

A joint Gas Distribution Network written submission response to the Public Account Committee Inquiry on Northern Ireland Energy Strategy

1. Introduction

The three Gas Distribution Network Operators (**DNOs**); Phoenix Energy, Kinecx Energy and Evolve operate the gas distribution network across Northern Ireland (NI), servicing c.550,000 properties across NI, covering all major urban areas, and encompassing c. two-thirds of the population.

The DNOs, together with the NI Gas Transmission Network Operators (**TSOs**) – Mutual Energy, and GNI (UK)– have developed a pathway to decarbonise the NI gas network and are actively preparing for the transition away from natural gas.

At the heart of this pathway is an affordable, least-disruptive, transition to net-zero where consumers can continue to enjoy all the convenience and benefits of gas in the knowledge that the gas they use will be 100% renewable by 2050.

NI has significant potential to produce biomethane – nearly 8 TWh. Biomethane plays a significant role in the NI GNO Pathway to Net Zero as it is a like-for-like replacement for natural gas that can progress at pace without user disruption. A focus on biomethane production also has considerable multisectoral benefits including;

- green economy growth
- agricultural nutrient management
- farm-based emissions reduction
- supply of biogenic carbon dioxide to support negative emissions and/or regional e-fuel production
- enhanced energy security and self sufficiency

The development of a NI biomethane economy would also support multiple strands of the Programme for Government.

- **People:** A strong biomethane economy provides good jobs, especially in the rural west.

- **Planet:** Biomethane reduces our carbon emissions, helps with nutrient management, improving our soil and water quality, and helps decarbonise our electricity, transport, agriculture, residential and industrial sectors.
- **Prosperity:** Creating a new biomethane economy in NI would support a more circular economy in which everyone can prosper, creating diversified income streams for farmers, investment and jobs in rural areas, renewable gas for industry, and improved competitiveness in the global economy.

The local production of Biomethane provides a key opportunity to use NI's existing gas network to deliver a decarbonised solution to c.550k homes, enabling consumers to continue to enjoy all the flexibility of gas with minimum disruption.

Biomethane also offers a strategic advantage to NI's key industries by giving companies obliged, or seeking, to decarbonise their production with an option that allows them to achieve that aim in a timely manner without the need for major upgrades or investment

2. NI Energy Strategy December 2021

After a period of extensive engagement with industry the Department for Economy published an updated Energy Strategy in December 2021.

The strategy set out a long-term vision of net zero carbon and affordable energy for NI centred across 5 core principles that were very much aligned to the gas industry's 2050 pathway.

Whilst the strategy did not provide a detailed roadmap for delivery, it recognised the specific regional opportunities and challenges that would be key to effective delivery in NI. Indeed, from our experience working with delivery partners across Europe, the regional landscape in NI presented a comparatively positive basis for delivering a low carbon economy. This included the region's high levels of wind resource, significant volumes of agricultural waste that could be repurposed for energy production, natural energy storage assets and a scale that supported the development of early adopter projects using proven technology from neighbouring economies.

In the c.55-month period since the ambitious, forward-looking NI Energy Strategy was published, the limited visible progress across existing and emerging decarbonisation solutions identified in the strategy has created a sense of frustration, particularly when many of these solutions have been deployed at scale in neighbouring countries during this time. As well as putting pressure on near-term and longer-term carbon reduction targets, this pace of delivery is increasingly impacting regional economic prosperity, as access to sustainable, affordable energy solutions is a primary business requirement, particularly for larger energy users feeding into global supply chains.

The primary driver for responding to the Public Accounts Committee inquiry is that, as a long-term investor in the NI energy system, we feel passionate about the next phase of delivering sustainable energy solutions locally. We also believe that the NI Energy Strategy was a good

foundational piece of policy work that, with the right level of cross-Executive support and clear industry direction, can now move into a critical period of market development and implementation.

The response hereafter has been provided in line with the areas that the Committee outlined a particular interest in and largely focuses on the potential for the production and utilisation of renewable gas solutions in NI.

1. Has the Energy Strategy and its implementation had a positive, negative or mixed impact on your sector? Please provide examples where possible.

