1 Introduction Gas Networks Ireland (GNI) welcomes the opportunity to respond to the Offaly County Development Plan 2021-2027: Draft Stage. GNI is involved in two initiatives which can benefit Offaly from both an economic and environmental perspective: - Development of renewable gas injection infrastructure. - Development of Compressed Natural Gas (CNG) infrastructure for gas in transport. GNI owns, operates, builds and maintains the gas network in Ireland and ensures the safe and reliable delivery of gas to its customers. The company is responsible for transporting natural gas through 14,172km of pipeline networks. The gas network supplies energy to 700,000 customers, including businesses, domestic users and power stations. GNI believes that gas and the gas network are integral to Ireland's energy system and future. 2 Areas of Interest 2.1 Climate Action and Energy GNI welcomes the inclusion in Chapter 3 Climate Action and Energy of section 3.2.5 on Biogas from Landfills and Biomass which has a sub-section on anaerobic digestion. Renewable energy can help Offaly reduce carbon emissions which is an important part of the county's strategic objective to transition to a competitive, low carbon, climate resilient and environmentally sustainable economy. Renewable gas produced by anaerobic digestion is a clean, renewable and carbon neutral fuel that can be used in heat, transport and electricity production. It is identical in function to natural gas so the existing network can be used and gas customers do not need to change their boilers or gas powered appliances. The production of indigenous gas in Ireland enhances security of supply and also supports the circular economy and sustainable agriculture. Renewable gas was first introduced to the Irish gas grid through an injection point in County Kildare, supplied by Green Generation, in August 2019. A recent deal between Tesco Ireland and Green Generation sees Tesco supplying 6,400 tonnes of food waste per annum to Green Generation for conversion to renewable gas. This renewable gas is injected to the gas network at the Kildare injection point. In turn Tesco is purchasing this renewable gas and using it to supply six Tesco stores. This results in carbon savings of 1,200 tonnes per year for Tesco and supports the circular economy. Renewable gas should also be considered as a way to decarbonising the domestic heat sector. Ervia commissioned KPMG to develop and evaluate scenarios for decarbonisation of the one million Irish residential homes currently connected to, or within close proximity to the existing gas network. The study concluded that renewable gas is the lowest cost option to decarbonise the domestic heat sector. Furthermore, the need for deep retrofits to convert properties to a BER rating for electric heat pumps to work effectively, is avoided. This could be a relevant consideration for the Council when evaluating the options for decarbonising council housing stock. GNI also welcomes the inclusion in Chapter 3 Climate Action and Energy of

the Climate Action and Energy Objectives on gas which support the further extension of the gas grid in Co. Offaly and also support and facilitate the production of low carbon gases such as biomethane and hydrogen which can be injected into the national gas network. 2.2 Sustainable Mobility and Accessibility Chapter 8 of the Offaly County Development Plan covers Sustainable Mobility and Accessibility and within section 8.7 on Sustainable Mobility and Accessibility Policies it is highlighted that Council policy promotes the integration of land use and transport planning to reduce anthropogenic greenhouse gas emissions. Heavy Goods Vehicles (HGVs) are responsible for a disproportionate amount of transport emissions. They comprised 4% of registered vehicles nationally in 2018, however, SEAI estimates indicate that they produced 14% of total transport emissions. Decarbonisation of HGVs and buses is particularly challenging as electricity is currently not a viable alternative to diesel. CNG has the potential to address these transport emissions with reduced carbon emissions relative to diesel. When the production of renewable gas is increased on the gas network, and this gas is utilised by CNG vehicles as bio-CNG, carbon neutral transport can be achieved. In addition to reduced carbon emissions, CNG also provides improved air quality with less particulate matter, Nitrogen Oxide and Sulphur Dioxide relative to diesel. GNI suggests that the Sustainable Mobility and Accessibility section of the Offaly County Development Plan includes wording to support CNG infrastructure as follows: Compressed Natural Gas (CNG) Infrastructure “The development of CNG Infrastructure will enable fuel switching from diesel to CNG for heavy goods vehicles (HGVs. This will lead to a reduction in carbon emissions along with air quality benefits for vehicles currently using diesel. There will be a presumption in favour of applications for CNG infrastructure provided planning and environmental criteria are satisfied.” “The Council supports the development of Compressed Natural Gas (CNG) Vehicle usage and refuelling infrastructure on sites owned and occupied by Offaly County Council and private sites through supportive policies and development of control standards in the County Development Plan.” The rollout of a network of CNG refuelling facilities has commenced with 14 fast fill CNG stations being installed across the Core TEN-T road network via a project called the Causeway Study that is supported by the European Commission through the CEF Transport Fund and by the Commission for Regulation of Utilities (CRU). Two of these stations are already operational, including one at Dublin Port. This project helps support the ‘National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland (2017 to 2030)’, which sets out a target network of 70 CNG refuelling stations by 2025 . This document also forecasts Alternative Fuelled Vehicles for 2025 and 2030 i.e. 4,050 CNG

