Draft Longford County Development Plan 2021-2027

Longford County Council

Gas Networks Ireland Response

18th January 2021

Part of ERVIA group

Contents

1 Introduction

Gas Networks Ireland (GNI) welcomes the opportunity to respond to the Longford County Council (the Council) 'Draft Longford County Development Plan 2021-2027' consultation.

GNI is involved in two initiatives which can benefit County Longford from both an economic and environmental perspective:

- Development of renewable gas[1] injection infrastructure.
- Development of Compressed Natural Gas (CNG[2]) infrastructure for gas in transport.

GNI has provided suggested changes and text for inclusion in the County Development Plan in some of the sections below.

2 Consultation Comments

Chapter 5: Transport, Infrastructure, Energy and Communications

GNI welcomes the inclusion of section 5.8.5 Bio-Energy and the statement on Bio-Energy that it "*is considered that this sector has a key role in the delivery of our renewable heat and renewable transport targets*." GNI also supports the inclusion of CPO 5.151 to "*facilitate the development of projects that convert biomass to energy*" in the Bio-Energy County Policy Objectives section of the county development plan. Biogas is a Bio-Energy that when upgraded to biomethane, can be injected into the gas network to complement or substitute natural gas and can also be compressed to create Compressed Natural Gas (CNG) and used as a transport fuel.

Biomethane and CNG can help Longford 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.

Heavy Goods Vehicles (HGVs) are responsible for a disproportionate amount of transport emissions. They comprised 4%[3] of registered vehicles nationally in 2018, however, SEAI estimates indicate that they produced 14% of total transport emissions. Decarbonisation of HGVs is particularly challenging but 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 Transport, Infrastructure, Energy and Communications chapter of the Longford 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

[1] Renewable Gas: https://www.gasnetworks.ie/corporate/company/our-commitment/environment/renewable-gas/
[2] Compressed Natural Gas (CNG) is a fuel used in the transport sector which reduces transport emissions.
[3] In calculating this figure SEAI include all goods vehicles over 2 tonnes.

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 Longford County Council and private sites through supportive policies in the County Development Plan."

GNI also suggests that an additional section is added to Chapter 5, to detail CNG in transport:

"*Compressed Natural Gas (CNG)*

CNG is natural gas that has been compressed to fit into a vehicle's tank and is particularly suitable for use in commercial vehicles. The development of CNG Infrastructure will enable fuel switching from diesel to CNG for heavy goods vehicles (HGVs) and buses. CNG is an established technology that is used in many countries around the world.

CNG produces less carbon emissions than diesel and leads to improved air quality with 95% less particulate matter, 70% less Nitrogen Oxide, and 80% less Sulphur Dioxide[4]. CNG vehicles can be run on 100% renewable gas. This is a clean, renewable and carbon neutral fuel, produced using Anaerobic Digestion (AD) technology from existing waste streams and a variety of sustainable biomass sources, including grass, animal waste, crop residues and food waste.

Infrastructure development for CNG is already underway in Ireland, with 14 fast fill CNG stations being installed across the Core TEN-T road network via a project called the Causeway Study[5] that is supported by the European Commission through the CEF Transport Fund[6] and the Commission for Regulation of Utilities (CRU).

The Council will support the use of gas in transport by a presumption in favour of applications for CNG refuelling infrastructure, provided planning and environmental criteria are satisfied."

The development of CNG in transport supports 'The National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland[7]' which sets out a target of 70 CNG fuelling stations by 2025. The Climate Action Plan has an action to develop the CNG fuelling network to support the uptake of CNG vehicles (Action 76) which is supported by the Causeway Study.

GNI welcomes the inclusion of section 5.8.5.2 Biochemical Processes (Anaerobic Digestion). Renewable gas produced by anaerobic digestion (AD) 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 gas network can be used, and gas customers do not need to change their boilers or gas-powered appliances. There is potential for renewable gas production in the region from Anaerobic Digestion of organic wastes and residues of the agriculture sector and from domestic/commercial food waste.. The production of indigenous renewable gas in Ireland, not only enhances security of supply but will provide significant benefits to the local agriculture sector and economy in the region. The AD process captures greenhouse gases and therefore, agricultural sector emissions are reduced that would otherwise be released to the atmosphere. Renewable gas production and use can help Longford reduce its carbon emissions and promote the circular economy in the county.

GNI also welcomes Policy Objective CPO 5.152 to *"Promote and prioritise utilisation of existing waste streams from agricultural and forestry sectors for renewable energy projects including anaerobic*

[4] https://www.ngva.eu/policy-priorities/air-quality/
[5] Causeway Study: https://www.gasnetworks.ie/business/natural-gas-in-transport/the-causeway-project/
[6] CEF Transport Fund: https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport
[7] National Policy Framework Alternative Fuels Infrastructure For Transport In Ireland https://assets.gov.ie/26377/3075c29a37b84b10acae95da89d756ea.PDF

digestion, subject to proper planning and environmental considerations." Agriculture is a necessary part of Irish life, but farms produce waste and that waste must be managed and minimised where possible. The recently published EU Strategy[8] to reduce methane emissions explicitly identifies the role that AD can play in reducing emissions from agriculture. The EU methane emissions strategy highlights that EU agriculture is the biggest contributor to manmade methane emissions, accounting for 53% of all emissions, followed by 26% from waste and 19% from energy. Within agriculture itself, most of these emissions come from livestock with enteric fermentation accounting for around 80% of all methane emissions, and close to 20% coming from manure management.

