

Identification and Apportionment of Costs of Unidentified Gas

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Overview

Reconciliation by Difference (RbD) is a methodology for reconciling the difference between allocated and actual energy consumed by Small Supply Points (SSPs).

This Impact Assessment provides quantitative and qualitative assessment of five Modification Proposals attempting to instigate a mechanism for better distributing the costs associated with RbD across the industry and to assess the underlying causes of Unidentified Gas.

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Context

Reconciliation by Difference (RbD) was introduced following the introduction of competition to the domestic gas market, as an alternative to individual meter point reconciliation. RbD was established to manage errors in the allocation of gas to shippers in the Small Supply Point (SSP) market. Such errors may be caused by theft or gas offtaken at late registered or unregistered sites.

RbD allocates gas that is not otherwise attributed to a shipper (Unidentified Gas). However, it is now clear that energy allocation errors may also arise in the Large Supply Point Sector (LSP) and there is concern that any such errors are being incorrectly attributed to the SSP sector.

The purpose of this Impact Assessment is to seek views on our quantitative and qualitative assessment of five Modification Proposals to the UNC which aim to improve the equity of the allocation of Unidentified Gas between sectors in the gas market.

Associated Documents

- Final Modification Report on UNC Modification Proposals 194 and 194A:
<http://www.gasgovernance.com/NR/rdonlyres/4BCA6080-AB94-4E1D-8F76-BF7BC8AEDD8D/29877/01940194AFinalModificationReportv20.pdf>
- Final Modification Report on UNC Modification Proposals 228 and 228A:
<http://www.gasgovernance.com/NR/rdonlyres/8BC5D13D-A559-4FC6-8096-37FA6A9D75B1/32888/02280228AFinalModificationReportv20.pdf>
- Final Modification Report on UNC Modification Proposal 229:
<http://www.gasgovernance.com/NR/rdonlyres/32F9615B-DDB8-44D0-B13E-35460C0F92DD/35118/0229FinalModificationReportv20.pdf>
- Ofgem decision on UNC Modification Proposals 115 and 115A, October 2007:
<http://www.gasgovernance.com/NR/rdonlyres/6CCDB58B-AB98-4CB5-A97E-D2CA300995AC/20937/01150115AOfgemDecision.pdf>
- Ofgem Review of Reconciliation by Difference, March 2006:
http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/13487-RbD_FinalV1.1.pdf

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Summary

This document is an Impact Assessment (IA) for UNC Modification Proposals 194, 194A, 228, 228A and 229. Collectively, these proposals seek to address the equity of the allocation of gas which cannot be identified as being the responsibility of any one shipper.

Modification Proposals within scope of this IA

British Gas Trading (BGT) raised UNC Modification Proposal 194 (UNC194) in September 2008. The proposal seeks to introduce an RbD Allocation Table to the UNC which would apportion a percentage of Unidentified Gas to the Small Supply Point (SSP), Non-Daily Metered (NDM) Large Supply Point (LSP) and Daily Metered (DM) LSP sectors. The proposal did not seek to populate this table with values. Such values were intended to be added and amended by further modifications to the UNC.

Corona Energy raised UNC Modification Proposal 194A (UNC194A) as an alternative proposal to UNC194 in September 2008. The proposal seeks to introduce a table to the UNC which would apportion a fixed volume of Unidentified Gas to the NDM LSP and DM LSP sectors. As with UNC194, such values to populate this table were intended to be added and amended by further modifications to the UNC.

BGT raised UNC Modification Proposal 228 (UNC228) in December 2008. The proposal seeks to populate the RbD Allocation Table introduced under UNC194 with percentage values to reflect the expected distribution of Unidentified Gas to each industry sector and to introduce a methodology to arrive at those values.

ScottishPower raised UNC Modification Proposal 228A (UNC228A) as an alternative proposal to UNC228 in December 2008. The proposal seeks to populate the Large Supply Point Unidentified Gas Allocation Table introduced under UNC194A with a fixed volume of gas, and to introduce a methodology to arrive at this fixed volume.

Shell Gas Trading raised UNC Modification Proposal 229 (UNC229) in May 2009. UNC229 seeks to introduce a table broadly in line with that envisaged by UNC194A and to introduce an independent expert to apportion values within this table.

Initial Assessment of Modification Proposals within scope of this IA

We consider that the appointment of an independent third party expert to investigate Unidentified Gas has merit. It offers the opportunity to create a resourced, independent agent empowered to create a fully researched and replicable methodology, based on historical data, to determine the causes of Unidentified Gas and apportion it to Shippers, and to create a process upon which a methodology could be revised, improved and repopulated with new data on a regular basis. We consider that this would represent an improvement on the existing 100% allocation to the SSP sector or the submission of revised allocations via future Modification Proposals as envisaged under UNC228 or UNC228A. For these reasons we are

mind to accept UNC229. We welcome the views of respondents on whether governance through the UNC Committee will provide an adequate opportunity for disputes to be resolved or to be raised with Ofgem.

There exists little available research on the causes of Unidentified Gas. The proposers of UNC228 and UNC228A have stated that the values which populate the Modification Proposals are based on data provided by xoserve to the Development Group. However, we consider that these proposals do not provide an explicit and traceable methodology for distributing Unidentified Gas. Given this, we consider that we have not been given sufficient evidence that either of these Modification Proposals would better facilitate the relevant objectives of the UNC. In addition, the proposals do not offer any specific mechanism for updating this analysis in the future, other than by further Modification Proposals. For these reasons we are minded to reject UNC228 and UNC228A.

We consider that whilst an allocation table such as that introduced by UNC194 would allocate all risk from seasonal variations in RbD charges between industry sectors, under existing contractual arrangements employed by shippers in the LSP sector this may not allow these costs to be passed on to customers in the short term. For this reason we are minded to reject UNC194.

Whilst the allocation table as proposed by UNC194A does not share the risk from seasonal variation of Unidentified Gas between sectors, it offers an improvement on the current baseline in that it recognises that some unidentified gas originates in the LSP sector.

However, UNC194A specifies that the distribution of Unidentified Gas and further changes to this distribution should be determined by future Modification Proposals, and therefore does not offer some of the benefits offered by UNC229, as outlined above. We consider that whilst UNC194A better meets the terms of the relevant objectives of the UNC than the current arrangements, we consider that the route offered by UNC229 has greater merit. For this reason we are minded to reject UNC194A.

As all RbD charges are currently applied to the SSP sector, any charges which are passed through to the LSP sector in future should be met by reduced charges to the SSP sector. We expect that, ultimately, consumers should benefit from fairer charging as a result of reduced cross subsidy between sectors.

All Modification Proposals considered by this IA seek to reallocate rather than introduce measures to reduce the total volume of Unidentified Gas charged to RbD. We recognise that in the short term this is likely to increase costs in the LSP sector and reduce costs for the SSP sector. We consider that if this allocation accurately reflects the distribution of the underlying causes of these costs, this will represent a fairer allocation of costs to customers.

We welcome the views of respondents on our assessment of the Modification Proposals.

1. Introduction and Background

Chapter Summary

This chapter provides an introduction to the history of RbD and the issues surrounding the Modification Proposals within scope of this document.

Allocation of gas between shippers

1.1. Prior to offtake by individual supply points, gas is transported around a network of pipelines operated by Gas Transporters (GTs). To ensure that the system operates effectively, the quantity of gas entered into and taken off a distribution network must be balanced. This is complicated by the large number of supply points (SPs)¹ and the difficulty in effectively monitoring offtake at each of these points.

1.2. Current market arrangements for the GB gas market work on the principle of daily balancing. On a day-to-day basis, only the total amount of gas consumed at Local Distribution Zones (LDZs) and the consumption of DM sites is known with any certainty. Daily gas consumption for the non-daily metered sites is estimated through a combination of algorithms and site categorisation, based on historical consumption patterns and estimates of annual consumption based on historical usage known as Annual Quantities (AQs).

1.3. Gas is allocated to SPs by measurement of the sum of the annual consumption of a site. The SP's AQ is the sum of the total annual consumption of all meters on a site. A consumption profile will be applied to this AQ to determine an estimate of the course of consumption at a particular SP.

1.4. Gas is reconciled by metering the total volume flowing into an LDZ from the National Transmission System (NTS) on a daily basis, along with changes in stocks from regional storage. An allowance is also made for LDZ shrinkage, to reflect gas lost from the NTS or used by the system operator (SO). The quantity of gas lost to shrinkage and withdrawn from local storage stocks is deducted from this metered value, as is gas consumed by customers at DM SPs.

1.5. The residual amount of gas is then allocated between NDM SSPs and LSPs on the basis of their AQ of gas consumed, and End User Category (EUC) of the SP (essentially a profile showing the pattern of gas consumption over time). The AQ and EUC are combined to develop an estimate of gas consumed over time.

¹ In April 2009, total supply points numbered 21.2 million in the SSP sector, and 330,000 in the LSP sector. See Appendix 2 for details.

1.6. Initially gas consumption for any given day at NDM sites is calculated by subtracting DM consumption and shrinkage from total GB consumption. This NDM consumption is split between predominantly domestic SSP² NDM customers and LSPs, which are predominantly Industrial and Commercial (I&C) sites.

1.7. LSPs generally have their meters read on a relatively frequent basis, either monthly or annually. Information from these meter readings showing the actual consumption of LSP consumers will be compared with deemed consumption, and a shortfall or excess of consumption based on these deemed values will result in a shipper being credited or invoiced for a monetary sum equivalent to this difference. This process is known as Meter Point Reconciliation.

1.8. DM LSP sites may be charged for the gas they use on a daily basis and often have complex contractual arrangements with suppliers which allow them to vary demand at times of high commodity prices. NDM LSP customers may also have contractual arrangements with suppliers to enable the pass-through of existing costs (for instance the cost of the existing shrinkage arrangements).

Reconciliation by Difference (RbD)

1.9. RbD is the method of reconciling the difference between actual (metered) and deemed (estimated) measurements of gas. It was introduced in 1998 in order to facilitate competition in the SSP sector, as at the time it was not considered practical to individually reconcile all supply points in this sector (which numbered around 20 million on average during 2008) based on actual meter readings. The introduction of RbD was designed to offer an efficient mechanism for reconciling consumption in the LSP sector to that in the SSP sector, as a cost-efficient alternative to individual meter point reconciliation for each SSP consumer, which would require development of an extensive system at considerable cost.

1.10. RbD allows an opposing debit or credit to the SSP sector equivalent to the sum of gas credited or debited to LSP shippers through Meter Point Reconciliations. This represents an attempt to reconcile the misallocation of consumption based on differences in the frequency of meter readings between the two sectors, by assuming that gas not consumed by LSPs will therefore have been consumed by SSPs.

