

Allocation of Unidentified Gas Expert Industry Meeting Minutes

21st June 2011, GLs Offices, Loughborough

Attendees:

CW	Clive Whitehand (GL Noble Denton)
TP	Tony Perchard (GL Noble Denton)
AG	Andy Gordon (GL Noble Denton)
TH	Taheer Hajat (GL Noble Denton)
GE	Gareth Evans (ICoSS Group)
RD	Richard Dutton (Total)
BD	Brian Durber (Eon)
DW	David Watson (British Gas)
DS	David Stacey (British Gas)
MB	Mike Bagnall (British Gas)
MJ	Matthew Jackson (British Gas)
JW	Jonathon Wisdom (npower)
AG2	Andrew Green (Total)

Following introductions, DW described that meeting was opportunity for British Gas to discuss and explore responses from AUGS (see later, as this was not possible during the July 5th Meeting as the AUGS responses to British Gas's issues were not available at that time).

CW outlined current status of the project and explained delays in obtaining a variety of data sets required to complete the analysis was going to impact the delivery of the 2nd Draft AUGS and that this was likely to be mid-late September with the AUGS table completion by mid-late November. CW noted that this was subject to approval by Xoserve/feedback from UNCC and that the AUGS was working closely with Xoserve to address the remaining data issues.

GE noted that the industry has had many years trying to address the problem of UG and there needs to be sufficient time to allow the industry bodies to price the effects into their contracts going forward. Recognising that the method needed to be accurate given data available he wasn't expecting it to be perfect straightaway.

BD&DS said the methodology should be correct and on a sound basis, accepting that data may limit its application but not to the extent that it could have a material affect, i.e. where data is difficult to obtain in time, providing the impact is not material, sound estimation could be used this year but if the impact is potentially material on the final outcome then a method that would be sure to approximate accurately would need to be found or the full data obtained to calculate the answer precisely. It is not acceptable for the final answer to be materially inaccurate.

BD said where data is not available, but needed for the methodology, capture the requirement in the AUGS with a view to adding detail/data later when available.

AG noted that there needs to be a distinction between data that refines the model and data that is a show stopper. For example, current issues with iGT CSEP data records is a showstopper in terms of providing an initial estimate of UG, whereas some of the meter read information for new site start ups is desirable.

DS noted that overall, the methodology needs to be sound, the figures in the right ball park and produced in a timely manner.

British Gas then walked through the AUGS responses to the issues raised for clarification/discussion.

It is worth noting at this point that a number of very important data clarifications arose during subsequent discussions which will greatly reduce the risk of conclusions being made on incorrect data.

Responses to items 13 and 14

MJ noted that the Xoserve/JoT technical forum define what an appropriate use of demand estimation sample is. For example, domestic pre-payment metered customers are excluded from the sample and their demand profile is different from metered customers. The make up of the sample is also self selected in that customers have to agree to be part of the sample.

AG Agreed that going forward the AUGÉ will double check with Xoserve re:appropriateness of data.

MJ queried whether the alternative method is suitable given the limitations of the demand estimation sample.

AG noted that the backup method was provided to demonstrate that the AUGÉ was at least considering an alternative if the main method failed. He added that it was looking like the AUGÉ would not need to go down the alternative route as things currently stand.

Response to item 20

MJ questioned the proposition that model error contributed to most of RbD.

MJ also highlighted the use of the term “actual” loads.

AG explained that in certain cases LSP loaded are not metered on an annual basis and that meter readings will have been taken at a time that does not necessarily coincide with the period that we are analysing. The meter readings therefore require some profiling to calculate the demand for year so they cannot be assumed to be true actuals, although they will be very close.

MJ noted that although theft (volume of gas) has a seasonal behaviour it is not necessarily consistent year on year. For example gas price changes.

DS noted that when people steal they are quite liberal when they do and will often have heating on at higher levels or within windows open as there is no concern to energy efficiency. Although there was a correlation this was not necessary linear.