AD plants can utilise a wide variety of feedstocks ranging from food wastes, to animal slurries and specifically grown energy crops such as grass silage. These feedstocks are broken down to produce biogas, a mixture of methane (CH_4) and carbon dioxide (CO_2). This biogas is then refined with any impurities removed to produce biomethane. This biomethane can then be injected into the gas network at appropriate points and transported to all gas consumers. Anaerobic digestion is a way of minimising wastes and contributing to the circular economy with the production of renewable gas/biomethane and digestate/bio-fertiliser.

GNI welcomes the inclusion of Section 5.7.2 Gas Network in Chapter 5 of the Draft County Development Plan. GNI also welcomes the inclusion of Policy Objective 5.120 to *"Facilitate the delivery and expansion of the gas network infrastructure throughout the county for both domestic and business/industry use and to have regard to the location of existing gas infrastructure pipeline in the assessment of planning applications."* GNI has seen significant contracts from Center Parcs Co. Longford among several other Industrial and Commercial customers availing of the gas network to enable a switch to a cleaner, reliable and more cost-effective source of fuel. The gas network remains the fuel of choice for large industry and can play a key role in the move towards decarbonisation. GNI's vision 2050 maps out a pathway to a decarbonised network through the development and harnessing of renewable gas sources and low carbon technologies. In addition, GNI welcomes the inclusion of Policy Objective 5.121 to *'"support and facilitate the development of enhanced electricity and gas supplies, and associated networks…"* and to support *"…the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and planning merits"*. It is important to prioritise infrastructure that can deliver renewable energy to where it is most needed.

Chapter 6: Regeneration

GNI welcomes the inclusion of Policy Objective CPO 6.29 to *"Develop initiatives to promote the expansion of the Gas network in collaboration with Gas Networks Ireland"* in Chapter 6 of the Longford Development Plan. GNI extended the gas network into the town of Ballymahon last year and has seen significant success with several Industrial and Commercial customers availing of the gas network. The availability of natural gas can be a key influencer for businesses when deciding on their location. GNI supports the provision for the potential for natural gas in Longford town in section 6.6.1 Longford Key Town. GNI will continue to consider the potential for a gas network extension to Longford town.

GNI also welcomes the inclusion of CPO 6.90, *"Work with Gas Networks Ireland, Teagasc, Irish Water, Bord na Mona, Just Transition process, and the private sector to develop and deliver renewable energy solutions."* As mentioned in chapter 5 of the response, renewable gas, produced through AD, is a carbon neutral and sustainable source of fuel that can be injected into the gas network and used in the same way

[8] https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf

as natural gas. The development of renewable gas production in Longford would have significant benefits for the region.

Chapter 9: Rural Economy

GNI welcomes the inclusion in section 9.3.2. Agriculture of CPO 9.15 "Support the rural economy and initiatives in relation to diversification, agribusiness, rural tourism and renewable energy so as to sustain employment opportunities in rural areas". The production of indigenous renewable energy is important for Ireland's farming community as a way of diversifying and providing additional income but it also important for Ireland's economy as a whole because it enhances Ireland's energy security of supply. The production of indigenous renewable gas can provide significant benefits to the local agriculture sector and economy in the region. The AD process captures greenhouse gases and therefore, agricultural sector emissions are reduced that would otherwise be released to the atmosphere. Renewable gas production can help Longford reduce its carbon emissions and increase the sustainability of the agriculture sector.

Chapter 12: Natural Heritage and Environment

GNI is cognisant of the natural environment with an ongoing commitment to biodiversity and archaeology. Transportation of gas is unobtrusive with care taken to minimise the impact on local flora and fauna during any construction and development activities. A partnership approach with environmental and heritage groups is used on all gas related construction projects. Engineers and environmental specialists are employed to carry out assessments at the planning and construction phases of developments. GNI returns all land to its original state following construction.

Section 12.18 of the County Development Plan identifies air quality as a target area for preservation of best ambient air quality as outlined in Policy Objective CPO12.93. The gas network can be used to improve air quality through fuel switching from oil/coal to natural gas which is the cleanest hydrocarbon.

The gas network enables this switch across multiple energy sectors:

- Home Heating – for coal consumers near the gas network, a switch to natural gas will improve air quality locally. In relation to solid fuel The Department of Environment, Climate and Communications (DECC) states: "*Air quality in cities benefit from increased use of gas in place of solid fuel and the ban on the use of smoky coal, with the result that levels of air pollution (particulate matter) can often be higher in smaller towns and urban areas than in the bigger cities*[9]*."*
- Transport – CNG replaces diesel and improves air quality with 99% less particulate matter, 70% less Nitrogen Oxide, and 80% less Sulphur Dioxide.

Gas may also be the best choice for new developments, subject to economic and environmental appraisals. A combination of a gas boiler and solar panels meets current Part L Building Regulations and the introduction of renewable gas to the network will, over time, decarbonise home heating.

[9] DCCAE Air Quality Overview: https://www.dccae.gov.ie/en-ie/environment/topics/air-quality/pages/air-quality-overview.aspx

3 Conclusion

GNI asks that Longford County Council considers the above comments and would welcome the opportunity to discuss this response in more detail.