






UNC Modification	At what stage is this document in the process?
<h1>UNC 0831:</h1> <h2>Allocation of LDZ UIG to Shippers Based on a Straight Throughput Method</h2>	<p>01 Modification</p> <p>02 Workgroup Report</p> <p>03 Draft Modification Report</p> <p>04 Final Modification Report</p>
<p><b>Purpose of Modification:</b></p> <p>The purpose of this Modification is to change the method by which unidentified gas (UIG) is allocated to Shippers from the current AUGE table of weighting factors to a throughput or universal allocation model.</p>	
<p><b>Next Steps:</b></p> <p>The Proposer recommends that this Modification should be:</p> <ul style="list-style-type: none"><li>considered a material change and not subject to Self-Governance</li><li>assessed by a Workgroup</li></ul> <p>This Modification will be presented by the Proposer to the Panel on <b>17 November 2022</b>. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
<p><b>Impacted Parties:</b></p> <p>High: Shippers, Suppliers</p> <p>Low: CDSP</p> <p>None:</p>	
<p><b>Impacted Codes:</b></p> <p>No codes, other than the UNC, are expected to be impacted.</p>	

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<b>Modification timetable:</b>			
Date Modification Raised	04 November 2022		
New Modification to be considered by Panel	17 November 2022		
First Workgroup Meeting	12 December 2022		
Workgroup Report to be presented to Panel	15 June 2023		
Draft Modification Report issued for consultation	19 June 2023		 07773 151 572
Consultation Close-out for representations	07 July 2023		Systems Provider: Xoserve
Final Modification Report available for Panel	12 July 2023		
Modification Panel decision	20 July 2023		 <a href="mailto:UKLink@xoserve.com">UKLink@xoserve.com</a>

## 1 Summary

### What

The allocation of UIG for each Local Distribution Zone (LDZ) has long been an issue in the gas industry. There were many discussions on this issue in the mid 2000's which resulted in UNC Modification 0229 - Mechanism for correct apportionment of unidentified gas that, in 2010, introduced the Allocation of Unidentified Gas Expert (AUGE) whose role was to allocate UIG to the different types of Shipper Users. To date, there have been two organisations appointed as the AUGE, with the initial AUGE's allocations being in place until the end of the gas year 2019/20 when its contract to provide the service ended.

For the gas year 20/21 a new AUGE was appointed, who has taken a very different view as to how UIG should be allocated. Both AUGE's created perceived winners and losers in the allocation of UIG to different EUC bands and Shipper User markets. It is widely recognised in the industry that the causes of UIG are very complex, impossible to allocate accurately, and due to the different methods employed by the two AUGE's, the resulting allocations have been very different. Any future AUGE may come up with another different allocation method to the current and previous AUGE. As the UIG allocations change annually, this is creating uncertainty for many shippers and suppliers in the pricing of contracts to customers and potentially results in increased risk premiums versus the proposed solution benefits.

### Why

UNC Request 0781R– Review of the Unidentified Gas Process – was raised in order to look at ways of improving the UIG allocation process. The associated Workgroup looked at several possibilities to improve the UIG allocation, and the universal allocation or 'vanilla smear' option, where UIG is allocated flatly based on throughput, was determined to be the most favoured out of eight options discussed by the Workgroup.

It is very difficult to identify the sources of UIG, as whilst both the AUGE's employed to date have assumed that a large majority of UIG is due to theft (as they could not explain any other reason for it). However, the industry view is that theft is a smaller factor and more UIG is due to other factors, such as shrinkage calculations being too low, assumptions of average temperature and pressure at meters being incorrect, metering inaccuracies and significant amounts of gas being vented due to leakage from gas pipework.

These other reasons for UIG all further the argument for a throughput allocation of UIG as the losses cannot be blamed on any particular type or category of customer. Also, the current AUGE table is not produced for each LDZ which would be a requirement in order to even attempt to calculate UIG allocation accurately. If this Modification is not implemented, the allocation uncertainty will remain and any future AUGE may allocate UIG on a very different basis to the current AUGE.

### How

The proposed solution is that the UIG allocation table will be updated with a set of permanent and common allocation factors so that UIG is allocated to all LDZ customers equally on a throughput basis. The role of the AUGE will be removed.

## 2 Governance

### Justification for Authority Direction

This Modification will require Authority direction given the potential financial impact it will have on Shippers and Suppliers as moving away from the AUGE table of factors for UIG allocation to the proposed throughput method will change how UIG is allocated to Shippers. The changes to UIG allocation would be materially significant for some customers when compared to their allocation based on the current UIG table and could therefore impact competition.

### Requested Next Steps

This Modification should:

- be considered a material change and not subject to Self-Governance.
- be assessed by a Workgroup.

