

Determination of Daily Calorific Values Review Group (UNC0251) Minutes

Monday 21 September 2009

Energy Networks Association, Dean Bradley House,
52 Horseferry Road, London SW1P 2AF

Attendees

Tim Davis (Chair)	TD	Joint Office
Lorna Dupont (Secretary)	LD	Joint Office
Alan Raper	AR	National Grid Distribution
Belinda Littleton	BL	Ofgem
Brian Durber	BD	E.ON UK
Chris Wright	CW	Centrica
Dave Lander	DL	Dave Lander Consulting Ltd
Dave Tilley	DT	National Grid Distribution
Jeff Chandler*	JC	SSE
John Baldwin	JB	CNG Services
Paul Branston	PB	Ofgem
Phil Hobbins	PH	National Grid NTS
Richard Pomroy	RP	Wales & West Utilities
Richard Street	RS	Corona Energy
Stefan Leedham	SL	EDF Energy
Steve Rowe	SR	Ofgem
Steve Sherwood	SS	Scotia Gas Networks
Stuart Gibbons	SG	National Grid Distribution

*via teleconference

1. Introduction

TD welcomed all to the meeting.

2. Review of Minutes and Actions from the previous meeting (30 July 2009)

2.1 Minutes

The Minutes were approved.

2.2 Actions

The actions from the previous meeting were reviewed and, where appropriate, were covered under the main agenda:

RG0251/005A: National Grid NTS (PH) to make available a worked example of the different calculations (walk through the calculations, including truncation and rounding).

Update: PH gave a presentation; see agenda item 3.1, below. **Closed**

RG0251/005B: National Grid NTS (PH) to provide an indication of the magnitude of system change costs to amend the approach to rounding.

Update: Covered under agenda item 3.1, below. **Closed**

RG0251/007A: Develop analysis indicating the potential level of Shipper shrinkage.

Update: This was still under discussion; see agenda item 3.3, below. **Carried forward**

RG0251/007B: Review any extreme scenarios in closer detail.

Update: Awaiting outcome of RG0251/007A. **Carried forward**

RG0251/010: Produce a brief paper on the framework and legality under European law of removing the cap.

Update: BL confirmed that the Regulations would need to be changed to remove the cap. There did not appear to be any European barriers to change. RP observed that the responsibility for the Regulations lay with Ofgem. Responding to a question from RP, SR said that Ofgem would be willing to consider changes to the Regulations when the case to do so had been made, but would want to take forward any revisions in a holistic way. **Closed**

RG0251/013: SR and PH to specify and procure analysis to illustrate the impact of metering issues on FWACV.

Update: SR had produced a discussion paper and presentation; covered under agenda item 3.6, below. **Closed**

RG0251/014: DT to commission DL to perform more work on embedded charging zones (Option 4).

Update: A presentation had been provided; covered under agenda item 3.5, below. **Closed**

RG0251/015: BD to investigate payments relating to offline IGT systems.

Update: BD reported that, for E.ON, this centred on a registration process, and was estimated to be £3 - £5 per customer per year. Internal discussions had emphasised that there was definitely no appetite for an offline main billing process for DN customers; any change must include a systems solution. Other Shippers agreed that moving to manual billing processes should not be regarded as a realistic option. **Closed**

RG0251/016: DT to investigate what happens for different flow ratio scenarios (Option 4 and Option 5).

Update: DT reported that it had been difficult to get access to National Grid network planning resources; an update would be provided at the next meeting. **Carried forward**

RG0251/017: RP to further explore Option 3.

Update: See agenda item 3.4, below. **Closed**

RG0251/018: SR to explore Option 2, and any related issues of discrimination, and socialisation of costs. (For example, if low CV was delivered into an area that had high CV and where a Transporter was adamant that propane should be added; also to clarify the acceptability of socialising costs within a Network).

Update: Covered under agenda item 3.2, below. Further clarification was required and the action was carried forward. **Carried forward**

3. Review of Options and Potential Solutions

For the benefit of attendees not present at previous meetings, TD summarised the background, the options identified for further consideration and suggested that quantifying impacts was the next step.

3.1 Response to RG0251/005A/005B/007A/007B

PH gave a presentation in response to this action. The CV shrinkage process was described and the number of decimal places used at each calculation stage was highlighted. Examples of negative and positive CV shrinkage were presented and explained. In the positive example it was noted that, in the example presented, the cap was not triggered.