1.11. As costs associated with RbD are unattributed to any individual shipper, they are shared by the SSP sector. Costs are 'smeared' or allocated to individual shippers

² SSPs and LSPs are volume based classifications. NDM supply points which consume more than 73,200KWh per annum are classified as LSPs, with supply points consuming less than this being classified as SSPs. Some very small I&C businesses may fall into the SSP classification; similarly, some very large domestic properties may be classified as LSPs. Sites consuming over 732,000KWh per annum are classified as DM supply points and will have appropriate metering equipment fitted.

depending on market share. Under the present arrangements, RbD is smeared according to a shipper's share of total SSP AQ.

RbD and Unidentified Gas

1.12. It is apparent that some consumption of gas which is not allocated to any one shipper may occur in sectors other than the SSP sector. In its response to UNC Modification Proposals 115 and 115A, Ofgem stated "we agree... that it is inappropriate for one sector of the gas market to bear all costs of unallocated gas".³

1.13. At present, the RbD mechanism is in effect used as a balancing item to amortise charges for gas which are not associated with one particular shipper. For this reason, many items which are included within RbD charges reflect a number of differences caused by factors including gas offtaken at unregistered sites, meter error and theft, rather than reconciliation between the difference in gas legitimately consumed by LSPs and SSPs and consumption estimated by their AQs.

1.14. The difference between metered gas offtaken by SSP and LSP shippers and that estimated by AQ charges which is charged to SSP shippers through the RbD mechanism therefore reflects a composite of several different factors. Gas lost to factors such as theft and unregistered sites will reflect a charge to the RbD mechanism. Reconciliation of differences between metered values and AQs in the LSP sector may result in a charge or credit to the RbD mechanism (depending on whether metered offtake at LSP sites is less than or exceeds the AQ estimates for those sites, respectively). At present, this charge is smeared solely amongst shippers in the SSP sector, regardless of the provenance of this Unidentified Gas.

1.15. For the purposes of this document, we use the term Unidentified Gas to refer to all gas which is not allocated to an individual shipper. We use the term RbD to refer to the process under which Unidentified Gas is attributed between shippers.

Previous decisions made by Ofgem

UNC Modification Proposals 115 and 115A

1.16. UNC Modification Proposal 115 (UNC115) was proposed by BGT on 8 March 2007. It proposed that RbD charges should be applied to all NDM SPs. An alternative, UNC Modification Proposal 115A (UNC115A), was proposed by Gaz de France ESS (GdF) on 19 April 2007. UNC115A proposed that RbD charges should be applied to all

³ Ofgem decision on UNC Modification Proposals 115 and 115A at <http://www.gasgovernance.com/NR/rdonlyres/6CCDB58B-AB98-4CB5-A97E-D2CA300995AC/20937/01150115AOfgemDecision.pdf>

NDM SPs below a certain consumption threshold. Both proposals were rejected by Ofgem on 25 October 2007. Further assessment of UNC115 is provided in Appendix 8.

UNC Modification Proposal 232

1.17. UNC Modification Proposal 232 (UNC232) was raised by Total Gas and Power Ltd on 14 October 2008. It proposed that the existing Shrinkage methodology be expanded to cover Unidentified Gas, including late confirmations, unregistered and orphaned sites, shrinkage errors not accounted for by the transporters' allowance and theft. These new shrinkage costs would be recovered from shippers via GDN distribution charges. The Proposal was withdrawn on 4 February 2009. Further assessment of UNC232 is provided in Appendix 8.

Structure of this document

1.18. Chapter 2 considers the terms of each of the Modification Proposals within scope of this IA. Chapter 3 discusses the impact of these Proposals upon consumers, and provides some quantitative analysis of the predicted impact upon individual sectors. Chapter 4 assesses Ofgem's view of the impact of these proposals upon competition. Chapter 5 and 6 provides Ofgem's view of the likely impact upon Sustainable Development and Health and Safety respectively. Chapter 7 is an assessment of the possible risks associated with implementing these proposals. Chapters 8 and 9 assess other possible impacts and the requirements for further review. Finally, Chapter 10 provides conclusions and Ofgem's present Minded To decision. The remainder of the document consists of appendices.

2. Modification Proposals

Chapter Summary

This chapter summarises the UNC Modification Proposals within the scope of this IA. It sets out the views of the UNC Panel on each of the Modification Proposals. Finally, it sets out quantitative analysis on the potential impact of UNC228 and UNC228A.

Modification Proposals within scope of this IA

2.1. Following Ofgem's decision on UNC Modification Proposal 115 and 115A, UNC Modification Proposals 194, 194A, 228, 228A and 229 have been raised to address the allocation of Unidentified Gas within the UNC.

2.2. Given the interrelated nature of many of these proposals, Ofgem has elected to consider the potential impact of each of the proposals in a single Impact Assessment. The proposals included in this IA are summarised below.

UNC Modification Proposal 194 (UNC194)

2.3. UNC194 was raised by BGT on 16 September 2008. The proposal seeks to establish a framework to facilitate the identification of causes of RbD error, to identify the extent to which differing market sectors contribute to this error, and to enable reallocation of this error to the relevant sectors. UNC194 does not seek to establish the values to apportion the reallocation of this error. These will be introduced and amended by future modifications.

2.4. UNC194 seeks to reallocate energy based on the view that Unidentified Gas attributed to the SSP sector under the existing RbD process is not solely a function of NDM Reconciliation, and that the majority of energy associated with RbD is caused by a number of 'measurement errors'.

2.5. UNC194 argues that it is undesirable for one market sector (at present the SSP sector) to bear the entire cost of these measurement errors as these will be caused by factors in both the SSP and LSP sectors. The proposal cites a number of 'measurement failures' that it claims are applicable to all NDM sites. These errors include;

- LDZ Offtake metering errors;
- Shrinkage;
- Independent Gas Transporter network reconciliation;
- Unregistered, unconfirmed and unrecorded sites;
- Supply point metering bias; and
- Theft and meter bypasses.

2.6. UNC194 seeks to introduce an 'RbD Allocation Table' into the UNC, and to amend the UNC to allocate unidentified energy in accordance with the values which populate this table. The table envisaged by UNC194 would form a matrix comprising these six contributory factors to measurement error (noted above), and five classifications of industry sector.⁴ Two of these sectors relate to sites equipped with Remote Meter Reading Equipment. The table is proposed to form an annex to the Transportation Principal Document (TPD) Section E of the UNC.

2.7. This table would be used as the framework to calculate the proportion of Unidentified Gas which may be attributed to each type of measurement error, and the proportion allocated to each industry sector in each of those types of measurement error. UNC194 leaves open for further consideration how frequently reconciliation would be performed to allocate RbD quantities to supply points.

2.8. UNC194 does not include a direct instrument to provide incentives to reduce the amount of Unidentified Gas in RbD. However, the Proposer believes that the existence of such a matrix would provide an incentive on LSP shippers to reduce their contribution to Unidentified Gas through exposure to an element of the current RbD charges. As UNC194 does not include any proposed values to populate the table it would not change the levels of contribution made by each industry sector. Hence the proposed RbD Allocation Table would initially include a 100% allocation to the SSP sector.

Advanced Metering Technology

2.9. UNC194 argues that sites which possess advanced metering technology should be treated as a distinct and different classification for NDM sites within the LSP and SSP sectors. Such technology enables continuous or near-continuous monitoring and more accurate recording of usage, and therefore the potential for more frequent AQ updates. The table envisaged by UNC194 allows supply points equipped with such meter products to be charged separately for Unidentified Gas in the future.

UNC Modification Proposal 194A (UNC194A)

2.10. UNC194A was raised by Corona Energy Ltd as an alternative to UNC194 on 25 September 2008. The proposal seeks to apportion fixed volume of Unidentified Gas to the LSP sector.

⁴ The industry sectors suggested by the table in UNC194 are SSP, NDM LSP, and DM LSPs, plus SSPs and LSPs which are metered using remote meter reading equipment. Due to the low incidence of remote meter reading at present, it is anticipated that these classifications will be unused until remote meter reading becomes more widespread.

2.11. The Proposer contends that it is "illogical" for a variable proportion of Unidentified Gas to be apportioned to the LSP sector, as envisaged under UNC194, and argues that it is inappropriate to assume that the quantity of Unidentified Gas varies with RbD. It cites Ofgem's GDPCR consultation⁵ to illustrate the lack of correlation between shrinkage and throughput in existing gas networks. For this reason UNC194A proposes to allocate a fixed quantity of gas to the LSP sector, relating to gas which can be clearly identified with that sector, rather than allowing for a matrix system to be created in which a variable quantity of Unidentified Gas is distributed between industry sectors.

2.12. UNC194A proposes to introduce a 'Large Supply Point Unidentified Gas Allocation Table' as an appendix to Section E of the UNC. This table would be used as the framework to apportion an annual fixed volumetric quantity of gas to the LSP NDM and LSP DM sectors. This gas would then be charged to shippers according to their share of total AQs within these sectors. The remaining RbD volume would then be charged to the SSP sector as is currently the case.

2.13. As with the RbD Allocation Table proposed by UNC194, the initial iteration of the table would allocate zero volumes to the LSP sector, with the intention that following implementation the values within the table would be populated by further Modification Proposals. Implementation is proposed to follow the timetable for announcement of LDZ transportation charges, which would allow LSP shippers to amend their contracts with customers to reflect the values in the Large Supply Point Unidentified Gas Allocation Table.

2.14. The proposed Large Supply Point Unidentified Gas Allocation Table would include four categories of Unidentified Gas, namely:

- Late confirmation, orphaned and unregistered sites;
- Late confirmation, unregistered and orphaned IGT sites;
- NDM shrinkage contribution; and
- Theft and unreported open meter bypass valves.

2.15. UNC194A proposes that a monthly charge would be levied on Users as one-twelfth of the total volume within this table, multiplied by a rolling average of the system average price (SAP). This charge would then be credited to the SSP sector based on market share in that sector.

⁵ "Gas Distribution Price Control Review Final Proposals" at <http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf>,

UNC Modification Proposal 228

2.16. UNC228 was proposed by BGT on 18 December 2008. UNC228 seeks to build on the framework identified in UNC194 by populating the RbD Allocation Table proposed under UNC194 with values. UNC228 replicates the RbD Allocation Table proposed under UNC194 as an annex to TPD Section E of the UNC, and for this reason UNC228 may be considered as a 'stand alone' proposal and is not contingent on acceptance of UNC194. UNC228 introduces values to the table to apportion a percentage of Unidentified Gas to the SSP, LSP NDM and LSP DM sectors, and also produces a methodology to calculate the charge made to RbD between industry sectors due to read submission issues ("genuine reconciliation"). This percentage would then be used to allocate the monthly RbD charge to each sector. The calculations made within UNC 228 are based upon data supplied to UNC Development Work Group 194 (henceforth the Development Group) by xoserve. Any further changes to the values in the table would need to be made by new Modification Proposals.

