renewable Gas Forum Ireland (RGFI) and the Irish Liquid Petroleum Gas Association (ILPGA).

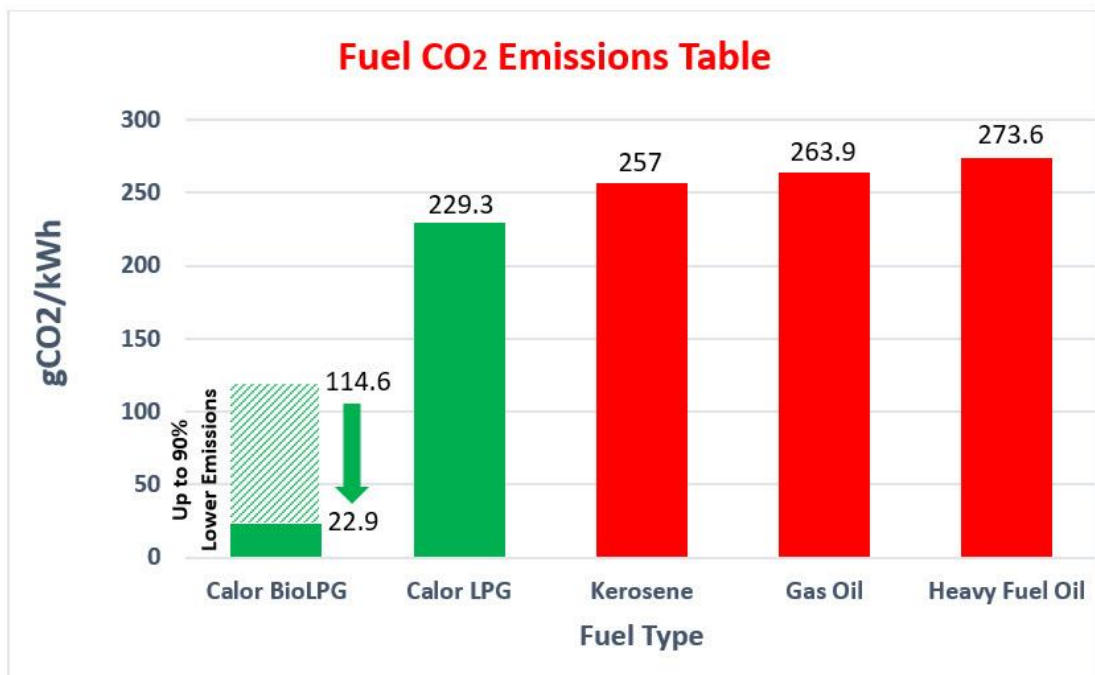
LPG and BioLPG are a direct replacement for solid fuels and provide a significant environmental benefit to the state. LPG has significantly lower greenhouse gas and particulate emissions than oil, coal and peat, the fuels it most often replaces. In addition, LPG does not emit any form of fine particles and makes an important contribution to air quality improvements. Therefore, Ireland can ill afford to discourage consumers from switching to lower emission fuels, given our current position regarding EU emission targets commitments.

Decarbonising domestic heating represents a key challenge for Ireland. There is no silver bullet. While much of the government's focus to date has been on heat pumps and biomass, we need to take a broader view of decarbonisation. While it can be argued that electric heat pumps are suitable for new builds or recent builds, it is not a cost-effective solution for the deep retrofit of Ireland's housing stock. Existing gas users are more likely to switch to renewable gas than install a new heat pump. Indeed, for many older homes on oil, switching to gas will be more efficient than switching to a heat pump.

BioLPG is a drop-in replacement for conventional LPG, and requires no investment, risk or change to the customer's equipment or facilities. The biggest environmental gain from the use of this very low carbon, clean fuel is when it replaces solid and liquid fuels such as coal and heating oil. Business and domestic consumers make decisions on their energy sources for the long term.

By excluding renewable gas in the current SSRH, it is essentially locking out energy users into investment decisions that will fundamentally alter the market in Ireland and will place the roll out of biogas technology in jeopardy. The primary objective of the Support Scheme for Renewable Heat is to contribute to meeting Ireland's 2020 renewable energy targets whilst also reducing greenhouse gas emissions.