commercial vehicles in Ireland by 2025, growing to 6,050 CNG commercial vehicles by 2030. Under the Causeway Study, GNI also offered a publicly available fund to support the purchase of CNG vehicles by commercial operators. This fund was fully subscribed and is helping fleet operators to transition some of their fleet to CNG which provides fuel savings of up to 35% compared to diesel. Following the completion of planned CNG stations under the Causeway Study, a further 21 public CNG refuelling stations will be built under a project called Green Connect. This project will also include CNG mobile refuelling units for backup, additional renewable gas injection facilities and a CNG vehicle grant scheme to encourage fleet operators to switch to CNG vehicles. In 2018, GNI received approval for €11.6m of EU funding under the CEF Transport Fund for the Green Connect project. The development of CNG is supported by the 'Eastern and Midland Regional Assembly Regional Spatial and Economic Strategy 2019-2031 ' (EMRA RSES) which supports the "use of alternative cleaner fuels for home heating and transport including the use of Compressed Natural Gas powered commercial vehicles". The EMRA RSES also highlights that modal shift to public transport or non-motorised transport should be supported through improved behaviour and improved transport infrastructure and that "this should be supported by increased availability of low carbon fuels/biofuels such as Compressed Natural Gas (CNG)". The Council has highlighted that the overarching goals are prioritising sustainable transport modes in order to achieve improvements in air quality, reduction in both CO2 emissions and noise levels. GNI believes that CNG and renewable gas have the potential to make a considerable contribution to achieving sustainable transport in the near term. 2.3 Biodiversity and Landscape GNI is cognisant of the natural environment. Transportation of gas is unobtrusive and particular attention is taken to minimise the impact on local flora and fauna. GNI is committed to biodiversity and archaeology through the minimisation of the environmental impact of any construction and development activities. This involves a partnership approach with environmental and heritage groups on all construction projects, as well as employing engineers and environmental specialists to carry out environmental assessments at the planning and construction phases of developments. GNI returns all land to its original state following construction. 3 Conclusion GNI asks that Offaly County Council considers the above response in relation to their draft Offaly Council Development Plan for 2021 - 2027. The gas network is a transporter of relatively low carbon energy and is adapting to climate change with significant potential for mitigation measures to prevent carbon emissions. GNI asks that the Council considers the role that renewable gas and CNG in transport can play in reducing carbon emissions in the region and their

contribution to providing economic benefits to the local economy. County Council support for anaerobic digestion plants, CNG refuelling stations and renewable gas injection points would help establish these technologies in the region and contribute to the transition to a low carbon economy in the County. GNI would welcome the opportunity to discuss this response in more detail and can provide further information on any of the topics discussed. Please see attached pdf document with cover page for the full response. Thank you.

Offaly County Development Plan 2021-2027: Draft Stage

Gas Networks Ireland Response

7th October 2020

Part of ERVIA group

Contents

1 Introduction

Gas Networks Ireland (GNI) welcomes the opportunity to respond to the Offaly County Development Plan 2021-2027: Draft Stage. GNI is involved in two initiatives which can benefit Offaly from both an economic and environmental perspective:

- Development of renewable gas injection infrastructure.
- Development of Compressed Natural Gas (CNG) infrastructure for gas in transport.