## 3 Why Change?

### History of Unidentified Gas

The allocation of UIG for each LDZ has long been an issue in the gas industry, as prior to the implementation of Project Nexus in June 2017, only I&C sites (excluding small ones) had their actual usage reconciled back to their settlement charges via meter readings entering the settlement systems. All domestic customers (with the exception of a small number of larger ones) and smaller I&C customers had their settlement charges based on their annual quantity (AQ) which was calculated based on their previous year's usage. The result of this was that I&C Shippers only paid for the gas their customers had used, whereas domestic Shippers paid the rest (including the unidentified gas) based on their percentage of AQ allocation via the 'reconciliation by difference' (RbD) process.

There were many discussions on this issue in the mid 2000's with domestic Shippers trying to get I&C Shippers to contribute to UIG and I&C Shippers trying to downplay the amount of UIG that existed and that should be allocated to them. The upshot of all of these discussions was UNC Modification 0229 - Mechanism for correct apportionment of unidentified gas that, in 2010, introduced the Allocation of Unidentified Gas Expert (AUGE). The independent experts task was to allocate a fixed amount of gas from the domestic sector to the I&C sector based on detailed analysis from information provided to them by Xoserve.

The implementation of Project Nexus in 2017 saw the introduction of gas allocation at all meter points being in line with actual usage, with meter readings for all customers entering the settlement system. The result of this was that UIG for each LDZ became visible as it is the gap between gas entering the LDZ networks and that consumed by customers based on meter readings. This resulted in a different role for the AUGE, in that it had to allocate the UIG between different customer types and sizes via an annual UIG table, which is based on detailed information from Xoserve, including theft data. The initial AUGE allocated a higher percentage of UIG to domestic customers, largely based on the view that theft accounts for the majority of UIG and that most theft is undertaken by domestic customers. This AUGE's allocations were in place until the end of the gas year 2019/20 when its contract to provide the service ended. For the gas year 20/21 a new AUGE was appointed who has taken a very different view in terms of where theft is occurring by allocating a much higher proportion of UIG to I&C sites, especially smaller ones.

## UNC 0781R – Review of the Unidentified Gas Process

UNC Request 0781R – Review of the Unidentified Gas Process – was raised in order to look at ways of improving the UIG allocation process. The Workgroup looked at several possibilities to improve the UIG allocation, and the universal allocation or ‘vanilla smear’ option, where UIG is allocated flatly based on throughput, was determined to be the most favoured out of eight options discussed by the Workgroup. It is very difficult to identify the sources of UIG, as whilst both the AUGEs employed to date have assumed that a large majority of UIG is due to theft (as they could not explain any other reason for it), the industry view is that theft is a smaller factor and more is due to other factors, such as shrinkage calculations being too low, assumptions of average temperature and pressure at meters being incorrect, metering inaccuracies and significant amounts of gas being vented due to leakage from gas pipework. These other reasons for UIG all further the argument for a throughput allocation of UIG as the losses cannot be blamed on any particular type or category of customer.

### Retail Energy Code Analysis

The Retail Energy Code has recently published a theft analysis report compiled by Cap Gemini, where the amount of theft has been determined by a different method. This report looks at theft in isolation, (rather than UIG in totality) and considers actual cases of theft rather than assuming that all unexplained UIG that is the subject of a non-technical loss is theft, as is the case with the AUGE. Unsurprisingly, the REC analysis proposes a much lower figure for theft that is approximately one seventh of the AUGE’s theft figure. This further justifies the case for the throughput method of allocation as, in reality, the industry evidence since Project Nexus made UIG visible all points to the fact that there are significant unaccounted for losses on the network. It is also worth pointing out that the Cap Gemini analysis has been done at the supplier level, which is correct when it comes to theft. However, the AUGE is using supplier theft data to derive shipper allocation of UIG, which, it could be argued, is not correct as not all shippers are suppliers and some shippers ship gas for multiple suppliers. In addition to the various sources of UIG that have been mentioned, no reconciliation exercise has ever been done between the gas industry and the Land Registry in order to identify sites that may have had a gas meter installed and have been put on supply, but have never, for whatever reason, been registered in the central systems and so are contributing to UIG.