2.17. UNC228 identifies theft as the greatest contributory factor to RbD. The Proposer argues that the "current arrangements are deficient as they do not utilise the allocation of costs generated by [RbD] to incentivise their resolution".⁶

2.18. Analysis presented by xoserve identifies the number of detections and allegations of theft by industry sector. The Proposer notes that "it is widely accepted that the level of detected theft is not reflective of the level of actual theft".⁷

2.19. UNC228 notes that there is a level of RbD error which cannot be apportioned to any of the causes of Unidentified Gas (including "genuine reconciliation"), and suggests that this error should be apportioned using the methodology for apportioning theft as a "balancing factor". UNC228 proposes that over 76% of Unidentified Gas should be attributable to the theft category.

2.20. Discussions on the development of UNC228 considered three options for apportioning Unidentified Gas in the theft category. Each option comprises both actual theft and a 'balancing factor' to account for gas not otherwise allocated in the table. These methodologies are summarised in Appendix 3. The route taken by the Modification Proposal uses a mean of the percentage of allegations and percentage of detected theft present in each sector (Option 3 in Appendix 5), on the basis that this presents "a more conservative approach". This would apportion 29.35% of

⁶ UNC Modification Proposal 228 at <http://www.gasgovernance.com/NR/rdonlyres/8BC5D13D-A559-4FC6-8096-37FA6A9D75B1/32888/02280228AFinalModificationReportv20.pdf>

⁷ UNC228, p8

Unidentified Gas in the theft category to the LSP sector and 70.65% to the SSP sector.⁸

2.21. The total apportionment of energy to the LSP and SSP sectors suggested under UNC228 is reproduced in Appendix 4.

UNC Modification Proposal 228A (UNC228A)

2.22. UNC228A was proposed by ScottishPower on 24 December 2008. UNC228A seeks to introduce a distribution of Unidentified Gas to a Large Supply Point Unidentified Gas Allocation Table as proposed in UNC194A. UNC228A also seeks to introduce a LSP Unidentified Gas Allocation Table into the UNC, and therefore is not dependent on the successful implementation of UNC194A. Any further changes to the values in the table would need to be made by new Modification Proposals.

2.23. As under UNC194A, the proposed LSP Unidentified Gas Allocation Table allocates a fixed volume of Unidentified Gas to the LSP NDM and LSP DM sectors across four categories: Unconfirmed Sites, IGT Issues, LDZ Shrinkage and Theft.

2.24. The values used to populate the LSP Unidentified Gas Allocation Table in UNC228A are produced by applying the percentage distribution introduced in UNC228 to a fixed annual RbD volume, in this case 10.03TWh. The relevant distribution of Unidentified Gas to the LSP sector from the RbD Allocation Table in UNC228 is applied to the four categories of Unidentified Gas in the LSP Unidentified Gas Allocation Table in UNC228A, with Theft and Unreported Open Meter Bypass Valves again acting as the 'balancing item'. The resulting volumes are used to populate the LSP Unidentified Gas Allocation table.

2.25. The value of 10.03TWh is calculated as the total volume of Unidentified Gas incurred during the gas year from 1 October 2007 to 30 September 2008. The Proposal states total RbD for this period as being 11.8TWh, with 1.77TWh being calculated as 'genuine error' (see Chapter 2) using the methodology in both UNC228 and UNC228A. However, this figure of 11.8TWh does not exactly match the same twelve month period in the Reconciliation Quantity (RQ) volumes provided to Ofgem by xoserve (Appendix 2).

2.26. The methodology employed by UNC228A for attributing Unidentified Gas lost to theft is the same as that under Option 3 in UNC228. UNC228A applies the percentage distribution of energy in this option to a volume of all residual error which is not attributed to any of the other three categories in the LSP Unidentified Gas Allocation Table. The table as proposed by UNC228A is contained in Appendix 3.

⁸ We consider the data used to calculate this apportionment to be insufficiently transparent. Further discussion is contained in Chapter 4.

UNC Modification Proposal 229 (UNC229)

2.27. UNC229 was proposed by Shell Gas Traders Ltd on 20 May 2009. It proposes that the UNC be modified to provide for the appointment of an independent expert to determine the allocation of Unidentified Gas.

2.28. UNC229 seeks to create a new UNC Related Document, outlining the guidelines for the appointment of an Allocation of Unidentified Gas Expert (AUGE). The AUGE would collect the requisite information to produce an Allocation of Unidentified Gas Statement (AUGS), which would allow for a fixed volume of gas to be allocated to the LSP sector, in a similar fashion to the LSP Unidentified Gas Allocation Table introduced by UNC194A.

2.29. The table proposed by UNC229 includes a greater range of potential causes of Unidentified Gas than proposed under UNC194A, with the intention that the AUGE would determine the extent of the Unidentified Gas from each of these categories originating from the LSP sector. Initially therefore the table as introduced at implementation of UNC229 would be populated with zero values, in the same manner as tables introduced by UNC194 and UNC194A.

2.30. A key difference between UNC229 and the other proposed modifications is that the table would be populated according to values provided by the AUGE, reviewed at appropriate intervals and would not require further modifications to amend the values. The values provided by the AUGE would be supported by evidence, and no User would be able to influence such this work but would have a right of appeal to Ofgem in the event that the third party had not followed their mandate.⁹ Any changes to the LSP Unidentified Gas Allocation Table proposed by the AUGE would be implemented in the following gas year.

2.31. The AUGE would be appointed by the UNC Committee (UNCC), and would be employed by GTs at cost to those shippers that have supply point exit capacity.

View of the Modification Panel**UNC194 and UNC194A**

2.32. At the Modification Panel meeting held on 20 November 2008, of the eight Voting Members present, capable of casting ten votes, three votes were cast in favour of implementing UNC194. Therefore the Panel did not recommend implementation of this Proposal. At the same meeting, seven votes were cast in

⁹ UNC Modification Proposal 229 at <http://www.gasgovernance.com/NR/rdonlyres/32F9615B-DDB8-44D0-B13E-35460C0F92DD/35118/0229FinalModificationReportv20.pdf>, p2

favour of implementing UNC194A. Therefore the Panel recommended implementation of UNC194A.

2.33. The Panel then proceeded to vote on which of the two Proposals would be expected to better facilitate achievement of the Relevant Objectives.¹⁰ Of the eight Voting Members present, capable of casting ten votes, one vote was cast in favour of implementing UNC194 in preference to UNC194A, and eight votes were cast in favour of implementing the UNC194A in preference to UNC194. Therefore, the Panel determined that, of the two Proposals, UNC194A would better facilitate the achievement of the Relevant Objectives.

UNC228 and UNC228A

2.34. At the Modification Panel meeting held on 19 March 2009, of the eight voting Members present, capable of casting nine votes, two votes were cast in favour of implementing UNC228. Therefore the Panel did not recommend implementation of this Proposal. At the same meeting, four votes were cast in favour of implementing UNC228A. Therefore the Panel did not recommend implementation of UNC228A.

2.35. The Panel then proceeded to vote on which of the two Proposals would be expected to better facilitate achievement of the Relevant Objectives. Of the eight Voting Members present, capable of casting nine votes, one vote was cast in favour of implementing UNC228 in preference to UNC228A, and five votes were cast in favour of implementing the UNC228A in preference to UNC228. Therefore, the Panel determined that, of the two Proposals, UNC 228A would better facilitate the achievement of the Relevant Objectives.

UNC229

2.36. At the Modification Panel meeting held on 18 June 2009, of the 10 Voting Members present, capable of casting 10 votes, 5 votes were cast in favour of implementing this Modification Proposal. Therefore the Panel did not recommend implementation of UNC229.

Quantification of total impact on LSP and SSP sector under different regimes

2.37. Whilst UNC194, UNC194A and UNC229 introduce an unpopulated table for allocating Unidentified Gas between industry sectors, UNC228 and UNC228A attempt to populate these tables with values based on data made available to the Development Group.

¹⁰ UNC Relevant Objectives at <http://www.gasgovernance.co.uk/UNC>

2.38. We have attempted to quantify the potential distribution effect of these proposals using historic volume and price data provided to us by xoserve for the years 2007 and 2008. xoserve data relating to the monthly gas volume charged to RbD and the cash value of this volume is summarised in Appendix 2.

2.39. It should be noted that some values provided by the Proposers of UNC228 and UNC228A are difficult to reconcile to those provided to the Development Group. Examples are illustrated in Chapter 3. The potential impact upon competition will vary according to the values which populate differing proposals.

Allocation of RbD to industry sectors under UNC228 and UNC228A

2.40. UNC228 considers a range of possibilities for dealing with theft (which under the terms of the proposal, is regarded as a 'balancing item'). UNC228 identifies theft (including this 'balancing item') as comprising 76.4% of total RbD charge. Treatment of theft will therefore have a significant effect on the impact of the proposals on differing industry sectors. UNC228A applies this analysis to a table as proposed by UNC194A, converting the percentage distributions in UNC194 to a fixed volume by applying the total RbD volume less 'genuine reconciliation'.

2.41. Table 1 shows Ofgem's estimate of the potential impact upon each industry sector based on the route proposed by UNC228 and UNC228A. We have simply applied the percentages based on the treatment of theft outlined by UNC228 to the monthly cash values of RbD reconciliation provided by xoserve (and summarised in Appendix 2). Based on 2008's charge to RbD, it reflects a charge of £50 million to the LSP sector. This is a marked increase from the previous year's figure of £30 million (largely a reflection of the higher SAP value for gas in 2008).

2.42. We estimate that the distribution of energy envisaged under UNC228A would result in a net transfer to the SSP sector from the LSP sector of £58 million based on the average monthly SAP in 2008 and a similar transfer of £30 million based on average monthly SAP in 2007. Again, this reflects the increase in the value of SAP between the two years analysed. This estimate is derived applying the monthly average SAP to a one-twelfth share of the annual volume in the Large Supply Point Identified Gas Allocation Table proposed under UNC228A.

Table 1: Estimated RbD charge to each sector based on distributions proposed under UNC228, 2007 -2008

| £ | 2007 | | | 2008 | | |
|------------------------|------------|------------|--------|-------------|------------|---------|
| | SSP | LSP NDM | LSP DM | SSP | LSP NDM | LSP DM |
| UNC228 Option 3 | 91,242,461 | 30,815,138 | 69,613 | 147,375,470 | 49,772,829 | 112,439 |
| UNC228A | 92,077,683 | 29,991,761 | 57,768 | 139,256,880 | 57,892,350 | 111,508 |

Source: xoserve, Joint Office of Gas Transporters, Ofgem analysis

3. Impacts on Consumers

Chapter Summary

This chapter examines the likely impact of the Modification Proposals upon consumers. We firstly examine the impact of the proposals on customers' supply charges. We then consider the impact of any incentives to reduce Unidentified Gas on customers. Finally, we review the role that customer representatives would have in continuing to shaping the impact of Unidentified Gas on customers.

