Call for evidence: Developing biomethane production in Northern Ireland

9 August 2024

Summary

- The logistics sector must be considered an important end user for biomethane in the transition to net zero and the policy framework must recognise this.
- Well-to-wheel GHG emission savings are 81-125% for compressed biomethane gas and 69-125% for liquid biomethane versus retail diesel.
- The fixed fuel duty differential vs diesel, currently fixed to 2032, should be extended to maximise market certainty and confidence in biomethane.
- The logistics industry needs refuelling sites to be located where the highest demand is. For example, at depots or close to logistics hubs.

About Logistics UK

Logistics UK is one of the country's largest business groups, representing the entire logistics industry and supporting, shaping and standing up for safe and efficient logistics. Our membership of more than 20,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the buyers of freight services, such as retailers and manufacturers. As an organisation, we deliver services, representation and thought leadership, helping members and policy makers to seize new opportunities for the sector and the economy as a whole, right across the country.

What we represent

Logistics is a sector delivering an increasingly safe, sustainable and efficient system of national infrastructure – creating opportunities across the UK and linking the UK to the global trade network. Spanning land, water and air, it delivers for everyone, everywhere, every day.

- Logistics delivers big public value on small margins, ensuring the availability of the products households, businesses and public services rely on. It moves goods more than 200 billion tonne-km within the UK per year and enables the trade of more than £1 trillion of goods, while working hard to avoid adding pressure to the cost of living. It strengthens connections between businesses and their customers, facilitates market expansion, boosts competition, and encourages innovation.

- The sector delivers opportunities across the UK. It contributes £185 billion to the economy each year (12% of UK non-financial GVA), is one of the UK's largest employers, providing good jobs with strong career progression – 2.7 million people (8.2% of the UK workforce) are employed in logistics roles, and its key hubs provide a catalyst for further growth and investment, helping places to thrive.

- Logistics delivers for the future. It transformed this country, linking businesses with customers across the UK and to the world through canals, roads, railways, airports, port connections, and, from

the second half of the twentieth century onwards, enabled revolutions in global trade and e-commerce. It is now innovating to deliver decarbonisation and even greater efficiency.

Specifically, logistics underpins the Northern Ireland economy, delivering for its households, businesses and public services, every day, via road, sea and air, strengthening connections, growing market access and encouraging innovation.

Logistics is a major sector in its own right in Northern Ireland. More than 65,000 people are employed in logistics roles – nearly 8% of the Northern Ireland workforce, there are over 6,000 logistics businesses in Northern Ireland, making, selling and moving goods, and the wider transport and storage sector adds £1.5 billion to the Northern Ireland economy[1][2].

Against this backdrop, Logistics UK welcomes this opportunity to respond to the Department of Economy's Call for Evidence - Developing Biomethane Production in Northern Ireland.

Consultation response

The logistics sector is committed to playing its part to help achieve net zero and recognises its responsibilities to help meet the targets of the Northern Ireland Climate Change Act.

Therefore, Logistics UK is responding to this consultation, in favour of the promotion of biomethane production in Northern Ireland, calling for the logistics sector to be considered an important end user for biomethane. We have responded to questions most relevant to our sector.

Question 1
What are your views on the primary role that biomethane might play in supporting our path to net zero.

As previously mentioned, the logistics sector recognises its contribution to overall greenhouse gas emissions in Northern Ireland and is therefore committed to playing its part to help achieve net zero.

According to the latest figures, domestic transport contributed 18.1% to Northern Ireland's overall greenhouse gas emissions in 2022, only second to agriculture[3], and between 2021 and 2022, was the only sector to record an increase in emissions. Of these emissions, road transport was the primary reason for the increase, with increased demand for cars, light duty and heavy duty vehicles reported. It is therefore critical to support decarbonisation of heavy road freight – an identified hard-to-abate sector.

Biomethane can play a critical role addressing this challenge.

The logistics sector is committed to decarbonising, however, zero emission technologies remain unsuitable for widespread HGV rollout due to barriers such as vehicle availability, suitability, cost and lack of supporting energy infrastructure. In the meantime, low carbon fuels, and specifically biomethane, can fill a significant gap and reduce emissions immediately. Immediate emissions savings will support Northern Ireland's path to net zero.

[1] Office for National Statistics, April 2024. Regional gross value added (balanced) by industry: all ITL regions
[2] Labour Force Survey, Office of National Statistics Q3 2022 and Q1 2023
[3] Northern Ireland Greenhouse Gas Emissions 2022, Department of Agriculture, Environment and Rural Affairs, June 2024

Biomethane provides around 80% (with and without indirect land-use change) greenhouse gas (GHG) emissions savings on average when used as a fuel in our sector, and depending on the feedstocks used, can reach 92% (excluding land-use change)[4].

The Zemo Partnership has calculated that well-to-wheel GHG emission savings are 81- 125% for compressed biomethane gas and 69-125% for liquid biomethane versus retail diesel[5].

Given these substantive and immediate emissions reduction opportunities for logistics transport, HGVs must be considered a primary recipient for biomethane in Northern Ireland, to support the path to net zero.

Question 2

What are your views on how the optimal use of biomethane might evolve over time, i.e.:

- *in the short-term (up to 2028);*
- *in the medium-term (up to 2035); and*
- *in the long-term (up to 2050 and beyond)*

Biomethane has experienced strong adoption rates in the logistics sector, with the most significant take up coming from artic HGV fleets. In the short term, further uptake should be encouraged to maximise immediate emissions savings.