### Incentives on Shippers

In workgroup discussions it has been argued that a modification of this nature disincentivises the reduction of UIG as any reduction would not be reflected in the sector in which the UIG was discovered. However, the discovery of UIG by a shipper is, by its very nature disincentivised as if a shipper discovers a source of UIG on its portfolio then it will likely lead to an increase of gas allocation to that shipper. Furthermore, any theft that is discovered by a shipper is used by the AUGE to allocate more UIG to that sector as the amount of unallocated theft (the balancing factor used by the current AUGE to explain all non-explainable UIG) is, largely, allocated based on the amount of theft that has been detected in that sector. This is likely to be probably true in the future, where any source of UIG discovered by a sector will lead to a higher proportion of UIG being allocated to that sector, which may outweigh any reduction in actual UIG to that sector as a result of its discovery. [This has been recognised by Ofgem in its decision letter on modification UNC 0840 \(urgent\) as the letter states the following:](#)

[“It is acknowledged by the AUGE and industry that the data which underpins the weighting factors of the AUG Table is biased towards PPMs. One of the factors which contribute towards this bias and was highlighted by a consultation respondent is that historical theft detection rates are higher for PPM consumers due to the additional layer of data, such as top-up histories, which makes theft easier to detect in consumers not vending. This does](#)

not validate that more theft occurs within the PPM market segment, only that more theft is detected, creating the identified bias. We agree and believe that this bias is reflected in the AUG weighting factors and inflicts detriment on PPM customers. Whilst we are aware that datasets are never completely unbiased, as the gas wholesale market conditions have changed, this bias has put an unfair weighting on these EUCs that not only is unsustainable but is unjustifiable.“

-Whilst the Ofgem letter relates to PPM customers, there is an implication that allocating future UIG based on theft detected in a sector creates a bias to allocate more theft to that sector and is a clear deterrent to the investigation of theft.

With a straight throughput allocation of UIG there is more of an incentive for all shippers to work together (possibly with assistance) in order to identify and correct sources of UIG, as the savings to all will be in proportion to their gas usage, and no groups of shippers will be reluctant to identify sources of UIG in the sectors they have a majority of customers in, as it will not lead to more UIG being allocated to those sectors. An example of all shippers working together may be for the industry to do a reconciliation of gas customers between the CDSP's data and the Land Registry's data.

#### **Electricity Equivalent**

During one of the UNC 0781R Workgroup meetings, Elexon presented how the corresponding concept worked in electricity, which is by means of the correction factor, that is very similar to the proposed throughput UIG method, as it allocates unexplained electricity losses to customers based on their throughput. Elexon explained that this concept had been introduced at the start of competition and there has been very little discussion or change to it over the past few decades, which is totally different to gas, where there have been numerous meetings, discussions, modifications, etc., each year over the past twenty or so years and there is still no consensus in the industry, as any method tends to create perceived winners and losers. The allocation method based on throughput is seen by many as the only fair and equitable solution that won't need constant revisiting and discussion.

#### **Justification for the Modification**

Should the Modification not be implemented then the UIG uncertainty and risk to Shippers and Suppliers will continue, especially when there is a change of AUGE, as any future AUGE may choose a different allocation methodology, which could cause an even bigger swing in the UIG allocation factors than was experienced by the last change of AUGE. UIG is being allocated largely based on the views and opinions of a few people as to the best analytical method to be employed, and on the level of each cause of UIG, without any concrete evidence to back these views up.

Should the Modification not be implemented there will be numerous further gas industry meetings, discussions, etc., on the subject when the industry's time could be much better spent addressing other initiatives, such as the decarbonisation of the gas network.

The proposal doesn't intend to change the calculation of UIG but to create greater stability in the allocation on an ongoing basis.

## 4 Code Specific Matters

### Reference Documents

A link to the output from Request 0781R Workgroup is here: [0781R - Review of the Unidentified Gas process | Joint Office of Gas Transporters \(gasgovernance.co.uk\)](#)

A link to a presentation given by Elexon to the 0781R workgroup on the explanation of the electricity GSP group correction factors is included here: [Group Correction Factors \(GCFs\) \(gasgovernance.co.uk\)](#)

## 5 Solution

The solution is that the annual AUGE process and statement production will cease to exist and that the UIG table will be permanently set with the same factor allocated to all EUCs and Class types. A link to the current table is here: [AUG Table for 2022\\_23\\_Final.pdf \(gasgovernance.co.uk\)](#)

