

Bio-methane workshop

Notes and issues from the workshop held on Friday 6 August 2010, at Ofgem's offices, 9 Millbank, London

1. Attendance

The attendance list is included as an appendix.

2. Welcome and Presentations

Sarah Harrison, Senior Partner of Ofgem's Sustainable Development division welcomed attendees and gave an overview and context of the workshop.

Anna Rossington presented an overview of the Gas Distribution Price Control Review (GDPCR2), and Alannah MacShane gave a presentation on the RPI-X@20 time-limited innovation stimulus package and other aspects of the RPI-X@20 recommendations currently under consultation that would encourage innovation¹. All presentations are available on the Ofgem website².

3. Discussion

Issues for discussion were grouped into four broad areas, with each topic area introduced by a short presentation from one of the attendees. It was recognised that there would be overlap between the areas. The presentations are available on the Ofgem website as above.

Key points of the discussions are summarised below.

Innovation, trials and funding

Following the presentations on GDPCR2 and the innovation stimulus package and other RPI-X@20 recommendations, some attendees expressed concern that these initiatives would not be implemented until 2013, and that many issues need to be addressed in a shorter timescale. However, Ofgem noted that the Innovation Funding Incentive (IFI) is available for research and development in the current price control and the GDNs representatives agreed that they could do more to coordinate their research work and ensure that they learn from each other's projects.

The Technology Strategy Board (TSB) was also suggested as a potential opportunity to bring together technology partners to develop low cost solutions³.

Entry point issues and connection charging

(presentations by Gareth Mills – NGN and Chris Clarke - WWU)

¹ Further details available at the following link:

<http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RPI-X@Recommendations.pdf>

² <http://www.ofgem.gov.uk/Networks/GasDistr/GasDistrPol/Pages/GasDistrPol.aspx>

³ Useful TSB web addresses: <https://ktn.innovateuk.org/web/sustainable-energy> and sub-groups <https://ktn.innovateuk.org/web/recovering-energy-from-waste> and <https://ktn.innovateuk.org/web/distributed-renewable-energy>

Entry capacity was raised as a significant issue, since gas demand is highly seasonal and it is not possible for the network to accept two way gas flows. This is a problem for the biogas producers who will be producing a relatively constant amount of bio-methane year round with no opportunity to store (the potential for storage was debated, since one attendee considered it might be feasible in the future). The presenter felt that to offer firm contracts would therefore require significant network reinforcement. However, producers felt that they could use their bio-methane for other purposes when there was no network demand – but are concerned as to what the conditions of any contract will be with respect to firm versus interruptible contracts, and whether the producers will be responsible for fulfilling their contract from other sources when they are unable to produce. It was agreed that the cost benefit of a bio-methane producer connecting to the network at any point will depend on many factors including the size of plant, location of the entry point, whether high or low pressure entry point and downstream demand.

One attendee estimated that a large project would produce 8,000m³ bio-methane with an average plant more likely to produce 4-6,000m³.

The producers agreed to set out what they would term an interruptible contract.

The producers felt that it would be of benefit if they could have an indication of locations that would be favourable to connect (e.g. a map), although some of the GDN representatives stated they would prefer to provide the information on a case by case basis over the phone.

The gas quality standards were discussed – since bio-methane does not meet the current standards. An HSE attendee noted that whilst HSE monitors the standards (Schedule 3 of Regulation 8), as the regulatory body, they are also responsible for the implementation and cost-effective delivery of the regulation. The DECC representative noted that there is a degree of interpretation and flexibility around the standards, and therefore there is a question as to whether they need to be changed. The current gas standards are based on those developed during the 1960s and 1970s for natural gas. The DECC representative requested more information on the costs, benefits and risks associated with changing the standards. The HSE is currently undertaking a desk-top study with Germanischer Lloyd to review the risks/hazards associated with bio-methane and other gases, which should be available at the end of October or early November. This may provide a rationale for establishing an envelope of gas quality standards. Concern was expressed that if the standards are not changed there could be a high (and resource intensive) demand for exemptions. HSE and DECC agreed to liaise on this issue. A GDN representative noted that it was their understanding that the GDN has liability for the quality of the gas, and if it causes any damage to the customer's equipment. They would therefore appreciate having standards that linked to risk assessment – in order that they could mitigate the liability.