The publication of the NI Energy Strategy was very much welcomed by the gas sector in NI. It provided a forward-looking lens to the range of existing and emerging energy solutions that would drive delivery of decarbonisation solutions in NI.

Since the publication of the strategy in December 2021, the gas industry has worked extensively with academia, policy makers, large energy users, the Utility Regulator, UK and European counterparts and research bodies to develop market and regulatory frameworks that will support the development of renewable gas solutions locally.

One of the most pleasing outcomes of these workstreams has been the cross sectoral desire to develop a biomethane economy in NI that recognises the range of social, economic and environmental benefits of biomethane, as noted below:

- Achieve real environmental benefits through improved agricultural and waste based nutrient management
- Strengthen our energy security through an indigenous production of biomethane
- Supporting NI businesses to meet decarbonisation and sustainability targets
- Provide new economic opportunities for rural communities

The cross sectoral benefits associated with the development of a biomethane economy have also received cross party-political support, which was captured most recently in the plenary debate at the NI Assembly on 20th April 2026 through a motion titled “Clean Biomethane for Northern Ireland's Energy, Food and Environmental Security”.

Whilst the cross-sectoral benefits relevant to biomethane are considered to be hugely positive for the region, this dynamic naturally creates a broader set of industry and policy interdependencies, with a greater likelihood that the pace of policy delivery can be affected by reliance on multiple government departments progressing respective policy areas.

In Q1 2026, an interdepartmental working group for biomethane was re-established between the Department for the Economy and the Department of Agriculture, Environment and Rural Affairs to better coordinate areas of common purpose. Industry very much welcomes this development and recognises the renewed purpose this group has created.

The gas industry believes that the interdepartmental working group would be increasingly effective if it had proportionate gas industry representation, enabling increased cohesion,

transparency and common purpose between policy makers and those charged with marketplace implementation.

The 2021 Energy Strategy's recognition of NI's biomethane potential was key to establishing the initial industry momentum that has now led to the establishment of a market-ready supply chain and supporting regulatory frameworks to establish a biomethane economy in NI.

It is important, however, to note that we are now at a critical stage of policy development, and that without timely delivery of a suitably ambitious biomethane strategy and the necessary supporting policy frameworks, the positive momentum established to date may be undermined.

2. What impact, if any, is the current Energy Strategy having on investment decisions within your sector, including business confidence and future investment planning?

Biomethane Policy

While there has been significant progress in decarbonising power in recent years, the vast majority of energy consumption in NI is from heat and transport (87%) and will not be addressed by the 80% by 2030 renewable electricity target. To date, we do not believe that non-power related energy areas have been provided with the necessary level of government resources to attract inward investment into NI.

The absence of a clear biomethane strategy for NI has undoubtedly stalled industry investment in biomethane production facilities to date, as such investment will always seek policy certainty.

Whilst we are pleased to see a biomethane strategy now progressing in NI, the absence of timely policy outcomes will continue to risk unintended consequences, as early adopter investors pursue market mechanisms that may not be in the best interests of long-term policy outcomes. For example:

- A number of emerging AD plants being actively developed in NI will simply use NI gas network infrastructure as a pipeline to deliver renewable gas solutions into interconnected jurisdictions that have viable markets for this gas, supported by non-NI government support schemes. It is not in the best interests of NI energy consumers for renewable gas solutions produced in NI to be transported and used to decarbonise neighbouring regions.
- One of the largest gas users on the network is currently displacing a large percentage of its natural gas volumes with locally produced biomethane (c.50% reduction in 2026). Whilst this appears initially positive, the biomethane is being transported using road haulage from another part of NI (c.120-mile trip, twice weekly) to avail of the ROC support mechanism, which incentivises biomethane to be used for electricity generation, provided it is directly injected into the large energy user's network (i.e. via road haulage as opposed to through the gas network).

Again, it is not in the best interests of NI energy consumers to have a large energy user service a significant percentage of its gas demand through off gas network solutions, given the considerable investment NI energy consumers have made in an extensive, modern and highly reliable gas network infrastructure and the additional fuel requirements and carbon emissions a road haulage solution entails.