BioLPG is certified at EU level as offering up to 90% lower emissions than existing LPG products. Using BioLPG also dramatically reduces the level of particulate emissions when compared to coal or oil. It has the potential to play a crucial role in achieving a greener and more sustainable future for Ireland's off-grid rural communities.



*Up to 90% carbon reduction achievable with BioLPG compared to other fossil fuels. Actual figure is dependent upon input feedstocks and blend taken. *Source: Neste Biofuels, Rotterdam*

Source of Carbon Emission Factors: SEAI.ie

The full potential of gaseous fuels needs to be further exploited by Ireland, especially with respect to their potential to reduce emissions in rural areas. To date, a range of industrial, multinational, agri-food and tourism and hospitality businesses have made the switch to BioLPG.

Early adopters come in all sizes and sectors



ILPGA Heat Policy Recommendations

Support the benefits that gas brings to Ireland's energy transition

DCCAIE made the decision to end the grant for high efficiency gas boilers. This decision ignores the savings that can be made by consumers switching from peat or oil boilers to LPG and natural gas and in time using biogas. Furthermore, it has implications on gas supplier's ability to encourage consumers to switch from coal or oil to renewable gas in the short or long term.

In the UK, heat pumps have had a challenging history and many house builders and home owners still favour high efficiency condensing gas boilers, which can be run on low carbon biogases like biomethane or BioLPG. In Ireland, based on the nature of the heat delivered by heat pump technology, it is necessary to undertake significant installation and insulation works compared to low carbon gas.

Many rural dwellings are older and would require significant upfront investment to switch to heat pump technology. By pursuing an electrification approach to heat decarbonisation, DCCAIE is failing to acknowledge that hundreds of thousands of energy users prefer to cook and heat their homes on gas and they could do this in an extremely low or even zero carbon way by using biogas.

Adopt the updated RED II definition of biogas in accordance with Article 2 (28)

The ILPGA is calling on DCCAIE to revise and update the current definition of biogas, to ensure Ireland is in line with updated EU policy. The definition of biogas was amended in the 2018 EU Renewable Energy Directive, in order to cover other renewable gaseous fuels. Article 2 (28) in the 2018 Directive defines biogas as "gaseous fuels produced from biomass". The reason for the amendment is in line with the introduction of new renewable gaseous fuels to the market, which were included in Annex III to the RED Directive. The extended list of gaseous fuels, including bio propane, would not be eligible for support if they were not covered under the definition of biogas.

Adopt a mixed technology pathway to heat decarbonisation under the SSRH

ILPGA strongly advocates the inclusion of BioLPG in the Support Scheme for Renewable Heat to support rural consumers and businesses who are seeking to make a transition to a renewable gas fuel, but who face the challenge of cost competitiveness. We would advocate equal treatment with electric heat pumps and biomass as part of a multi-technology pathway to decarbonisation, which will offer maximum benefit to consumers.

In written engagement with DCCAE, ILPGA advocated a c/kWh support for BioLPG under the SSRH. By limiting scheme support to biomass and heat pumps, BioLPG, which would have been more competitive than biomass or heat, now faces a competitiveness challenge, which will represent a short and long term barrier to consumer switching. Another option for the support of BioLPG would be the ring-fencing of carbon tax that is generated by annual LPG sales to be specifically allocated for the development of renewable BioLPG across all sectors including thermal, transport and electricity generation.

Remove carbon tax for LPG used in high efficiency CHP installations

ILPGA advocates the removal of carbon tax for LPG in high efficiency CHP installations, in line with the natural gas industry. A provision was included in the Finance Act 2016, with effect from 1 January 2017, to change the relief from NGCT for natural gas used in environmentally friendly HE CHP from a partial relief to a full relief.

Establish KPI's and regularly review heat policy initiatives

ILPGA strongly favours a review of all renewable energy support schemes after an initial 12-month period. Schemes should have specific Key Performance Indicators (KPIs). Where a scheme is not seen to be delivering on key objectives, we believe that it should be amended on the basis of consumer research and industry consultation.