Measurement equipment. Concern was expressed that the approved measurement equipment is expensive for small scale producers, and the fact that there is only one approved set of equipment means there is little incentive for prices to reduce. Ofgem is responsible for approving equipment – Belinda Littleton noted that Ofgem has not received any requests to approve cheaper equipment. Ofgem agreed that the informal CV Liaison Group chaired by Roger Wood was looking at alternative (less accurate/cheaper) measurement equipment.

It was noted that more trials should encourage new players to get involved in the market.

Ownership. NGN proposed that as much of a bio-methane connection as possible should be contestable, in order to encourage competition and therefore reduce prices. However they noted that under the current arrangements the entrant would still pay for all required capex.

CV enhancement

(presentation by John Baldwin – REA)

The fundamental principle is that customers should get the amount of energy that they pay for. Therefore, since meters measure the volume of gas, the calorific value (CV) of the gas in the system needs to be the same. However bio-methane has a lower CV than the required system CV. This means that propane has to be added – the cost of which can be greater than the price of the gas being sold (the propane value loss, PVL).

There was a discussion as to when the lower CV of bio-methane becomes material – at small volumes of bio-methane injection it will have no impact on the overall system CV. It was also questioned whether blending is the most efficient solution, although the REA representative's opinion was that there is not alternative at the present time.

The REA is feeding this information in to DECC's consultation on the renewable heat incentive (RHI). The DECC representative stated that DECC is looking for options and counterfactuals. DECC would also clarify whether payment for the addition of propane is allowable under the RHI and whether there would be any State Aid issues involved.

It was agreed that Ofgem would request the UNC Working Group 251 to reconvene to discuss short term options and provide agreed data to DECC, based on the costs of propanation discussed by JB. One attendee requested that the meeting attendees be copied in the correspondence to organise the group, in order that they could ensure the relevant people in their organisation are briefed.

DECC also noted that they would need to clarify whether under the EU Renewable Energy Directive the propane added to bio-methane production is counted as renewable or not. DECC is clarifying this position.

Role of networks/licensing and obligations

(presentation by John Baldwin – REA)

The REA believe that a solution for the lack of network capacity caused by the seasonality of demand is to install compressors on the medium pressure network, to introduce a reverse flow. The compressors would only be installed where required (close to the connected plant) – not across the network. It was noted that the density of biogas plants is limited by access to the feedstock. It was recognised that the cost of this proposal needs to be evaluated against the cost of making a direct connection between the plant and the high pressure network. It was also recognised that there would be leakage implications, and that it would not necessarily be feasible with cast iron pipes.

4. Close

The DECC representative described development of a joint DEFRA/DECC action plan for anaerobic digestion. A workplan is currently being created, and meetings with key stakeholders will take place over the next couple of months. The aim is to have a draft plan created by the end of September/early October, with an agreed plan published in April 2011. The DECC representative is keen that the meeting attendees are involved in the action plan's development.

Anna Rossington summarised the key points of the discussion, and thanked the attendees for their participation. She stated that Ofgem wanted to maintain this group, and would assess the best way to liaise with the members. She also stated that the notes from the meeting would be published on the Ofgem website.

5. Appendix

Ofgem

Anna Rossington	Head of Distribution Policy
Sarah Samuel	Head of Environmental Policy
Paul Branston	Head of Network Assets and Outputs
Graham Knowles	Senior Manager, Environmental Policy
Alannah MacShane	Regulatory Economist, RPI-X@20
Karron Baker	Distribution Policy Manager
Belinda Littleton	Economist/Market Analyst, Retail & Market Processes

Stakeholders

Erika Melen	Energy Networks Association
Steven Vallender	National Grid Gas
Gareth Mills	Northern Gas Networks
Colin Small	Scotia Gas Networks
Chris Clarke	Wales and West Utilities
Ralph Reekie	Inexus
Charlotte Morton	Anaerobic Digestion and Biogas Association (ADBA)
Samantha Fuller	Scottish Southern Energy
Martin Orrill	British Gas
David Collins	Renewable Energy Association (REA)
John Baldwin	REA
Liz McDonnell (by phone)	Department of Energy and Climate Change (DECC)
Jim Stancliffe	Health and Safety Executive (HSE)
Tony Hetherington	Health and Safety Executive (HSE)
Alison Russell	Centrica
Steven Sherwood	Scotia Gas Networks