

**Ofgem Review Group on Energy Market Issues for
Biomethane Projects (EMIB)
Monday 31 October 2011
at ARUP, 13 Fitzroy Street, London W1T 4B**

Attendees

Tim Davis (Chair)	(TD)	Joint Office of Gas Transporters
Mike Berrisford (Secretary)	(MiB)	Joint Office of Gas Transporters
Alex Ross	(AR)	Northern Gas Networks
Andrew Grigsby	(AG)	ARUP
Andrew Moore	(AM)	Northumbrian Water
Chris Bielby	(CB)	Gas Industry Safety Group
Dave Lander	(DL)	Dave Lander Consulting
David Pickering	(DP)	National Grid
Ian Gardner	(IG)	ARUP
James Lewis	(JL)	Calor Gas
John Baldwin	(JB)	REA/CNG Services
John Cornes	(JC)	Atlas Copco
Lesley Ferrando	(LF)	Ofgem
Lindsay Goater	(LG)	Ofgem
Mark Bugler	(MB)	British Gas
Matt Hindle	(MH)	ADBA
Pat Howe	(PH)	Alternative Energy
Paul Holland	(PHo)	EffecTech
Peter Hardy	(PHa)	IGEM
Richard Fairholme	(RF)	E.ON UK
Richard Pomroy	(RP)	Wales & West Utilities
Stephen Skipp	(SSk)	Scotia Gas Networks
Steven Sherwood	(SSh)	Scotia Gas Networks
Steve Rowe	(SR)	Ofgem
Stuart Bennett	(SB)	Heat and Power Services
Tim Slaven	(TS)	AMEC

1. Introduction

Copies of all papers are available at: www.gasgovernance.co.uk/emib/311011.

TD welcomed all to the meeting before handing over to IG who gave a brief, site specific, introduction and welcome.

2. Minutes of the Previous Meeting

2.1 Approval of Minutes

The minutes of the previous EMIB meeting (27 September 2011) were approved.

2.2 Review of Actions

Action EMIB 09/01: Ofgem (LF) to set out the rationale for Ofgem's RIIO-GD1 incentives decisions.

Update: Please refer to item 4 below.

Closed

Action EMIB 09/02: Dave Lander Consulting (DL) to prepare a list of CV measurement devices along with their performance.

Update: Please refer to item 5 below.

Carried Forward

Action EMIB 09/03: Joint Office (TD) to establish an Expert Group.

Update: TD confirmed this had been completed.

Closed

Action EMIB 09/04: GDNs to consider the minimum information requirement from a small entry point, in terms of both the required content and the scale of facility involved.

Update: Please refer to item 7 below.

Carried Forward

Action EMIB 09/05: ADBA (MH) to provide analysis of options, taking into account the range of positive and negative impacts from propane enrichment.

Update: Please refer to item 3 below.

Closed

Action EMIB 09/06: Ofgem (SR) to invite an Ofgem RHI representative to the next meeting, to provide in particular a view on possible modification of the GDN Licence.

Update: TD confirmed this had been completed.

Closed

3. GDN Connection Policy for Biomethane Projects

Update from ENA Distributed Gas Group

RP provided an overview of the presentation.

RP indicated that the GDNs support a minimum connection approach. When asked, he indicated that, with regard to the minimum connection including a remotely operable valve and associated telemetry is standard practice to protect the network and enables the Transporter to shut off out of specification gas.

SSk suggested that the Expert Group considered that, in order to best meet the obligations on networks (notably compliance with GS(M)R), it may be preferable for equipment and operational responsibility to remain with the Networks. However, it was acknowledged that differences might exist between commercial requirements and the preference of those with operational obligations. It was agreed that, initially, these tensions should be resolved by the ENA Distributed Gas Group.

With respect to Standards of Service, RP advised that back-up systems might be single or twin stream processes.

Moving on to the 'liabilities – capacity constraints' slide, JB suggested that, as the Transporters do not earn extra revenue from an entry connection, it is reasonable to expect them to not have to pay liabilities in instances of Force Majeure or similar events that are out of their control – a view shared by those present.

