

AUG Expert responses to issues raised by E.ON during the query period for the first draft 2017/18 AUG Statement, 14 March 2017.

Below are the issues raised by E.ON. Following each issue is the AUG Expert's response in italics. Note that only the points made by E.ON that require a response are shown here – their comments in full can be found in the original document. Should you need any clarification regarding these responses or have further questions, please contact the AUG Expert at AUGE.software@dnvgl.com.

The terminology throughout refers to UG for Unidentified gas. This doesn't match code terminology and I believe it should be consistent with declared terms within UNC. Section H 2.6.1 defines Unidentified Gas as UIG.

Although UNC Section H 2.6.2 refers to UIG for 'Unidentified Gas', we have avoided using this terminology in the AUG Statement to distinguish between the UG calculated using the AUG Expert methodology and that calculated on a daily basis as part of the settlement process (referred to as UIG in code). The AUG Expert makes an independent estimate of UG as a step in calculating the AUG Table weighting factors. These factors are then applied to the daily UIG estimate. We will review the AUG Statement and clarify this.

We have used the terminology "UG" since 2011 to be consistent with our title "Allocation of Unidentified Gas Expert" (AUGE) and the title of the document we produce "Allocation of Unidentified Gas Statement" (AUGS). It would probably cause more confusion to change from this convention after this length of time.

The introduction on page 1 notes a requirement to apportion total UIG between product classes and EUC – in terms of the methodology should this refer to residual UIG excluding temporary UIG?

This is meant to read "total permanent UG" and will be amended as such in the next draft of the AUG Statement.

Section 3.1.3 refers to data for known errors being used to correct DM meter errors. The methodology does not allow for meter errors where the actual consumption is unknown (bypass volumes, meter errors with no valid measurement available). There is an assumption that DM meters can be corrected accurately and there is no residual unknown. This is not the case, and some DM adjustments are on the basis of estimated flow. We would prefer some allowance in the modelling for likely impact in this area.

It is recognised that a process of estimation will be used in the calculation of DM metering errors, but the assumption is made that the calculation of these errors is done as accurately as possible given the available data. Particularly given the large volumes that flow at these sites, we do not believe that an estimation procedure with a known bias would be used. Therefore, whilst there will necessarily be errors for each individual meter correction (because each is based on an estimate of what really did flow during that time), we have used an assumption that there is no consistent bias across the set of such errors: some errors will be positive, others will be negative, and over time they will even themselves out.

If there is data available that suggests such a bias we will assess it with a view to improving the accuracy of the DM meter error adjustment figures.

Section 3.3.1 mentions an assumption that all LDZ load, DM load and shrinkage is known within closeout. I am not sure this is true, there have been known delays in LDZ meter errors being identified within the 4 year closeout period – therefore there will be a residual modelling error in the overall estimate of NDM and UIG demand used to historically calculate UIG volumes. Do we have an indication of the likely tolerances around this and the impact on the subsequent calculations?

Detected metering errors that have been reconciled are no longer Unidentified Gas and need to be corrected for in the calculation. Metering errors which are yet to be corrected, but will be within the closeout period could also be accounted for but, given that the average yearly reconciled LDZ metering error over 2011-2014 is only 12GWh/year the amount in question will be insignificant.

Any remaining metering errors that stay unreconciled are UG and become part of the Balancing Factor. They are separate from undetected theft and so a different methodology could be used to apportion them between market sectors. However, the amount of unreconciled energy will be small unless it is a significant meter error in which case it is unlikely to remain undetected and unresolved.

3.3.2 Unregistered sites relies on known shipperless (previously registered) or new meter fit not yet registered. Do we not include an allowance for sites that have not been identified through these mechanisms – older sites that have never appeared on sites and meters?

These sites have been referred to throughout the AUGE process as “Unknown Sites” and gas consumed by them goes into the Balancing Factor. Given that they have never appeared in sites and meters and nothing whatsoever is known about them, this is the most appropriate course of action. They are considered to be small in number and hence their presence does not affect the assumption that the Balancing Factor is largely composed of theft - therefore it remains appropriate for the Balancing Factor to be split by EUC/Product class.

3.3.3 refers to the CMA document only requiring a single point monthly read from Smart meters. It was our understanding that the CMA goes further than this – requiring the daily reads to be submitted monthly if a smart meter is installed – this would increase the uptake of category 3 sites from that modelled here. (Bracket missing on bullet 3 of this section)