AG agreed that the AUGÉ was not claiming a 1:1 relationship, but the point we were making was that the variation in RbD from year to year is more than just the theft variation (if mod 228's assertion that the majority of RbD error is theft is correct).

MJ queried the figures in the summary table provided by the AUGÉ. He noted that the RbD invoiced in a given year can change as corrections are made for up to 5yrs and some of these can be significant.

Action: AUGÉ to verify what assumptions are made with the RbD data provided to date and obtain additional data as required.

RD noted that this was probably a minimal difference in the scheme of things.

DS,MB stated that this is not the case and is actually material.

BD noted that Xoserve should have this data

MJ said that some years had more significant corrections than others.

MJ queried the data in the table under point 20 as this couldn't be independently matched.

AG said AUGÉ was happy to share information if it helps identify base data discrepancies that could affect the analysis. It was agreed that the AUGÉ should not be sending out data/calculations for review and that British Gas would provide the AUGÉ with a spreadsheet containing their calculations from mod 228 so that the AUGÉ can compare data and calculations to verify their results.

GE raised a concern regarding why the published responses were not part of the AUGS and that discussions of this type should not be going on outside of the consultation process. He also pointed out that 'continuous peer review is not part of the process'.

CW highlighted that British Gas had previously requested a meeting to discuss the AUGS towards the end of the consultation period, but this was rejected as the AUGÉ cannot and would not support 1:1 meetings with the industry bodies. However, there were issues raised during the consultation which warranted further clarification by the AUGÉ to ensure the right question was answered. If these were to wait until the next consultation period that could risk issues coming to light late in the process and extend the number of iterations required to resolve. On balance the AUGÉ decided to go ahead with a meeting but only if extended to the wider industry. CW also acknowledged and appreciated that GE, RD and others had re-arranged important meetings to attend. CW also noted that the contents of the meeting would be minuted and published to the industry to ensure transparency.

GE noted two further points, that there was a large disparity in analytic resources between the different businesses involved and that in the case of some of the mainly LSP businesses time had been put aside to review the AUGS during the consultation period but not for intermediate discussions. He was also concerned that if they could not resource such meetings they would not get a fair level of input into such discussions.

DW said that British Gas did not have the opportunity to discuss the issues they had raised at the July 5th UNCC meeting as the AUGÉ responses to their issues had not been published at that time.

DS added that they only wanted the same opportunity as others.

GE and RD had strong concerns about the influence/impact of such discussions if the methodology was subsequently swayed.

CW reiterated that the AUGÉ would not be swayed by such influences and indeed if the issues raised by any industry body are, in the view of the AUGÉ, biased then the AUGÉ could reject those issues on that basis. However, there had been some genuine issues raised regarding data sources and assumptions in the 1st Draft AUGS which were valid. In addition, if having the meeting helped clarify issues raised so that the AUGÉ could avoid carrying out analysis on the basis of incorrect data assumptions then this would be to the benefit of the whole process. It would still be up to the AUGÉ to consider and decide whether to investigate the data issues further and then what, if any, impact this had on the methodology.

It was agreed to continue with the discussions given everyone had taken the trouble to attend.

MJ noted that UAG across both LSP and SSP could be larger, smaller or equal to the RbD quantity

AG noted the RbD in the table (issue 20) was based on "measured" LSP and explained how RbD has a positive bias in trend over time and that this positive bias contained LSP UG.

MJ said that theft wasn't necessarily at a lower steady level and that model error could be more variable.

MJ provided charts/data based on Xoserve data showing previous/current year and reconciliation from other years. This is where there is concern that the histogram shown by the AUGÉ in response to issue 20 may not show the full picture.

MJ noted that the RbD wasn't a "Natural process" as described in the 1st Draft AUGS but has commercial influences.

DS said that before Mod 152 reconciliation could be applied from issues identified many years afterwards. Mod 152 limited this to 5yrs and therefore there was a ramp up of historic RbD corrections prior to mod 152 coming into place.

MJ stated that if the RbD histogram was split into separate years there would be more of a shift to a zero bias.