### Business Rules

1. The requirement for the AUGE to prepare the AUG Statement and AUG Table for recommendation to the UNC Committee for each AUG Year as per UNC TPD E clause 9, will cease to exist. The CDSP Direct Function as per UNC TPD E clause 1.14 to appoint an AUGE and manage the AUGE ~~contract will be discontinued. Contract will cease and the CDSP will discontinue the service from the next break point in the contract following approval of the modification.~~
2. The UIG table will remain in the UNC. All LDZ System Exit Points will have an allocation factor of one. This will apply across all combinations of EUCs and classes, belong to the same category and the allocation factor in respect of the category should be one (1). This means all EUCs and class combinations will be populated with the same factor (expected to be 1) so that all have the same allocation factor. This will mean that UIG is allocated based on throughput.
- ~~3. The UNC Committee will make a decision by simple majority as to whether any annual AUGE process that is underway at the point of implementation of the modification will continue as normal for the remainder of the AUGE's contractual year.~~
- 4.3. The AUG Table in place at the date of implementation will be superseded by the AUG table in Annex 1 below which has the same allocation factor of 1 for each EUC and Class combination.
- 5.4. The revised AUG table can commence in any month during the year, but it must be on the 1<sup>st</sup> day of the month. No two different tables can be in place for any period during a single month.
- 6.5. For clarification, ~~T~~he AUG table in annex 1 will be added to the UNC TPD Section E. There is a requirement to keep an AUG table as there are references in paragraph 1 of Section E to energy volumes adjusted by the AUG table and these adjusted volumes then feed into other sections of the UNC. Therefore, to remove the AUG table and these adjusted volume definitions would require significant legal text changes to a number of sections of the UNC.
- 7.6. For clarification, the Framework for Appointment of the AUGE is a UNC TPD Related Document and should be removed as an output of this Modification.

## 6 Impacts & Other Considerations

### Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

This Modification does not impact a SCR or any other industry projects.

### Consumer Impacts

The Modification is likely to reduce supplier risk premiums and make it easier for customers to understand how UIG is allocated. Also, some consumers are subject to a direct charge for what is currently a fluctuating UIG factor and this modification will reduce this uncertainty.

### What is the current consumer experience and what would the new consumer experience be?

- It is not anticipated that the current customer experience will change. However, the Modification will allocate UIG differently compared to the AUGÉ.

Impact of the change on Consumer Benefit Areas:	
Area	Identified impact
Improved safety and reliability	None
Lower bills than would otherwise be the case Potentially lower price premium from suppliers for UIG uncertainty and lower industry costs due to the lack of AUGÉ process and industry meetings on the UIG table.	Positive
Reduced environmental damage Depending on the solution chosen for hydrogen gas, a throughput allocation for UIG may be easier to implement as without this Modification a separate UIG table for hydrogen customers may be required.	Positive
Improved quality of service	None
Benefits for society as a whole	None

### Cross-Code Impacts

The legal text solution chosen will not impact the IGT UNC or any other code.



### EU Code Impacts

None.

### Central Systems Impacts

None, as it is anticipated that the Modification will only require an update to the factors in the UIG allocation table in the Central Data Service Provider's (CDSP's) systems. The Modification will require the factors to be set to the same value rather than them being updated annually to reflect the values in the final AUGE table for each gas year.

However, there may be an impact on the CDSP due to the requirement to terminate the AUGE arrangements and contract which might have a one off cost impact.

## 7 Relevant Objectives

### Impact of the Modification on the Transporters' Relevant Objectives:

Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None
c) Efficient discharge of the licensee's obligations.	None
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Positive
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	Positive
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

#### Relevant Objectives

d) A more stable and consistent UIG allocation will lower the UIG risk to Shipper Users and Suppliers and maintain cost stability which should support increased competition.

f) The removal of the AUGE and the whole annual industry process around the UIG table will lower industry costs and make administration of the gas allocation process to Shipper Users more efficient.

## 8 Implementation

It is not anticipated that there will be any significant implementation costs for any parties as the Modification is only updating the table of UIG factors.

The Modification should be implemented on 01 October 2024 if a decision to implement is issued by 30 June 2024; 01 January 2025 if a decision to implement is issued by 30 September 2024. If a decision to implement is issued after 30 September 2024, then on the 1<sup>st</sup> day of the month that is 3 full months after the decision is made.

## 9 Legal Text

### Text Commentary

This modification will require most of Section E paragraph 9 (Unidentified Gas – Allocation Factors) to be removed. Annex E1 will need to be amended to include the table of the fixed allocation factors.

### Text

Legal Text to be provided.

## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Authority Direction should apply.  
Refer this proposal to a Workgroup for assessment.

### Annex 1 – Fixed UIG Table

The fixed UIG table, with each combination of EUC and Class having a factor of 1, is shown below. ~~All LDZ System Exit Points will belong to the same category and the allocation factor in respect of the category should be one (1).~~

EUC	Class 1	Class 2	Class 3	Class 4
1ND	1	1	1	1
1PD	1	1	1	1
1NI	1	1	1	1

**Commented [ER1]:** Suggest adding this additional wording for clarity which was in Code at Nexus implementation.

**Joint Office** of Gas Transporters

1PI	1	1	1	1
2ND	1	1	1	1
2PD	1	1	1	1
2NI	1	1	1	1
2PI	1	1	1	1
3	1	1	1	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1