



# Request for Information from potential biomethane producers

## Information Booklet

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Response deadline: 24<sup>th</sup> May 2024

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## Foreword

The Northern Ireland (“NI”) Gas Network Operators (“GNOs”) – Mutual Energy, GNI (UK), Phoenix Energy, firmus energy and Evolve – are actively preparing for the imminent introduction of renewable gases, such as biomethane, into the NI gas network and transitioning to a net zero carbon gas network over the longer-term.

We would like to invite prospective biomethane producers, existing biogas producers who would consider upgrading and repurposing their facilities for biomethane production and gas grid injection, as well as those with biomethane feedstock potential to respond to this Request for Information (“RFI”).

Your input will help us in how we plan and develop NI’s gas network fit to deliver on NI’s biomethane potential, in the most efficient and effective manner, providing consumers access to valuable green energy and supporting NI’s journey to net zero carbon and affordable energy by 2050.

The regulatory framework to permit biomethane injection into the NI gas network has been in development since 2021, in conjunction with the Utility Regulator (“UR”) and the Department for the Economy (“DfE”). The first injection commenced in November 2023. Biomethane is a like-for-like replacement and is therefore fully compatible with existing natural gas appliances, technology and vehicles.

There is significant scope for biomethane production in NI, as recognised in a 2022 study by the Centre for Advanced Sustainable Energy (“CASE”).<sup>1</sup> An indigenous biomethane industry would support the decarbonisation of the energy and agricultural sectors, as well as provide significant opportunities for rural communities and facilitate sustainable circular economies.

The NI Energy Strategy, published in December 2021, recognises this potentially important role, and the need for continued engagement with the gas sector to understand viable pathways on replacing natural gas with renewable gas. The Climate Change Act (Northern Ireland) 2022, enacted in June 2022, mandated net zero carbon emissions in NI by 2050, and that interim targets and carbon budgets must be set.

The results of this RFI will be used by the NI GNOs to help inform the development of biomethane policy and the regulatory framework in Northern Ireland. DfE are expected to publish a Biomethane Call for Evidence later in Q1 2024, and the Department for the Agriculture, the Environment and Rural Affairs (“DAERA”) must also consult on a draft Climate Action Plan (“CAP”) ahead of its approval by the NI Assembly.

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<sup>1</sup> [Evaluating the opportunity for utilising anaerobic digestion and pyrolysis of livestock manure and grass silage to decarbonise gas infrastructure: A Northern Ireland case study \(qub.ac.uk\)](https://www.qub.ac.uk/research/centres/centre-for-advanced-sustainable-energy/case-study/evaluating-the-opportunity-for-utilising-anaerobic-digestion-and-pyrolysis-of-livestock-manure-and-grass-silage-to-decarbonise-gas-infrastructure-a-northern-ireland-case-study)

