

UIG Task Force Update

Friday 15th February 2019

Dear Customers and Industry Colleagues,

In early December the Unidentified Gas (UIG) Task Force published an executive summary of their [Sprint 6](#) findings. The team is now pleased to share our progress over the recent weeks and an update on our next steps.

Background

Since the implementation of Project Nexus in June 2017, gas shippers have experienced much higher than expected absolute levels and volatility of UIG. This is severely affecting their ability to predict demand and commercially manage their businesses from an immediate cash-flow perspective, because UIG is reconciled (corrected) over an extended and unknown future period. In July 2018 Ofgem approved the Uniform Network Code (UNC) Modification 0658 to drive a more centralised and focussed approach to the resolution of UIG, mandating Xoserve as the Central Data Service Provider to take on a leadership role on behalf of the industry.

UIG Work Group and Recommendation Session

I would like to thank all of you who attended or contributed to the UIG Work Group and Recommendation Session which took place on Monday 28th January. The session was run by the UIG Task Force and Joint Office, and a wide range of industry representatives attended. We discussed a large number of recommendations and options, many of which we have agreed actions in place to support the reduction in UIG. All of the recommendations and next steps have been documented and can be found [here](#). We have made progress since the meeting and relevant customer supported options have been shared with the Demand Estimation Sub-Committee (DESC) and the Performance Assurance Committee (PAC). The UIG Work Group will be the industry forum to monitor all of the options supported, and where not already identified, the owners and actions agreed, and where appropriate nominate other industry committees to take the lead in progressing actions.

UIG Task Force Investigation Guide

UIG is a complex topic and Xoserve wants to ensure that the benefit of the industry's investment is fully understood and realised, so we have produced the UIG Task Force Investigation Guide. The Investigation Guide describes the areas we have investigated so far and why they are important to UIG, how much UIG is explained by the results of each finding, and Xoserve's recommended actions that the industry can take to resolve the issue. The Investigation Guide is available on our [website](#) and is accessible to everyone, more information on the detailed findings are published on the UIG Task Force web page [here](#).

Post Sprint 6 Findings

Machine Learning

We are continuing to explore the use of machine learning to improve the Non-Daily Metered (NDM) algorithm, and our analytics partner is currently developing a neural network model, with the goal of increasing the accuracy of NDM allocation and reducing UIG. They have also tested using machine

learning to estimate energy at a national level, and have demonstrated that the model shows promise in reducing levels of base level UIG, at allocation, by around 25% on average and reducing daily volatility by up to 40%. This analysis will continue to evolve in the coming weeks.

Annual Quantities

Sprint 6 began our investigations into sites with very low Annual Quantities (AQs) to see if we can identify any systematic issues. There are over 400,000 live meter points on UK Link with an AQ under 100 kWh. We wanted to understand whether the low AQ for these sites was causing meter reads to be rejected, and if so what the potential level of under-recorded energy could be. If the energy is not recorded then any UIG caused by these sites at allocation could become permanent, and AQs will not recalculate, which means that they will continue to be under allocated and contribute to UIG. We analysed a representative sample of these sites, and found that around 9% of them have had reads rejected for tolerance reasons. Shippers have provided subsequently accepted reads for a little under half of the rejected reads, but 5% of the total did not have a read subsequently accepted by Xoserve. If the metered energy in these rejected reads is accurate, it could mean that around 0.35% of Local Distribution Zone (LDZ) throughput is unrecorded on UK Link which will contribute to UIG. It is worth mentioning that the recommendations we made under investigation Item 3.2.8 – Sample sites consuming energy with a UK Link AQ of 1, would help to resolve this issue.

We are also analysing all energy tolerance meter read rejections, to understand the full level of metered energy that could be unrecorded on our systems. Any unrecorded energy means that AQs may not be up to date, which could contribute to UIG at allocation. If metered energy is not recorded, then any UIG contribution from these sites may not be accounted for. The level of tolerance rejections is significant, but it is not consistent across Shippers, Classes and End User Categories (EUCs), so we are continuing our analysis so see if we can identify any trends and areas where our customers may need support.

We have started analysing AQ movements over time to identify if the changes to industry rules under Project Nexus have materially impacted AQ levels, and if legacy AQ trends have changed following the implementation of UK Link, and if so, what the potential impact on UIG could be. AQs now recalculate monthly if a meter read is accepted onto Xoserve systems. We are currently analysing whether more frequently recalculated AQs change by smaller amounts, than AQs that recalculate less often. This work will support industry discussions around UNC Modification 0674.

Finally, we also want to understand if the AQ correction process is being used as intended, or if the usage could be artificially changing the level of AQ which could be contributing to UIG. Overall, AQs are increasing through the use of the AQ correction process, but we are seeing different usage patterns from some Shippers. This analysis is in the very early stages and we will continue our work to identify any trends and to support Shippers in the correct usage of the process.

Algorithm Performance

As mentioned in our previous Executive Summary, we have begun to investigate historic large scale NDM algorithm performance. Our analytics partner is also looking at the differences between allocated energy and metered energy across the whole market, to see if we can find any trends which are contributing to UIG. This work is ongoing, but we have found that the general trend is that EUC 01 is under allocated, which means that the sites in this EUC are contributing to UIG at allocation and will generally record more energy when they are read, reducing UIG levels at reconciliation. There are some sites across all LDZs that appear to be significantly under allocated, and our analytics partner is currently investigating them to see if we can understand the root cause. We have also found some

clusters of sites in EUC 02 which are recording energy in a different pattern, when the metered consumption is compared to their allocation. Our analytics partner is analysing these clusters to see if they can find any trends. This work will provide insight into where the NDM algorithm can be tuned to work better and may provide a forward view of how sites could reconcile in the longer term.

Next Steps for the Task Force

We have started and will continue to develop the recommendations presented to date. Where Xoserve are the owners of the next steps we will raise change requests, change proposals and ramp up our customer engagement activities. We will also offer our support and assistance to the industry to resolve all non-allocated options through to a conclusion.

In addition, the UIG Task Force will continue with analysis into the root causes of UIG by investigating the remaining lines of enquiry.

To view the Investigation Tracker to follow individual updates against each line of investigation, please click [here](#). We will also continue to work up findings and recommendations in-line with our previous approach and publish these on our website. To review our published findings and recommendations to date please click [here](#).

As always, we will continually update you with our progress via monthly Change Management Committee Meetings, Contract Management Committee Meetings and the UIG Work Group.

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

Kind regards

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