TP noted that the deeming algorithm is rebased each year which has an effect year on year.

MJ also noted that reconciliation volumes were higher in winter than summer.

With regard the table showing w/c demand (point 20) MJ noted that this demand was not consumption but annual allocation w/c data and that LSP/SSP contains UG at this stage.

MJ queried the w/c method used. He highlighted that allocation figures have a crude adjustment applied vs algorithm process and that the AUGÉ should consider consulting Xoserve regarding what W/C data was used in this table.

MJ also queried the appropriateness of the time period used as AQs are calculated 12 months apart so that there could be significant differences between period if using the AQs from one against what they really are.

TP queried the W/C assumption – as this was applied Pre RbD. Data used was from the Ofgem data request as part of mod 194/228.

AG commented that the AUGÉ believed data is post reconciled data and that this would be clarified with Xoserve.

Action: AUGÉ to clarify OFGEM data request assumptions in terms of w/c

MJ queried point 3&4 regarding theft being 'realistic' and what supporting information would there be and especially now that it had been identified that the RbD values currently used in the histogram once corrected might show less of a bias.

AG agreed that this would need to be double checked.

Issue 24

MJ noted that it was not just the scaling factor creating UG

AG clarified the algorithm process (in terms of where UG sits) and that UG allocated under first part of formula and conceded that a bad choice of wording "which introduces UG into the calculations" could have been clearer.

TP noted that the sample sites are used to produce the parameters for the algorithm and are based on actual consumptions (no UG involved at this stage). The model fit therefore does not have UG in it so when the model is applied that is where UG starts to be involved.

Shrinkage – Issues 26-31

DS noted that even once shrinkage has been revised at the end of the year there can be inaccuracies which lead to UG.

BD noted that the shrinkage error would contribute to RbD

AG said that in the analysis ongoing to calculate theft by a top down approach would result in theft having shrinkage error in it and therefore it is in effect included.

DW noted that shrinkage error was probably a moot point if accounted for.

CW explained the current shrinkage model and referenced the NGN Shrinkage Proposal for 2011/12 which described at a high level how the work done by GL Noble Denton in 2002/3 for the leakage tests had in fact been reviewed by 3 different independent engineering and statistical consultants. Hence the AUGÉs assertion that the leakage rates were robust. CW noted that since about 2008/9 the leakage model had been updated to include

each networks proposed pipe replacements so that the leakage would be based on the most recent network topology. CW noted that the questions that could be asked regarding the validity of the leakage models are

- 1) to what extent are the number of connections in a network at the end of the year match what is actually in the ground
- 2) Whether the leakage rates for a pipe connection of a given age are updated to take account of age of the connection

DW stated that he believed that this represented a conflict of approach with that previously adopted.

CW also noted that for OUG there were elements of the model that were subject to assumptions and potential sources of error (although OUG is a small % of shrinkage).

CW also noted that if the AUGE were to try and model the error in shrinkage that this would to a certain extent result in a conflict between the AUGE process and the Shrinkage forum with one group having to compensate for updates in the others models and that any issues with the Shrinkage models should be dealt with by the Shrinkage forum.

DW agreed in principle given the methodology as evolved would account for / contain shrinkage error although would like to see something to quantify it.

BD noted that leakage was now based on pressure/flow rather than throughput.

Issue 32 – Meter Errors

LDZ metering

DS highlighted meter errors would have an impact on RbD

AG noted that errors are dealt with eventually and back corrected (in general they are under reads).

SP Metering

AG showed a sample meter and explained that he had discussed metering with our metering team. The slide showed a snapshot in time of how a meter over/under reads under a range of flow rates. He noted that the under/over reading can change over time.

When meters are operating as intended there is a drift over time. For diaphragm meters they were as likely to over/under read as each other and across the population unlikely to see a net bias.

It was noted that the AUGE needed to check other meter types as rotary was less prone to drift.