DL questioned whether FWACV was encompassed by the definition of Daily CV in the Regulations, and PH confirmed that it had always been interpreted in this way. Rounding and truncation were discussed further. SR questioned if the same methodology was applied at Supplier level, to which representatives present answered in the affirmative. CW was unsure how British Gas made its calculations and offered to check and report back.

Action RG0251/019: FWACV and customer billing - Establish the methodology used by British Gas to perform its calculations.

BL wondered if using 5 decimal places for volume created a shrinkage issue, but others felt this was not significant for CV shrinkage. RP added that CVs were in megajoules and cubic meters; it was not specified in which units that volume should be measured. SR indicated that he would touch on this later in the meeting.

PH said the next step would be to get daily resolution data so that SL could develop analysis to indicate the potential impact of the scenarios considered on Shipper shrinkage.

SR questioned whether any data was filtered back through a reconciliation process, in the event that the CV on a consumer's bill was not compliant with the Regulations. SL said that any difference was the Shipper's loss/cost.

PH commented that the model was not a 365 day model; it gives a broad brush forecast and not a daily resolution, so a lot of work is needed to acquire more detailed data. SL added that he already had historic data and was now seeking the forecast data if he was to be able to model the potential scale of change. If CVs were relatively stable there was less shrinkage, but if it was established that the variability was going to increase significantly in the future, there would be more shrinkage and Shippers would need to understand what magnitude might be expected.

SR questioned if the billing volume may be more of an issue than the CV itself in addressing the level of shrinkage. Shippers thought this may depend on the particular portfolio; more DM sites meant more risk, especially if flowing on truncated days. FWACV spreads the risk across the period. However, SR felt any errors would fall to RbD and that is why consumers faced costs and risks from shrinkage. TD reiterated that the intent of the Review Proposal as raised was not to reduce shrinkage but solely to consider FWACV issues. Other shrinkage related issues, while potentially important, were out of scope.

3.2 Option 2 (Action RG0251/018)

BL read out the question that had been submitted to Ofgem's legal team, and also the response, the interpretation of which was not readily understood by those present. A discussion ensued in an effort to clarify an understanding of the position: would a requirement to provide enrichment above the GS(M)R minimum necessarily be discriminatory and so not worthy of further consideration?

DL believed there were two issues: the safety standard, and that capping is a commercial arrangement to protect the consumer.

It was agreed that further clarification in respect of Ofgem's view of due/undue discrimination was required and hence action RG0251/018 was carried forward.

JB thought it might be helpful to redefine a question and submit this to Ofgem for further clarification.

New Action RG0251/018A: JB to define and raise a further question, to be circulated for comment before being sent to Ofgem for a view.

There was a brief discussion on due/undue discrimination - do you oblige the gas producer to enrich the gas, and whether this should be funded by the Transporters and recovered from others rather than being paid by the producer. It was suggested that Ofgem needed to give a view on due/undue discrimination before taking this further. However, RS was concerned that Ofgem may decide on a principle without providing an opportunity for other parties to contribute to the debate, as would normally be the case to ensure all sides had been heard before a decision was taken. TD suggested that the group was seeking a high level initial view from Ofgem, in order to avoid wasting time and resource developing an option that was clearly unacceptable to the Regulator.

SR believed that a guidance note was being produced for biogas producers; however PB believed that its content was unlikely to provide answers to the questions posed in this discussion.

3.3 Shipper Calculations – an example (Action RG0251/007A)

In the absence of forecast data, SL re-presented a set of figures for April 2009 Saps, giving an insight into how Shipper calculations are performed, and an explanation of the difference as to what has been billed to a Shipper and what can be billed to the customer. Customers were often billed on a quarterly basis, and over a greater range of CVs. The calculations produced an underestimation because of this. SL gave examples that could lead to a negative position. Others examples had a constant CV, which would result in equitable billing of both Shipper and consumer. Flows were not taken into account; truncation was causing deviation from the actual billing.

SL pointed out that the CV calculation assumes a flat profile throughout the month, but the FWACV was not taken into account when billing the customer. Changing the rules on CV shrinkage changes who ends up paying, and it was important to Shippers that the situation was not made worse than at present.

SL explained where the data was sourced from. PH then clarified with SL what further information was required to be able to progress this action.

3.4 Option 3 (Action RG0251/017)

RP gave a high level indication of potential costs associated with the three methods, assuming the same flow as for DL's original example.

a) Mix and Measure

Costs circa £700,000 – to connect the biomethane plant, two pipelines, two sets of metering, and a pressure reduction installation to bring it down to 10 bar. This did not include the cost of CV measurement equipment.

b) Inject and Infer

Costs circa £450,000.

c) IP Pipeline

Costs circa £360,000.