## 1. Background

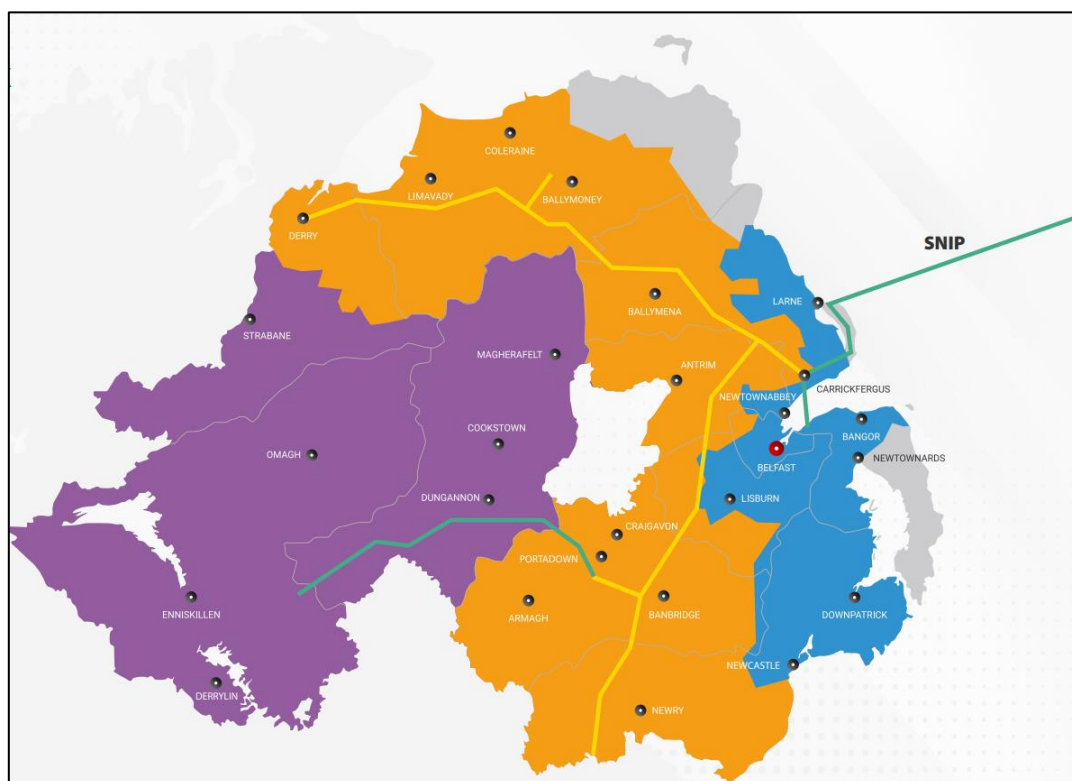
### NI Gas Network

Natural gas was first introduced to NI in 1996 via the Scotland to Northern Ireland Pipeline (“SNIP”), which receives gas from Great Britain. Natural gas can also enter NI from the Republic of Ireland (“RoI”) using the South North Pipeline (“SNP”). The high-pressure transmission network is managed by Mutual Energy (“MEL”) and GNI (UK) (a subsidiary of Gas Networks Ireland). This provides the backbone through which gas is transported to individual lower pressure distribution networks and zones.

There are three distribution network operators in NI, the licence areas of which are shaded in Figure 1 below as follows:

- Phoenix Energy (shaded blue)
- Firmus energy (shaded orange)
- Evolve (shaded purple)

The routes of the high-pressure transmission networks owned by GNI (UK) and MEL are shown in yellow and green respectively.<sup>2</sup>



*Figure 1: NI Gas Network Overview*

### Biomethane

Biomethane is a carbon neutral renewable gas that can be made from farm and food waste (as well as other sources) through a process known as anaerobic digestion. Biomethane is fully compatible with the NI gas network and existing appliances, technologies and vehicles.

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<sup>2</sup> Note, the SNP – and so the NI gas transmission network, from a commercial and regulatory perspective (i.e. the NI entry/exit system) – extends beyond the NI/RoI border, to Gormanston, Co. Meath.

It can, therefore, replace natural gas, to reduce emissions in heating, industry, transport and power generation, while also supporting the decarbonisation of the agri-food sector.

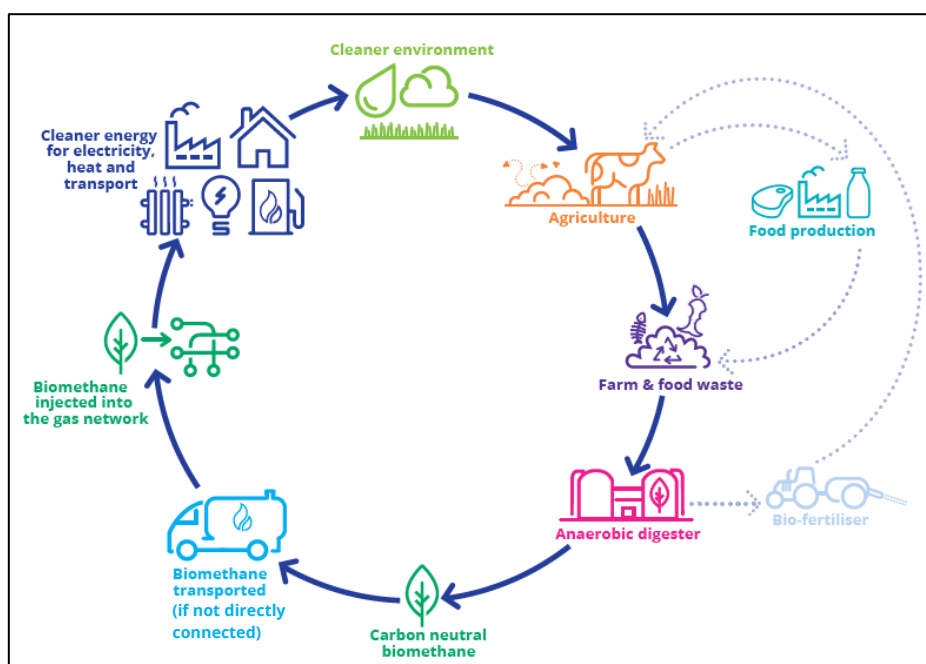


Figure 2: The Biomethane Story

Indigenously produced biomethane enhances NI’s energy security by reducing the dependency on imported fossil fuels and price variability of international commodity markets. It will also support the rural economy, with KPMG estimating that over 1000 direct and indirect jobs are created for every 1 TWh of Biomethane produced.<sup>3</sup>