Switching homes to natural gas can deliver significant immediate emissions reductions

Whilst the NI gas industry is firmly focused on the development of renewable gas solutions to displace natural gas volumes by 2050, it is important that the near-term benefits of natural gas conversions are fully realised.

The NI gas distribution network has expanded significantly since its introduction in 1996, reaching nearly every significant urban centre in the region. However, whilst circa 550,000 domestic and non-domestic properties are passed by the gas network, only 60% of possible gas users are currently connected.

In particular there are circa 200,000 homes who have gas available to them but have not yet taken up the opportunity to connect to the gas network.

By switching from oil, and adding heating controls, an average home can reduce its annual carbon emissions by up to 2 tonnes CO₂e per annum in the case where a modern highly efficient gas boiler replaces an old inefficient oil boiler. **This equates to a 48% reduction in a household's annual carbon emissions from heating.**

Therefore, as Table 1 below demonstrates, with the right policies, regulatory frameworks and incentives in place to facilitate switching, these unconnected homes provide a significant opportunity to deliver significant immediate emissions reductions in an affordable, practical way to a fuel that is seen as aspirational due to its wider lifestyle benefits.

Table 1 – Illustration of potential carbon savings derived from switching homes off oil and onto gas¹

No. Homes	Minimum Savings (Oil to Gas fuel switching) t CO₂e p.a.	Maximum Savings (Includes boiler efficiency gains and heating controls) t CO₂e p.a.
50,000	51,000	102,000
100,000	102,000	204,000
150,000	153,000	306,000
200,000	204,000	408,000

Significantly, these carbon savings can be generated at comparably little cost to the consumer. Converting a home to gas costs c.£3,500 but can cut a home's carbon emissions from heat by nearly half. A gas boiler install therefore offers a very high Kg/CO₂e saved per £1 spent for the consumer compared to other lower carbon heating options – see Table 2 below.

¹ Assumptions: 1. Each home uses 12,000kWh of heating energy. 2. Oil Carbon Intensity 298g/kWh, Gas Carbon Intensity 213g/kWh. 3. Combination of heating controls and boiler efficiency gains by switching to gas produce 2.04t Carbon reduction per home.

Table 2 - Kg/CO₂e saved per £1 spent per heating technology²

Installation Type	Kg/CO ₂ e annum per home	per Kg/CO ₂ e reduction versus oil	Installation cost per home (£)	Kg/CO ₂ e saved per £1
Oil	3307	N/A	N/A	N/A
Gas	2231	1076	£3,500	0.307
ASHP	1155	2152	£13,000 - £23,000	0.094 - 0.166

Since the introduction of the NI Energy Strategy however, there has been a notable shift in confidence from householders on home heating oil to convert to natural gas.

This appears to stem from a lack of clear messaging to these householders regarding the very positive contribution that the installation of a gas boiler can make to their household carbon footprint.

We believe that, whilst it is important for energy strategy to embrace new market solutions such as biomethane and heat pumps, we must also proactively encourage near-term and no-regret solutions, including oil-to-gas conversions and the upgrading of existing homes' thermal efficiency.

The reality is that failure to encourage and facilitate oil to gas connections in the near term will result in householders simply retaining their existing oil system or replacing an ageing oil boiler with a new oil boiler.

When it comes to carbon reduction, timing matters. Emissions avoided today are emissions that never accumulate in the atmosphere, so earlier conversion delivers greater long term climate benefits.

3. Are there aspects of the current policy, regulatory or infrastructure environment that are supporting investment or creating barriers to investment? (For example grid capacity, planning, connection timelines or energy costs.)

As outlined in the detail above, the current lack of a Biomethane Strategy and supporting legislative frameworks in NI is preventing investment in production plants.

In 2022, research by CASE/Queen's University calculated NI could produce 6,124 GWh biomethane from agricultural manure and underutilised grassland – equating to 90% of total 2022 NI gas distribution demand. The vast majority of this feedstock, 83%, is located within 10km of the gas distribution network. More recent QUB research that considered additional potential biomethane feedstock such as organic waste and sewage sludge has identified a total theoretical maximum potential of 8 TWh.³

Furthermore, there is clear interest from local biomethane developers to harness this abundant supply of feedstock to inject renewable gas into the local gas network. Beyond the AD Plant already connected in Dungannon, a further 84 AD plants responded positively to the 2024 NI GNO

² Note - this table does not incorporate any support costs across the various options. Carbon values are taken from figures provided by the DfE consultation document.