Question 1: Do you agree with Ofgem's assessment that the likely impact of the Modification Proposals on charges made to consumers?

Question 2: Do you consider that the proposed governance arrangements under UNC229 offer adequate protection to the interests of consumers in their present form?

Question 3: Do you anticipate any further impact upon consumers in addition to those considered in this chapter?

Impact on customer charges

Current and proposed RbD charges

3.1. At present, all RbD charges are borne by SSP shippers and are allocated based on the share of total SSP AOs of each shipper in the SSP sector. Suppliers recover these costs from customers through their own charging mechanisms. LSP shippers, and therefore customers in the LSP sector, are not allocated any costs associated with Unidentified Gas.

3.2. This section sets out our view of the RbD charges to different customer types and the impact of the proposals under UNC228 and UNC228A. The actual charge imposed on each LSP would vary widely due to the significant differences in levels of consumption amongst large and small LSPs.

3.3. We estimate that the average annual charge to each SSP customer made as a result of the RbD mechanism for the calendar year 2008 was £9.33.¹¹ This calculation is based on an average of the total cash value of RbD charge in each month and number of SSP sites in that month.

3.4. Table 2 indicates Ofgem's estimate of the average annual charge per Supply Point had the differing charging mechanisms proposed under UNC228 been

¹¹ Based on data provided to Ofgem by xoserve (summarised in Appendix 2).

implemented upon the monthly RQ charge using an average monthly SAP for the calendar year 2008. We calculate that the estimated existing charge of £9.33 in 2008 comprises less than 1% of the average annual gas bill for domestic consumers.¹²

Table 2: Potential annual charge to consumers per Supply Point based on 2008 figures

| Proposal | NDM SSP | NDM LSP | DM LSP |
|----------------------------|---------|---------|--------|
| Existing Distribution | £9.33 | - | - |
| UNC228 Option 3 | £6.97 | £157.98 | £3.38 |
| UNC228 Option 1 (rejected) | £5.88 | £231.19 | £3.39 |
| UNC228 Option 2 (rejected) | £8.50 | £55.32 | £3.39 |
| UNC228A | £6.58 | £183.27 | £3.35 |

Source: xoserve, Ofgem analysis

I&C customer contracts

3.5. In their response to UNC194, Corona Energy noted that recovery of these costs from consumers by I&C shippers would be difficult under a regime such as that proposed by UNC228, given the extent of variability in the calculation of RbD. This is further discussed in Chapter 4.

Costs of implementation

3.6. xoserve's analysis on the potential costs of implementing UNC194 indicates that the costs of implementing such a solution would be likely to fall within the range of £110,000 to £360,000. Similar costs should be expected should UNC194A, UNC228 and/or UNC228A require implementation. These costs are relatively small given the likely scale of the proposed redistribution and potential improved accuracy in allocation between customers. We note that these estimates relate to the likely costs of systems implementation and not the possible resource impact upon xoserve of providing data on an ad hoc basis.

3.7. Implementation of UNC229 would be likely to impose higher costs upon the industry, as appointing and resourcing an independent expert would require a more complex process than that incurred under UNC228 or UNC228A. However, the exact extent of these costs could be determined by Users and would vary with the complexity of the solution implemented. These implementation costs would in this instance be borne by shippers and ultimately be passed on to consumers.

¹² Ofgem calculates that the average annual gas bill for consumers on Standard Credit excluding prompt pay discounts in 2008 was £803.99.

Impact of improved incentives on consumers

3.8. The proposals do not attempt to introduce specific incentives to reduce the overall volume of Unidentified Gas. Chapter 4 discusses our view on the extent to which the Modification Proposals provide incentives for shippers to reduce the level of Unidentified Gas.

3.9. To the extent that the proposals provide incentives that lead to a reduction in the volume of Unidentified Gas, then this would reduce the overall charges paid by customers. However, we consider that these incentives are greatly diluted by the lack of specific measures targeted at individual shippers. For this reason benefits to consumers as a whole are likely to be marginal.

3.10. The proposers of both UNC194 and UNC194A argue that the presence of RbD allocation in the LSP sector will incentivise shippers with customer portfolios solely in that sector to reduce the volume of RbD.

Impact of proposals upon consumer representation

3.11. Under the governance arrangements for UNC229 as proposed, decisions may be taken by the UNC Committee which may impact charges made to consumers, without consumer representation on that panel or any recourse to appeal through a Modification Proposal.¹³

3.12. We would expect that re-evaluation of the underlying causes of Unidentified Gas would provide the impetus for shippers to address these causes.

3.13. Ofgem's current Governance Review outlines proposals for increased consumer representation on UNC Panels. Implementation of these proposals would mean that consumer representatives would in future be able to influence decisions regarding the allocation of Unidentified Gas.¹⁴

¹³ At present the consumer representatives may attend the UNCC in a non-voting manner, and the scope for consumer bodies to raise non-information Modification Proposals is limited.

¹⁴ Ofgem: " Code Governance Review – role of code administrators and small participant/consumer initiatives – initial proposals" at <http://www.ofgem.gov.uk/Licensing/IndCodes/CGR/Documents1/Code%20Governance%20Review%20-%20role%20of%20code%20administrators%20and%20small%20participant-consumer%20initiatives%20-%20initial%20proposals.pdf>, p34

4. Impacts on Competition

Chapter Summary

This chapter assesses the likely impact of the Modification Proposals on competition across the shipper and supplier communities. In the chapter we consider the potential impact on competition caused by changes to the distribution of RbD charges levels and their variation. We consider in particular barriers to market entry and the existing contractual arrangements in the LSP market. We review the differing impacts of the proposals on suppliers who operate in one or both of the LSP and SSP sectors. Finally we consider the potential for the proposals to drive down the level of Unidentified Gas.

Question 1: Do you agree with our assessment that any of these Modification Proposals will have an effect upon incentives for shippers to reduce the quantity of Unidentified Gas offtaken at LDZs?

Question 2: Do you agree with our assessment of the likely distributional impact of the Modification Proposals?

Question 3: Do you believe that the potential benefits of the Modification Proposals justify the additional costs which may be imposed on customers?

Question 4: Do you agree that applying a variable RbD charge upon LSP shippers would potentially entail a negative impact upon competition? Do you feel that this potential impact justifies the imposition of a fixed rather than variable charge on LSP shippers?

Question 5: Should any third party authority created under the terms of UNC229 be tasked to review incentives for investigating theft upon individual shippers?

4.1. Ofgem considers that, where possible, the costs of supplying customers should be correctly targeted at the sector that gave rise to these costs.

4.2. We consider that changes to the overall level of charges to the SSP and LSP sectors will impact on new entry and the ability of a supplier to continue to operate in that sector. Predictability in the level of charges is beneficial. This picture is further complicated by differences between those suppliers that operate in both sectors and those that operate in a single sector only.

4.3. We also consider that, where possible parties should have incentives to reduce costs of Unidentified Gas.

4.4. This chapter examines the impact of the proposed modifications in addressing these competition issues.

Impact of level of charges and variability

Overall level of RbD charges

4.5. Any transfer of monies which are presently smeared exclusively amongst SSP customers to LSP customer will present a benefit to SSP customers and additional cost to LSP customers. Since there are fewer LSP customers, the per capita cost to each of these customers is likely to be higher than to domestic SSP customers, but should represent an increase which is proportionate to the size of charges made to individual customers. These charges represent a small but significant decrease in the average SSP bill, but a much larger increase in the average LSP bill.

4.6. The reallocation of charges proposed by UNC228 and UNC228A based on 2008 data is summarised in Table 2 in Chapter 3.

Variation in RbD charges

4.7. Perhaps the most significant difference between the methodologies proposed by UNC194 and UNC194A is the potential for variability in the sums charged to the LSP sector under UNC194. Evidence is limited regarding which classifications of Unidentified Gas introduced by these Proposals may vary with throughput or RbD (see Chapter 2).

4.8. Under the terms of the RbD Allocation Table proposed under UNC194, all risk from variations in the extent of Unidentified Gas is shared between the LSP and SSP sectors. Under UNC194A, all risk from variation in Unidentified Gas remains within the SSP sector. LSP shippers are charged at a fixed volumetric rate for Unidentified Gas.

4.9. The Proposer of UNC194A argues that allocating a fixed quantity of gas to the LSP sector is appropriate as there is no relationship between gas throughput and the quantity of Unidentified Gas charged under the RbD arrangements.

4.10. Whilst UNC228 (as with UNC194) shares all risk from seasonal variations in Unidentified Gas between industry sectors, it is extremely difficult to allocate the totality of Unidentified Gas to any particular sector without making some overlying assumption regarding the provenance of this gas. This creates the risk of erroneous apportionment of Unidentified Gas, which may be detrimental to competition between sectors. As UNC228A utilises the same distribution of theft as UNC228 (albeit applied to a fixed volume of Unidentified Gas), it shares this disadvantage (see Chapter 2).

LSP customer contracts and risk sharing

4.11. At present, LSP shippers incur annual charges for fixed volumes of gas under Gas Transporters' shrinkage arrangements, which are passed through to customers

under the terms of their contracts. The addition of a variable element to LSP shippers' transportation charges to cover RbD carries the risk that such charges would not be recoverable from customers under the terms of current contracts.

4.12. Some respondents to UNC194 and UNC194A argue that the nature of contractual arrangements between LSP shippers and customers will preclude shippers from passing variable costs onto customers, and that this will favour shippers with supply portfolios in both the LSP and SSP sectors, who will in effect be able to continue to pass on any variable element of RbD costs to SSP customers (although this may make shippers operating in both sectors more expensive for SSP customers when compared to SSP only shippers). These respondents argue that requiring shippers in the LSP sector to bear a variable element of implementation of UNC194 and UNC228 will endanger the existence of an independent LSP shipper community.

4.13. We accept that there is an argument that structural differences between the LSP and SSP sectors (most notably the nature of contracting in the LSP sector) may make it difficult for LSP shippers to pass on risk without altering contracts with their customers.

4.14. Whilst we agree that it is not appropriate that all risk of variability should be borne by the SSP sector where it is demonstrated that variable costs originate in the LSP sector, we believe that the potential negative impact upon competition in the short term from this risk will be outweighed by the potential negative impact on competition in the LSP sector which may arise if UNC194 were to be implemented. Whilst we consider that ideally a solution could be realised which would share risk of variation in RbD charge over the short term between all industry sectors, we consider that the nature of current contracting arrangements in the LSP sector may make this difficult without imposing risk upon the independent I&C sector.

