

**Ofgem Review Group on Energy Market Issues for  
Biomethane Projects (EMIB)  
Tuesday 22 November 2011**

at IGEM House, High Street, Kegworth DE74 2DA

**Attendees**

Tim Davis (Chair)	(TD)	Joint Office of Gas Transporters
Mike Berrisford (Secretary)	(MB)	Joint Office of Gas Transporters
Andrew Moore	(AM)	Northumbrian Water
David Pickering	(DP)	National Grid
John Baldwin	(JB)	REA/CNG Services
Peter Hardy	(PH)	IGEM
Richard Fairholme	(RF)	E.ON UK
Richard Lewis	(RL)	ARUP
Richard Pomroy	(RP)	Wales & West Utilities
Steven Sherwood	(SS)	Scotia Gas Networks
Steve Rowe	(SR)	Ofgem
Stuart Bennett	(SB)	Heat and Power Services

**1. Introduction**

*Copies of all papers are available at: [www.gasgovernance.co.uk/emib/311011](http://www.gasgovernance.co.uk/emib/311011).*

TD welcomed all to the meeting before handing over to PH 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 (31 October 2011) were approved.

**2.2 Review of Actions**

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

**Update:** In the absence of DL the action was carried forward.

**Carried Forward**

**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:** DP advised that he had met with National Grid colleagues to discuss this matter would be making a presentation later in the meeting (see below).

**Closed**

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

**Update:** DP indicated that DECC had apologised for their delay in formally responding, due in part to a lack of resources. JB felt that this was a poor situation and that maybe the matter should be raised at the next DEFRA meeting. RL advised that he would be meeting with DECC shortly and would raise the matter directly with them.

**Carried Forward**

**Action EMIB 10/02:** Joint Office (TD) to arrange Sub-Group meeting on 15 November.

**Update:** TD advised that the Sub-Group had met on 15/11/11.

**Closed**

### **3. GDN Connection Policy for Biomethane Projects**

#### Update from ENA Distributed Gas Group

RP provided an overview of the 'DN Connection policies – entry' presentation.

RP advised that the DNs had yet to reach agreement on the final minimum connection specification and would prefer to trial them by building a few projects before looking to finalise a specification.

Regarding odourisation, RP suggested that the DNs could adopt subtly different approaches to 3<sup>rd</sup> party provision and operation. Acknowledging that this is a tricky area, JB suggested that various European networks take a different approach to pumping and measuring to ensure that the odorant is actually being injected into the system – the question of who owns the odorant and injection facilities also being subtly different. He suggested provision of an agreed engineering specification could prove beneficial. In response, RP raised concerns surrounding what to do in the event of a failure to inject the odorant successfully and how costs would be apportioned accurately and thereafter recouped.

AM indicated that he would be happy for the DN to own and operate odorant plant, provided there was some assurance that this would not adversely impact the delivery of gas to the network. He also identified the risks attached to the DNs setting standards as there could be potential to 'pull the rug from under our feet'. JB provided a handout showing a 'Typical Odorant System Design', suggesting that this could form the basis of a sound model. He also believes that inclusion of a suitable odorant flow meter may be beneficial.

SS questioned if the issue needed addressing immediately, preferring to ascertain if IGEM could look to develop suitable standards for odorant equipment and facilities. He remains of the view that the DNs may be best positioned to undertake these responsibilities as they have licence obligations to odourise gas entering the system, and need to monitor and adjust operations to ensure appropriate degrees of odourisation.

SR suggested that the engineering solution is relatively easy, but it is addressing the equipment and odorant specifications and the question of ownership that are the difficult aspects. JB suggested that EMIB need to agree the most suitable model, and acknowledged that this may include the Networks owning the odorant equipment. He also believes that the communication interface between the biomethane producers and Networks could cause delays. RL was of the view that adoption of a single national standard is the route to follow. JB noted that if the DNs could provide a standard model with matching pricing policy that would be eminently preferable to a G17 style approach. However, RL had a slightly different view to JB, believing that a simplified standard G17 based approach, supported by clear roles and responsibilities, would work.

When asked what the various DNs view on ownership aspects was, DP indicated that National Grid are relatively relaxed about odorant ownership and plant maintenance aspects, as long as the DNs retained audit rights. However, he was aware that this was not a shared position.

SB advised that he was not unduly concerned about the ownership aspects, but believes that a suitable disputes mechanism is essential for any model to work.

Asked whether the group was moving towards agreement that either party (DNs or biomethane producers) could own odorant equipment, JB suggested that there would be benefit in establishing an Expert Sub-Group to discuss the more

detailed aspects for differing approaches along with addressing ownership issues – he is of the view that all EMIB need to do is be clear about what is required and how to achieve it. TD remained keen that we get to the point where EMIB can make a recommendation in its report, sooner rather than later.