Action: AUGE to check other meter types

BD said that industrial/commercial metering installations were sized to achieve QMax (max flow) if required and depending on load would be within the ideal flow range. However, commercial plants may have bigger seasonal effects resulting in lower than typically expected demand where the meters could under read. In some cases it is possible for a meter not to measure the gas flow at all.

GE noted that flow rates could be used to calculate the potential energy lost.

BD commented that this could be more significant than it looks

GE raised the potential opposite issue of meters at higher flow rates over reading and that there could be elements of both which may or may not cancel out.

AG agreed that this is worth consideration and that the AUGÉ has some data on this. However, as this is AQs and average flows it does not necessarily take account of average hourly differences in flow.

RD commented that turbine meters could have overspin issues.

GE noted that whilst there is a potential area of UG to explore he was not expecting this to be analysed to the nth level especially if it impacted on the bigger topics.

BD agreed that having an initial estimate with a view to refining in future would be acceptable.

RD noted that there is an assumption that meters are installed to work at design pressure and that the correct meters should be at the correct site.

GE was not sure that this would address it as business/industries change over time.

DS noted that some meters can pass unregistered gas and this is not accounted for RbD as the energy isn't measured. This data should be available for meters passing unregistered gas. There are many examples that can be provided of this should the AUGÉ request more information.

Under any other questions

DS noted that currently the LSP meter reads are used to obtain the deemed SSP demands and had the AUGÉ considered using SSP meter reads to calculate deemed LSP in reverse? He explained that this could be important in terms of splitting the total UG between market segments.

MJ noted that Xoserve hold both sets of data and there is a 5yr meter read history provided for all acquisitions within the last 12 months prior to the AQ review.

GE asked whether this was realistically achievable given potential issues with SSP meter reads and if the AUGÉ did consider it whether there would be sufficient time to get the data analyse it and incorporate into the AUGS?

CW noted that the AUGÉ had considered using actual SSP consumptions as a way of sense checking theft (ultimately UG) by subtracting total DM, LSP, SSP consumptions from LDZ demand, however, this was not explored further as it was believed that SSP data at this level was unlikely to be reliable/available in the timescales required at that time.

DS noted that accurate weekly reads are available for pre-payment meters and that for all SSP meters accurate reads were available from Xoserve. MJ/GE determined that typically a higher proportion of SSP AQs were amended during the annual AQ review period which demonstrated the availability of up to date accurate reads from Xoserve. The AUGÉ said they would attempt to get this information from Xoserve.

DS also noted that should the SSP population be reconciled to generate in effect an SSP RBD then this would also generate a positive RBD number which if added to the LSP RBD would give the total amount of unidentified gas. Hence it is important that both sectors are calculated in the same way to determine the total quantum of unidentified gas.

AG noted that if we considered the suggestion any inclusion in the methodology would only be on the basis of our findings from analysis and data obtained and would be up to the AUGÉ to decide. The AUGÉ would investigate the practicalities of obtaining SSP consumptions but noted caution that the use of such data in this years estimation process may be limited due to the potential timescales required to obtain, manipulate and analyse such a large data set and the potential (to be assessed) data quality limitations.

GE made some general closing points that the session had been a good opportunity to ask questions and clarify issues. He was a little surprised that it had been necessary to have a 2nd meeting and wasn't happy initially. He suggested that it may be worth revisiting timescales in terms of answering questions raised during the

consultation period and had anticipated short events to discuss issues during the consultation period. Overall some tidying up was required.

CW agreed that having this meeting wasn't ideal but it had proved very useful in terms of identifying data issues that could have gone undetected or unresolved until much later in the process and risking the success of the methodology. CW said that the team would consider the issues raised and discuss/review with Xoserve with regard to improving the consultation process periods and communications suggesting that an industry meeting part way through the consultation period might be beneficial to air issues/discuss AUGS.

DW felt that the consultation process was in line with the intent of the modification as developed by the distribution work group but that it was unfortunate but understandable that the original intended one meeting had to be extended to two meetings to cover all supplier consultation responses.