Assess life cycle greenhouse gas emissions (GHG)

In order to properly calculate the carbon impact of any fuel, it is important to look at the life cycle greenhouse gas emissions of that fuel, including each stage of its production and use. Investing in new energy solutions is a decision with long term consequences. By implementing this full life cycle approach to carbon immediately, we will give certainty to businesses and homes who are looking to invest in new energy solutions.

A number of EU approved voluntary schemes could immediately support the assessment of life cycle greenhouse gas emissions (GHG) for the heat sector. The whole life cycle of BioLPG is calculated as part of its certification. This includes the production of feedstocks, the shipping of the fuel and the carbon emitted in use. This full life cycle approach is essential to gaining a true estimate of the environmental benefit of renewables. ILPGA advocates that a similar approach is adopted for other low carbon fuels, which to date, have often only been assessed on a consumption basis.

Align climate and clean air policy

ILPGA strongly advocates for the alignment of climate and clean air quality in the development of Ireland’s NECP. EPA figures released in February 2019 indicate that poor air quality is now responsible for 3 premature deaths per week in Ireland, 1100 in a year.

ILPGA notes the following statement on Page 287 of the Draft NECP:
 “Decarbonisation of heat and transport may also lead to health gains where levels of fine particulate matter (PM2.5) air pollution are reduced. Biomass combustion for renewable heat can increase levels of air pollution so careful consideration of this potential negative health impact is required when assessing renewable heat policy. The World Health Organisation (WHO) guidelines recognise that “no threshold has been identified below which there is no damage to health. Therefore, the WHO recommend aiming for the lowest concentrations of particulate matter possible.

Therefore, reduced adverse health impacts from reduced air pollution in Ireland can be a significant co-benefit of the decarbonisation of power generation, heat and transport where climate and clean air policy objectives are fully aligned. ILPGA advocates for an assessment not only of the impact low carbon technologies will have on Ireland’s climate policy but importantly, on Ireland’s air quality. LPG emits approximately 99% less particulate emissions than peat or oil. It also emits substantially less particulates than biomass.

Impact of ILPGA Heat Policy Proposals on the Energy Union

Energy Union Pillar	Impact of Policy Proposals
Security, Solidarity & Trust	In a post Brexit environment, Ireland’s energy sources remain heavily tied to the United Kingdom, particularly in the area of natural gas. The availability of a portfolio of energy sources such as LPG and BioLPG, compressed and LNG will diversify Ireland’s energy mix and help reduce dependence on any one technology or any one pipeline.
Energy Efficiency	Energy efficiency is economic investment, its social action and it is climate action. Using less energy and use it more efficiently is the most cost effective and accessible way for us all to address climate change. Modern gas powered technologies are recognised as highly efficient, and are readily available to energy users in Ireland. It would be an oversight to dismiss the huge benefits of existing low carbon fuels. LPG and BioLPG and are among the most efficient fuels available. They offer significant benefit in terms of pricing and in operation costs. The seamless switch from LPG to BioLPG also delivers the most efficient use of resources for switching energy users to a lower carbon alternative.
Climate Action	Policies which support the development of BioLPG and LPG and will assist in reducing Ireland’s emissions profile.

	Beyond the focus on Carbon, LPG and BioLPG offer even greater benefit in terms of air quality.
--	--

Transport Decarbonisation Policy

With responsibility for 20% of Irish emissions and as the third largest emitting sector, transport will have a significant role to play in Ireland's national decarbonisation agenda.

The ILPGA welcomes the stated ambition in Ireland's Draft NECP to decarbonise the national passenger car fleet by 2050 and to increase the use of alternative fuels in the freight sector. The ILPGA also acknowledges the importance of the government's National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland, which outlines a long-term vision for the sector.

The ILPGA encourages the Department to achieve the objectives as laid out in the **National Policy Framework on Alternative Fuels Infrastructure for Transport**, namely:

LPG

Existing supports

LPG currently derives benefit from an excise duty rate of €96.45 per 1000 litres, which helps to keep the cost of the fuel competitive in the Irish market.