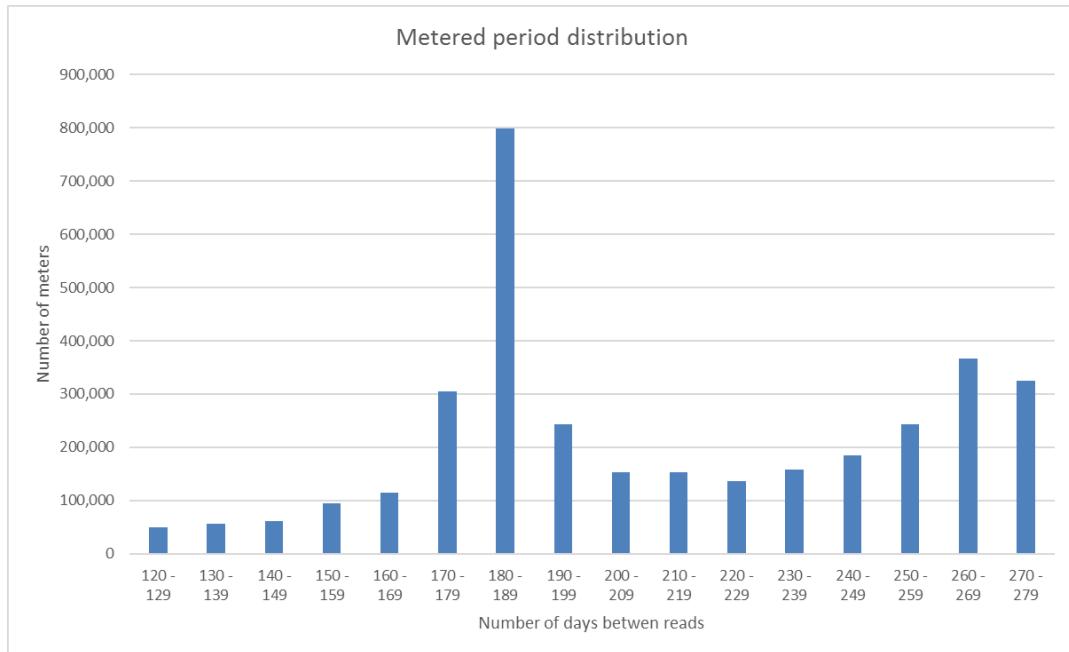
Paragraph 12.150 of the CMA Remedies Document states:
“With respect to all non-daily metered supply points with a smart or advanced meter, we will impose an order on gas suppliers (and amend the gas suppliers’ standard licence conditions accordingly) to submit to Xoserve Valid Meter Readings at least once per month (unless for reasons of malfunction or related issues it was not possible to take such a meter reading).”

This requirement is designed to ensure that the data required to calculate AQ for each site is available as much as possible and is designed to prevent gaming of the system through the artificial control of AQ. There is no requirement stated for the readings in question to be daily, just that these readings are submitted at least monthly. Therefore this does not create a requirement for all Smart Meter sites to move out of Product Class 4.

In section 6.2.1 bullet 8 (page 27) this allows a minimum of 120 days between reads estimating a gas year consumption. UNC requires a minimum of 9 months as a base period for AQ derivation due to the variation caused in the WAALP estimation depending on time of year for shorter periods. It seems to add significant inaccuracy using a shorter period here.

The 120-day window was designed to balance the requirement to successfully calculate consumptions for as many sites as possible against the requirement for these calculated values to be as accurate as

possible. The consumption method will choose the most appropriate meter reads to use based on a number of rules. Consumption will only be calculated using meter reads between 120 days and 9 months apart if no alternative valid reads are available. The only alternative in these cases is to use an estimated consumption which will be subject to error, and in the case of using AQ, a bias. The consumptions calculated using less than 9 months between meter reads are distributed as shown below. There are relatively few consumptions calculated using less than 6 months separation between meter reads.



The following table shows the number of meters where consumption has been calculated based on meter reads less than 9 months apart, split by gas year. The numbers are generally low with the exception of 2014, which was the final year of the original AUGE period. This creates an adverse effect because no meter reads after the end of the gas year are available to us: this restricts the reads available for the calculation, particularly for annual-read sites. Over 99% of all consumptions based on less than 9 months separation between meter reads were from EUC 01B.

Gas Year	Number of Meters
2011	368,646
2012	320,262
2013	462,659
2014	2,291,150

The Consumption Method requires a value to be used for every site in the country, and where it is not possible to calculate one, an estimated one has to be used instead. The average EUC consumption is used rather than the AQ because the AQ, by definition, works in arrears and the AQ in force at Time T actually represents what was happening at the site approximately 18 months before Time T. Therefore, for our purposes, the EUC average is the more accurate measure to use in this case.

The 120-day window represents a point where we believe that the calculated consumption is still more accurate than the estimated consumption that would be used if the site was to be flagged as failing the Consumption Method validation process.

The analysis on page 51 states that a clear reduction has taken place between 2009/10 to 2010/11 gas years and the subsequent years. While we fully agree that the mechanism for allocating to gas year is flawed and may well account to the negative result for 2013/14 I am unclear what determines a reduction in level. The text states there 'clearly' is – however this is not clear and you could also argue there was a parabolic shape. Obviously the assumption is key to the forecast and I cannot see enough justification for the choice.

The purpose of this analysis is to illustrate that when the effects of the negative year are removed (i.e. the negative changed to positive at a consistent level with 2012/13 and 2014/15, and the difference removed from these two years), the pattern that results is the two initial higher years (8,000+ GWh) followed by a transition to more consistent values around 4,000 GWh. Either an asymptotic fit or the average of the last 4 years will capture this effect going forward, and both lead to very similar values for the forecast year Balancing Factor.

It is acknowledged that the description of this analysis could have been clearer and so the wording of this section will be updated in the next draft of the AUG Statement.