4.15. We consider that to require LSP shippers to fundamentally revise contractual arrangements in the short term to take a variable RbD charge into account or to introduce transparency measures to ensure no cross-subsidy takes place between SSP and LSP shippers may be disproportionate given the extent of RbD charges (less than 2% of gas throughput).

4.16. Ofgem considers that this is an important but potentially transitory issue. We consider that SSP suppliers will have priced their products to account for the risk of variation in RbD charges and this will be based on suppliers' modelling of anticipated costs based on historic experience. In the event of a convincing case for the seasonality of Unidentified Gas charges being made, shippers may wish consider revising contracts in the next round of contractual review.

4.17. Were UNC229 to be approved, we consider that even in the case of a fixed volumetric charge made to the LSP sector, any methodology introduced by a third party expert could be sophisticated enough to reflect seasonal load patterns in the volume of gas charged to this sector. However, we recognise this may require a further Modification Proposal.

4.18. We understand that many (if not all) LSP suppliers will not have taken potential RbD costs into account when entering into contracts with customers at present. We would anticipate that future methodologies for distributing Unidentified Gas could examine a means of distributing risk from Unidentified Gas across industry sectors. We consider that, in the future, were an element of variable charges to be introduced into the LSP sector with sufficient notice, those suppliers could adjust their pricing strategies and contractual positions accordingly.

Seasonality

4.19. None of the proposals under consideration present convincing evidence that they have fully taken into account the impact of seasonality or otherwise of Unidentified Gas and associated RbD charges.

4.20. A brief review of the evidence provided on seasonality in relation to RbD is provided in Appendix 3. The volume of gas consumed during the winter months will be higher for SSP customers due to the additional heating load. For LSP customers the consumption profile is likely to be steadier. An allocation of RbD based on volume of throughput, for example as envisaged under UNC194 and UNC228 would not take into account this weighting factor. However, an allocation as envisaged under UNC194A and UNC228A, with its fixed volume of allocation to the LSP sector, may understate this effect.

4.21. We consider it possible that some of the elements which contribute to Unidentified Gas, notably gas lost to theft and gas at unregistered sites, may be seasonal in nature. However, the relationship between seasonality and Unidentified Gas is not fully understood, and the extent of seasonality may vary between different categories of Unidentified Gas.

4.22. Given the possibility of some seasonal element to the Unidentified Gas charged as part of the RbD process, it may not therefore be appropriate on an enduring basis for all risk of seasonal variation in RbD profiles to be borne by one sector. The fixed volumetric allowance of gas charged to the LSP sector under UNC194A will not reflect seasonal changes.

4.23. We note that under UNC229 it may be possible for the AUGE to further consider this issue and account for it in its proposed allocation methodology. However, whether the AUGE will have sufficient data to allow them to do this is by no means certain. Were UNC229 to be approved we consider that this would provide an appropriate framework to assess the underlying contributory factors of RbD and the relative allocation through time between the SSP and LSP sectors.

4.24. In relation to the UNC194A and UNC228A proposals we note that apportionment of a fixed volume of Unidentified Gas to the LSP sector allows charges to be linked to costs which are positively identified within this sector. Whilst this represents a conservative approach, inclusion of a variable element of RbD charge, as proposed under UNC194, necessitates the inclusion of a 'balancing factor' (see Chapter 2), which will associate a quantity of Unidentified Gas of unknown cause and

may increase the risk of misallocation between sectors, which may in turn create the risk of harm to competition.

Barriers to market entry

4.25. Some respondents have argued that apportionment of RbD under UNC228 may constitute a barrier to entry to the LSP sector, as shippers would be unable to pass on costs to customers under existing contractual arrangements and would therefore be exposed to all risk incurred from Unidentified Gas, whereas shippers in the SSP sector are able to smear costs across a wider customer base, as happens under existing arrangements. They argue that exposure to this risk has the potential to threaten the existence of shippers that operate solely in the LSP sector.

4.26. In addition, the greater number of supply points in the SSP sector means that costs of Unidentified Gas are lower on a per site basis. We consider that this, and that the nature of contracts and existing pricing models between suppliers and customers in the SSP sector, makes pass-through to those customers easier.

4.27. We consider that UNC194 and UNC228 are likely to reduce the overall level of RbD charges allocated to the SSP sector and also to reduce the degree of variation in these charges. Both of these issues may lead to a reduction in barriers to entry into this market. The reduction in overall level of charges is likely to have a weak impact only due to this being a smeared charge for all SSP supply points such that it is unlikely to lead to a competitive advantage. However, a reduction in variance in charges may increase supplier confidence in the accuracy of their charges and improve their ability to set tariffs. Given the relative anticipated size of the reallocation from the SSP market, we would also expect this effect to be relatively weak. We note that for UNC194A, UNC228A and UNC229, the benefits of a reduction in variation in charges for SSP customers will not be achieved.

4.28. Conversely, for the LSP sector, all of the modification proposals are likely to lead to an increase in the overall level of charges. We do not consider that these charges will provide a significant additional barrier to entry as these will be smeared on a proportionate basis. In relation to the proposals under UNC194 and UNC228, which pass through a variable element of RbD charges, we consider that new suppliers may be able to introduce contracts and tariffs that reflected this level of risk. However, we consider that uncertainty over RbD charges may lead to a marginal deterrent to market entry.

4.29. The issue of market entry is further complicated when we compare the impact on competition between suppliers who operate in either the SSP or the LSP sectors with suppliers that operate in both sectors. This is discussed in the next section.

Impact on competition between sectors

4.30. It is argued by some LSP shippers that imposition of a variable quantity of Unidentified Gas upon the LSP Shipper community may create an incentive for cross-subsidy between those shippers who are active in both markets. However, we note

that were suppliers who are active in both SSP and LSP sectors to subsidise LSP customers by not passing through reductions in RbD charges to SSP customers, they would risk becoming uncompetitive in the SSP sector.

Incentives to reduce Unidentified Gas

4.31. Many of the measurement errors which currently impact RbD could be reduced were Shippers to take appropriate actions to address them.

4.32. BGT argues that allocating some RbD charges the LSP sector will act as an incentive for Shippers active in that sector to reduce the amount of Unidentified Gas.¹⁵ They consider that the misallocation of costs arising from the current RbD cost allocation methodology may place disincentives upon the LSP sector to resolve the causes of Unidentified Gas and as such reduce the level of RbD error.

4.33. Ofgem notes that none of the Modification Proposals introduce any specific incentive mechanism for individual shippers to reduce the quantity of Unidentified Gas. However, we note that the introduction of additional charges into the LSP sector may lead some parties to consider how best to reduce those charges. Conversely, any reduction in the RbD charges for SSP sites may lead to a marginal reduction in incentives to reduce the volume of Unidentified Gas in the SSP sector.

4.34. We further consider that, as such charges are due to be applied to shippers in the LSP sector according to their share of AQ, any opportunity for LSP shippers to gain a competitive advantage within the sector by taking individual action to reduce Unidentified Gas costs may be diluted, as such action will reduce the overall level of RbD charges to all shippers within the LSP sector, rather than the exposure of the individual shipper alone.

4.35. We consider that benefits of reducing Unidentified Gas by such means as identifying theft and reducing the number of shipperless sites will be socialised, and therefore individual shippers may not realise the whole benefit of reducing the level of Unidentified Gas. Furthermore, a potential perverse incentive to avoid detection of theft and unregistered sites may remain, since detection of these sites will result in shippers being charged for gas consumed by these sites, whereas at present such costs are socialised.

4.36. In their response to Modification Proposals UNC194 and UNC194A, BGT notes that levels of detection of theft are lower in the LSP market than in the SSP market. Whilst this may be the case, (Table 3 in Appendix 2 indicates that 29% of allegations

¹⁵ BGT response to UNC Modification Proposal 228 at <http://www.gasgovernance.com/NR/rdonlyres/77FC49DD-583C-4729-95C4-724565041A6C/31814/0228BGTRepresentation.pdf>

of theft (which may not include all theft) in the LSP sector are found to be valid, as opposed to 34% in the SSP sector) it does not necessarily follow that lower levels of detection are indicative of reduced incentives to investigate theft. It may be, for example, that opportunities to commit theft are lower in the LSP sector than in the SSP sector given the differing frequency of meter reads and the complexity of metering used in the LSP sector.

4.37. It may be argued that some measurement errors which contribute to Unidentified Gas cannot be attributed solely to the actions of shippers within in a particular market sector, such as misallocation of LDZ Shrinkage or gas offtaken by IGTs. It is difficult to incentivise shippers to reduce costs which are outside their control. However, in such cases it is inequitable that these costs are borne by one market sector (as at present) when they impact the industry as a whole. Ofgem considers that a robust system of incentives leading to the reduction the size of the Unidentified Gas pot remains necessary. We note measures such as UNC Modification 231,¹⁶ UNC Review Group 245,¹⁷ and UNC Modification Proposal 274¹⁸ which seek to introduce specific measures to facilitate the detection and prevention of theft.

¹⁶ "UNC Modification Proposal 231" at <http://www.gasgovernance.com/NR/rdonlyres/DE825B62-1961-49AE-A11E-379BOD7BF81A/36911/10September2009ModificationProposalv6.pdf>

¹⁷ "UNC Modification Proposal 245" at <http://www.gasgovernance.com/NR/rdonlyres/F74B62EE-3CED-4B30-8494-11E559270BA2/35350/0245ReviewProposalv20.pdf>

¹⁸ "UNC Modification Proposal 274" at <http://www.gasgovernance.co.uk/sites/default/files/UNC%20Mod%20Proposal%20-%20NRPS.pdf>

5. Impacts on Sustainable Development

Chapter Summary

This chapter examines the impact upon sustainable development of the Modification Proposals within scope of this Impact Assessment.

Question 1: Do you agree with Ofgem's assessment that any impact on sustainable development as a result of these Modification Proposals is likely to be marginal?

Question 2: Do you agree with Ofgem's assessment of the relative impact on sustainable development of each of the Modification Proposals?

Question 3: Do you consider that there are any further impacts on sustainable development that are likely to result from the Modification Proposals?

5.1. We consider that the extent to which each of the Modification Proposals will have an impact on sustainable development relates to incentives on parties to seek to reduce the level of Unidentified Gas, and by consequence, the amount of gas consumed. In this chapter we highlight areas in which reducing Unidentified Gas could lead to an improvement in sustainable development. We then consider the impact of each of the proposed modifications on these areas. Ofgem's detailed consideration of the impact of each of the proposed modifications in incentivising the reduction of Unidentified Gas is discussed in detail in Chapter 4.

