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Gas  
Networks  
Ireland

# **Biomethane Producers** Connecting to Ireland's Gas Network



## Section 1

# Ireland's gas network

Owned and operated by Gas Networks Ireland, the gas network plays a critical role in providing a cleaner, competitive, and secure energy supply for Ireland. The gas network is of strategic importance to Ireland and continues to facilitate job creation and economic growth. Flexible, reliable, and resilient, it delivers a safe and secure supply of gas to over 720,000 customers, 365 days a year, powers almost half of the country's electricity and supports the deployment of renewable electricity generation.

### Transforming the gas network

Under the Government's Climate Action Plan, Ireland has a target to produce 5.7 TWh of biomethane by 2030. This is equivalent to approximately 10% of Ireland's current natural gas demand and would require around 150 to 200 large-scale anaerobic digestion (AD) facilities to be built by 2030.

By gradually replacing natural gas with renewable gases such as biomethane

and green hydrogen, Gas Networks Ireland is striving to deliver a net-zero carbon gas network by 2050 and to reduce emissions across several key sectors, including those that are traditionally difficult to decarbonise, such as transport, agriculture, industry, heating, and power generation.

### Biomethane Energy Report

In late 2022, Gas Networks Ireland issued a Request for Information (RFI)

to the market that led to the publication of the Biomethane Energy Report. The 176 responses highlighted that there is significant biomethane production potential to meet the 5.7 TWh target. The responses have also been used to assess the future infrastructure requirements for biomethane integration into Ireland's gas network.

### Biomethane progress

Gas Networks Ireland is already supporting Ireland's journey to a cleaner energy future by beginning to replace natural gas with renewable gases such as biomethane. Biomethane injection to the gas network began in 2019, via the country's first renewable gas injection point in Cush, Co. Kildare. Gas Networks Ireland is developing a central grid injection facility in Mitchelstown, Co. Cork which will support the growth of new biomethane production facilities in the locality. Gas Networks Ireland is also in the process of connecting new and existing AD plants directly to the gas network at various locations across the country.



## Section 2

# Connecting to the gas network

Gas Networks Ireland and the gas network have a significant role to play in achieving Ireland's zero emission targets and facilitating Ireland's transition to a net-zero energy system. Biomethane has been identified as a potentially pivotal industry for decarbonising the national gas network, and the development of new AD facilities is essential to make this happen.



### Direct or virtual connection

At Gas Networks Ireland, our role is to facilitate the connection of new AD facilities to the gas network, by direct injection to the grid or virtual pipeline to a central grid injection facility. For more information on direct injection and virtual pipelines, visit: [www.gasnetworks.ie/biomethane](http://www.gasnetworks.ie/biomethane).

### Renewable Gas Entry Point

Direct connections of existing and new AD facilities located on or close to the gas network can be facilitated through a renewable gas entry point (RGEP). A renewable gas entry point is delivered via a biomethane network entry facility (BNEF) unit. This unit is the connection between the AD Plant and the gas network.

Contained within the BNEF unit, is a range of instruments and equipment which ensure that the biomethane is compliant with all required standards and regulations before it enters the gas network.

A BNEF unit can measure 3m wide by 8m long and is typically located within an enclosed site of roughly 17m by 9.5m.

The BNEF unit incorporates equipment such as:



Gas analysis metering equipment



Sampling equipment



Odorant injection system



Pressure regulation / pressure reduction system



Diverter valve and remotely operated entry valve



Telemetry unit

## Section 3

# Connection process

Start the journey of connecting your AD facility to the gas network using the 6 stages listed below and become part of Ireland's gas infrastructure.

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## Stage 1 – Initial enquiry

Customer completes and submits an Initial Enquiry Form to begin the process.

- Gas Networks Ireland will conduct a high-level feasibility study.
- Initial project estimations will be issued.
- The relevant information is available at [www.gasnetworks.ie/biomethane-producers](http://www.gasnetworks.ie/biomethane-producers).

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## Stage 2 – Formal application

If the results of the high-level feasibility study are positive, the project will progress to the Formal Application stage. A Connection Application Form can then be completed and submitted.