In considering whether or not Transporters could or would refuse to offer capacity, and who should fund reinforcement and the associated delivery timescales, RP suggested that further consideration is needed and advised that the GDNs are scheduled to meet again on 09 November. RP's view was that

Transporters and Ofgem need to agree and define what constitutes efficient expenditure with regard to reinforcement.

Summarising the present position, RP advised that the GDNs had developed an initial view, but recognise that further consideration and detail is required. JB felt that the presentation amounted to a good starting point, but suggested that there might be benefit in setting up a Sub-Group to consider the matter in more detail. He went on to suggest that a Netherlands style (insurance) model supported by independent monitoring might be a way forward.

In terms of next steps, and noting previous discussions around ownership issues and risk management, DL suggested that further consideration of risk mitigation where the whole process and ownership aspects did not sit with the GDNs is needed.

SSh wondered if a common Network Entry Agreement (NEA) across all the GDNs would prove beneficial, with others agreeing that as much commonality as possible would be beneficial. SSk remained concerned about the proposed NEA approach and potential complexity and enforcement issues. However, SSh felt that the Sub-Group could tease out NEA aspects, which could then be discussed further.

TD highlighted that, given Ofgem's timetable for the Review, the group has until the end of November to resolve the outstanding issues. JB suggested that views on the presentation could be sought, which the GDNs could then consider at their 09 November meeting. The suggested Sub-Group could meet shortly after that in order to discuss the matter further and reach agreement beyond solely the GDNs.

Potential GDN Licence Modification

LG provided a brief overview of the Ofgem "Clarification on Measuring Energy for Producing Heat for Digestors" paper. He went on to suggest that two key elements also need consideration – paying producers for the energy contained within the propane plus network and producer consideration and agreement on biogas requirements (which may sit outside Ofgem's remit). TD asked if the digester issue, which MB raised at the previous meeting, had been addressed by Ofgem's response, and it was confirmed that it had been.

JB suggested that consensus on what is a standard GCV would be needed. He suggested that this may be easy to establish by taking the propane CV away from the biogas (methane) CV to identify an appropriate CV. DL remained guarded about the suitability of such an approach as variations in the methane percentage mix (inert gas components etc.) potentially have an impact - he favoured a measurement or fixed value approach rather than JB's suggested difference approach.

In considering potential odorant injection requirements, SR felt that this remains a GS(M)R issue. However, DP believed that where a GDN was adding odorant on behalf of a biogas producer, this could be deemed an appropriate course of action. JB suggested that parties may be able to adopt suitable odorant contracts in future whilst RP suggested that, unless the group is proposing licence changes, we are where we are in terms of obligations. In response, LG informed those present that Ofgem is conducting a legal review and guidance would be forthcoming in due course.

In discussing possible exemption from the need for producers to hold a Gas Transporter licence, RP advised that this is on the agenda for consideration at the next DECC meeting. DP added that he had sought a view from DECC but, to date, had not received a response, which he would chase.

Moving on to consider whether or not the GDNs would wish, or be obliged, to adopt connecting pipelines between the production plant and the minimum connection point on the GDN network, SSh advised that the GDNs would not wish to own any pipeline that conveyed non-GS(M)R compliant gas. AM questioned whether, where he had paid for the asset (in respect of its regulatory capital value aspects), it should be within his RAV irrespective of whether the GDN adopted the pipeline. SR wondered if there was anything within the adoption regime documentation that could clarify this situation. JB felt that this is more akin to a commercial rather than a licence issue, which would be better discussed elsewhere.

New Action EMIB 10/01: National Grid (DP) to seek DECC view on biogas producer exemption from any need to hold a GT Licence.

CV Enrichment Issues and Options

MH provided a brief verbal update reiterating concerns that injecting propane into biogas potentially undermines the perception of what is green gas. He recognised that the decision had been taken to require enrichment for the initial operators, but emphasised that the issue should be revisited in due course and should not be assumed to have been accepted for all subsequent facilities.

