

Laois County Development Plan 2021-2027 – Issues Paper

Laois County Council

Gas Networks Ireland Response

2nd March 2020



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1 Introduction

Gas Networks Ireland (GNI) welcomes the opportunity to respond to the Laois County Council 'Laois County Development Plan 2021-2027 – Issues Paper' consultation.

GNI is involved in two initiatives which can benefit County Laois from both an economic and environmental perspective: (i) Development of renewable gas¹ injection infrastructure and (ii) Development of Compressed Natural Gas (CNG²) infrastructure for gas in transport. GNI has provided suggested text below that the County Development plan could include to support these two initiatives. For more information on CNG and renewable gas please see details in section two below.

2 Consultation Comments

2.1 Tackling Climate Change

Activities which mitigate climate change should be supported in the County development plan. The production of renewable gas in County Laois would reduce greenhouse gas emissions. Renewable gas, produced through anaerobic digestion (AD), is a carbon neutral³ and sustainable source of fuel that can be injected into the gas network and used in the same way as natural gas. Renewable gas can also be used to generate carbon neutral electricity.

CNG could be used in transport to reduce carbon emissions and improve local air quality. Further detail on CNG is available in the 'Infrastructure and Movement' section below.

Careful consideration should be given to any investments being made to transition to a low carbon society. Funds should be spent on the least cost method to transition, ensuring the best value for Ireland. Any technologies being considered should be subject to full life cycle assessments.

Ervia commissioned KPMG to develop and evaluate potential scenarios for the decarbonisation of the one million Irish residential homes currently connected to, or within close proximity to the existing gas network. The study⁴ concluded that renewable gas is the lowest cost option to decarbonise the domestic heat sector and avoids the need for deep retrofits to convert properties to a BER rating required for electric heating to work effectively.

2.2 Infrastructure and Movement

Carbon emissions are a key issue to be addressed in transport with Heavy Goods Vehicles (HGVs) in particular being responsible for a disproportionate amount of transport emissions. HGVs comprised 4% of registered vehicles nationally in 2017, however, SEAI estimates indicate that they produced 18% of total transport emissions.

Decarbonisation of HGVs and buses is particularly challenging as electricity is currently not a viable alternative to diesel. Compressed Natural Gas (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

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 Renewable Gas is considered a carbon-neutral fuel because it comes from organic sources that once absorbed carbon dioxide from the atmosphere during photosynthesis.

⁴ KPMG, Decarbonising Domestic Heating in Ireland: <http://www.ervia.ie/decarbonising-domestic-he/KPMG-Irish-Gas-Pathways-Report.pdf>

transport can be achieved. In addition to reduced carbon emissions, CNG also provides improved air quality with 99% less particulate matter, 70% less Nitrogen Oxide, and 80% less Sulphur Dioxide relative to diesel.

GNI suggests that the Infrastructure and Movement section of the new County Development Plan includes a section with wording supporting CNG infrastructure as follows:

“Compressed Natural Gas (CNG) Infrastructure

The development of CNG Infrastructure would enable fuel switching from diesel to CNG for heavy goods vehicles (HGVs) and buses. This would lead to a reduction in carbon emissions along with air quality benefits for vehicles where currently electricity is not a viable alternative to diesel.

There will be a presumption in favour of applications for CNG infrastructure provided planning and environmental criteria are satisfied.”

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 Study⁵ that is supported by the European Commission through the CEF Transport Fund⁶ and by the Commission for Regulation of Utilities (CRU).

In December 2018 a new public CNG station opened in 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 2025⁷. A second public CNG station in Cashel, Co Tipperary is due to open in early 2020.

Under the Causeway Study, GNI 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.

2.3 Developing an Economic Strategy

The development of renewable gas production in the region would provide significant economic benefits to the local agriculture sector. AD plants located in rural areas will provide additional revenue sources for these communities, from the sale of feedstocks for the AD plants, bio-fertiliser and renewable gas.

The SEAI estimate that stimulating a renewable gas industry in Ireland could contribute directly to over 5000 jobs during plant construction and over 3000 jobs in plant operations⁸. With ongoing uncertainty regarding agricultural exports to the UK, post Brexit supplementary income streams for farming are important. Also agricultural sector emissions are reduced as the AD process captures greenhouse gases that would otherwise be released to the atmosphere.

⁵ Causeway Project: <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 (2017-2030)

⁸ SEAI, 2017 Assessment of Costs and Benefits of Biogas and Biomethane

GNI suggests that the Economic Strategy section of the new County Development Plan includes a section with wording supporting renewable gas as follows:

“Renewable Gas

There is potential to produce renewable gas from anaerobic digestion of organic wastes and residues from the agriculture sector and also from commercial food waste.

Renewable gas is carbon neutral and 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.

There will be a presumption in favour of applications for anaerobic digestion plants, provided planning and environmental criteria are satisfied.”

In addition to the economic and environmental benefits of renewable gas discussed above there are security of supply benefits from the production of indigenous gas in Ireland.

2.4 Developing a Growth and Settlement Strategy

To ensure the most effective use of infrastructure, GNI recommends that spare capacity on existing transmission and distribution gas networks is utilised for new settlements. Moving energy through gas pipelines is considered the most efficient method of transporting energy and there is potential for this efficiency to be further exploited by connecting new customers to both the transmission and distribution networks.

For new build properties in the County, gas should be considered for home heating. A combination of a gas boiler and solar panels meets current building regulations and the introduction of renewable gas to the network will, over time, decarbonise home heating.

2.5 Protecting our Heritage

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 & 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 Laois County Council includes references to CNG and renewable gas infrastructure in the County Development Plan.

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