

# South Dublin Draft County Development Plan, 2022-2028

South Dublin County Council

## Gas Networks Ireland Response

15<sup>th</sup> September 2021

**ONLINE SUBMISSION**



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# Introduction

Gas Networks Ireland (GNI) welcomes the opportunity to respond to the 'South Dublin County Development Plan 2022-2028' consultation. GNI would like to draw the Council's attention to two initiatives i.e. renewable gas production via anaerobic digestion (AD) and compressed natural gas (CNG) in transport. Both of these initiatives could be of benefit to the South Dublin region from an economic and environmental perspective. 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 over 14,500km of pipeline networks. The gas network supplies energy to over 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.

## Consultation Response

### Chapter 7: Sustainable Movement

Transport emissions are a key issue to be addressed in Ireland. Heavy Goods Vehicles (HGVs) are responsible for a disproportionate amount of transport emissions. They comprised 4%<sup>1</sup> of registered vehicles nationally in 2018, however, SEAI estimates indicate that they produced 14% of total transport emissions. The decarbonisation of HGVs is particularly challenging as electricity is currently not a viable alternative to diesel. CNG has the potential to address transport emissions with reduced carbon emissions relative to diesel and also has significant air quality benefits. 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.

GNI would welcome the inclusion of CNG and CNG infrastructure in the Sustainable Movement chapter of the County Development Plan and some suggested text for consideration is provided below.

"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 contains virtually no particulate matter (PM) and has low emission levels of nitrogen oxides (NOx)<sup>2</sup>. CNG vehicles can be run on 100% biomethane. Biomethane is a renewable and carbon neutral fuel, produced via AD plants 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

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<sup>1</sup> In calculating this figure SEAI include all goods vehicles over 2 tonnes.

<sup>2</sup> <https://www.ngva.eu/policy-priorities/air-quality/>

the Core TEN-T road network via a project called the Causeway Study<sup>3</sup> that is supported by the European Commission through the CEF Transport Fund<sup>4</sup> 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<sup>5</sup>’ 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. The Interim Climate Actions 2021 document, which was published in March 2021, has an action (Action 123) to commission three CNG fuelling stations and to progress the remaining stations planned for the network by Q4 2021. In addition, the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Region<sup>6</sup> highlights the decarbonisation of transport as an objective and calls for modal shift to be supported by increased availability of low carbon fuels such as CNG. The RSES also highlights the use of CNG powered commercial vehicles as a means of addressing air pollution emissions.

## Chapter 10: Energy

GNI welcomes E6 Objective 2 which promotes the circular economy by generating energy through waste subject to environmental considerations and E12 Objective 1 which promotes the generation and supply of low carbon and renewable energy alternatives. GNI is involved in facilitating the injection of renewable gas, a carbon neutral energy source, into the gas network. Renewable gas was first introduced to the Irish gas network through a renewable gas injection point in County Kildare, supplied by Green Generation, in August 2019. A deal<sup>7</sup> between Tesco Ireland and Green Generation has seen Tesco supplying 6,400 tonnes of food waste per annum to Green Generation for conversion to renewable gas. This renewable gas is injected into the gas network at the Cush injection point. In turn, Tesco purchases this renewable gas and uses 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, which is often produced from waste materials co-digested with other feedstocks in an anaerobic digestion plant, supports the circular economy, improves security of energy supply and helps diversify energy sources. Agriculture is a necessary part of Irish life, but farms produce waste and that waste must be managed and minimised where possible. The EU Strategy<sup>8</sup> 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 man-made methane emissions, accounting for 53% of all emissions, followed by 26% from waste and 19% from energy. Within agriculture itself, most of these

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<sup>3</sup> Causeway Study: <https://www.gasnetworks.ie/business/natural-gas-in-transport/the-causeway-project/>

<sup>4</sup> CEF Transport Fund: <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport>

<sup>5</sup> National Policy Framework Alternative Fuels Infrastructure For Transport In Ireland  
<https://assets.gov.ie/26377/3075c29a37b84b10acae95da89d756ea.PDF>

<sup>6</sup> [https://emra.ie/dubh/wp-content/uploads/2020/05/EMRA\\_RSES\\_1.4.5web.pdf](https://emra.ie/dubh/wp-content/uploads/2020/05/EMRA_RSES_1.4.5web.pdf)

<sup>7</sup> <https://www.irishtimes.com/business/energy-and-resources/tesco-to-cut-emissions-by-converting-waste-food-from-irish-stores-to-gas-1.4271907#:~:text=Tesco%20plans%20to%20cut%20carbon,to%20be%20converted%20into%20energy>

<sup>8</sup> [https://ec.europa.eu/energy/sites/ener/files/eu\\_methane\\_strategy.pdf](https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf)

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, which can be upgraded to 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 and digestate/bio-fertiliser.

GNI welcomes Policy E3 which focuses on ‘Energy Performance in Existing and New Buildings’ and is concerned with supporting ‘high levels of energy conservation, energy efficiency and the use of renewable energy sources in new and existing buildings’. The gas network can play a part in transitioning domestic heating to renewable energy. Ervia, GNI’s parent company, 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<sup>9</sup> concluded that renewable gas is the lowest cost option to decarbonise the domestic heat sector. Furthermore, the need for potentially costly deep retrofits to convert properties to a BER rating for electric heat pumps to work effectively, is avoided. GNI is currently recommending all homeowners located on or close to the gas network, with oil fired central heating systems, to upgrade their homes using a “fabric-first” approach. This approach focuses on insulation (attic, cavity walls, hot water cylinder) when switching from oil to hydrogen-ready high efficiency gas boilers<sup>10</sup> (ready for blends of circa 20% hydrogen) and installation of Solar PV. Using this combination of insulation, oil to gas changeover and solar PV installation can bring homes up to a BER B standard at a significantly lower cost than alternative deep retrofitting activities.

## Conclusion

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

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<sup>9</sup> KPMG, Decarbonising Domestic Heating in Ireland: <http://www.ervia.ie/decarbonising-domestic-he/KPMG-Irish-Gas-Pathways-Report.pdf>

<sup>10</sup> <https://www.cibsejournal.com/technical/fuel-for-thought-hydrogen-gas-boilers/>