³ [David Rooney QUB Presentation to Phoenix Energy Renewable Gas Conference, 2023](#)

Request for Information (RfI) from biomethane producers with a combined total potential output of c.3.5 TWh – sufficient to meet 90% of NI’s industrial and commercial gas demand.⁴

Engagement with regional large energy users connected to the gas network suggests that there is significant interest in obtaining access to biomethane. This interest is being driven by government policy and consumer demand. For example, Climate Transition Planning is expected to become mandatory in the UK for listed companies, forcing firms to detail how they will decarbonise their operations⁵.

Biomethane represents the only realistic option for large industrial energy users connected to the gas network who wish to now progress their decarbonisation targets as it is an established fuel which provides a like for like replacement for natural gas, does not require changes to boilers or plant and can continue to meet the often-high thermal demands of large industrial energy users.

The DNOs welcome the inclusion of Action 2 within the DfE 2026 Energy Action Plan to “*develop a draft biomethane policy, with support from the Interdepartmental Biomethane Group*”.

However, we recognise that the timely delivery of policy outcomes in this area will require:

- Adequate resources being made available to the relevant departments to progress the required legislative outcomes
- Effective collaboration between NI Executive departments, with clear accountability and transparency on required deliverables
- Greater utilisation of industry resource to support policy development and help shape marketplace implementation

4. Does the current pace of delivery under the Energy Strategy provide sufficient certainty for businesses to plan and invest? Please give reasons for your answer.

Those operating in the energy sector have seen at first hand the extent to which departmental officials have embraced the energy challenges locally and the breadth of existing and emerging technologies that they are factoring into future policy decision-making. They have done so at a time of emerging challenges, both locally and globally, that have made an already complex sector increasingly challenging.

We believe, however, that we are now entering a period where the NI Executive needs to be increasingly focused on implementation and, in doing so, should prioritise near-term solutions that support long-term targets while ensuring that large energy users have viable options that allow them to remain economically and sustainably competitive.

This will require policy makers to make informed decisions that suitably reflect the local energy landscape, are fully cognisant of the fiscal challenges we face in NI and draw on the experience other regions have gained from the roll-out of low carbon solutions.

⁴ [Evolve - Biomethane - Northern Ireland's Potential Request for Information Results](#)

⁵ <https://www.deloitte.com/uk/en/Industries/financial-services/blogs/transition-plan-taskforces-final-disclosure-framework.html>

For example, future energy scenario modelling for NI continues to forecast c.20,000 heat pumps being installed to domestic homes annually to 2030 and rising thereafter. Whilst heat pumps deployed in suitable homes are a viable decarbonisation heat option, this forecast level of deployment fails to recognise both the wider practicalities and funding challenges associated with delivery.

NI currently has no scheme in place to support a householder install a domestic heat pump, but assuming that in due course NI introduces a support mechanism equivalent to the Boiler Upgrade Scheme operating in England and Wales, providing £7,500 per heat pump installation, delivery of 20,000 installations per annum would require annual government funding of approximately £150 million. Even with this level of support, households would still typically need to contribute around £10,000 towards installation costs, creating a significant affordability challenge for many consumers.

These forecasts appear detached from the economic, social and practical realities of the NI energy landscape. Headline heat pump deployment targets that do not recognise regional delivery constraints risk becoming a distraction from more immediate, affordable and deliverable measures that are more likely to gain public traction.

5. Are there any particular implementation issues the Committee should be aware of when considering the effectiveness of the Energy Strategy?

(i) Energy Strategy Ownership

Whilst the Energy Strategy and associated action plans are developed by the Department for the Economy, the Energy Strategy and Climate Change Act 2022 objectives must be universally supported across the NI Executive with adequate resourcing provided to realise regional ambitions, with clear, achievable targets built into future Programme for Government plans.

(ii) Economic, Environmental and Social Evaluation of Decarbonisation

The benefits of reducing carbon emissions globally are increasingly well understood, however it is important when pursuing legislative and policy change that the NI Executive suitably evaluate the wider value associated with progressing sustainable energy solutions in NI.

