

## **Biomethane Industry Update**

**4<sup>th</sup> March 2022**

### **Questions and Answers**

#### **Q1: How have you been liaising with the HSE on the Revision of the Gas Safety (Management) Regulations 1996 – CD291 consultation?**

The Health and Safety Executive Northern Ireland (HSE NI) is liaising closely with HSE in Great Britain (GB) on the revision of the Gas Safety (Management) Regulations (GSMR) and is keeping the Department for the Economy (DfE) and the Utility Regulator (UR) updated on upcoming changes. Changes to GSMR in GB are currently being consulted on:

[CD291 - Revision of the Gas Safety \(Management\) Regulations 1996 - Health and Safety Executive - Citizen Space \(hse.gov.uk\)](https://www.hse.gov.uk/consult/condocs/gsmr/gsmr.htm)

The proposed changes are driven by the aim to support diversification of gas from renewable resources whilst ensuring safety standards are maintained.

Interested parties (including gas operators in Northern Ireland (NI)) have been provided with an opportunity to respond to the above consultation.

#### **Q2: Given the cross cutting nature of these Biomethane proposals, what conversations have taken place in respect of wider Climate Policy on reducing production of methane and Biomethane, in order to meet climate targets?**

As set out in the biomethane industry update presentation, one of the key areas of focus for DfE in delivering the new Energy Strategy, the 'Path to Net Zero Energy', is decarbonisation of the gas network. However, policy areas within the DfE Energy Group are exploring a wider range of options for reducing emissions, including in the areas of heat and transport.

DfE is also engaging closely with other departments (including in particular the Department for Agriculture, Environment and Rural Affairs (DAERA) which leads on the Green Growth Strategy), the Department for Business, Energy & Industrial Strategy (BEIS), the Department of the Environment, Climate and Communications in the Republic of Ireland (DECC) and stakeholders on climate policy.

#### **Q3: If biomethane has the same chemical make up as CH<sub>4</sub>, why do you need to add propane to increase the CV (Calorific Value)?**

Natural Gas is made up of predominantly methane gas but also can have trace amounts of other higher CV hydrocarbons such as ethane, butane, propane. Bio-methane on the other hand will only contain methane. As a result, it tends to have a slightly lower CV than the natural gas consumed in NI today. Similar CV differentials

would be experienced if NI were to receive natural gas from different sources other than GB. For example natural gas originating from Russia would have a different CV to that originating from Norway.

If a producer injects biomethane gas at a lower CV than that prevailing in the rest of NI, then those gas consumers within the 'Zone of Influence' would be disadvantaged to those outside the Zone of Influence (i.e. they would consume more gas and would therefore pay more). The Zone of Influence can vary from hour to hour depending on seasonal demand. To address CV differentials from different incoming gas streams, and ensure downstream consumers are not disadvantaged, there either needs to be a billing system which accounts for CV differentials (not currently in place for NI), or the incoming gas needs to fall within an acceptable CV range. Therefore, this is why producers will need to increasing the CV of their biomethane with the addition of propane.

#### **Q4: Can you outline what is in Service Provider Contract?**

The exact content of the Service Provider Contract is currently under negotiation. It is anticipated that the Service Provider Contract will set out arrangements such as the provision of SCADA (Supervisory Control and Data Acquisition), IT (Information Technology), daily reporting of flows and alarms, and seasonal adjustments of network pressures.

#### **Q5: In order to be able to accept the potential volumes of biomethane that could be predicted for injection into the distribution network, is there a potential need for backflow with compression from the distribution network to the transmission network?**

At this stage, to facilitate the entry connection of early movers, the work to facilitate biomethane injection into the distribution networks has focussed on scenarios where there is sufficient downstream demand for the injected volumes.

However, if large scale injection was to take place in areas of low downstream demand, this could lead to congestion. Different options to address such congestion could be considered:

- Injection at transmission rather than distribution level;
- Having an injection hub in areas with sufficient downstream demand which could be availed of by biomethane producers located in areas of low downstream demand;
- Backflow with in-grid compression; and
- Network pressure reduction (within the limits required to ensure safe operation of the network).

Depending on the interest in biomethane injection in low demand areas, such options could be considered in the future. In the case of in-grid compression with backflow from distribution to transmission, implications from any oxygen exemptions (as granted by HSE NI) would need to be taken into account.