Research led by Queen's University Belfast in 2022 found there to be over 6000 GWh worth of biomethane production potential from manure and silage material in NI, equating to approximately 80% of NI’s current gas distribution network demand.<sup>4</sup> This does not include significant potential from other sources, such as municipal, commercial and industrial waste sources and, potentially, energy crops.

In 2021, there were 132 active, accredited anaerobic digestion stations under existing electricity Renewable Obligation schemes.<sup>5</sup> The UK-wide Renewable Transport Fuel Obligation (“RTFO”) scheme also provides an existing, potential route-to-market for NI biomethane producers (subject to its sustainability and chain of custody criteria, which permits gas network transportation between injection and offtake on a UK-wide basis).<sup>6</sup> Gas Purchase Agreements with Large Energy Users seeking to decarbonise their gas supply is another potential route to market that many AD plants are exploring.

Biomethane will play an important role in meeting the 2030 emissions reduction target (of at least 48% lower than 1990 baseline levels) and achieving net zero emissions by 2050, as

<sup>3</sup> [Action-Renewables-Biomethane-Report-October-22.pdf \(actionrenewables.co.uk\)](https://www.actionrenewables.co.uk/wp-content/uploads/2022/10/Action-Renewables-Biomethane-Report-October-22.pdf)

<sup>4</sup> [Evaluating the opportunity for utilising anaerobic digestion and pyrolysis of livestock manure and grass silage to decarbonise gas infrastructure: A Northern Ireland case study - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S0959652622000000)

<sup>5</sup> [Anaerobic Digestion in Northern Ireland \(niassembly.gov.uk\)](https://www.niassembly.gov.uk/wp-content/uploads/2021/06/Anaerobic-Digestion-in-Northern-Ireland.pdf)

<sup>6</sup> [RTFO Compliance Guidance 2023 Final v2 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/111111/RTFO-Compliance-Guidance-2023-Final-v2.pdf)

committed to under the Climate Change Act (Northern Ireland) 2022. This is supported by the Climate Change Committee's Advice Report on achieving net zero in NI.<sup>7</sup> A Climate Action Plan ("CAP") to cover the period 2023 to 2027 is to be developed and it is anticipated that it will be issued for consultation in the coming months.

DfE's Energy Strategy Action Plan 2023 included an action (#9) to "*issue a call for evidence on the options for supporting biomethane production in Northern Ireland*".<sup>8</sup> The three-month consultation period is expected to commence in early 2024.

The initial development of the regulatory framework to permit biomethane injection into the NI gas network has been in development by the NI GNO's and UR since 2021, with DfE monitoring progress.

The Transmission System Operators ("TSO") have developed a common Biomethane Connection Guide for transmission connections – as made available by both [Mutual Energy](#) and [GNI \(UK\)](#).

Phoenix Energy has developed a [connection guide](#) for prospective connections in their license area. Evolve and firmus energy are in the process of developing similar (separate) guides for their respective networks.

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<sup>7</sup> [Advice report: The path to a Net Zero Northern Ireland - Climate Change Committee \(theccc.org.uk\)](#)

<sup>8</sup> [Energy Strategy - Path to Net Zero Energy. Action Plan 2023. \(economy-ni.gov.uk\)](#)

## 2. Overview

### Purpose of this RFI

To prepare for increased demand to inject biomethane into the NI Gas Network, the NI GNOs are seeking to develop a coordinated infrastructure plan, which will facilitate significant numbers of anaerobic digestion (“AD”) plants to connect to the network.

Information received will be used to map biomethane production potential relative to current gas network infrastructure, and support assessment of future options to facilitate plants to feasibly connect to, or otherwise economically supply, the network.

