Shipper1 (Anonymised) comments on the Proposed Allocation of Unidentified Gas Statement (AUGS) for 2019/20

21 January 2019

In response to the first draft please find our comments below:

2019_12:
Our first observation is that the language referenced is more in keeping with the codified definition of UIG, however, illustrations throughout the draft have used UG which during the 2018 review was agreed not to be the correct term. Can the terms in the illustrations be aligned to the written text to avoid confusion?

Response:

This was an oversight and has been updated in the Modified AUGS.

2019_13:
Since Nexus Go-Live there has been a long running issue relating to consumption adjustments for class 1 and 2, the approach taken in this document is that class 1 and 2 are reconciled correctly and no further adjustments are needed. We don't believe this to be correct and instead that some form of consideration is required.

Response:

The AUG Expert recognises that initially post-Nexus there were a number of issues resulting in UIG from sites in PC1 and PC2. However, the CDSP targeted and resolved these issues. Consumption corrections have been applied meaning that any initial UIG has been reconciled and is therefore temporary.

There are currently 973 MPRs in PC1 and 2 but these represent 12.5% of the total AQ. The combination of small number but high AQ means that these sites are subject to high levels of scrutiny. There is currently no evidence to suggest that these sites contribute to permanent UIG as a result of consumption adjustments not being applied before line in the sand.

2019_14:
We have been unable to the fully quantify the assumption that all class 1 sites have correctors, to ensure accuracy in the assumption we would like the AUG or the CDSP to confirm this is correct. If it doesn't result in 100% then an amendment to the assumption is required.

Response:

As stated in the AUGS, the assumption of 100% PC1 sites having volume conversion devices was intended as a temporary measure due to concerns about the veracity of the data provided by the CDSP. At the Early Engagement meeting, the AUG Expert presented figures showing a higher proportion of PC2 sites with correctors than PC1.

The AUG Expert has now received updated information from the CDSP relating to volume conversion devices. The AUG Expert is more confident in the veracity of this data which has been used to calculate the UIG factors in the Modified AUGS. There is no longer any assumption being made about the presence of volume converters.

2019_15:
On page 25, we assume given class 3 could have smart meters that the fact there are more class 4 with correctors, appears to be a likely situation.

Response:

Further clarification has been sought regarding this comment, but no response has been received.

2019_16:
We do not agree with the altitude assumptions made within this draft, there are large regional differences and we believe it is an incorrect assumption to say it nets off across the country. It specifically doesn't net between shippers and it would be incorrect to allow geographically diverse shippers so subsidise shippers with regional portfolios.

Response:

The AUG Expert agrees that there are regional differences in the correction factor due to altitude and this is shown in Figure 6 in the Proposed AUGS. However, it is incorrect to say that we have assumed that this nets off across the country. The AUG Expert has obtained altitude data from Ordnance Survey by postcode and used this to calculate the effect of altitude on a meter by meter basis. This analysis has demonstrated that nationally (across all meters), the net effect of altitude is negligible.

The AUG Expert generates UIG factors which apply nationally and therefore cannot take into account regional differences. It is also not the responsibility of the AUG Expert to allocate UIG correctly between shippers. UIG factors are generated to split UIG solely by EUC and Product Class.

2019_17:
Additionally, we are not in agreement with the assumptions around temperature having an effect up to 1.4TWh but no adjustments are being made in the modelling.

Response:

We appreciate industry concerns about the level of UIG resulting from the assumption of average gas temperature being 12.2C. Our analysis has shown that there is a large degree of uncertainty around this value. As the AUG Expert, we need to recognise this level of uncertainty and accept that the data we currently have is insufficient to allow us to propose an alternative value with any degree of confidence.

This issue was discussed at length at the UNC AUG sub-committee meeting on 15th February and we presented additional explanation and analysis. As a result of these discussions we are currently developing an approach to capturing additional data which will allow gas temperatures to be estimated with greater confidence.

The AUG Expert also believes that addressing the temperature issue by adjusting the UIG factors is not an effective solution. In particular, this approach will not reduce initial UIG volatility and takes no account of variations in average temperature between gas years. The AUG Expert will continue to work with the industry and the UIG taskforce with the aim of agreeing the most appropriate treatment for this issue.

In terms of the figure of 1.4TWh per degree C quoted, this was not intended to be an estimate of the level of UIG, merely to demonstrate the high level of sensitivity of UIG to temperature. It should be noted that regardless of the assumption made by the AUG Expert regarding temperature, if the temperature in any given gas year is different to seasonal normal then a significant amount of UIG will result.