Biomethane is currently most suitable for long distance transport by 'return to base' tractors such as supermarket and parcel networks. In the medium to long term, it is important for biomethane to have more widespread uses to secure the maximum emissions savings. Biomethane could be used in more typical 44 tonne operations and while it is becoming more attractive, there are still barriers.

It is likely that biomethane will be used in HGVs in the long-term. Given it is expected that some internal combustion engine HGVs will remain in use into the 2050s, biomethane can continue to play a critical role in reducing emissions. Current energy infrastructure is insufficient to electrify HGVs meaning low carbon fuels are accepted as having a long-term role to play in the absence of available zero emission technologies. There is insufficient charging infrastructure in place for charging electric HGVs, zero tailpipe emissions HGVs remain unproven for long distance operations and there is no agreed approach to mitigating the payload penalty. The payload penalty refers to batteries causing vehicles to have a heavier unladen weight than their non-electric versions. This increased weight reduces the payload, meaning fewer goods can be transported. Until these issues are addressed and solutions are established, biomethane and other low carbon fuels must continue to be available to operators to provide emissions reductions.

There is a need for a long-term co-created logistics roadmap to net zero and the phase-out of fossil fuels, based on the availability of technology, infrastructure investment, regulatory reform and tax incentives. This emission reduction plan should include the role of zero emission tailpipe technology for road vehicles as well as the role of low carbon fuels.

Members are concerned that there is currently no clear zero emission technology path for the heaviest HGVs, whether that will be hydrogen fuel cell, electric road systems or different fuels.

Question 20:

[4] Low carbon fuels strategy: Call for ideas, Department for Transport, February 2022

[5] Renewable Fuels Guide, The Zemo Partnership, July 2023

In your view, would (i) domestic customers; (ii) small to medium-sized businesses; or (iii) large energy users be willing to pay a premium to purchase biomethane, i.e. per kWh? If so, how much?

The logistics sector is committed to decarbonising, however, operators need support with the higher associated costs from using low carbon fuels such as biomethane.

Vehicle costs for gas HGVs can be around 25% more than a conventional diesel equivalent when purchased outright[6], operators are therefore facing additional costs to achieve greater emissions savings. In addition, maintenance costs of gas vehicles are 20-25% more than diesel vehicles[7].

Therefore, if a premium was attached to purchase biomethane this would add further costs to operations, in a sector that already operates on extremely tight margins. There is little scope for additional costs to be absorbed and therefore costs would likely be passed onto consumers.

The framework must ensure that the logistics industry is not further financially penalised for choosing lower carbon options.

Question 21:
What action might be taken to make the cost of biomethane affordable to (i) domestic customers; (ii) small to medium-sized businesses; or (iii) large energy users?

Our members are deeply concerned that the business case for gas trucks is highly dependent on the fixed fuel duty differential vs diesel. This is currently fixed to 2032, and members believe there is a strong case to extend it further. With greater certainty on this, it could help provide better confidence in the industry and therefore lead to higher use and increased market growth.

Logistics businesses need support now with the higher costs associated with using biomethane.

Another key barrier, as well as cost to biomethane take up, is infrastructure.

Question 29:
What other key issues should the Department consider in developing a policy framework for biomethane?

Logistics UK welcomes plans to develop a biomethane framework, which will help give certainty to industry and investors.

However, the delayed and much-needed Low Carbon Fuels Strategy due to be published in spring 2024 by the former government has led to uncertainty and created barriers to low carbon investment, at a time where there is no room for delay. Industry needs clarity regarding the fuels of the future and what to invest in.

With sales of all new non-zero emission tailpipe HGVs to end in 2040, industry has no clear pathway on how to progress. Whilst some of our members have adopted biomethane vehicles into their fleets successfully, others are reluctant to do so due to the higher vehicle capital cost as well as infrastructure constraints. This is impacting Northern Ireland's transition to net zero.

[6] Renewable Fuels Guide, The Zemo Partnership, July 2023
[7] Renewable Fuels Guide, The Zemo Partnership, July 2023

It is also important to consider all low carbon fuels in a holistic way. Policy should consider the highly valuable role of other low carbon fuels, such as hydrotreated vegetable oil (HVO) and implement support to incentivise uptake.

Logistics UK is calling for a roadmap to net zero and the phase out of fossil fuels, based on the availability of technology, infrastructure investment, regulatory reform and tax incentives. Businesses need support now to help with the additional costs of using low carbon fuels. As a sector already operating on very tight margins, government must ensure sufficient support is available.

Creating a detailed and fully supported long-term plan with commitments and benchmarks will help to ensure investment and therefore increase production and rollout of biomethane.

Question 30:
Are there any changes to the regulatory framework which government should consider to enable the development of a sustainable biomethane sector? If so, what might these be?

The logistics industry needs refuelling sites to be located where demand is highest. For example, at depots or close to logistics hubs. If plant locations are situated a long way from depots, additional fuel is required to transport the biomethane between the two sites which counteracts emissions savings, as well as being unpractical and more costly.

The price of biomethane must be decoupled from wholesale natural gas prices.

Contact details:

Katie Adams
Senior Policy Analyst
Logistics UK
Kadams@logistics.org.uk