It was argued that under certain circumstances propanation gives flow constraints; it has to be stored on certain days. RP confirmed that he had not included any costs for storage in the figures given above. SS pointed out that it was not possible to mix at some sites or apply this approach to every single entry point. In addition, the complexity of mixing could make a network much more difficult, and hence costly, to operate.

3.5 Option 4 (Action RG0251/014)

DL gave a presentation on the further analysis that had been carried out on Option 4 (embedded charging zones), adding that no network costs had been included. The xoserve costs were just for handling the data passed to it by the DNOs. TD noted that, based on Shipper feedback, these costs may be dwarfed by the Shippers' costs, which had yet to be quantified. These might include the identification and assimilation of new dataflows, redefined billing systems to map CVs and post codes for daily changes and associated calculations.

SL pointed out that transportation charges are based at LDZ level, not postcode level. Although Wet Gas areas were the closest analogy, RS said that these were treated as an 'oddity' for individual adjustment. AR believed that Wet Gas was different being a commodity issue.

RS observed that introducing Option 4 would be completely changing the way the industry works. Postcode charging would change the basis on which systems/methods are currently predicated, and different ways to process information effectively would be required. AR agreed that an LDZ is a proxy for a CV charging zone; changing this would break the link, and large system costs would be generated. SL added that systems were built around static LDZs and whole systems were founded on that unchanging basis. TD interjected that on a cost/benefit analysis, Option 3 as presented by RP was looking more attractive.

Example injection graphs were then displayed. The biomethane CV (lowest source CV) was assumed to be set at 36. A comparison of billing options was made. DL commented that the approach avoids CV shrinkage occurring in the rest of the LDZ, makes it fairer for the consumer, and stops overbilling. A CV could be set for an entire charging zone; some sites would be slightly under billed and others would therefore be subsidising them. However, calculations could become quite complex.

RS believed that the suggested xoserve costs were underestimated, failing to reflect knock-on impacts across a range of processes. AR explained what had been included and that more detail could be provided if a formal cost estimate were requested.

DL then concluded by presenting some additional information on the propane enrichment of biomethane.

3.6 Option 4 (Action RG0251/013)

SR gave a presentation on 'Metering Standards and Impact on Shrinkage' and provided a handout in support. In particular, he emphasised that metering standards were different between entry and offtake, with the different standards potentially being a key source of shrinkage. A brief discussion ensued.

JB said that he was unaware that changes to the entry metering had been made. Metering at entry was owned by the Duos, who would have faced substantial costs if meters had been replaced. SR was not sure how this was funded or when it had occurred, but believed it would have an effect on shrinkage. CW volunteered to confirm current metering entry arrangements and any recent changes made.

New Action RG0251/020: Confirm current entry metering arrangements and any recent changes made.

It was noted that there may be cross subsidy and potentially discrimination between those who take gas off the system at the DN or at the NTS level; one is paying slightly more than the other. ST suggested that everything was referenced to the inlet flow at the NTS, and shrinkage costs could be avoided if metering elsewhere was to the same standard. DT suggested that it was potentially a waste of resources to modify anything that does not have a true cost to customers as opposed to redistributing the same level of costs to other parties. However, SR believed there would be an impact on CV capping and shrinkage allocation depending on what standard was being worked to.

It was observed that the regime is underpinned by the assumption that the metering is accurate, and that even a small amount of lower/higher CV gas from a new source could make a big difference to shrinkage. As the discussion progressed it was increasingly questioned whether these issues should be addressed by this Review Group or by a different forum, and it was eventually determined that Ofgem would present this topic to the next Transmission Workstream on 01 October 2009.

4. Review Group Process

TD summarised that, given the Proposal as raised, the group's focus was the consideration of the effects and impacts of delivering relatively low CV gas into a relatively high CV LDZ (or vice versa) and whether the rules associated with FWACV require changing in order to recognise the potential for this scenario to arise. Views on next steps were sought.

DT believed Option 4 to be unworkable at present, but perhaps was suitable for reconsideration at some point in the future. The question was, do you set a target for CV? If the answer is 'no', do you change the current methodology to alter the broader impacts of the cap being triggered? In addition, it needed to be understood where the costs were attributed, and whether the options were a case of equity against efficiency.