2019_18:
Modelling issues with the algorithm have been referenced to be the origin of some issues (larger UIG in the winter and smaller in the summer), however, our view is it is not the algorithm but instead a non-zero impact should be included in the modelling. This is also exacerbated in the AQ calculations and could cause further discrepancies. Our view is it is AUGs responsibility to take such things into consideration as the appointed expert.

Response:

The modelling issues referred to above don't relate to a problem with the algorithm itself, but rather the demand data used in the estimation of the algorithm's ALP and DAF parameters. It has been demonstrated that demands will be underestimated in winter and overestimated in summer. As the sample sites used in the NDM modelling process do not have volume converters with real-time temperature measurements, the data collected will be biased. This will cause the algorithm to under-allocate in winter and over-allocate in summer. This seasonal effect cannot be accounted for within the UIG factors as a single set of factors applies to the whole gas year.

2019_19:
We are unsure why some form of modelling relating to meter location hasn't been included, this can be created using historical and future forecasting. We believe the AUG can generate a methodology to reduce the impact that sits at about 1/3, which in our view is significant. This could be done by e.g. assuming 32% of meters are internal, 68% of meters are external. Even using this the impacts could be calculated and more importantly are none zero.

Response:

The AUG Expert has considered meter location and our initial findings were presented at the Early Engagement meeting in October 2018. This was also covered at the UNC AUG sub-committee meeting in February 2019 and the Modified AUG Statement has been updated to include some information on our assumptions regarding meter locations.

It would be possible in future to do some more detailed analysis around meter locations as the split between internal and external location is likely to be different by EUC and/or Product Class. However, for this to be useful, the AUG Expert would need more detailed gas temperature information by EUC/PC. The AUG Expert is currently proposing a study to improve understanding of gas temperatures. We will consider a more detailed assessment of meter locations once the required temperature information is available.

2019_20:
We believe more could have been included for the smaller impacting items, if you add up all the small items then there could be an adjustment which balances and stabilises further. The exclusion of it doesn't help with future modelling evolution. We noted a few mentions of c150GWh, which could equate to 5% of the total, in our view a value worth including.

Response:

Further clarification has been sought regarding this comment, but no response has been received.

The AUG Expert has only excluded items where the estimated UIG has been demonstrated to be insignificant and/or less than the error in estimation. One exception is the 136GWh relating to the incorrect use of the standard CF for sites in EUC bands 04B and above. In this case, zero permanent UIG was assumed as the AUG Expert believed that all standard CF values would be updated prior to the 2019/20 gas year. Following further discussions, the AUG Expert recognises that this is unlikely to be the case.

The methodology in the Modified AUG Statement has therefore been updated to include some permanent UIG resulting from the inappropriate use of standard CFs.

2019_21:
We do not have the same level of comfort of that assumed by the AUG when it relates to reconciliation, although there is still approx. 3 years of Nexus reconciliation to go we are not of the belief that things will 'right themselves'. The current levels of reconciliation (approx. 70-80%) has only resulted in a reduction of 0.65%, we are not of the belief that the remaining reconciliation will resolve the position as it is unlikely to have UIG go down by approx. 3.2% (to achieve permanent UIG). If temperature had been included more in the modelling it could have influenced by pushing down UIG which could have pushed REC down over the same period. In our view more can and should be done in this area, especially as the data is available and can influence in a positive way.

Response:

UIG is calculated as a small difference between two very large numbers (i.e. input to the system and output from the system) and is hence extremely volatile. Our experience from years of calculating Unidentified Gas figures is that when it is assigned to individual years the figures for these years are very variable, and it is only across a number of years that the genuine prevailing level becomes apparent. As such, it is not unusual to have periods of time where the average value appears to be very large (such as the 4.6% average from 2017) or very small (such as the recent level of -0.4%).

It is recognised that the ALP/DAF uplift factors that were implemented on 01/10/2018 have played a part in this reduction, however, and have resulted in current initial UIG being closer to the likely level of UIG(f) and a reduction in the magnitude of reconciliation corrections. This issue is likely to account for 2-3% of the difference in initial UIG so it is clear that other issues, including the natural variability of the process, have also contributed to the change.

