



AUGE Innovations Summary

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ELECTRICITY | GAS | INDUSTRY EXPERTS

AUGE INNOVATIONS

Designed to identify changes to industry arrangements which could achieve a more equitable allocation of UIG, this element of the AUGE service proposes and assesses potential innovations that are outside of the AUGE’s remit because they are likely to require changes to the current rules or processes.

We use our detailed knowledge of the market arrangements, and the data available and analysis undertaken as part of the Core Service, to identify ways in which UIG could be better and more equitably allocated, if changes were forthcoming.

THIS DOCUMENT

This document provides a recap and summary of innovations proposed to date. It will be updated as necessary and published on the Joint Office website for reference.

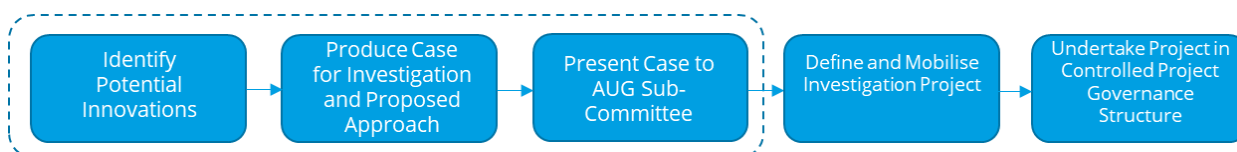
ANNUAL ‘BUDGET’

Funding of the AUGE service provides for an annual budget on a ‘drawdown’ basis. If no innovation activity occurs, no budget is drawn down. This budget is capped at 35 days’ effort per contract year (running June to May).

Effort spent on innovation activities is undertaken by broad consensus among AUG Sub-Committee members.

INNOVATIONS DEVELOPMENT PROCESS

A case for investigating one innovation, a proposed approach, an outline project plan and cost estimates will be provided as part of the service. A generic process is shown below:



Where there is a positive business case to proceed, we would generally expect a draft modification or similar as output. This could then progress in line with the standard modification or development route.

Innovations that have in the past been developed beyond initial identification are identified with an asterisk in the Table of Identified AUGE Innovations.

REVIEW GROUP 0781

A suite of potential changes to the AUGE service were considered under Review Group 0781 during 2021. Because these proposals considered alternative approaches to the AUGE service rather than improvements to UIG allocation, we have not included them in the scope of this document.

TABLE OF IDENTIFIED AUGÉ INNOVATIONS

* Denotes some previous investigation of business case has been undertaken

INNOVATION ID	TITLE	DESCRIPTION
AI10*	LDZ Specific Factors	LDZs have varying levels of UIG. They also have different proportions of domestic and commercial properties. The current method of having national Factors could lead to UIG being allocated to the incorrect party. The investigation would determine whether LDZ specific Weighting Factors would apportion UIG more equitably.
AI20	Different Factors for the EUC WAR bands	The current Weighting Factor table has 60 matrix positions for EUC class combinations. In allocation EUC bands 03-08 are split further into Winter Annual Ratio (WAR) Bands. The investigation would determine if adding the additional WAR EUC bands would apportion UIG in a more equitable manner.
AI30	Different Factors for Allocation and Reconciliation (transient UIG)	The Weighting Factors predominantly allocate UIG at the allocation stage. The residual reconciliation energy is distributed between Shippers using the same Factors as at the allocation stage. We base the Weighting Factors on their calculation of UIG at the Line in the Sand. UIG needs to be applied to the correct market participant as soon as possible. An investigation could be carried out to determine the ratio between the initial energy values and the final energy values at code cut off. This ratio may vary for different market participants or for different matrix positions. The investigation would determine if a ratio that looks at transient UIG would apportion UIG more equitably.
AI40	Seasonal Factors	Currently, there is one static Weighting Factor for each EUC band product class combination for the whole year. The quantity of UIG changes between the winter, summer and shoulder months. The investigation would determine whether seasonal Weighting Factors would apportion UIG more equitably.
AI50	Fixed and Floating Weighting Factors	The current process allows for one set of Factors and therefore are based on a seasonal normal year. An investigation would look into whether there is any benefit in splitting the Factors into Fixed and Floating. Floating Factors would take account of in year variations to Factors



		including for example weather, meter changes, pandemics.
AI60	Dynamic Weighting Factors linked to the throughput	The Weighting Factors are fixed annually for each matrix position. As part of the methodology we have a number of assumptions within our calculation based on a forecast number of sites and associate AQ for the target year which has a risk associated within it. To remove this risk, a mechanism to introduce more Dynamic Factors could be implemented to apportion UIG. The investigation would determine if Dynamic Weighting Factors linked to a more up to date consumption forecast would allocate UIG more equitably.
AI70	Temperature and pressure actuals feeding into the Weighting Factors	The temperature of gas, and the weather related pressure of gas, changes the amount of gas within a set volume. The investigation will assess the benefit of applying daily temperature and pressure readings directly and dynamically into Settlement.
AI80	Recalculate the UIG and Weighting Factors at the Line in the Sand	The UIG that the AUGER calculate is over five years before the Line in the Sand. There is a chance that the industry rules or Shipper performance may change between the Statement year and the time that the Line in the Sand is reached. This investigation would determine whether there would be any value in recalculating the Weighting Factors at the Line in the Sand based on an updated estimate of the UIG contributors and total UIG.
AI90*	Changing the residual reconciliation redistribution process (UGR)	Currently, the market rules split the residual reconciliation energy pot for each reconciliation run equally between the previous 12 months. These volumes are then allocated to Shippers based on their energy position following direct reconciliations. An investigation would be carried out to see if this is the most equitable mechanism to distribute residual UIG or whether there is a more appropriate mechanism.
AI100	Re-reconciling the whole month	The reconciliation process allocates the unidentified gas reconciliation amounts rather than re-reconciling the whole month. In the current process if two Shippers have the equal and opposite effect in direct reconciliation, their UIG position would not update even though their allocation has changed as a proportion of the total allocation. The investigation will look into whether the