Use of commingling of biomethane with grid gas to avoid or mitigate the need to add propane at biomethane entry points

DP introduced the National Grid paper and presentation, which built on MH's concern and sought to illustrate an alternative method for achieving the desired FWACV (Flow Weighted Average Calorific Value). In essence, this allows biogas to commingle with existing gas flows prior to CV measurements being taken for use in FWACV calculations.

When asked what the CV level was flowing past the blending point, DP advised that it is assumed to be 39.6MJ/m^3 , but it should be noted that this could be different to the FWACV.

When asked about who would pay for any energy loss associated with commingling, DP advised that, under the current FWACV regime, customers could be impacted either negatively or positively, and this was limited in the interests of fairness. The same degree of protection would apply with blending. SR reiterated that Ofgem are considering various legal requirements including utilisation of slam shut (valve) provisions with a view to protecting customer interests. He went on to add that commingling and lower cost monitoring and measuring equipment options are also under consideration, with the aim being to maintain parity of costs with regard to the current regime. Furthermore, to date Ofgem is comfortable with the biogas proposals and associated customer protection aspects.

SSk enquired if the HSE had considered the commingling arrangement as put forward by DP - he was concerned there was no guarantee that gas would be GS(M)R compliant. DP explained that, for the Adnams project, the HSE had granted an exemption with respect to Oxygen, but other requirements remained and he was not aware of any outstanding concerns. TD added that the proposal was about commingling before FWACV calculations are made, not commingling to comply with GS(M)R - biogas would need to meet GS(M)R requirements before entering the GDN network.

DL advised that issues relating to measuring equipment standards and monitoring equipment accuracy for enriched gas and their potential impact on the pipelines also needs to be considered. In his opinion, blending could get around some or all of the Wobbe issues and the HSE have gone on record as stating they would not like to see a significant increase in the number of exemptions.

SSh also voice a concern around possible commingling levels and their sustainability, with any ability to offer the approach being dependent on site specific circumstances.

JB believed that the example provided was a good one. Whilst he does not believe that CAPEX is an issue, he does think that further consideration of operating cost aspects is needed. Furthermore, provision of boundary protection aspects for customers is also needed. However, MH was unsure why parties would need to go outside previously agreed boundaries.

Moving on, DP advised that the assumption is that the GDNs would own and operate the commingling measuring equipment, and would charge the biogas producer for any costs associated with the service.

SR raised the issue of the costs associated with propane enrichment and challenged the GDNs to examine possible options for avoidance of propanation. In particular, he suggested that examining options for geographically smaller charging zones could prove beneficial. DP advised that the Review Group 0251 (Review of the Determination of Daily Calorific Values) had considered this and concluded that it was difficult to define zones beyond which gas from different sources would not flow. However, SR felt that the current regulatory framework provided an opportunity to challenge the industry to seek to provide better protection for customers.

4. Capacity for Biomethane

Rationale for RIIO-GD1 Environmental Incentives decisions

LF presented on behalf of Ofgem.

LF indicated that, in the case of power, embedded generation offered network benefits, notably through reduced losses. RF asked about the universality of this, and how remote rural losses, such as found in parts of Wales, were treated. LF suggested that these could be addressed via contractual arrangements.

Considering UNC Modification 0391 (Distributed Gas Charging Arrangements), LF remained unsure as to why the argument for the connection boundary to remain deep to encourage competition in provision of connected assets would apply to the gas, but not the electricity area. RP wondered if this was possibly related to the history of the electricity shallow exit regime.

RP suggested that further dialogue between Ofgem and the GDNs would be needed as to what is meant by the term 'efficient investment' – i.e. is it relating to an efficient investment today, or is it to be judged in 4 years time with the benefit of hindsight. When asked if assessment of Modification 0391 was driving potential boundary changes, both DP and RP suggested it was.

DP indicated that he shared RP's concerns regarding what would be considered efficient costs in a changing market. JB wondered if seeking feedback from interested parties on how best to incentivise GDNs to make efficient interim investment in years 1, 2 and 3 (including compression options) would prove beneficial. AM felt that long-term compression issues and requirements would need consideration in due course. DP added that, until technical compression aspects are addressed (during 2012), it is difficult to accurately assess potential investment requirements. JB wondered if we should seek to identify the GDN behaviours all would want to see, and consider incentives to reward them for demonstrating forward thinking.