RP reiterated Northern Gas Networks view that they have a legal responsibility for odourisation. It was then agreed an odourant meeting should be set up to explore the issues.

Moving on to look in more detail at the 'Ownership Options' slide, RP suggested that which option proves best would be heavily influenced by Ofgem's decision on UNC Modification 0391 - Distributed Gas Charging Arrangements. He went on to explain that the modification seeks to change the boundary from deep to shallow which could impact on the ability to utilise options 1 to 4. DP also advised, that whilst 0391 does not seek to judge ownership aspects per se and therefore does not exclude options 1 to 4, it does change the financial calculations involved and thereby indirectly impacts the viability of options 1 to 4. RP advised that, to be accepted, Ofgem have previously stated that option 2 would need to clearly demonstrate benefits for customers.

In considering the 'Biomethane to Grid – gas sampling and network protection – typically 4 systems in series to give GS(M)R assurance' slide in his handout, JB believed that it is a legitimate argument that the Network Entry Agreements (NEAs) should warrant the four key points, as presented. In response, RP was clear that warranting is insufficient and the real obligation is to ensure that no non-compliant gas is allowed onto the system. Furthermore, in his view, a single common national NEA is unlikely to be deliverable.

TD believed that, whilst acknowledging that there may be a need for flexible components, producers are seeking some form of NEA commonality. JB added that he believes NEAs should contain standard elements relating to items such as connection, CV measurement and odourant. AM suggested that inclusion of standard liability (inc. non-compliant gas) and Standards of Service clauses would also prove beneficial and enable risk assessments to be undertaken. In response, DP suggested that the DN risks are associated with failure of the minimum connection. When asked if the DNs are in a position to provide a draft generic NEA for consideration, they indicated that they are not.

JB then provided his second handout entitled 'BtG Options matrix'. He suggested that aspects such as pressure control, gas quality monitoring, energy measurement and odourant systems are the main elements that could be agreed within the NEA and thereby form the basis for provision of conformance to a minimum standard specification definition.

SS remained of the view that the DNs would need confidence that aspects relating to the ongoing management of future changes (similar to the G17 requirements) by other parties would be in place. JB argued that parties have to abide by current HSE requirements anyway so questioned where the value would be in adding additional upstream management controls. TD questioned whether the DNs only need to know that, in the event that non-compliant gas was presented at an entry point, the valve would be closed to prevent entry onto the system. SS pointed out that he is not expecting to tell parties what to do, but simply requires them to demonstrate that suitable control processes are in place. JB noted that any maintenance issues addressed via the NEA would enable the DNs to shut off gas – such as in instances where other parties do not maintain their plant to a suitable standard, thereby (directly or indirectly) affecting gas quality.

Moving on to consider the 'Standards of Service' slide, JB suggested that from an odourant perspective, understanding the complexities involved is crucial. Furthermore, he is of the view that provision of a fixed price menu style

approach, sooner rather than later, would be of benefit. In response, DP believed a more standardised approach could be considered and developed. Whilst not discounting a fixed price approach, RP believed that the DNs would need to establish some meaningful cost information (via feasibility studies and experience) before committing to fixed prices. TD noted that developers are seeking clarity around project costs, although it would seem (based on discussions) that, at least initially, these would not be available.

Quickly reviewing the liabilities associated with equipment failure, JB accepted that these would not apply where DNs had installed the equipment.

In considering the 'Liabilities – capacity constraints' slide, parties debated whether or not the DNs would consider tweaking their Networks to help maximise the available capacity. RP pointed out that there are no incentives for the DNs to undertake this and the main issues revolve around recouping any additional costs that the Networks would incur.

JB suggested that incentives are a discussion that needs to take place between Ofgem and the Networks. SR indicated that, whilst his colleague L Ferrando had already commenced discussions with the DNs on this matter, he sees benefit in exploring this matter further. DP confirmed that LF had indeed written to the DNs, but as yet, they have not formally responded. SR requested that the DNs provide their views as part of their formal response.

RL voiced concern around the potential for discrimination, where the actions and agreements of other parties would have an impact (indirectly or directly) upon him as a consequence of (friendly) agreements between the DNs and parties who may have capacity issues.

SS advised that there are costs that may be identified when entry agreements are drawn up, but he believes care would be needed to fairly manage all parties capacity<sup>1</sup> requirements. Several parties noted that the issue of capacity is a tricky and complex affair to address.