The purpose of this RFI on future biomethane production includes:

- the identification of new and feasible biomethane production projects to supply biomethane to the NI gas network. This includes;
  - existing projects (for example, those operating under existing Renewable Obligation electricity generation schemes) who foresee potential, even over the longer-term, for their plant’s production to switch to supplying the NI gas network (including existing biogas producers who would consider upgrading their facilities for biomethane);
  - projects in development who plan to inject into the NI gas network, even over the longer-term, directly (via physical pipeline connection and injection) and indirectly (via tanker delivery to an injection hub), including projects located in RoI, and;
  - any project who may wish to inject into the NI gas network via the portion of the transmission system located within RoI).<sup>9</sup>
- support the development of an external consultant led network infrastructure plan designed to unlock biomethane injection network capacity
- support the NI GNOs responses to the upcoming DfE Biomethane Call for Evidence and other relevant Executive policy consultations and engagement
- assist with policymakers and regulators development of a policy/regulatory framework fit for future needs
- Support potential biomethane producers in sourcing potential sources of AD plant feedstock – manure, waste etc.

### Invitation to submit a response

The NI GNOs invite submissions in response to this biomethane RFI, with detailed information as requested. It is noteworthy that this RFI is open to both private and public sector respondents (each, a “respondent”), and we encourage a broad range of responses

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<sup>9</sup> this being the portion of GNI (UK)’s ‘South North Pipeline’ located between Gormanston, Co. Meath and the NI/RoI border.

encompassing different sources of feedstock supply. Responses from projects in RoI will also be welcomed and considered.

## **RFI response deadline**

Responses in relation to this RFI must be received by 17:00 on Monday 20<sup>th</sup> May 2024

Responses can be completed via this online survey -

<https://www.surveymonkey.com/r/R3MXHW9>

## **Costs**

Respondents are solely responsible and without recourse to the NI GNOs for their own expenses in preparing and submitting a response. The NI GNOs and our affiliated companies, and their respective officers, employees, consultants and agents, shall not under any circumstances, including pursuant to contract, tort, statutory duty, law, equity or otherwise, or any actual or implied duty of fairness, be responsible or liable for any costs, expenses, loss of opportunities, claims, losses, damages or any other liabilities to anyone, including to any respondent arising out of or related in any way to this RFI, including the preparation and submission of a response, attendance at any information meetings; or the amendment, cancellation, suspension or termination of this RFI. By submitting a response, respondents shall be deemed to have accepted and agreed to the foregoing.

## **Ownership**

The NI GNOs are entitled to retain, use, copy and disclose the RFI responses for any purpose relating to the purposes of this RFI (as set out in this document) or required under law or statutory obligation imposed on the NI GNOs.

## **Disclaimer**

This RFI does not constitute a formal solicitation for proposals and response to this notice will be treated solely as information. No enforceable commitment of any kind, contractual or otherwise, will arise from this RFI. Respondents are advised that the NI GNOs are under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind the NI GNOs to any further actions related to this topic. Responding to this RFI will not provide any advantage or disadvantage to potential applicants if the NI GNOs choose to run a tender competition regarding this subject matter in the future.

## **Confidentiality and Data Protection**

Please note, that submissions received will be treated in the strictest confidence by the NI GNOs and will only be used for the purposes set out in this RFI. Individual responses will be handled securely and in compliance with data protection legislation as applicable in NI. The results may be aggregated and anonymised for reporting purposes. Respondents are asked to consider if any of the information supplied by them in their submission should not be disclosed because of its confidentiality or commercial sensitivity. If respondents consider that



certain information is not to be disclosed because of its confidentiality or commercial sensitivity, respondents must, when providing such information, clearly identify such information and specify the reasons for its confidentiality or commercial sensitivity. The NI GNOs accept no responsibility for any loss or damage arising as a result of its processing of freedom of information/access to information on the environment requests.

For any queries in relation to these matters, including how the NI GNOs process and stores data, please contact any of the NI GNO's (see last page for contact details).

### **Future interest**

If you are interested in becoming a biomethane producer for injection into the NI gas network but are not yet in a position to submit a response and wish to be kept informed of future biomethane developments and opportunities, please make contact with the most relevant representative from the respective NI GNOs (i.e. the network(s) to which you envision your project may connect/inject to).

### 3. Contact us

If you have any questions or comments about this RFI or the NI GNO's biomethane programme, please contact one of our representatives below:



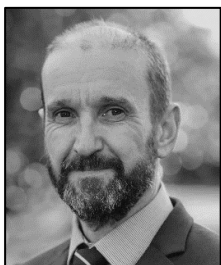
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