Measures to be considered by end of 2019

- Secure commitment to maintain or reduce excise duty rates for a prolonged period (minimum eight years), taking account of excise levels on other alternative fuels, providing certainty to the market for LPG
- Introduce an ACA tax incentive for companies with the aim of encouraging investment in refuelling infrastructure and equipment for LPG. The ACA would allow companies to write off 100% of the purchase value of qualifying refuelling equipment against their profit in the year of purchase
- Examine VRT rates on factory fitted LPG fuelled vehicles and/or all new cars that are fitted with LPG conversions from an approved LPG Conversion Centre
- LEV Taskforce to consider the range of measures and options available to Government for the purpose of accelerating the deployment of low emissions technologies and fuels, including LPG, in order to help reduce emissions and improve air quality

The ILPGA believes that this accepted National Policy is a strong opportunity to meet the country's ambitions of decarbonising transport in Ireland.

The ILPGA also welcomes the work of the Low Emissions Vehicle Taskforce to examine the potential for alternative fuels for transport and intends to engage proactively on policy measures which would support the delivery of LPG and Bio-LPG. We also note the commitment in the National Development Plan 2018-2027 to support the expansion of the refuelling network for alternatively fuelled vehicles to address freight emissions.

One of our member companies recently responded to the Department's consultation on the Biofuels Obligation Scheme, to increase the share of renewable energy in the transport sector and supported the recent increase by volume to 11%. we welcome the Government's Policy Statement on the Biofuels Obligation Scheme published in April

2018, in particular Action 5 ('work with industry and stakeholders to further increase the use of biofuels post 2020') and Action 6 ('carry out public consultations on future obligation rate increases every two years post-2020, which includes the introduction of new fuel sources).

Benefits of LPG and BioLPG

Ireland's transport system is currently highly fossil fuel dependent, which results in significant emissions of greenhouse gases (GHGs) and air pollutants that are contained in exhaust fumes. According to the EPA, air pollutants released from transport are a key public health issue. The EPA has highlighted that the transport sector accounted for 12% of all air pollutant emissions in 2015 and is one of the largest contributors to particulate matter pollution in cities.

The Draft NECP highlights that reduced adverse health impacts from reduced air pollution in Ireland can be a significant co-benefit of the decarbonisation of power generation, heat and transport where climate and clean air policy objectives are fully aligned.

The ILPGA can actively support the government's policy goal to further reduce carbon intensity, address air quality and increase renewable fuel use in the transport sector to 2030 and beyond. Liquefied Petroleum Gas (LPG) and advanced biofuels like BioLPG are low carbon emission technologies, proven as effective alternatives to peat and oil.

BioLPG offers even greater emissions benefits than conventional LPG, particularly in relation to CO₂ emissions. While the market in Ireland has been relatively small, LPG for transport is a significantly larger market in Europe. With the availability of BioLPG, there is the opportunity to switch non-road mobile machinery and commercial vehicles to a renewable fuel.

Further to the recent call by Minister Richard Bruton for active sectoral contributions to policy development to address Ireland's climate change target challenges, ILPGA recommends expanding the scope of the current Biofuels Obligation Scheme (BOS) in Ireland. This approach is in line with similar schemes in the transport sector in Europe, including the UK and the Netherlands. The LPG sector in the UK, proactively engaged with policy advisors in the Low Carbon Fuels unit at the UK Department of Transport during their consultation process and is open to sharing lessons learned on the benefits delivered.

The Energy (Biofuel Obligation and Miscellaneous Provisions) Act 2010, is to further promote the use of biofuel in the State by means of a biofuel obligation requiring that a specified amount of road transport fuel is biofuel. The Act stipulates the obligation rate is determined by the total disposal of 'road transport fuel' meaning any liquid or gaseous fuel which may be used to power, in whole or in part, a motor vehicle whether or not it may also be used for any other purpose. A 'motor vehicle', meaning a mechanically propelled vehicle, which is powered, in whole or in part, by an internal combustion engine and is designed, constructed or modified to be suitable for use on roads.

The current definitions only allow biofuels used for transport on roads to be counted towards the BOS and Ireland's transport targets. Expanding the current definition of

transport, to allow eligible forms of ‘non-road transport’, would provide further opportunities to meet Ireland’s transport decarbonisation targets through the BOS. The Netherlands currently has an expanded transport definition and scope under the HBE (Hernieuwbare Brandstofeenheden) transport scheme, to meet the same objective as the BOS.