This is illustrated in Slide 23 from our presentation at the UNC AUG Sub-committee meeting (15 Feb 2019). This shows that whilst the average UIG figure from 1 Jun 2017-31 Jan 2018 was indeed 4.6%, the average from the same period a year later was -0.4%. It is important to note that the majority of the time period used to calculate the 2018 figure of -0.4% lies before the implementation of the ALP/DAF uplift factors, and the graph shows a reduced level of UIG both before and after their introduction. Therefore, it can be concluded that in addition to the ALP/DAF factors, the remainder of the difference is due to a combination of natural variability in the process, plus the effects of any successful attempts by the CDSP to improve the accuracy of the figures, such as the issue of estimated reads for DM sites.

These figures of 4.6% and -0.4% are simply two instances of individual values from a highly variable process, and the true prevailing level of UIG lies somewhere between the two. As line in the sand has not yet been reached, strong conclusions cannot be drawn about the final level of UIG(f), but since the drop in initial UIG around October 2017, post-reconciliation UIG has been around an average of approximately 1%. This is based on incomplete reconciliation and so this figure may change as line-in-the-sand is approached. When reconciliation is higher and there is greater confidence in the likely average level of UIG(f), the ALP/DAF factors can be updated to reflect this and ensure that the average level of initial UIG is as close as possible to the best estimate of UIG(f).

Temperature is used as part of our analysis, and specifically all results are corrected to seasonal normal conditions. This is necessary because the UIG factors are calculated for a future gas year for which the weather conditions are unknown. Seasonal normal conditions are therefore the best estimate of weather for the forecast year. It would be possible to create retrospective versions of the factors for historic years, which would reflect what they would have been if we'd known what the weather conditions would be in advance. If there was interest in this area a "UIG Reconciliation" approach would be required to make adjustments to the UIG share for each Shipper after the end of the gas year in question.

Finally, it is important to recognise that the role of the AUG Expert is to apportion UIG by EUC and Product Class. The UIG factors calculated by the AUG Expert will not affect the total level of UIG or the total levels of reconciliation.

2019_22:
We don't agree with the assumptions for volume correction, this should be applied at a total level and not just applied to class 4 because they have a larger share. Individual larger sites could proportionally be out more. Our preference is this is applied at LDZ level so that it is more accurate.

Response:

Further clarification has been sought regarding this comment, but no response has been received.

The Modified AUG Statement incorporates actual information regarding the presence of volume converters and this is used to determine where any volume conversion errors are assigned. The fact that PC4 has a very low number of volume converters means that UIG is concentrated in this Product Class. The consumption is also taken into account as UIG from volume conversion errors is apportioned by AQ once sites with volume conversion devices have been excluded.

We note your preference to have volume correction considered at LDZ level, but this is not currently within the remit of the AUG Expert as we generate a single set of national factors.

2019_23:
We have been unable to validate the assumptions which apply an additional 10% to class 4, we don't believe this is accurate and would suggest a reduction is applied to this year, also the inclusion of this onto next year's plan so it is revisited for the methodology applied next year.

Response:

Further clarification has been sought regarding this comment but have received no response.

2019_24:
Having the balancing factor at over 96%; we believe that something key (or lots of little things) is clearly missing. We are unsure if this is due to this being the first-year of post Nexus data and could require a total reversal next year. Although we recognise that for the 2019/2020 review only limited activities can be now done in this area due to timings, we however believe for 2020/2021 that this should be an area of focus.

Response:

The Balancing Factor is such a large percentage of the total due to the successful reduction of other sources of Unidentified Gas. This is in part due to Mods addressing Unregistered and Shipperless, and also meter point reconciliation under Nexus removing nearly all CSEP Unidentified Gas. None of these things affect the composition of the Balancing Factor, they just leave it as an area that has not been addressed.

We have consistently investigated additional areas of Unidentified Gas that could potentially be calculated directly and split out of the Balancing Factor. The latest of these are Pressure and Temperature corrections. CSEP Shrinkage is another example of this, and its effect is included but is small. Shrinkage Error was also such an area, but the AUGE Framework now excludes this from our scope. In total, 33 new items (most of which relate to potential areas of quantifiable UIG that could reduce the magnitude of the Balancing Factor) have been added to the issues log this year for investigation and most have been investigated.

We will continue to identify and quantify new potential sources of UIG, and for many years we have been welcoming suggestions from the industry of other areas to investigate. At the time of writing, nothing has been suggested by the industry or found by us over many years that significantly reduces the Balancing Factor – any areas that have been included in the calculation have only been small. This supports our assertion that the majority of the Balancing Factor is indeed undetected theft.