Theft of gas

5.2. Better allocating charges for gas lost to theft to those parties better able to respond to these signals is more likely to lead to the problem being addressed. Improved detection of gas lost to theft may result in a reduction in the overall level of gas consumption, and may lead to more efficient use of gas by consumers as a whole. However, this is not the primary intention of any of the Modification Proposals within scope of this IA.

Impact of Modification Proposals on Sustainable Development

5.3. Ofgem considers that quantification of the underlying causes of Unidentified Gas and better targeting of their costs at the market sector that caused this error will encourage a reduction in the overall volume of error. To the extent that work to address the root causes of Unidentified Gas may reduce consumption (for example by promoting energy efficiency and targeting theft), we consider that this will lead to a positive impact on sustainable development. UNC229 in particular may lead to a more thorough investigation of Unidentified Gas.

5.4. In summary, we consider that incentives to reduce the level of Unidentified Gas that result from the Modification Proposals, and therefore the impact upon Sustainable Development, are marginal.

6. Impacts on Health and Safety

Chapter Summary

This chapter examines the impact upon Health and Safety of the Modification Proposals within scope of this Impact Assessment.

Question 1: Do you anticipate any impact on health and safety as a result of these Modification Proposals? If so, what?

Impact of Modification Proposals within scope of this Impact Assessment on Health and Safety

6.1. The impact of this suite of modification proposals upon Health and Safety is expected to be limited. The impact of these Modification Proposals upon Health and Safety is likely to be a function of the incentives they introduce to shippers to reduce theft of gas.

Reducing theft

6.2. It is possible that quantifying the extent of gas lost to theft will encourage Shippers to take direct action to reduce theft of gas from the network. This in turn will reduce the potential risk to health and safety from bypassed meters and direct theft from gas networks. However, none of the Modification Proposals include incentives to directly reduce the amount of energy lost to theft.

6.3. To the extent that work to identify the causes of Unidentified Gas, will incentivise shippers to address its underlying causes, then these proposals may have a positive impact on Health and Safety. UNC229 in particular may provide for a better assessment of the level of gas theft.

7. Risks and Unintended Consequences

Chapter Summary

This chapter highlights potential risks and unintended consequences which could result from the implementation of the Modification Proposals within scope of this IA. This chapter seeks to highlight the risks and unintended consequences not covered elsewhere in this document.

Question 1: Do you agree that implementation of UNC229 would leave parties with adequate recourse to query decisions made by the AUGE?

Question 2: If not, how should any additional governance be implemented?

Question 3: Are there any additional risks which may be placed upon industry parties by implementation of the Modification Proposals within scope of this Impact Assessment which we have not identified in this document?

Question 4: How could the Governance Arrangements for appointment of an AUGE be structured to minimise impact upon shipper parties? Should GTs be indemnified from any risks from holding this contract, and if so how might this be implemented in practice?

7.1. In this chapter we review the impact of on-going change control requirements for RbD allocation. In particular, we set out our initial views on the regulatory risk and uncertainty that may be caused by UNC228 and UNC228A and then review the governance arrangements surrounding the UNC229 proposal. This chapter also considers the risks identified by the UNC229 working group for GTs procuring the services of a third party to perform the AUGE function and the requirements to indemnify the AUGE's actions.

Future change control

Regulatory risk and uncertainty under UNC228 and UNC228A

7.2. The introduction of Modification Proposals UNC228 and UNC228A may introduce a degree of regulatory risk and uncertainty into the UNC. The proposals populate the tables under UNC194 and UNC194A with numerical values, with future revisions to be introduced by new Modification Proposals.

7.3. We consider that any methodology employed to apportion Unidentified Gas using the RbD process would need to be transparent and robust, to utilise data which are open for verification (where possible) by all parties to the UNC, and to offer a replicable process to update the data used to populate a table such as the one introduced by UNC194 and UNC194A.

7.4. Any Modification Proposal which attempts to introduce a set of values to apportion RbD charges but does not include a replicable, transparent methodology to

consider how improvements in allocation should be made is likely to create a degree of uncertainty on how future changes will be considered.

7.5. At present there is no publically available source of information which could be employed to populate these tables, and therefore proposers are reliant upon data provided by xoserve (see below).

7.6. The lack of a defined methodology for populating tables introduced by Modification Proposals such as UNC194 and UNC194A creates the possibility of the multiple alternative Modification Proposals introducing differing interpretations of scarce data, and requiring in effect an audit of the data in each individual proposal.

7.7. Were further modification to be raised to amend the values set out in UNC228 or UNC228A we consider that this would create considerable resource implications for Ofgem, those parties that are asked to prove ad hoc data (such as xoserve) and industry members who are required to assess each proposal. We are concerned that such an ad hoc process is likely to be less efficient than the process set out in UNC229.

Governance arrangements under UNC229

7.8. Implementation of UNC229 in its present form would require the UNCC to appoint an AUGE and approve a methodology for allocating Unidentified Gas via a majority vote. The terms of reference for the AUGE would be held as an annex to UNC, so as a result would be subject to change via a vote of the UNCC, rather than by raising a successful Modification Proposal. Following implementation in its present form, UNC229 would not automatically refer appointment of an AUGE or the methodology for producing the AUGS to Ofgem for approval. Both appointment and methodology would be approved by majority vote of the UNCC.

7.9. In its present form UNC229 allows for the AUGE to produce a methodology for allocating Unidentified Gas which may be approved by the UNCC without automatic recourse to Ofgem.¹⁹ For this reason it is important that the process of approval by the UNCC will present sufficient safeguards to for querying any methodology produced by an AUGE and its application.

7.10. Any decision taken by the UNCC on the suitability of the methodology may be challenged by an appeal from the shipper community via a Modification Proposal, and as such the actions open to Ofgem will be framed by the terms of that Proposal. Challenges submitted via the online query process will be determined as material or not material by the AUGE itself, who will have the final say in how such queries are treated. In effect, following implementation of the proposal, there will be no scope

¹⁹ Routes for appeal are summarised in Appendix 7.

for direct intervention by Ofgem in changing the methodology proposed by the UNCC.

7.11. Furthermore, as set out earlier in the document, whilst at present consumers would not currently be represented as a voting member on the UNCC. Ofgem's current Governance Review (see Chapter 8) outlines proposals for increased consumer representation on UNC Panels.

7.12. Since monies distributed under UNC229 are not charges made in pursuance of transportation arrangements on users by the network operator, our view is that any charging methodology implemented by the AUGE will not require approval by the Authority. However, we would appreciate industry views as to whether additional governance is required (for example, in setting the terms of reference for the AUGS, or approving the methodology used to produce the AUGS) to be defined prior to approval of UNC229.

7.13. Given that UNC parties are able to raise a Modification Proposal to query any decision made by the UNCC, we consider these governance arrangements to be adequate to ensure that UNC parties are able to challenge any decision made by the UNCC in the event of disputes; however, this will only occur in the instance of a dispute occurring, rather than automatically.

7.14. One potential weakness of UNC229 is that it unclear from the Final Modification Report as to how any process would be implemented should no bid for tender come forward in the first instance. Should no suitable candidate come forward after a tendering process, either that process may be refined and a request for tenders resubmitted, or the industry would have to search for an alternative solution. However, it is difficult to determine the likelihood of no suitable tender being found, and in Ofgem's view the possibility that no suitable tender may be forthcoming in the first instance does not detract from the benefits which may be offered by the appointment of a third party expert.

7.15. We also consider that it is important that shippers recognise the need for the third party to be genuinely independent of interference from individual shippers. To this end we would expect the terms of appointment to reflect a prospective AUGE's independence, and that Shippers would respect the AUGE's decision. Any appeal of this decision would only be valid in the event of the decision being in breach of this agreed methodology, rather than a decision which was commercially disadvantageous to individual shippers.

7.16. The process of appointing an AUGE and identifying a suitable methodology will take some time, and there are therefore concerns about when Modification Proposal may have a practical effect. For this reason we consider that it would be necessary for a clear timetable to be drawn up prior to any implementation of UNC229, detailing target dates for implementation, appointment of an AUGE, and production of a methodology for apportioning Unidentified Gas, to avoid any further delays to this process.

Risk and unintended consequence for third parties

Gas Transporters

7.17. Under the terms of UNC229, the contract with the AUGE will be held by GTs, even though the AUGS will distribute Unidentified Gas amongst shippers. As GTs will be compensated for any expenses incurred in establishing contractual arrangements on behalf of shippers on a User Pays basis, implementation of UNC229 should ultimately be revenue neutral for GTs. Therefore we envisage there to be no direct impact on GTs' revenues.

7.18. The composition of the UNCC requires a mixture of shippers and GTs to approve a proposal to achieve a majority. Therefore GTs, who will ultimately be revenue neutral to any proposed distribution of Unidentified Gas, will in effect decide whether a methodology is implemented.

7.19. Some GTs raised concerns in the UNC229 consultation that at present the governance arrangements mean that they will be required to contract with party without full control over terms of the appointment of an AUGE (most notably that the appointment of an AUGE and approval of the methodology under which Unidentified Gas is distributed by the UNC Committee). Several GTs voted against UNC229 at the Modification Panel for this reason.

7.20. In their responses to UNC229, National Grid Distribution (NGD) and National Grid Transmission (NGT) propose that GTs should be indemnified from any liability under this contract. Conversely, shippers have indicated that they would be unhappy to enter into an arrangement in which they would accept potentially unlimited liability for a contract to which shippers themselves were not a party and over which they have no direct control.

7.21. Whilst we appreciate the concerns of GTs, we consider that the appointment of a third party expert offers an opportunity to develop a robust, transparent and equitable methodology for apportioning Unidentified Gas between industry sectors, and that the governance arrangements surrounding a Modification Proposal do not alter the substance of the proposal. In the event of UNC229 being approved for implementation, we would expect to see a governance process complying with relevant legal standards to be agreed by all parties.

7.22. As noted in Ofgem's decision letter to UNC Modification Proposal 115 and 115A, Special Standard Condition A5 of the Gas Transporters' Licence requires that GTs' transportation charging methodologies are cost reflective, and that GTs properly facilitate effective competition between gas suppliers and shippers. Whilst allocating Unidentified Gas across both LSP and SSP sectors based on evidence would improve the cost reflectivity of charge made under the terms of the UNC, the relationship of these charges would have little or no relationship to the existing transportation charges. UNC194, 194A, 228 and 228A would require no participation from GTs, and under the terms of UNC229 they would only be involved in the role of a facilitator of a contract with the AUGE. Therefore we consider that implementation of these

proposals would not assist GTs in administering the terms of their licence. For this reason Ofgem considers that implementation of these proposals will not better meet this objective of Special Standard Condition A11.1(c) of the UNC.

xoserve

7.23. xoserve administers information relating to SSPs and LSPs. This information is used to facilitate the transfer processes which enable gas supply competition to operate effectively in the UK. We anticipate that implementation of UNC228, UNC228A or UNC229 could potentially result in a significant resource impact upon xoserve.