- Planning reference must be available.
- Application Fee of €10,000 ex. VAT is required with formal application.
- Gas Networks Ireland will complete a detailed network analysis.
- A template Renewable Gas Connection Agreement will be issued to the customer for review.
- Gas Networks Ireland will conduct preliminary design, which will include connection route (network extension from the gas network to the site), programming and onsite BNEF unit considerations.
- Preliminary design informs the estimate of costs to connect, which is issued to the customer in the "Letter of Offer – Subject to Contract / Contract Denied."

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## Stage 3 – Execute Renewable Gas Entry Point Agreement

Upon successful review, the draft Renewable Gas Entry Point Agreement will reach the point of execution.

- Payment of customer contribution and satisfaction of contractual conditions precedent, allows the project to progress to the detailed design stage.
- Customer must provide planning permission approval at this stage.



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## Section 3 (continued)



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### Stage 4 – Detailed design

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It is at this stage that the project is handed over from the Business Development Team to the Delivery Team (subsequent to signing and closing of conditions of Renewable Gas Entry Point Agreement).

- Connection undergoes detailed design process.
- Procurement of connection infrastructure materials commences by Gas Networks Ireland.
- Gas Networks Ireland seeks all relevant statutory approvals in advance of construction commencing.

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### Stage 5 – Construction

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Onsite works commence adhering to safety and regulatory requirements.

- Gas Networks Ireland construct the network extension and install the BNEF unit in coordination with the customer's construction programme.
- Gas Networks Ireland submits a Safety Case to the CRU (Commission for Regulation of Utilities) for approval.
- The Connected Systems Agreement is executed by Gas Networks Ireland and the customer.

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### Stage 6 – Commissioning

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Upon completion of the project construction, commissioning commences which will designate the connection as a renewable gas entry point pursuant to the Gas Networks Ireland Code of Operations.

- Gas Networks Ireland undertake pipeline testing and coordinate with the producer on commissioning of the connection.
  - The customer nominates a gas shipper at the entry point to manage the injection of biomethane.
  - Reconciliation of project costs is completed by Gas Networks Ireland to compare the initial estimated costs with the actual construction costs incurred.
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## Section 4

# Charging methodology

Gas Networks Ireland's Connections Policy, approved by the Commission for Regulation of Utilities (CRU), sets out the charging methodology for all new customers connecting to the gas network.

### Connection costs

Section 6 of the Gas Networks Ireland Connections Policy states for renewable gas connections, whether they are connected to the transmission or distribution network, the customer contribution in relation to a connection includes two components:

- **A standard contribution (30%).**  
All renewable gas connections will be required to make a standard contribution of 30% of the estimated costs for the injection facility. This includes full pipeline and ancillary equipment capital costs attributable to meeting the requirements of the facility in question, and the present value of any attributable downstream (deep) reinforcement costs.
- **A supplemental "economic test" contribution.**  
The supplemental economic test contribution will consider the present value of the full connection cost estimate (as defined above plus

operating costs, and less the standard 30% contribution) against the present value of the tariff revenue attributable over ten years to the facility.

### Renewable Gas Entry Point Agreement Key Principles

- Initial contribution payable upon execution (min 30% of estimated costs based on economic appraisal of project).
- BNEF site to be transferred to Gas Networks Ireland for a nominal sum.
- Estimated costs reconciled with actual costs upon construction completion.
- Discounted capital cost (maximum 70%) is recovered by Gas Networks Ireland through minimum volumes of biomethane being injected into the grid for up to 10 years post commissioning of connection.
- Customer required to execute a Connected Systems Agreement in advance of commissioning the BNEF unit.

Important Conditions precedent to contract:

- Initial Contribution
- Board minutes confirming authority of person executing the contract and resolution from the board to execute the agreement.
- Provision of a tax clearance certificate
- Provision of insurance details (Public Liability of €6.5m and Employer's Liability of €13m, unlimited in the aggregate)
- Provision of financial security (as per CRU approved Gas Networks Ireland Financial Security Policy) with options as per the following:
  - An approved credit rating of the connecting party as outlined in the published Gas Networks Ireland Financial Security Policy
  - Deposit Agreement
  - Bank Letter of Credit
  - Charged Account
  - Qualifying Guarantee



The main contact details for Gas Networks Ireland are:

General Enquiries  
**1800 464 464**

24hr Emergency Service  
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Contact your dedicated account manager or our Businesslink team to discuss your energy needs.

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