JB provided a further handout relating to the 'REA questions for EMIB'. In quickly reviewing the handout, JB suggested that he would be happy with a 1<sup>st</sup> come, 1<sup>st</sup> served basis, subject to the remaining concerns being addressed via DN obligations – to this end he would like the DNs to provide a clear definition for 4(a). JB then asked if SR could seek an Ofgem view on points 4(a), (b) & (c) and whether or not these could be addressed via a logging up style process.

SR responded to 5(d) by suggesting that Ofgem could consider certification from an approved body as long as the associated standards are traceable and approved instrumentation is utilised. When asked, he felt that this relates to a GT Licence requirement.

In considering the 'Next Steps' slide, parties debated whether or not it was appropriate to await an Ofgem decision on modification 0391 before looking to change the 4B statement. RP felt that both aspects are linked and therefore we should wait. SS supported this view by suggesting that the odorant issues would be resolved way before 0391 had completed its lifecycle – TD highlighted that a decision on 0391 might be 6 months or more away.

Concluding, JB indicated that he would update his handouts inline with discussions and provide the Joint Office with a copy.

**Action EMIB 11/01: Joint Office (TD) to set up an Odorant Sub-Group meeting.**

---

<sup>1</sup> The capacity referred to in this instance refers to the networks capability to flow gas as provided for via an Network Entry Agreement (NEA) and defined as either summer or winter capacity.

**Action EMIB 11/02: Ofgem (SR) to seek a view on whether DN capacity costs could be addressed via a logging up process.**

**4. Capacity for Biomethane**

Update from Sub-Group

DP provided an overview of the 'UNC Mod 0391 Charging Proposals for DN Entry Under Option 3 (shallow boundary with entry charge)' presentation.

DP advised that the cost variations assumption associated with the lower usage of network pipeline tiers was based on DNPC08 data. In looking at the variation in entry equipment costs, DP noted that where the DNs own the entry equipment the biomethane costs could potentially be higher than the equivalent NTS costs due in part to the economies of scale that are at play.

In considering the 'Example of Potential Entry Charge' slide, JB suggested that for most biomethane producers, a £43k charge may be attractive, but concerns and issues remain around upfront (feasibility / design stage) charges.

Looking at the 'NTS SO Commodity Charge' slide, SR enquired if this a) includes shrinkage, and b) generates CV shrinkage cap type issues. In response, JB advised that it does include shrinkage, but doubted that there would be any CV cap issues as biogas is being enriched. DP went on to point out, that whilst it is acknowledged that biomethane producers do not use the NTS system, there is currently no means in place to enable them to avoid this charge.

JB felt there would be value in looking in more detail as to what charges distributed gas producers should, or should not pay (i.e. which bits apply or not as the case may be). To this end, TD agreed to invite National Grid NTS to provide a note relating to consideration of potential embedded gas entry impacts on NTS charging.

During more general discussion around the presentation, JB questioned whether Ofgem would need to consider the potential for a competitive solution to be regarded as anti-competitive if the DNs could provide regulated assets, earning roughly a 6% return – in a competitive market, such a rate of return could deter small providers of plant and equipment. This concern was not shared by AM, who felt that the DNs would not provide the equipment themselves but would be looking to procure this from the competitive market, with the same vendors likely to be involved whichever model is adopted.

RL noted that banks that are potentially lending money to smaller biomethane developers may look more favourably on, say, a £43k annual charge than they would on them taking on the entry facility responsibility and associated ownership risk and issues.

Summing up, consensus was reached in respect of the DNs providing a minimum connection (subject to resolution of the outstanding odorant issues), as a minimum requirement and that the capacity related minimum requirement would be delivered via NEAs. Furthermore, it was recognised that there may be value in clear funding arrangements for the DNs, potentially supported by an incentive to seek out means of addressing capacity constraints.

**Action EMIB 11/03: Joint Office (TD) to request a note on NTS charges in respect of DN entry points.**

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

It was noted that the report from the Expert Group had not yet been finalised and would need to be considered at a subsequent meeting.

Wishing to seek clarity on some of his REA questions handout, JB asked SR if he agreed with point 5(b). SR suggested that this applies now, being covered by the Thermal Energy Regulations (TER), and that it is not necessary to amend this for biogas. He provided a brief overview of the TER hierarchy and the role undertaken by Ofgem directions – section 4A refers to ‘relevant inputs’ and legal guidance suggests that FWACVs fall into this definition. DP suggested that D Lander might not share this view, believing that further debate around the definition of ‘relevant inputs’ is needed.

SR went on to advise that there is nothing in the Regulations that stipulates that you must utilise HPMIS. SS reminded those present that any cost is not associated with HPMIS since the system already exists – the costs relate to the acquisition and utilisation of additional data.