7.24. At present xoserve has a role in calculating charges to be made under the RbD mechanism. xoserve also has provided the majority of data to the Development Group or to Proposers, which has subsequently been used to populate UNC228 and UNC228A. Calculation and verification of correct values for apportioning energy in each sub-category of Unidentified Gas in the tables introduced under UNC194 and UNC194A (which would be populated by the implementation of UNC228 or UNC228A) to each industry sector is likely to require additional process, which in turn will have implications for uses of resources at xoserve. In their response to UNC194 and UNC194A, National Grid note that the extent of this impact will depend on the system implemented and timing of invoices.

7.25. UNC228 or UNC228A in particular use data provided by xoserve to the Development Group to allocate Unidentified Gas. Subsequent Modification Proposals attempting to populate the RbD Allocation Table or LSP Unidentified Gas Allocation Table in UNC194 or UNC194A respectively would require xoserve to provide similar data. Whilst we note that xoserve intend to publish data relating to RbD on their website in future, this data may still require some manipulation to provide meaningful interpretation, which may still pose some resource requirement upon xoserve, which may increase with the frequency which proposals similar to UNC228 and UNC228A were raised. Of the proposals within scope of this Impact Assessment, only UNC229 offers any means of resourcing the procurement of data to enable a distribution of Unidentified Gas on a long-term basis, and UNC228 and UNC228A rely on interpretations of data already in the public domain.

7.26. In its response to UNC229, BGT considers that the role of AUGE could be undertaken most effectively and efficiently by xoserve. Nothing in the Proposal prevents xoserve from tendering for this role as part of a competitive process, nor would xoserve be prevented from acting as a provider of services to another agency appointed by the UNCC. Either role would enable xoserve to provide data services on an annual basis (or over some other fixed period) and would enable them to charge for their services on a user pays or consultancy basis. Ofgem considers that a transparent schedule for the provision of data under UNC229 may present less of a demand upon xoserve's resources than providing ad hoc data for a series of future Modification Proposals seeking to modify the tables introduced under UNC228 or UNC228A.

8. Other Impacts

Chapter Summary

This chapter assesses the potential impact of the Modification Proposals within scope of this IA upon non-shipper parties and future workstreams.

Question 1: Do you agree with Ofgem's assessment that the benefits of appointing an independent third party to assess Unidentified Gas would accrue to the industry?

Benefits of an independent expert (the AUGE) under UNC229

8.1. In Ofgem's initial view the appointment of the AUGE to allocate unidentified gas may bring several benefits, including:

- Offering the opportunity to create a properly resourced agent to research and determine the causes of Unidentified Gas;
- Creating a fully researched and replicable process, based on historical data, to apportion Unidentified Gas to Shippers;
- Offering an opportunity to incorporate a more complex methodology than that proposed under existing Modification Proposals;
- Providing independent assessment rather than relying on Modification Proposals from individual Shippers who may be impacted by revising distribution of RbD;
- Creating a process upon which a methodology could be revised, improved and repopulated with new data on a regular basis, rather than through the ad hoc submission of new data or an 100% allocation to the SSP sector; and
- Allowing shippers themselves, through the terms of the contract with an AUGE, to determine the extent of the resources which should be expended upon determining a solution.

8.2. We consider that none of these benefits are offered by a solution proposed under UNC228 and UNC228A.

Impact on future workstreams

Smart Metering

8.3. The impact of the introduction of smart meters, particularly at SSP sites, may stimulate review of the RbD arrangements. For example, the increased availability of information in the SSP sector could facilitate individual meter point reconciliation or a similar process. The potential impact of such developments may be felt both in the reduction of the need for 'genuine reconciliation' and the reduction in Unidentified Gas through the use of new smart metering technology.

UNC Modification Proposal 209

8.4. UNC Modification Proposal 209 (UNC209)²⁰ seeks to introduce rolling AQ calculation to all supply points. Ofgem considers greater accuracy in AQ calculations may reduce the element of RbD due to discrepancies in submission of meter readings (see Appendix 2).

Gas Distribution Price Control

8.5. Ofgem conducts a Gas Distribution Price Control Review (GDPCR) at regular intervals.²¹ The last GDPCR established the mechanism by which GDNs are able to recover shrinkage costs and associated incentive schemes (including incentives to reduce shrinkage) for five years from April 2008. Whilst previous GDPCRs have not examined the issue of Unidentified Gas, future proposals may examine the possibility of charging for RbD shrinkage mechanism as suggested under UNC232 or consider other proposals for addressing issues surrounding Unidentified Gas.

Ofgem's Governance Review

8.6. Ofgem's Governance Review seeks to determine governance of charging methodologies. Since the scope of UNC229 seeks to replace the existing methodology for the allocation of Unidentified Gas between groups of shippers, rather than relating to charges levied on users by the network operator and relate to distribution between shippers rather than transportation, our view is that any methodology implemented by the AUGÉ does not constitute a charging methodology, and as such any methodology will not be subject to Ofgem's initial proposals on making governance more inclusive for network users, interested parties and consumer representatives.

8.7. Therefore, Ofgem's initial view is that that at present the UNC Committee, made up of shipper and transporter representatives, retains adequate authority to implement an allocation methodology. However, if in future the nature of the charges distributed under UNC229 or the make-up of the UNC Committee were to materially change, then the governance mechanism proposed under UNC229 may need to be revised. It should also be clear that our initial view should not be taken to establish any form of precedent, and that future proposals which employ non-regulatory third parties to formulate a methodology for the allocation of energy or the distribution of monies will be considered on its merits.

²⁰ UNC Modification Proposal 209 at <http://www.gasgovernance.com/NR/rdonlyres/3665136B-212A-45A8-B559-6A7EA9C839CD/34199/0209ModificationReportv10.pdf>

²¹ The most recent being for the period 1 April 2007 to 31 March 2013.

9. Post-Implementation Review

Chapter Summary

Ofgem does not consider there to be a need for a Post-Implementation Review at present.

Question 1: Do you believe that a post-implementation review will be necessary for the Modification Proposals which Ofgem is minded to implement?

Requirement for Post-Implementation Review

9.1. We consider that, were Ofgem to approve UNC229, as it is currently minded to do, the industry should give further consideration to the requirements for a post-implementation review as part of the contract awarded to the AUGE. Ofgem considers that there would be benefits in conducting such a review and establishing its anticipated requirements at an early stage.

9.2. Given the limited scope of the proposals under UNC194 and UNC194A we do not consider that, were either to be implemented, a post-implementation review would be required.

9.3. Were either UNC228 or UNC228A to be implemented, Ofgem considers that a post implementation review would be beneficial in helping to determine the need for future modification proposals to amend the allocation arrangements.

10. Summary of impact assessment and initial review of proposed modifications against relevant objectives

Chapter Summary

This chapter summarises the key impacts identified by Ofgem associated with the proposed modifications. It then makes an initial assessment of the proposed modifications against the relevant objectives of the UNC and sets out our minded to view.

Key impacts identified

10.1. Under the existing RbD arrangements, the cost of all Unidentified Gas is borne by the SSP sector. Evidence presented to the Development Group has demonstrated that not all Unidentified Gas is incurred by this sector. This distribution penalises SSP customers, as they are required to cover costs which are incurred in other industry sectors. This is detrimental to the implementation of effective competition within the SSP and LSP sectors, in that it prevents costs being met by shippers in the industry sector in which they have incurred. To this end, Ofgem supports the principle that Unidentified Gas should be distributed between the LSP and SSP sectors where appropriate.

Incentives to reduce the quantity of Unidentified Gas

10.2. Ofgem considers that none of the proposals within the scope of this IA introduce significant, targeted incentives to reduce the quantity of Unidentified Gas. We agree that allocating an element of the current RbD charge to the LSP sector may provide an incentive on LSP shippers to address the causes of Unidentified Gas. However, we note that such an incentive may be diluted in that the costs are smeared across all supplies in this sector.

10.3. In relation to the general focus on reducing Unidentified Gas we consider that investigating the causes of Unidentified Gas will present the opportunity for the quantification of underlying causes of Unidentified Gas on a holistic basis and that of the proposals being considered UNC229 is most likely to lead in this direction. This may give greater impetus to work to reduce the level of Unidentified Gas.

10.4. We would welcome further modification proposals designed to introduce incentives to target the behaviour of individual shippers to reduce the quantity of Unidentified Gas. We welcome existing initiatives from within industry to revise these incentives, for example UNC231 and UNC245.

Distribution of Unidentified Gas

10.5. We consider that apportionment of a fixed volume of gas allows Unidentified Gas to be targeted at the industry sector responsible on an evidence-based basis.

Whilst this represents an imperfect solution, as all risk from variations in Unidentified Gas will still be borne by SSPs, we consider that it constitutes an improvement on the existing baseline in which all Unidentified Gas (including some which demonstrably originates in the LSP sector) is charged to SSPs. Allocation based upon a fixed volume of gas will also minimise the short term risk of LSP shippers being unable to pass on costs to their customers. Allocating variable costs to LSP shippers with uncertain means of pass through could potentially be detrimental to competition.

10.6. Both UNC228 and UNC228A seek to use the distribution for apportioning gas lost due to theft to apportion all gas which cannot be associated with one of the other causes of Unidentified Gas. Whilst we consider that employment of a 'balancing factor' may well be necessary as some gas is likely remain unallocated following investigation of the underlying causes of Unidentified Gas, to simply employ the theft distribution without any further investigation represents an oversimplification of the likely actual position, and that many potential contributory causes to this 'balancing factor', such as potential error at supply point and LDZ offtake meters, are not fully investigated by this approach. We consider that using such a methodology risks incorrectly allocating Unidentified Gas between sectors.

Data provision

10.7. The proposers of UNC228 and UNC228A state that the values which populate the Modification Proposals are based on data provided by xoserve to the Development Group. However, we consider that these proposals do not provide an explicit and traceable methodology for distributing Unidentified Gas.

10.8. In addition, the lack of an ongoing, agreed process to revise the distribution of Unidentified Gas over time creates the risk that a distribution could remain fixed in the UNC due to a lack of successful proposals to update the distribution, were no party willing to undertake the analysis required to produce a distribution. Such a static distribution would present an increased risk of inaccurate distribution of Unidentified Gas as time passed, would further dilute any existing incentives upon shippers to address the underlying causes of Unidentified Gas, and would risk weakening the efficient operation of the UNC.