The United Kingdom widened the scope of its Renewable Transport Fuel Obligation in 2018 by introducing the term “non-road transport”. As a result, Renewable Transport Fuel Certificates can also be claimed for suitable biofuels used in (a) non-road mobile machinery; (b) inland waterway vessels which do not normally operate at sea; (c) recreational craft which do not normally operate at sea; and (d) tractors.

Under the term ‘non-road mobile’ machinery, materials handling is one of particular interest as it could promote the use of renewable gas in the transport sector. BioLPG is already recognised and eligible for the BOS under the definition of ‘road transport’. Materials handling is a form of ‘non-road transport’ widely used in Ireland through the fork lift truck sector. The sector currently uses diesel, electric and LPG engines, with fossil diesel being the prominent choice of fuel.

As an example, the total disposal of biofuels put on the market in 2017 (225,772,414 litres) would have increased by up to 2%, if fork lift truck use was included in the scheme and existing LPG usage in the sector was replaced by BioLPG. Widening the scope of the current transport definition would also provide new channels for biofuels product innovation and development. Marine transport, aviation and the train network could also be considered under the BOS.

The ILPGA and its member companies brings extensive experience in low carbon gas technology for the transport sector from Ireland, the UK and across Europe and looks forward to engaging with the Department and the Low Emissions Vehicle Taskforce on supporting the transition to a decarbonised transport sector in Ireland.

ILPGA Transport Policy Recommendations

Introduce a range of tax and financial incentives to encourage a transition to low emissions gas propelled vehicles

Transitioning to gas propelled technology will make a significant contribution to Ireland's efforts to reduce carbon and cut pollutants but it requires clear policy interventions to incentivise a move from petrol and diesel and to support investment in infrastructure delivery, in order to encourage freight companies and hauliers to invest in the technology, without compromising their operational efficiency.

The ILPGA welcomes the acknowledgement by the government in the Draft NECP that new technology deployment and behavioural change initiatives need to be advanced across the transport sector, stimulating changes to the way people travel and the types and amounts of fuels that are used. Furthermore, that a mix of further measures, developments and initiatives will be needed to continue to respond to the climate challenge.

We particularly welcome the commitment to support the early transition to alternative fuels by maintaining and building upon existing tax and financial incentives for low emissions vehicles and consideration of further potential policies and measures to support the uptake of low emission vehicles by The Low Emission Vehicle Taskforce.

ILPGA recommends a number of support measures to ensure the adoption of low emissions gas technology in the transport sector:

- Introduce a carbon tax reduction on natural gas for transport until 2025, to incentivise the transport sector to begin the switch to gas propelled technology.
- Introduce zero excise duty relief for low carbon gas propelled vehicles including LPG to 2030.
- Introduce a cent/litre support (through a lower VAT rate or subsidy relief) for the first 3 to 5 years if an LPG fuelled HGV is acquired before 2022 (to accelerate the transition).
- Introduce a grant scheme/fund for the purchase of LPG liquid gas trucks/commercial vehicles to support investment from transport operators.
- Introduce a concession for gas propelled HGV's and other large commercial users on toll roads.
- Introduce funding support mechanisms for the delivery of LPG liquid gas fuelled infrastructure delivery for HGV trucks. One potential funding mechanism is the government's Climate Action Fund.
- Extend the Budget 2018 Accelerated Capital Allowance (ACA) Scheme for LPG propelled vehicles and refuelling equipment for LPG vehicles.
- Introduce a grant for conversion of all petrol fuelled vehicles to LPG.

Expand the current definition of transport, to allow eligible forms of 'non-road transport' to contribute to Ireland's Biofuels Obligation Scheme

An extension of the current definition of transport, would provide further opportunities to meet Ireland's transport decarbonisation targets through the Biofuels Obligation Scheme. The current definitions only allow biofuels used for transport on roads to be counted towards the BOS and Ireland's transport targets.

Deliver a Gas Propelled Vehicle Awareness Programme

Similar to the programme delivered for EV vehicles, we recommend a government awareness campaign and road show to raise the profile and understanding of gas propelled technology for HGV's and commercial vehicles with transport and commercial fleet operators.