SR reminded parties that it is necessary to apply calculations to the data that is provided by the CV and flow measurement instruments to enable the information to pass into HPMIS. JB voiced concern about potentially being locked in to using specific systems, and emphasised that the 0.4 accuracy standard seems inappropriate for small flows.

When asked how long it might take Ofgem to provide a view once DL has submitted the technical standards for CV measurement for Biomethane flows report, SR suggested that, as Ofgem already have resources committed to the project, he would expect somewhere in the region of six weeks, subject to no material issues being raised.

## **6. Gas Quality Analysis at Biomethane entry**

Referencing D Lander’s two reports provided the previous day – ‘Generic Measurement Risk Assessment of Biomethane Injection into Gas Distribution Systems’ and ‘Specification of Water dew temperature of biomethane injected into below 7 bar Gas Distribution Systems’, all agreed to review the reports and provide views either directly to DL or via the Joint Office.

JB noted that the water dew temperature paper is proposing relaxing the NTS Dew Point requirements for utilisation in biomethane requirements. SS confirmed that HSE sign off would not be required for this.

**Action EMIB 11/04: All to review the Generic Measurement Risk Assessment of Biomethane Injection into Gas Distribution Systems & Specification of Water dew temperature of biomethane injected into below 7 bar Gas Distribution Systems reports.**

## **7. Transmission of data to the GDN’s agent**

DP provided a brief update on progress, explaining that internal discussions within National Grid had concluded that it would require equipment installing to satisfy FWACV capture and data transfer requirements. Cost could be in the regions of:

ISDN Line - £300 to £400 p.a.;

Router - £2k;

Site data configuration for FWACV & set up for HPMIS (p.c. & software) – circa £10k;

Firmware – to be confirmed.

JB questioned why he would need to pay for this when his 3<sup>rd</sup> party service provider had already supplied the figures. Furthermore, he was aware of quoted figures in the area of £180k + £20k overheads. JB went on to suggest that, as long as the producer uses an approach that calculates FWACV in an approved

manner, all he need to know is how to get his data into the HPMIS and at what cost – no software transformation or calculations are necessary.

SS indicated that the DNs need to clarify what file format is required to enable data to transfer into HPMIS.

SR suggested that these are the type of issues Ofgem are keen to see highlighted within the EMIB report that should also recognise existing and future requirements. When asked, he advised that DNs measure CV every 4 minutes then calculate a daily figure from these. SS added that transmission of CV telemetry data every 4 minutes ensures that the CV is monitored accurately for control room and HPMIS purposes.

After SR suggested that a flow diagram would prove beneficial in understanding information routes and their associated costs, the DNs agreed to provide a communications data flow network map that includes data flows and frequencies, data file formats, data utilisation points, costs associated with the various data points and confirmation of minimum data requirements.

**Action EMIB 11/05: DNs to provide a communications data flow network map and confirmation of minimum data requirements.**

## **8. AOB**

### Oxygen Considerations Update

RP confirmed that discussions with GL had taken place and colleagues are chasing a copy of GL's proposals. No timescales are available at this time.

### EMIB Report to Ofgem

TD confirmed that he had intended producing a draft version of the EMIB report (including any recommendations) with a view to publishing in time for EMIB approval at the 12 December meeting.

## **9. Next Steps and Diary Planning**

*Details of planned meetings are available at: [www.gasgovernance.co.uk/Diary](http://www.gasgovernance.co.uk/Diary).*

The next EMIB meeting is booked for 10:30am on 12 December 2011 at IGEM House, High Street, Kegworth DE74 2DA.

**EMIB Action Log**

<b>Action Ref</b>	<b>Meeting Date(s)</b>	<b>Minute Ref</b>	<b>Action</b>	<b>Owner</b>	<b>Status Update</b>
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. <b>Carried Forward</b>
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 provided. <b>Closed</b>
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 to be provided in due course. <b>Carried Forward</b>
EMIB 10/02	31/10/11	6.	Arrange Sub-Group meeting on 15 November.	Joint Office (TD)	Update provided. <b>Closed</b>
EMIB 11/01	22/11/11	3.	Set up an Odorant Expert Sub-Group meeting.	Joint Office (TD)	
EMIB 11/02	22/11/11	3.	Seek a view on whether DN capacity costs could be addressed via a logging up process	Ofgem (SR)	
EMIB 11/03	22/11/11	4.	Request a note on NTS charges in respect of DN entry points	Joint Office (TD)	
EMIB 11/04	22/11/11	6.	Review the Generic Measurement Risk Assessment of Biomethane Injection into Gas Distribution Systems & Specification of Water dew temperature of biomethane injected into below 7 bar Gas Distribution Systems reports	All	
EMIB 11/05	22/11/11	7.	Provide a communications data flow network map and confirmation of minimum data requirements	DNs	