		current mechanism is the most equitable way or if the whole month should be reconciled at set intervals.
AI110	Factors linked to performance assurance measures	UIG can be caused by non-compliance and under-performance. An investigation could be carried out to establish whether linking the Weighting Factors to the performance assurance framework, and application of the various performance assurance techniques, could play an effective role in reducing the overall levels of UIG
AI120	Factors specific to Shippers	Shippers' actions in the market can create UIG in different ways. The current process smears UIG across the market based on the Factors and the allocation volumes. The investigation will assess the value of creating Factors specific to Shippers linked to their performance
AI130	Investigation into the temperature of gas in the meter	The temperature studies that are used for the temperature contributor are almost 20 years old and the details of the conditions of the study are limited. The investigation would determine the benefits of organising a study into the temperature of gas under different conditions including, air temperature, meter location and service material type.
AI140	Investigation into the accuracy (bias) of all types of meter	We have been provided with in service testing of domestic sized meters. This has identified that there is an inherent bias with them. The investigation would determine if there is any inherent bias for other types of meters and if there are any impacts caused by the meter manufacturer, the year of manufacture and how long the meter has been in service.
AI150	Leakage investigation of IGT sites	We have been provided with anecdotal information that IGT mains do not leak in the same manner as those that are part of the NLT. An investigation could be carried out to calculate the leakage rates in the mains that IGTs use. This would then feed into the IGT shrinkage contributor.
AI160	Audit of the Correction Factors	Confirm that all sites have the appropriate Correction Factor, notifying CDSP of those sites where an updated value is required.
AI170	Weighting Factors used to Incentivise	Weighting Factors could be used to incentivise and therefore drive a change in performance and behaviour within the industry. The investigation would assess the benefit of this.



AI180	All meters must have volume conversion equipment fitted	Volume conversion equipment to take account of local pressure and temperature conditions is currently only installed at a small number of larger consuming Supply Meter Points. The investigation would assess the benefits of having this equipment fitted to all Supply Meter Points.
AI190	Optimum meter capacity	The assumption used in our assessment of meter errors was that the optimum use of a meter was at Q_t which was assessed to be $0.2Q_{max}$. An investigation could be carried out to validate this assumption and to determine whether there is any impact on this assumption if the meter is consistently used at other ranges of use.
AI200	LDZ Shrinkage Error linked to leakage rates	To investigate the possibility of there being any error in the LDZ shrinkage calculation based on the leakage rates.
AI210	Direct access reporting ability	Currently any report that has to be provided from the central database has to be defined by the AUGÉ and provided by the CDSP. This investigation would look into the benefits of the AUGÉ having direct access to the central records
AI220	Split EUC bands 1 and 9	By consumption the largest two EUC bands are bands 1 and 9. This investigation would assess any additional benefits of splitting these matrix positions further so that certain polluters are more easily identifiable, thereby apportioning UIG more equitably.
AI230	Portfolio Optimisation effects	For certain matrix positions it is up to the Shipper to choose which matrix position their Supply Meter Point should be registered to. In previous years Shippers have changed the class of their sites to reduce their exposure to UIG costs. This investigation will assess the effect of this. This will include determining whether there will be any benefits in actively applying adjustments to the Factors to account for potential changes, or whether there should be only one matrix position that a Supply Meter Point can be registered to.
AI240	Additional central reporting	Certain contributors are likely to get a higher degree of accuracy if further information that is not held within UK link was held centrally, for example theft information. This investigation would assess the benefits of having a central repository for this information.



AI250	In service testing for LDZ offtake meters	If there is an inherent bias in LDZ meters then the impact of this could be very large on UIG values. The investigation would assess the ways that LDZ meters could be tested to ensure that there is no inherent bias in the meter.
AI260	LDZ Shrinkage Error linked to estimation of upstream theft	To investigate the possibility of there being any error in the LDZ shrinkage calculation based on the theft rates
AI270	Dimension relating to the last accepted read	It has been suggested that there is a correlation between the amount of time that has passed since a Supply Meter Point had a read accepted and the UIG that is created for some sites. The current table does not have a dimension relating to the read frequency or when a read was last accepted. The investigation will look in to adding a dimension to the Weighting Factor table relating to when the last meter read was accepted.





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