Impact of ILPGA Transport Policy Proposals on the Energy Union

The policies that we are proposing are intended to increase the availability of low carbon and renewable transport energy products in Ireland. While some progress has been made in decarbonising transport, there is a long way to go. As with renewable electricity, a number of options will be required to reach Ireland's policy goals, including gas, biofuels and electrification.

Energy Union Pillar	Impact of ILPGA Policy Proposals
Security, Solidarity & Trust	At present, Ireland's transport energy is almost exclusively petroleum based. It is a major contributor to emissions. The policies that we are recommending will not only reduce emissions, it will reduce Ireland's dependence on petroleum products. As LPG is not a dominant fuel in Ireland's energy mix, increased deployment will help enhance our fuel diversity.
Energy Efficiency	Policies which encourage the use of LNG and BioLPG will reduce energy costs for HGV operators and will also reduce operating costs.
Climate Action	LPG and BioLPG as fuels will help tackle Ireland's significant transport emissions challenge. Development of BioLPG as a fuel will also help impact on Ireland's renewable transport targets. Adopting LPG for transport will prepare the industry for the seamless adoption of Bio fuels in the future.
Research Innovation & Competitiveness	Policies which support the development of LNG and BioLPG support innovation in Ireland's energy system. LPG in particular, will help drive down energy costs for larger rural energy users.
Integration of Energy Market	Countries throughout the EU have greater options in terms of transport energy. LPG is widely available as a transport option. Policies which support greater diversity of fuel options will allow for greater freight travel between Ireland and the EU. This will be particularly important for Ireland in a post Brexit environment.

Broader Policy Commitments

In order to achieve our goals, it is important to gain political buy in for some key policy commitments. These policy positions underpin the delivery of specific policy actions. Without political buy in to these overarching objectives, it becomes harder to deliver policy at Departmental or Agency level.

The National Climate and Energy Plan should be a bold statement of intent, backed up by the political will to deliver. We should not be looking to scrape through this

challenge, we should meet it head on. In doing so, we should be creating a better and more sustainable society. Beyond the specific sectors of heat and transport, ILPGA advocates the following important policy positions:

Take a leadership role in renewable energy

Ireland has the potential to be a leader in deployment of clean energy. It is clear from surveys of both business and domestic energy users, that there is a willingness to adopt clean energy technologies. While progress has been made in the area of decarbonising electricity, far less has been achieved in relation to transport and heat. In terms of heating, Ireland still has one of the highest levels of dependency on home heating oil anywhere in Europe. Over 700,000 Irish homes are currently dependent on oil for heating.

We will miss our 2020 targets for emissions. Our goal must be to make up this lost ground as quickly as possible and to move ahead with addressing our 2030 targets. In order to push this leadership role, Government must look at all practical opportunities to encourage take up of renewable and low carbon alternatives. An example of this is the Support Scheme for Renewable Heat (SSRH), which currently excludes BioLPG. Given the potential that BioLPG has to support the transition to renewable heat in rural Ireland, we strongly urge its inclusion in the SSRH.

Commit to measures which support the decarbonisation of rural homes and businesses

Decarbonisation is a challenge for the whole of Ireland, not just for those living and working in our urban centres. As sustainability becomes a greater focus for businesses, access to low carbon energy becomes not only an environmental issue, but also an economic one.

Regions that have availability of sustainable, low carbon energy sources will be in a stronger position to compete for jobs and investment than those that don't. It is important that rural centres do not miss out on investment because of lack of sustainable energy. Decarbonising heat and transport in rural areas is best achieved through gas-based solutions, LPG, BioLPG and LNG. These solutions offer significant emissions savings, while also offering an efficient, flexible and cost-effective alternative to other fossil fuels.

Implement a carbon pricing regime which differentiates on the basis of full life cycle carbon emissions

Taxation has an important role in shaping consumer behaviour. As evidenced by the plastic bag levy, even a small charge can impact on consumer decisions. ILPGA supports the role that environmental taxes have to play in shifting behaviour and also supports the extension of the carbon tax on the basis on which it currently operates. In particular, we strongly advocate a system that differentiates between the carbon intensity of fuels.