It is widely recognised that renewable energy solutions typically require support mechanisms to reduce the cost of production and support demand side energy users. This should not simply be considered a cost to the NI Executive without factoring in the non-energy value of developing indigenous energy solutions, to include (based on biomethane production):

- Economic value of increased levels of energy security
- The value that solutions such as biomethane provide to our ability to manage nutrient waste and more sustainably manage our ecosystems
- The job creation that indigenous energy production can provide, particularly in less economically active parts of the region

- The provision of co-products such as biogenic CO₂ and synthetic fertilisers

(iii) Regulated Asset Based Models

Regulated Asset Base (RAB) models have an established track record in Northern Ireland of enabling large-scale, long-term infrastructure investment to be delivered efficiently, transparently and in the interests of consumers. By providing a clear regulatory framework, an agreed approach to cost recovery and appropriate oversight from the Utility Regulator, the RAB model has helped unlock significant private capital while protecting consumers through regulatory scrutiny and performance obligations.

This approach has been central to the successful development and expansion of Northern Ireland's modern gas network, demonstrating that private investment can be mobilised to deliver strategic infrastructure where there is policy clarity, regulatory certainty and a stable long-term investment framework.

As Northern Ireland seeks to accelerate delivery of its Energy Strategy, greater consideration should be given to how RAB-based models can support the implementation of NI Executive policy objectives using private money within a regulated environment. This is particularly relevant where investment is required in enabling infrastructure that may not be delivered at the necessary pace through public funding alone, but where the wider economic, environmental and social benefits are clearly aligned with regional policy ambitions.

Properly designed, a RAB model can provide the confidence required for investors to commit capital, the assurance required for consumers that costs are justified and controlled, and the delivery discipline required to turn strategic energy policy into practical, investable projects. Given Northern Ireland's economic challenges, this model should be considered increasingly as a proven mechanism to realise that potential in a timely, affordable and accountable way.

(iv) Legislative and Regulatory Alignment

For a regulated business to operate optimally, the legislative and regulatory frameworks within which it operates must keep pace with marketplace needs. Where those frameworks lag behind emerging customer requirements, the ability of regulated businesses to respond efficiently, invest appropriately and meet energy consumer demands is constrained.

The Utility Regulator, like all regulatory authorities, is however a creature of statute and must therefore act within the powers afforded to it by the legislature. This means that even where there is clear market demand, technical capability or industry willingness to progress low-carbon solutions, regulatory approval and implementation can only move at the pace permitted by the underlying legislative framework.

Clear, unambiguous legislative policy from NI Executive Departments, most notably the Department for the Economy given its energy responsibilities, is therefore critical in allowing the Utility Regulator to embrace emerging marketplace opportunities and regulate utility companies'

implementation of these. This is particularly important in areas such as biomethane, where policy, regulation, network operation, producer investment and consumer demand must be aligned if market development is to proceed at pace.

If there is a lack of clarity within the legislative and regulatory chain locally, this will inevitably lead to a lack of timely investment from regulated utility companies and wider market participants. Conversely, clear statutory direction, timely policy decisions and an aligned regulatory mandate would provide the confidence needed to support investment, protect consumers and translate the ambitions of the Energy Strategy into practical, deliverable outcomes for Northern Ireland.

Summary of key recommendations:

The DNOs believe that the 2021 NI Energy Strategy remains a strong and appropriate foundation for decarbonisation, but that delivery now needs to move decisively from policy development into implementation. In particular, the NI Executive should prioritise the timely publication of a suitably ambitious biomethane strategy, provide the departmental resources and legislative focus required to support market development, strengthen cross-departmental accountability, and make greater use of industry expertise in shaping practical delivery frameworks.

Alongside this, policy should recognise the immediate emissions benefit available through oil-to-gas switching and energy efficiency improvements, while giving greater consideration to regulated investment models, including RAB-based approaches, to mobilise private capital for strategic energy infrastructure. Taken together, these steps would help protect the positive momentum established to date, give confidence to investors and large energy users, and ensure Northern Ireland is better placed to realise the economic, environmental and social potential of its indigenous renewable energy resources.