RP pointed out that issues relating to longer-term capacity diminishment would potentially impact upon investment costs and appropriate cost apportionment. In the case of betterment, AM wondered if socialised costs could be more appropriate. However, RP pointed out that, whilst 0391 seeks to target

reinforcement costs on biogas producers, it is not seeking to socialise costs. LF once again reiterated Ofgem's concern relating to firm capacity constraints and identification and application of appropriate GDN incentives.

Thinking back to RP's previous 'Update from ENA Distributed Gas Group' presentation, JB believes that whilst options 1&2 remain sound, option 3 is a concern. He also believes the issue of how best to incentivise the GDNs to undertake compression has not been fully addressed – maybe the answer lies in incentives to provide more capacity prior to compression options being developed.

SR indicated that he would attempt to obtain and circulate further information on how the Ofgem (RIIO-GD1) view was established.

Continuing the debate, JB suggested that the issue of GDN incentives should be discussed with the ENA as he believes the industry needs to agree a sensible approach.

TD was of the view, based on what he had observed during the meeting, that it would prove difficult to write a report around capacity for biomethane and that producers seem to be favouring a firm capacity based solution. RP reiterated that further discussion between Ofgem and the GDNs on matters such as longer-term capacity and reinforcement requirements is needed. LF responded that the GDNs provision of supporting evidence for their arguments would have a significant impact on Ofgem's ability to make an informed decision. SSh believed that the high level principles need identifying as soon as possible, especially the DNO's risk aspects and whether or not socialised costs would be appropriate.

5. Technical standards associated with Calorific Value measurement for biomethane flows

DL summarised that the Expert Group view is that CV is not the major issue - GS(M)R compliance and the associated costs are a higher priority.

When asked about potential impacts on directed/non directed sites, DL suggested that future consideration of directed biogas flows and their impact upon FWACV would be needed – it is about achieving accurate charging for energy. SR advised that Ofgem would be looking to provide direction for all entry points, subject to DL's analysis. JB suggested that biogas producers are less concerned about directed/non directed energy aspects and more concerned about the CV monitoring equipment associated with different approaches.

SR enquired if the group was advocating that Ofgem should be considering directing for biogas sites because, if that were the case, extreme care would be needed to ensure that consumer protection is not impaired. Furthermore, he did not believe that the scope of the Expert Group extended to consideration of regulatory changes. In response, DL indicated that the assumption to date was that all biogas entry points would be directed. Interpreting the regulations, he believes that the framework would remain largely unchanged and it would only require changes to the letters of direction. TD pointed out that no one had suggested that Ofgem's direction process is a barrier to biogas entry.

Closing, DL provided a brief update on the ongoing generic risk assessment assessments being conducted with the GDNs. He anticipates that the bulk of the assessment work would be completed at the next meeting, which was due later in the week.

6. Gas Quality Analysis at Biomethane entry

PH presented for EffecTech. He confirmed that, whilst ISO 10723 is already in use, it excludes consideration of maximum bias and uncertainty in the bias. DL

supported this by advising that the new ISO 10723 provisions introduce Monte Carlo analyses for maximum permissible bias and maximum permissible error.

PH suggested that, with regard to the 'Mean error (bias)' slide, the data confirms that no party is gaining or losing.

In considering a scaling down scenario for a power station example, AM wondered if the group could ascertain whether or not a less accurate measuring device would suffice. DL argued that it boils down to a balance between the risk of using a lower specification measuring device and the cost of said device – it also relates to identification of the scale of risk associated with potential breaches of the law.

PH confirmed that implementation of the new standard was expected during 2012. When asked how long assessments take, PH suggested that EffectTech require 1 day on site followed by 2 days of assessment.

JB argued the quality of biomethane gas clean up plant is crucial so that measurement of the CV remains relevantly simple - until you build in the propane that is. TD suggested that this moves towards looking at individual measurement devices, for which the GDNs are preparing a report for consideration at the next meeting.

