

## NTS Exit Metering Issue

### Summary

CNG Services Ltd (CSL) believes that reduction in gas flow through NTS Exit Metering (caused by lower gas demand and potentially reduced NTS exit flows into parts of the LDZ with additional biomethane injection) is adversely impacting the development of biomethane projects. This note is intended to set out the issue and request comments from Ofgem, GDNs and shippers

### NTS Exit Meter Design

The standard for the metering is T/SP/ME/1 (GAS TRANSPORTER'S REQUIREMENTS FOR GAS VOLUME AND ENERGY MEASUREMENT SYSTEMS CONNECTED TO THE NATIONAL GRID GAS TRANSMISSION AND DISTRIBUTION SYSTEMS) with accuracy below

**Table 1: Accuracy requirements for volume and energy measurement systems**

Design daily volume	MPB <sup>(a)</sup>		MPE <sup>(b)</sup>		Comments
	Daily volume	Daily energy <sup>(c)</sup>	Daily volume	Daily energy <sup>(c)</sup>	
1 Less than 3,840 m <sup>3</sup>	0.9%	1.0%	2.9%	3.0%	
2 Between 3,840 and 250,000 m <sup>3</sup>	0.09%	0.10%	2.4%	2.5%	
3 Greater than 250,000 m <sup>3</sup>	0.09%	0.10%	1.0%	1.1%	

An NTS Exit Meter will typically be specified to be accurate over a range, such as 4,000 scmh minimum to 40,000 scmh max which is a max of 960,000 m<sup>3</sup>/day. Given this, the accuracy is 1.1% on total energy.

When a biomethane site is injecting into a GDN grid at, say, 1000 scmh this will reduce the gas through the NTS Exit Meter. When demand is low it may be that the flow through the NTS Exit meter can fall below the 4,000 scmh minimum. Whilst this does not stop the flow it does mean that the accuracy at 3,000 scmh will be outside the accuracy in the 4,000 – 40,000 scmh range. If the normal accuracy is +/- 1% flow then it may be that at 3,000 scmh the accuracy is more like +/- 3%, There are 2 potential consequences from this reduced accuracy:

1. The flow rate signal used to operate the GDN's odorant injection system would still operate (*to be confirmed re odorant system turndown*) but would not be as accurate as in the 1% range, potentially increasing opex and the proportion of odorant in the gas network, or vice versa.
2. There is an impact on Shrinkage due to increased meter error, which could be positive or negative in the absence of systematic bias.

GDNs are not allowing new biomethane projects to proceed where these impacts are anticipated. One GDN has advised that it would be possible to replace the NTS offtake meter with one that is

accurate over a wider range but a typical cost may be £2 million and it could take 3 years. **At present, biomethane projects are not allowed to go ahead without new metering, and both the cost and delivery lead times mean it is not practical/economic for the biomethane projects to proceed.**

### **CSL Proposal**

That for low flows a lower level of accuracy is acceptable. In the case above, when gas flow out of the NTS was <4,000 scmh there would be a lower level of accuracy, equal to the accuracy of a meter designed for 4,000 scmh. The benefits are that biomethane projects can go ahead without waiting for new NTS Exit Metering.

### **CSL believes there are 4 parties impacted besides the GDN:**

1. National Grid NTS would be impacted from reduced accuracy for these low flows. Each site is different in terms of how much flow over the year below the minimum meter accuracy, some will not be many days, others may be more significant if there are multiple biomethane plants injecting gas. In the absence of systematic bias in the metering accuracy, the net impacts could be positive or negative but would have an expected value of zero.
2. HSE would have to accept that the reduced accuracy of odorant injection was not a hazard in terms of more escapes or not adding enough odorant.
3. There may be an impact on Shippers if there is a need for a UNC Mod to accept this change – i.e. if absent a UNC mod, GDNs insist on new metering before biomethane projects can be progressed.
4. There may be an impact on individual shippers due to the allocation of changed shrinkage costs.

### **Request to Shippers and GDNs**

CSL are seeing this impact on more and more projects and we would appreciate GDNs using their good offices to consider if there may be an option here to accept lower offtake meter flows and so help the biomethane industry at this important time.

Our view is that, provided the odorant pump works, there should be no need to constrain biomethane development in order to avoid to maintain higher flows from the NTS.

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