This gives certainty to consumers and guides them in making efficient decisions. This would mean the heaviest penalties for carbon heavy fuels such as coal, peat and oil and a lesser charge for LPG and natural gas. It ensures that the consumers who make the best choices get the best reward.

We also strongly recommend that the calculation of carbon takes into account the full life-cycle greenhouse gas (GHG) emissions of each fuel.

Learn from the experience of the 2020 targets and the challenges posed by Ireland’s planning system and look to front load activity

There is a clear direction of travel for renewable energy and emissions targets. 2020 targets have been a known factor for over a decade, yet we arrive at the eve of 2020 and will miss both energy and emissions targets. The cost of this is estimated at 500m per annum, with fines continuing in the years ahead.

We must learn from our past example and seek to implement solutions in a timely manner, where possible front-loading solutions. This approach is even more important when one considers the planning challenges faced by developers of energy infrastructure all over Ireland. With Judicial Reviews becoming a norm for large energy projects and delivery times becoming longer as a result, we cannot believe we can deliver projects quickly.

Harness the strength of private sector investment in addition to that of the public sector

Ireland’s energy system is still characterised by heavy involvement from the Public Sector. These public companies have played a significant role in the progress which has been made to date in decarbonising Ireland’s energy system. The private sector has an important role to play in the energy space.

The roll out of renewable electricity was greatly aided by the support of private companies who delivered at all stages of the project lifecycle from conception, to development through to electricity sales. Incentivising and encouraging private investment will ultimately increase the pool of capital available for decarbonisation and will assist in driving the delivery of projects. The Climate Action Fund is one such opportunity to demonstrate support to the private sector.

Impact of ILPGA Broader Policy Proposals on the Energy Union

The policies that we are proposing are intended to increase the availability of low carbon and renewable energy products in Ireland. In addition to this, ILPGA has a specific focus on the rural market, located away from the natural gas network. ILPGA member companies as part of SHV and DCC Energy groups are part of a global energy network, with a particularly strong presence throughout the EU. This network will assist in feeding in to the objectives of the Energy Union.

Energy Union Pillar	Impact of ILPGA Policy Proposals
Security, Solidarity & Trust	The ILPGA member companies have benefitted from the expertise in rolling out energy projects in other European countries.
Climate Action	All of the proposals which ILPGA are making are aimed at making a deep and sustainable commitment to a low carbon economy. Our belief is that Ireland must move from playing catch up, on emissions and clean energy deployment, to a position of leadership. Through the deployment of LPG, BioLPG, will help to address emissions from both heating and transport.

	<p>This particularly applies in rural communities, where the challenge of decarbonisation may be greater.</p>
<p>Research Innovation & Competitiveness</p>	<p>ILPGA member companies have, with our industry partners, led the development of BioLPG. This is the first renewable gas on the Irish market and are investing in R & D both in Ireland to further develop our BioLPG offering.</p> <p>In terms of competitiveness, by promoting policies that make low carbon, energy efficient and renewable gas products available in rural Ireland, there is greater opportunity for industrial development in regions. This removes a significant barrier to competitiveness that is experienced in many towns around Ireland.</p> <p>On a final point on competitiveness, we would caution against policies which create competitiveness challenges in the market. ILPGA advocates a mixed technology approach to policy development, for the benefit of consumers.</p>
<p>Integration of Energy Market</p>	<p>We strongly favour a pan European approach to the designation and definition of renewable energies. ILPGA is concerned that Ireland is adopting a definition of biogas which is different to that which is envisaged at EU level and which applies in many EU countries.</p> <p>We would like Ireland to follow a policy which takes the best examples of European energy policy and allows Irish homes and businesses to benefit from them.</p> <p>As part of a network of energy businesses throughout the EU and further afield, ILPGA proposals will significantly enhance Ireland's diversity and security of energy supply.</p>

The ILPGA would welcome an opportunity to meet with the DCCAE task force to expand on our submission. For further information or enquiries, please contact:

Liam Doyle
Irish LP Gas Association
Longmile Road
Dublin 12

[Redacted]

Tel: 353 1 4505000

[Redacted]