GNI owns, operates, builds and maintains the gas network in Ireland and ensures the safe and reliable delivery of gas to its customers. The company is responsible for transporting natural gas through 14,172km of pipeline networks. The gas network supplies energy to 700,000 customers, including businesses, domestic users and power stations. GNI believes that gas and the gas network are integral to Ireland's energy system and future.

2 Areas of Interest

2.1 Climate Action and Energy

GNI welcomes the inclusion in Chapter 3 Climate Action and Energy of section 3.2.5 on Biogas from Landfills and Biomass which has a sub-section on anaerobic digestion. Renewable energy can help Offaly reduce carbon emissions which is an important part of the county's strategic objective to transition to a competitive, low carbon, climate resilient and environmentally sustainable economy.

Renewable gas produced by anaerobic digestion is a clean, renewable and carbon neutral fuel that can be used in heat, transport and electricity production. It is identical in function to natural gas so the existing network can be used and gas customers do not need to change their boilers or gas powered appliances. The production of indigenous gas in Ireland enhances security of supply and also supports the circular economy and sustainable agriculture.

Renewable gas was first introduced to the Irish gas grid through an injection point in County Kildare, supplied by Green Generation, in August 2019. A recent deal[1] between Tesco Ireland and Green Generation sees Tesco supplying 6,400 tonnes of food waste per annum to Green Generation for conversion to renewable gas. This renewable gas is injected to the gas network at the Kildare injection point. In turn Tesco is purchasing this renewable gas and using it to supply six Tesco stores. This results in carbon savings of 1,200 tonnes per year for Tesco and supports the circular economy.

Renewable gas should also be considered as a way to decarbonising the domestic heat sector. Ervia commissioned KPMG to develop and evaluate scenarios for decarbonisation of the one million Irish residential homes currently connected to, or within close proximity to the existing gas network. The study[2] concluded that renewable gas is the lowest cost option to decarbonise the domestic heat sector. Furthermore, the need for deep retrofits to convert properties to a BER rating for electric heat pumps to

[1] Irish Times – Tesco to cut emissions by converting waste food from Irish stores to gas: https://www.irishtimes.com/business/energy-and-resources/tesco-to-cut-emissions-by-converting-waste-food-from-irish-stores-to-gas-1.4271907

[2] KPMG, Decarbonising Domestic Heating in Ireland: http://www.ervia.ie/decarbonising-domestic-he/KPMG-Irish-Gas-Pathways-Report.pdf

work effectively, is avoided. This could be a relevant consideration for the Council when evaluating the options for decarbonising council housing stock.

GNI also welcomes the inclusion in Chapter 3 Climate Action and Energy of the Climate Action and Energy Objectives[3] on gas which support the further extension of the gas grid in Co. Offaly and also support and facilitate the production of low carbon gases such as biomethane and hydrogen which can be injected into the national gas network.

2.2 Sustainable Mobility and Accessibility

Chapter 8 of the Offaly County Development Plan covers Sustainable Mobility and Accessibility and within section 8.7 on Sustainable Mobility and Accessibility Policies it is highlighted that Council policy promotes the integration of land use and transport planning to reduce anthropogenic greenhouse gas emissions.

Heavy Goods Vehicles (HGVs) are responsible for a disproportionate amount of transport emissions. They comprised 4%[4] of registered vehicles nationally in 2018, however, SEAI estimates indicate that they produced 14% of total transport emissions. Decarbonisation of HGVs and buses is particularly challenging as electricity is currently not a viable alternative to diesel. CNG has the potential to address these transport emissions with reduced carbon emissions relative to diesel. When the production of renewable gas is increased on the gas network, and this gas is utilised by CNG vehicles as bio-CNG, carbon neutral transport can be achieved. In addition to reduced carbon emissions, CNG also provides improved air quality with less particulate matter, Nitrogen Oxide and Sulphur Dioxide relative to diesel.

GNI suggests that the Sustainable Mobility and Accessibility section of the Offaly County Development Plan includes wording to support CNG infrastructure as follows:

Compressed Natural Gas (CNG) Infrastructure

"The development of CNG Infrastructure will enable fuel switching from diesel to CNG for heavy goods vehicles (HGVs. This will lead to a reduction in carbon emissions along with air quality benefits for vehicles currently using diesel. There will be a presumption in favour of applications for CNG infrastructure provided planning and environmental criteria are satisfied."