If the answer is that CVs should be brought to a consistent level, then transporters or producers will need to bear the cost of blending or treating gas. JB thought there was a compelling argument for this approach being adopted, but the question of who incurs the capital and operating costs for meeting the target was more difficult, which in turn leads back to obtaining guidance from Ofgem on due/undue discrimination.

SR wondered about the possibility of redefining charging areas that are not LDZs, for example an Offtake specific one? SL responded that this had been looked at by DNS and Shippers and discarded.

RS suggested considering a 'Polluter Pays' approach, such that those who create costs bear them. Others questioned how it would be decided who was the polluting party, which should not simply be the latest entrant.

JB suggested applying supplementary entry charges on high/low CV gas could be an option. He also suggested there should be a standard specification, while DL thought there should be an approved instrument for CV measurement.

It was then suggested that next steps might be to:

- Identify transfer costs
- Identify resource costs
- Commence the writing of the Review Group 0251 Report.

TD offered to produce an initial draft reflecting the progress made by the Review Group.

Action RG0251/021: Commence writing the Review Group 0251 Report.

5. Any Other Business

5.1 Gas Quality Parameters

Ofgem had recently noted some 3 or 4 individual entry point Modification Proposals coming through to facilitate changing some gas quality requirements. To avoid a piecemeal approach, BL suggested that the Review Group consider the merits of a 'blanket' Modification Proposal to facilitate any remaining changes that may be sought. AR commented that a review of the widening of parameters to meet GS(M)R had been discussed at the UNC Modification Panel. PH added that all but one the entry points already have the capability to deliver at 36.9. It was also pointed out that when this was last raised, Shippers had preferred to see individual Modification Proposals being raised such that they would be aware of potential developments.

6. Diary Planning for Review Group

The next meeting will be held on Wednesday 04 November 2009, at the Energy Networks Association, 6th Floor Dean Bradley House, 52 Horseferry Road, London SW1P 2AF.

ACTION LOG - Review Group 0251: 21 September 2009

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
RG0251/005A	30/07/09	2.0	Make available a worked example of the different calculations, (walk through the calculations, including truncation and rounding).	National Grid NTS (PH)	Closed
RG0251/005B	30/07/09	2.0	Provide an indication of the magnitude of system change costs to amend the approach to rounding.	National Grid NTS (PH)	Closed
RG0251/007A	30/07/09	2.0	Develop analysis indicating the potential level of Shipper shrinkage	National Grid NTS (PH) and EDF Energy (SL)	Carried Forward
RG0251/007B	30/07/09	2.0	Review any extreme scenarios in closer detail.	National Grid NTS (PH) and Ofgem (BL)	Carried Forward
RG0251/010	26/06/09	3.0	Produce a brief paper on the framework and legality under European law of removing the cap.	Ofgem (BL/LM)	Closed
RG0251/013	30/07/09	4.0	Specify and procure analysis to illustrate the impact of metering issues on FWACV.	Ofgem (SR) and National Grid NTS (PH)	Closed
RG0251/014	30/07/09	4.0	Instruct DL to perform more work on embedded charging zones (Option 4).	National Grid NTS (DT)	Closed
RG0251/015	30/07/09	4.0	Investigate payments relating to offline IGT systems.	E.ON UK (BD)	Closed
RG0251/016	30/07/09	4.0	Investigate what happens for different flow ratio scenarios (Option 4 and Option 5)	National Grid NTS (DT)	Carried Forward
RG0251/017	30/07/09	4.0	RP to further explore Option 3.	Wales & West Utilities (RP)	Closed

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
RG0251/018	30/07/09	4.0	Explore Option 2, and any related issues of discrimination, and socialisation of costs. (For example, if low CV was delivered into an area that had high CV and where a Transporter was adamant that propane should be added; also to clarify the acceptability of socialising costs within a Network).	Ofgem (SR)	Carried Forward
RG0251/018A	21/09/09	3.2	Due/undue discrimination - JB to define and raise a further question, to be circulated for comment before being sent to Ofgem for a view.	CNG Services (JB)	
RG0251/019	21/09/09	3.1	FWACV and customer billing – establish the methodology used by British Gas to perform its calculations.	Centrica (CW)	
RG0251/020	21/09/09	3.6	Confirm current metering entry arrangements and any recent changes made.	Centrica (CW)	
RG0251/021	21/09/09	4.0	Commence writing the Review Group 0251 Report.	Joint Office (TD)	