RP advised that Ofgem are looking to the GDNs (via the ENA) to develop Standards of Service and reinforcement policies and he believes that issues relating to these matters need consideration. Furthermore, new connections may also throw up additional issues – if anyone has any commercial concerns they would like to discuss, therefore, it would be appreciated if they could let him know as soon as possible.

DP voiced concern around incentives (commingling, blending, compression and capacity amongst others) and possible RIIO cost pass through mechanisms, as he believes these matters remain unclear and wondered if there was an option to revisit RIIO in due course.

JB also believed that identification of which model is to be adopted (RP's or SSh's option) would assist identification of the appropriate incentives especially as we now understand the issues better than 12 months ago.

It was agreed that the Joint Office should arrange a meeting to move the range of commercial issues forward. This would be held on 15 November, following the Modification 0391 Workgroup.

New Action EMIB 10/02: Joint Office to arrange a Sub-Group meeting on 15 November.

7. Transmission of data to the GDN's agent

DP provided a brief update on progress explaining that he was not yet in a position to confirm National Grid's thoughts on the matter. Whilst the HPMIS system is already in place, there could be issues around provision of additional communication lines along with the cost of providing a call line, router and reconfiguration of the system. A cost of circa £10–20k had been suggested but remained to be validated. RP confirmed that this was consistent with the information he had been provided with, although SSh was under the impression that the costs were associated more with the creation of the information.

JB suggested that if all the GDNs could agree on the requirements that would be extremely helpful.

8. AOB

Information Relating to Potential Biogas Barriers to Entry

Mindful of the EMIB timetable, SR indicated that Ofgem would like to see information relating to potential barriers to entry, and wondered if any attendee would be happy to take ownership for development of an consolidated report on behalf of the Group. TD provided a brief review of an outline draft report that the Joint Office have prepared, and indicated that he would be willing to complete a draft on behalf of the Group. However, this would require input from others, and any contributions would be welcome.

9. Next Steps and Diary Planning

Details of planned meetings are available at: www.gasgovernance.co.uk/Diary.

It was agreed that a Sub-Group would meet at 12:30 on 15 November 2011 at the ENA, 52 Horseferry Road, London SW1P 2AF, immediately following the Modification 0391 Workgroup at the same venue – at which EMIB attendees would also be welcome.

The next EMIB meeting is booked for 10:30am on 22 November 2011 at IGEM House, High Street, Kegworth DE74 2DA. Progress from the Sub-Group and the risk assessment relating to measurement equipment would be reported at this meeting.

EMIB Action Log

Action Ref	Meeting Date(s)	Minute Ref	Action	Owner	Status Update
EMIB 09/01	27/09/11	5.	Set out the rationale for Ofgem's RIIO-GD1 incentives decisions.	Ofgem (LF)	Update provided. Closed
EMIB 09/02	27/09/11	6.	Prepare a list of CV measurement devices along with their performance	Dave Lander Consulting (DL)	Update to be provided in due course. Carried Forward
EMIB 09/03	27/09/11	6.	Establish an Expert Group	Joint Office (TD)	Update provided. Closed
EMIB 09/04	27/09/11	8.	Consider the minimum information requirement from a small entry point, in terms of both the required content and the scale of facility involved.	GDNs	Update to be provided in due course. Carried Forward
EMIB 09/05	27/09/11	9.	Provide analysis of options, taking into account the range of positive and negative impacts from propane enrichment.	ADBA (MH)	Update provided. Closed
EMIB 09/06	27/09/11	11.	Invite an Ofgem RHI representative to the next meeting, to provide in particular a view on possible modification of the GDN Licence.	Ofgem (SR)	Update provided. Closed
EMIB 10/01	31/10/11	3.	Seek DECC view on biogas producer exemption from any need to hold a GT Licence.	National Grid (DP)	Update due at next meeting.
EMIB 10/02	31/10/11	6.	Arrange Sub-Group meeting on 15 November.	Joint Office (TD)	Update due at next meeting.