"The Council supports the development of Compressed Natural Gas (CNG) Vehicle usage and refuelling infrastructure on sites owned and occupied by Offaly County Council and private sites through supportive policies and development of control standards in the County Development Plan."

The rollout of a network of CNG refuelling facilities has commenced with 14 fast fill CNG stations being installed across the Core TEN-T road network via a project called the Causeway Study that is supported by the European Commission through the CEF Transport Fund and by the Commission for Regulation of Utilities (CRU). Two of these stations are already operational, including one at Dublin Port. This project helps support the 'National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland (2017 to 2030)', which sets out a target network of 70 CNG refuelling stations by 2025[5]. This document also forecasts Alternative Fuelled Vehicles for 2025 and 2030 i.e. 4,050 CNG commercial vehicles in Ireland by 2025, growing to 6,050 CNG commercial vehicles by 2030. Under the Causeway Study, GNI also offered a publicly available fund to support the purchase of CNG vehicles by commercial operators.

[3] CAEO-06 It is an objective of the Council to support the further extension of the gas grid into County Offaly to serve existing and envisaged future residential, commercial and industrial development. CAEO-07 It is an objective of the Council to support and facilitate the production of low carbon renewable biogases such as hydrogen and biomethane, produced largely from agricultural organic matter that can be exported to the National Grid.

[4] In calculating this figure SEAI include all goods vehicles over 2 tonnes.

[5] National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland (2017-2030) https://assets.gov.ie/26377/3075c29a37b84b10acae95da89d756ea.PDF

This fund was fully subscribed and is helping fleet operators to transition some of their fleet to CNG which provides fuel savings of up to 35% compared to diesel.

Following the completion of planned CNG stations under the Causeway Study, a further 21 public CNG refuelling stations will be built under a project called Green Connect. This project will also include CNG mobile refuelling units for backup, additional renewable gas injection facilities and a CNG vehicle grant scheme to encourage fleet operators to switch to CNG vehicles. In 2018, GNI received approval for €11.6m of EU funding under the CEF Transport Fund for the Green Connect project.

The development of CNG is supported by the 'Eastern and Midland Regional Assembly Regional Spatial and Economic Strategy 2019-2031[6]' (EMRA RSES) which supports the "use of alternative cleaner fuels for home heating and transport including the use of Compressed Natural Gas powered commercial vehicles". The EMRA RSES also highlights that modal shift to public transport or non-motorised transport should be supported through improved behaviour and improved transport infrastructure and that "this should be supported by increased availability of low carbon fuels/biofuels such as Compressed Natural Gas (CNG)".

The Council has highlighted that the overarching goals are prioritising sustainable transport modes in order to achieve improvements in air quality, reduction in both CO_2 emissions and noise levels. GNI believes that CNG and renewable gas have the potential to make a considerable contribution to achieving sustainable transport in the near term.

2.3 Biodiversity and Landscape

GNI is cognisant of the natural environment. Transportation of gas is unobtrusive and particular attention is taken to minimise the impact on local flora and fauna. GNI is committed to biodiversity and archaeology through the minimisation of the environmental impact of any construction and development activities. This involves a partnership approach with environmental and heritage groups on all construction projects, as well as employing engineers and environmental specialists to carry out environmental assessments at the planning and construction phases of developments. GNI returns all land to its original state following construction.

3 Conclusion

GNI asks that Offaly County Council considers the above response in relation to their draft Offaly Council Development Plan for 2021 - 2027. The gas network is a transporter of relatively low carbon energy and is adapting to climate change with significant potential for mitigation measures to prevent carbon emissions. GNI asks that the Council considers the role that renewable gas and CNG in transport can play in reducing carbon emissions in the region and their contribution to providing economic benefits to the local economy. County Council support for anaerobic digestion plants, CNG refuelling stations and renewable gas injection points would help establish these technologies in the region and contribute to the transition to a low carbon economy in the County.

GNI would welcome the opportunity to discuss this response in more detail and can provide further information on any of the topics discussed.

[6] Eastern and Midland Region RSES: https://emra.ie/dubh/wp-content/uploads/2020/05/EMRA_RSES_1.4.5web.pdf