

Draft Louth County Development Plan 2021-2027

Louth County Council

Gas Networks Ireland Response

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Contents

Contents	2
1 Introduction	3
2 Consultation Comments	3
Chapter 7 Movement	3
Chapter 10 Utilities	4
Chapter 11 Natural Heritage, Biodiversity and Green Infrastructure	5
Chapter 12 Climate Action	6
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3 Conclusion	6

1 Introduction

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

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

- Development of renewable gas¹ injection infrastructure.
- Development of Compressed Natural Gas (CNG²) 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 7 Movement

Chapter 7 of the Louth County Development Plan covers the county's sustainable transport strategy. Within section 7.3.2 Planning Guidance, the document states under Policy Objective MOV1 *"To work with national transport agencies in supporting the delivery of a high quality, climate resilient and sustainable transport network in the County."*

Carbon emissions are a key issue to be addressed in transport. 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 as electricity is currently not a viable alternative to diesel. CNG is a potential option with reduced carbon emissions relative to diesel. When the injection of renewable gas is increased on the gas network, and utilised by CNG vehicles as bio-CNG, carbon neutral transport can be achieved. CNG also has significant air quality benefits as detailed in the suggested text for inclusion below and in comments related to Section 11.1.5 of the draft plan below.

GNI also suggests that an additional section is added to Chapter 7, 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 Dioxide⁴.

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.

⁴ <https://www.ngva.eu/policy-priorities/air-quality/>

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 Study⁵ that is supported by the European Commission through the CEF Transport Fund⁶ 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 Ireland⁷’ 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.

Chapter 10 Utilities

GNI welcomes the inclusion of initiatives to support Bioenergy, Biogas and Biomethane in sections 10.8 Bioenergy, 10.8.1 Biogas Production and 10.10.3 Gas Supply Network. Section 10.8 also supports the use of gas in transport and refers to how Biogas can be “*compressed and used as transport fuel*”.

GNI suggests amending the following sentence in section 10.8 and adding ‘when upgraded to biomethane’ after biogas so it reads as follows:

“Biogas, *when upgraded to biomethane*, can be injected into the natural gas grid to complement or substitute natural gas and can also be compressed and used as transport fuel.”

Biomethane and Compressed Natural Gas (CNG) can help Louth 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.

GNI welcomes the inclusion of the sentence “Renewable Gas, often referred to as biomethane, is a clean, renewable and carbon neutral fuel and it can be produced from a range of feedstocks in section 10.8.1. 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 significant potential for renewable gas production in the region from sources including grass, animal waste, crop residue, food and other waste streams. 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 Louth reduce its carbon emissions.

GNI would welcome a reference to “promote renewable gas and support investment in the sustainable development of an agricultural biogas sector and assist in the integration of renewable gas into the grid network.”

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>

GNI supports the inclusion of Section 10.10.3 Gas Network in Chapter 10 of the Draft County Development Plan. GNI also welcomes the inclusion of Policy Objective IU67 *“To support and facilitate the reinforcement and development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the County and Region. This will include the delivery of the necessary integration of transmission network requirements facilitating linkages of renewable energy proposals to the electricity and gas transmission grid, in a sustainable and timely manner, subject to appropriate environmental assessment and the planning process.”* GNI has seen significant contracts from Wuxi in Dundalk Co. Louth over the past two years with the availability of natural gas being a key influence when deciding on location. 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.

Chapter 11 Natural Heritage, Biodiversity and Green Infrastructure

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 11.1.5 of the County Development Plan identifies air quality as a target area for improvement as outlined in objective ENV 12. The gas network can be used to improve air quality. This can be achieved by 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 cities⁸.”

- Power generation – air quality benefits can be derived by switching coal powered generation to gas powered generation.
- CNG – 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.

⁸ DCCAE Air Quality Overview: <https://www.dccae.gov.ie/en-ie/environment/topics/air-quality/pages/air-quality-overview.aspx>

Chapter 12 Climate Action

GNI welcomes the support for AD in table 12.2, National Climate Action Plan Targets versus Draft CDP Policy Objectives – Built Environment. AD can be used as a key element in Ireland’s move towards a more sustainable economy. The circular economy is highlighted in table 12.2 as a target area for best practice which in turn will drive sustainability. GNI welcomes the inclusion of the provision to “*support anaerobic digestion to reduce the anthropogenic climate warming impact of agricultural waste and produce biogas, which is not considered a fossil fuel*” in section 12.7.1.4, “Agriculture, Forestry and Land Use”, of the document.

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 Strategy⁹ 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 (CH₄) and carbon dioxide (CO₂). 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.

3 Conclusion

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

⁹ https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf