UIG Task Force Update

Dear Customers and Industry Colleagues,

In mid-November 2019 I shared with you the latest progress made by the Task Force. We are continuing with our activities to deliver improvements, sharing our analysis to date and continuing to support modification development. I would like to continue to highlight the most up-to-date view regarding industry performance or behaviours which may be impacting Unidentified Gas (UIG).

UIG Current Tracking Levels at Allocation and After Reconciliation
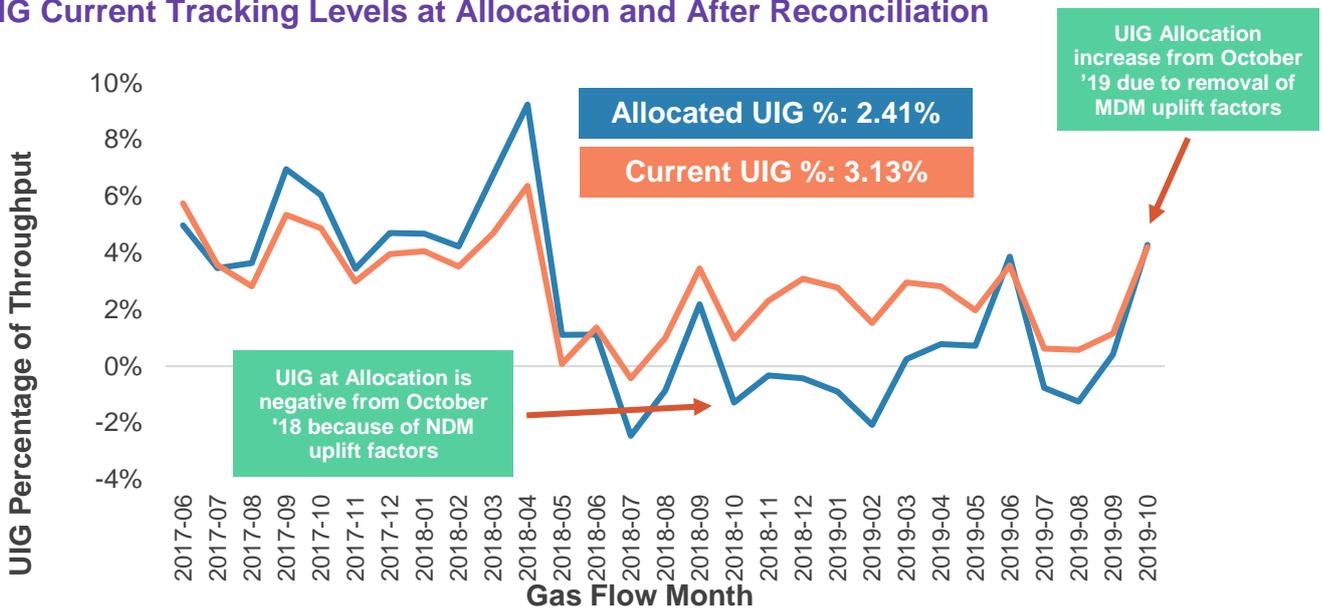
We have seen average UIG levels in daily Allocation increase from October 2019 onwards, due to a combination of industry changes to the NDM Algorithm parameters and the introduction of the new End User Categories. This is illustrated on the chart on the next page.

In addition, the relative proportions of UIG shared to each Class and EUC have changed as a result of the new UIG Weighting Factors as developed by the independent Allocation of Unidentified Gas Expert and implemented on 1st October 2019. We have recently updated our news article on our website which explains these impacts in more detail. You can find the update here.

UIG % by Gas Day (D+1 vs D+5)

Average D+1 UIG %: 3.49%

Average D+5 UIG %: 3.44%
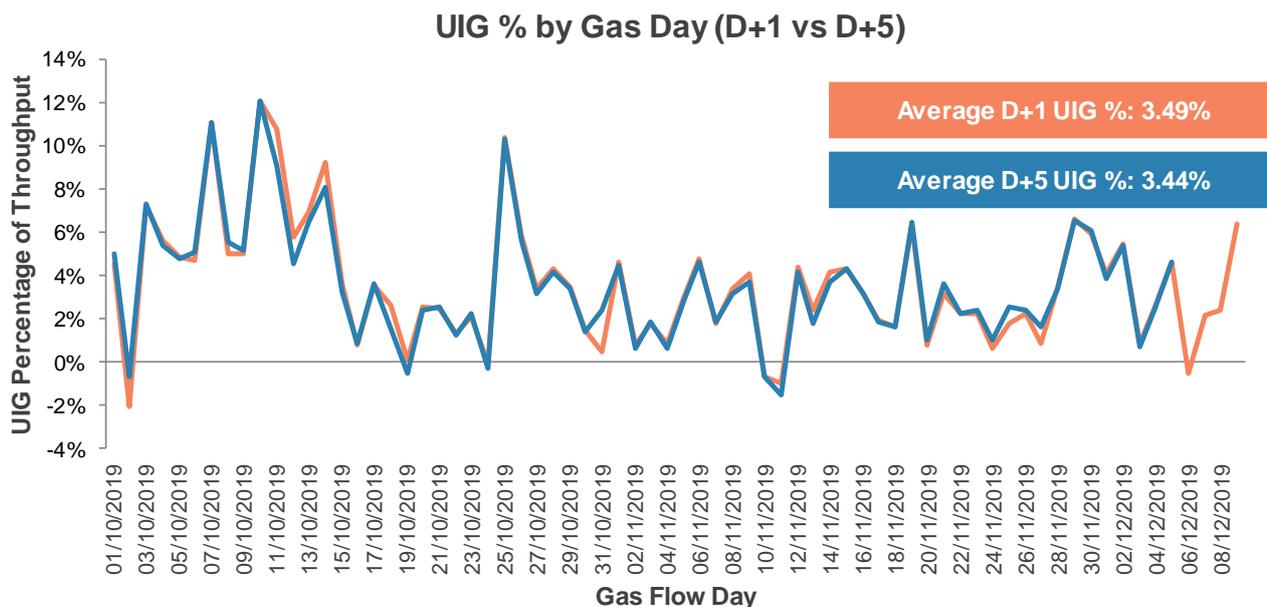
We are still developing and testing an interactive and regularly updated on-line version of the two graphs that we have published above. They should go live on our website in the New Year, and we will publish a news article to introduce the new graphs once they are live.
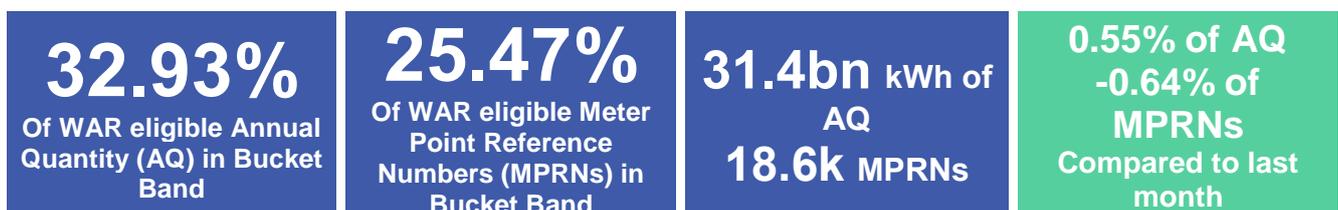
Review of 2018/19 Gas Year UIG levels

Xoserve presented its analysis of the observed UIG levels for Gas Year 2018/19 at the UNC Demand Estimation Sub-Committee (DESC) on 9th December. The UIG Analysis - 2018/19 results looked at the impact on daily UIG of the use of Uplift Factors in the Non-Daily Metered estimation algorithm. The Uplift Factors applied to the Annual Load Profiles (ALPs) for Smaller Supply Points (AQ up to 73,200 kWh) and Daily Adjustment Factors (DAFs) for all sites. We simulated the results of daily allocation without the uplift factors and this showed that they had pushed too much energy into the NDM sector and as a result overall UIG was negative across the Gas Year. The Amendment Invoice corrects the position once actual meter readings have been accepted. The following graph compares actual daily UIG at D+5 for Gas Year 2018/19 to our simulated results with the Uplift Factors removed. This shows that the Uplift Factors reduced allocation UIG on almost every day of the Gas Year.

National UIG % by Gas Day 2018/19

UIG % with Uplifts — UIG % with no uplifts
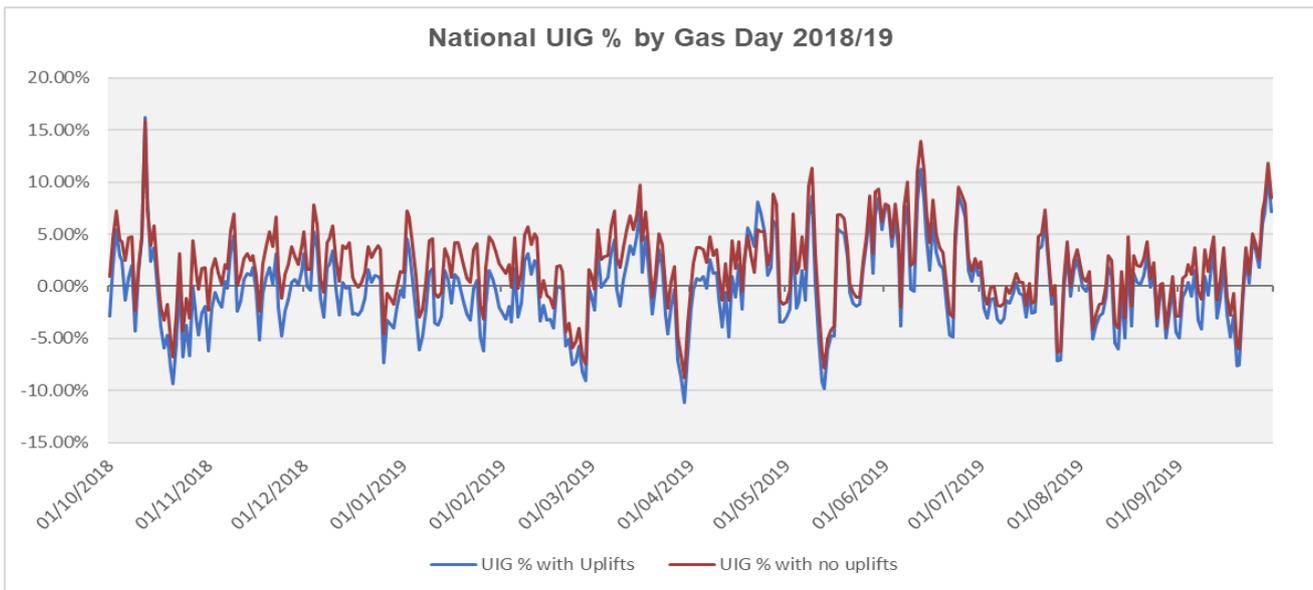
Xoserve also presented the results of the NDM Daily Demand Analysis at the same meeting of DESC. This analysis looked at actual data from the NDM sample sites and compared it to allocated energy to test the accuracy of the NDM models that are the basis of the ALPs and DAFs. This analysis also confirmed that the Uplift Factors resulted in too much energy being allocated to End User Category (EUC) 01B sites, in particular. The analysis also reviewed the consumption for a group of Industrial/Commercial ("I&C") consumers and compared it to the previous 01B Domestic profile and the new 01B I&C specific profile. This showed that the new more refined EUCs for Bands 1 and 2 would give more accurate allocation to typical I&C sites.

WAR Bands

All Non-Daily Metered (NDM) sites in End User Category (EUC) Bands 3 to 8 should be monthly read and have a winter consumption, which assigns the site of one of the four Winter:Annual Ratio (WAR) Band EUCs to allocate the NDM energy more accurately. The difference between allocated usage for the WAR Band and allocated usage for the default Bucket Band would contribute to UIG at allocation.
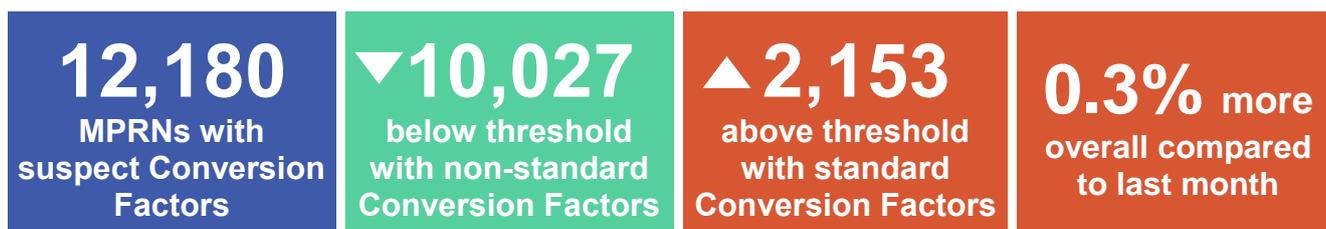
| **32.93%** Of WAR eligible Annual Quantity (AQ) in Bucket Band | **25.47%** Of WAR eligible Meter Point Reference Numbers (MPRNs) in Bucket Band | **31.4bn** kWh of AQ **18.6k** MPRNs | **0.55% of AQ -0.64% of MPRNs** Compared to last month |

Mod 652 – "Introduction of winter read/consumption reports and associated obligations" includes seven reports that are generated between November and the following October and shared with the industry to aid customers. Four of these reports are shared with the Performance Assurance Committee. The modification now obliges Shippers to provide updated information where they have not fulfilled their earlier obligation to provide a monthly read in the winter read windows. Via the Xoserve Customer Account Managers we will engage with Shippers to make sure that they have all the support they need to make these updates.

Inappropriate Conversion Factors

The Conversion Factor is a component of the formula that is used to convert metered volume to energy. Sites of different sizes should have different conversion factors as specified in the Thermal Energy Regulations, which is a piece of UK legislation.

All sites with an AQ lower than 732,000 kWh should have a single standard Conversion Factor, but sites with AQ greater than 732,000 kWh should have a specific Conversion Factor based on the local altitude, temperature and pressure. Metered energy could be under or over recorded at a site with an inappropriate Conversion Factor, which would then contribute to UIG.

12,180 MPRNs with suspect Conversion Factors	▼10,027 below threshold with non-standard Conversion Factors	▲2,153 above threshold with standard Conversion Factors	0.3% more overall compared to last month

Potentially incorrect Conversion Factors are reported each month in the Shipper Performance Packs. In addition, the first UIG Task Force modification to successfully complete the industry governance processes has been implemented. UNC Modification 681S "Improvements to the quality of the Conversion Factor values held on the Supply Point Register" gives the Central Data Services Provider (CDSP) authority to change the Conversion Factor held on UK Link where it does not comply with legislation. The supporting Change Proposal (XRN 4932) is now scheduled for implementation in the June 2020 UK Link Release.

Sites Above the Class 1 AQ Threshold That Are Not in Class 1

EUC 9 sites where the AQ is greater than 58.6m kWh should be re-designated as Class 1 by the Shipper. The NDM profile may not be a good representation of their usage, thus contributing to UIG.

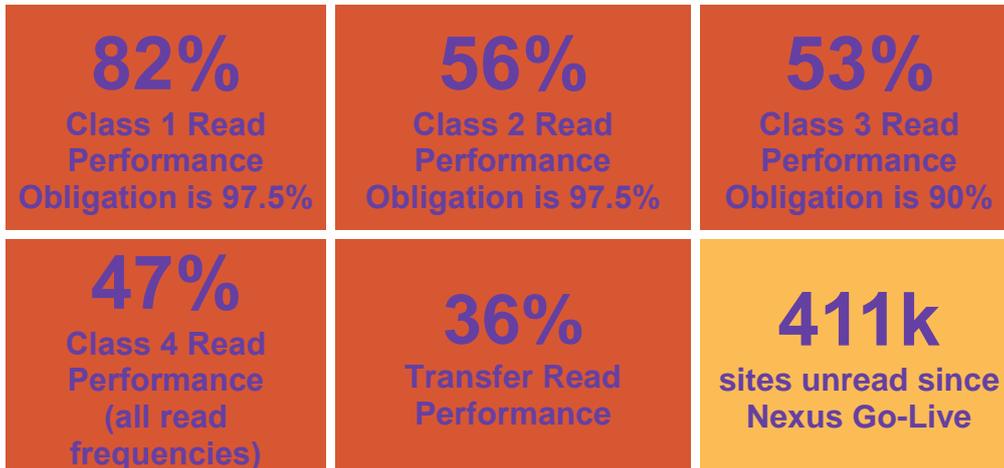| 28 Class 2-4 MPRNs that should be Class 1	2.5 kWh AQ that should be Class 1	3 more sites No change in "at risk" AQ since last month

Of the above, 16 sites with a total AQ over 1.2bn kWh fully meet the UNC criteria for re-confirmation as Class 1, with at least 3 qualifying calculations over a six month period. We saw 1 site converted to Class 1 this month, but 3 new "red" category sites, which fully meet the Class 1 criteria.

There are three live Uniform Network Code (UNC) Modifications in progress related to this topic, as a result of the Task Force's recommendations: Mod 0690 titled "Reduce qualifying period for Class 1", Mod 0691 titled "CDSP to convert Class 3 or 4 meter points to Class 1 when G1.6.15 criteria are met" and Mod 0692 titled "Automatic updates to Meter Read Frequency." In addition to this the Customer Advocates are continuing to discuss individual sites with Shippers.

Meter Read Submission Performance

Submitting meter readings to Xoserve is important and will contribute to reducing UIG levels. Actual metered energy will reconcile any UIG caused by the allocation algorithm, and a new meter reading will be used to calculate a new AQ, which should make allocation more accurate in the future. Read performance is a key area of focus for the Performance Assurance Committee and Xoserve will be working with Shippers to increase read submission performance where appropriate.

82% **Class 1 Read Performance Obligation is 97.5%**	**56%** **Class 2 Read Performance Obligation is 97.5%**	**53%** **Class 3 Read Performance Obligation is 90%**
47% **Class 4 Read Performance (all read frequencies)**	**36%** **Transfer Read Performance**	**411k** **sites unread since Nexus Go-Live**

Figures are taken from the Performance Assurance Reports for October 2019. Meter read submission is below the UNC requirements in all Classes. The total number of sites unread since Nexus Go-Live has reduced by another 46,000 this month.   A number of in-flight UNC modifications aim to encourage better meter read submission levels, including:

- 0664 - Transfer of Sites with Low Read Submission Performance from Class 2 and 3 into Class 4
- 0672 - Target, Measure and Report Product Class 4 Read Performance
- 0699 - Incentivise Read Submission Performance using additional Charges

UIG Workgroup and recommendations

At December's UIG Workgroup, we closed a further 17 lines on the Recommendation Tracker, bringing the total closed to 70.25 recommendations remain open, of which 20 are dependent on live or suggested UNC Modifications. The total UNC Modifications drafted by Xoserve remain at eight, with five of these being live and one approved and implemented. All live modifications can be found on the Joint Office website here, and all drafted modifications can be found on our website here.

The UIG Recommendation Tracker is published on the Joint Office website and on our Xoserve website here. It contains the full details and status of each recommendation line. If you would like to discuss any of these in detail, please get in touch with the Task Force directly.

Next Steps for the Task Force

The latest phase of Machine Learning investigation continues. This work focuses on reducing day-to-day UIG volatility, with two mains strands of activity: further exploration of potential improvements to NDM Allocation that could be achieved by using a machine learning model for End User Categories 2

to 8; and investigating the relationship between daily LDZ UIG and total daily LDZ energy quantities. The work will run to the end of 2019 and we expect to share the results and recommendations early next year.

We are also re-aligning the current Task Force activities in line with our new organisation structure and we shared this alignment at October DSC Change and Contract Management Committees.

UIG Information and Resources

To view the latest weekly tracker of daily National UIG as a percentage of total throughput (comparing D+1 and D+5 post Gas Day) and the monthly tracker of latest UIG as a percentage of total throughput accounting for estimated phasing of meter point reconciliation, please click here.

To view our published findings and recommendations to date please click here. We will also continue to support the live modifications through to implementation.

To view the Investigation Tracker, where you can follow individual updates against each line of investigation, please click here.

As always, we will continually update you with our progress via industry forums.

If you have any questions or comments, please contact us at uigtaskforce@xoserve.com.

Kind regards

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