10.9. Ofgem considers that the role of information providers in any process to populate the Unidentified Gas tables as introduced under UNC194 or UNC194A is not clearly defined. At present the majority of data appears to be provided by xoserve on an ad hoc basis. This information is not available without cost, and of the Proposals under consideration in this IA, only UNC229 considers how the analysis to produce a distribution of Unidentified Gas should be resourced.

10.10. As such we believe that any agreement to reallocate charges for Unidentified Gas should be based on a replicable methodology, using publically available data sampled over a consistent timeframe and with a view to updating the distribution at fixed, constant intervals. We consider that neither UNC228 nor UNC228A will lead to this.

Risk sharing and seasonality

10.11. Ofgem considers that further investigation is required before any relationship between seasonality and the component factors of RbD is demonstrated.

10.12. We accept that there is an argument that structural differences between the LSP and SSP sectors (most notably the nature of contracting in the LSP sector) would make it difficult at present for LSP shippers to pass on risk without fundamentally altering contracts with their customers. However, we consider that SSP suppliers will have priced their products to account for the risk of variation in RbD charges and this will be based on suppliers' modelling of anticipated costs based on historic experience.

10.13. For these reasons we believe that the potential negative impact upon competition from this risk will be outweighed by the potential negative impact on competition in the LSP sector arising from the implementation of UNC194. Given that total gas charged to RbD represents less than 2% of total throughput, it seems disproportionate to require LSP shippers to change their contractual arrangements purely to facilitate the sharing of this risk without adequate lead time.

10.14. We consider that any methodology introduced by a third party expert could be developed to reflect seasonal load patterns in the volume of gas charged to this sector, providing adequate notice was given so that supply contracts could be adapted to reflect the change.

Use of an independent third party authority

10.15. We consider that the methodology offered by UNC229 presents several potential benefits. Firstly, it offers the opportunity for the industry to provide the resources for a more widely researched and transparent analysis of the underlying causes of Unidentified Gas than exists at present on a User Pays basis. Secondly, it offers the opportunity to mandate an independent, fully resourced body to present a transparent methodology for allocating Unidentified Gas between industry sectors, and for that methodology to be replicated and refined in ongoing years, rather than relying upon the creation of future Modification Proposals. Thirdly, it offers the potential for a more sophisticated methodology for the apportionment of unallocated gas, potentially allowing issues such as risk sharing and seasonality to be considered within a framework whilst enabling all shippers to pass through costs to customers.

10.16. We consider that the lack of a reference to Ofgem of the methodology conceived by the AUGE in UNC229 is not an issue in this case, given that it is not a charging methodology made in pursuance of transport arrangements on Users by the network operator. We consider that the present governance arrangements, notably that that approval of a methodology via a UNCC vote still presents an opportunity for dissatisfied shippers to raise a Modification Proposal to overturn the vote of the committee, and a further appeal in the case of the Expert not following their mandated approach, to present adequate governance for a proposed AUGE. We consider that governance through the UNCC will provide an opportunity for Ofgem to

resolve disputes regarding the methodology and its specification, rather than in cases where there may be consensus across industry.

10.17. We consider that a truly independent AUGÉ will have no incentive to discriminate between shipper groups, and therefore disputes regarding the creation methodology for the allocation of Unidentified Gas, whilst not inconceivable, are less likely than those which would be forthcoming via allocation through direct submission of Modification Proposals to Ofgem.

10.18. Whilst we understand that there are some governance arrangements which would require resolution prior to implementation of the Proposal, we feel that the principle of a methodology developed by an independent expert offers considerable benefits and would allow the industry to move quickly towards a more equitable solution.

10.19. However, at present UNC229 does not offer a timetable for appointment of an independent expert and development of a methodology. We would expect such a timetable being developed to complement the existing proposal.

10.20. To summarise, we consider that the benefits offered by empowering an independent expert to distribute Unidentified Gas outweigh any concerns regarding governance, and that the safeguards offered by the right of appeal of decisions made by the UNCC are adequate in this case. Therefore we are **minded to accept UNC229**.

Impact upon Consumers

10.21. The impact on consumers of all the Proposals within scope of the Impact Assessment will be neutral if we are to consider consumers as a whole rather than discriminating between LSPs and SSPs. However, as currently all RbD is charged to the SSP sector, any charges which are passed through to the LSP sector should be met by reduced charges to the SSP sector.

Initial assessment against UNC Relevant Objectives

10.22. We have assessed all the Proposals with scope of this Impact Assessment against the terms of the Relevant Objectives of the UNC. We consider that the Proposed Modifications impact on Relevant Objective (d) only. We consider that the proposals are neutral with regards to the other Relevant Objectives. A summary of our initial views against Relevant Objective (d) is set out below:

Standard Special Condition A11.1 (d): so far as is consistent with sub-paragraphs (a) to (c) the 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:

10.23. UNC229 offers a route to allocate risk based on a widely researched and transparent analysis of the underlying causes of Unidentified Gas, and for a methodology to be replicated and refined in ongoing years, rather than relying upon the creation of future Modification Proposals, ensuring that this process will continue to be representative of the distribution of Unidentified Gas at any point in time.

10.24. Some respondents to Proposal UNC229 argued that the costs of procurement of an AUGÉ and contractual arrangements between shippers and transporters would be likely to be high. We consider that the tendering process will allow the industry to determine any trade-off between cost of appointing an AUGÉ and the level of accuracy required by any process which is introduced.

10.25. Whilst the evidence that there are no seasonal variations in Unidentified Gas, as argued by many LSP shippers in their responses to these proposals, is inconclusive, we consider that imposing costs upon the LSP sector that they are unlikely to be able to pass on to customers may threaten the existence of an independent LSP sector and would be detrimental to competition and the aims of this Objective. A fixed payment borne by LSP shippers therefore represents a pragmatic approach in the short term.

10.26. In addition, it is feasible to allocate a fixed volume of Unidentified Gas to the LSP sector on a fully evidence-based basis, whilst apportioning a percentage share of Unidentified Gas to each sector without identifying the provenance of all Unidentified Gas risks misallocating this gas. We consider that the introduction of UNC194A will establish the grounds for a new baseline which will invite an improved allocation of Unidentified Gas in future. However, UNC194A proposes an approach based on the use of future Modification Proposals to distribute Unidentified Gas, which is incompatible with the approach taken by UNC229. We consider the benefits of the third party approach adopted by UNC229 to outweigh the benefits of UNC194A, and therefore we are not minded to accept UNC194A.

10.27. Whilst UNC194 offers some advantages in that it allocates all risk from variability across both LSP and SSP sectors, we consider that this is made possible by allocating a remainder of Unidentified Gas using the a composite distribution of reported and accusations of theft, increasing the risk of misallocation, which in turn will be detrimental to the aims of this Objective. Similarly we consider that allocating Unidentified Gas based on a methodology that incorporates elements of this composite distribution, such as those proposed by UNC228 and UNC228A, would risk misallocating energy and could therefore be actively detrimental to effective competition.

The Authority's Current Position

10.28. For these reasons, we are currently **minded to accept UNC229**. We currently believe that UNC194, UNC228 and UNC228A would not reflect an improvement on the current baseline, or would impose considerable risks upon the UNC. However, whilst both UNC194A and UNC229 represent an improvement on the existing baseline position, we consider that implementation of UNC229 offers a more

complete solution and renders UNC194A obsolete. We expect to see further development of the issue of Reconciliation by Difference and Unidentified Gas through future Modification Proposals. Therefore we are **minded to reject UNC194, UNC194A, UNC228 and UNC228A.**

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Appendix 1 - Consultation Response and Questions

1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by 8 January 2010 and should be sent to:

- Nigel Nash
- GB Markets
- Ofgem, 9 Millbank, London SW1P 3GE
- Telephone number: 020 7901 7065
- Email: gb.markets@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.6. Next steps: Having considered the responses to this consultation, Ofgem intends to issue a Final Decision upon the Modification Proposals within scope of this Impact Assessment. Any questions on this document should, in the first instance, be directed to:

- Nigel Nash
- GB Markets
- Ofgem, 9 Millbank, London SW1P 3GE
- Telephone number: 020 7901 7065
- Email: nigel.nash@ofgem.gov.uk

CHAPTER: Three

Question 1: Do you agree with Ofgem's assessment that the likely impact of the Modification Proposals on charges made to consumers?

Question 2: Do you consider that the proposed governance arrangements under UNC229 offer adequate protection to the interests of consumers in their present form?

Question 3: Do you anticipate any further impact upon consumers in addition to those considered in this chapter?

CHAPTER: Four

Question 1: Do you agree with our assessment that any of these Modification Proposals will have an effect upon incentives for shippers to reduce the quantity of Unidentified Gas offtaken at LDZs?

Question 2: Do you agree with our assessment of the likely distributional impact of the Modification Proposals?

Question 3: Do you believe that the potential benefits of the Modification Proposals justify the additional costs which may be imposed on customers?

Question 4: Do you agree that applying a variable RbD charge upon LSP shippers would potentially entail a negative impact upon competition? Do you feel that this potential impact justifies the imposition of a fixed rather than variable charge on LSP shippers?

Question 5: Should any third party authority created under the terms of UNC229 be tasked to review incentives for investigating theft upon individual shippers?

CHAPTER: Five

Question 1: Do you agree with Ofgem's assessment that any impact on sustainable development as a result of these Modification Proposals is likely to be marginal?

Question 2: Do you agree with Ofgem's assessment of the relative impact on sustainable development of each of the Modification Proposals?

Question 3: Do you consider that there are any further impacts on sustainable development that are likely to result from the Modification Proposals?

CHAPTER: Six

Question 1: Do you anticipate any impact on health and safety as a result of these Modification Proposals? If so, what?

CHAPTER: Seven

Question 1: Do you agree that implementation of UNC229 would leave parties with adequate recourse to query decisions made by the AUGE?

Question 2: If not, how should any additional governance be implemented?

Question 3: Are there any additional risks which may be placed upon industry

parties by implementation of the Modification Proposals within scope of this Impact Assessment which we have not identified in this document?

Question 4: How could the Governance Arrangements for appointment of an AUGÉ be structured to minimise impact upon shipper parties? Should GTs be indemnified from any risks from holding this contract, and if so how might this be implemented in practice?

CHAPTER: Eight

Question 1: Do you agree with Ofgem's assessment that the benefits of appointing an independent third party to assess Unidentified Gas would accrue to the industry?

CHAPTER: Nine

Question 1: Do you believe that a post-implementation review will be necessary for the Modification Proposals which Ofgem is minded to implement?

Appendix 2 – Component Factors to Unidentified Gas

1.1. In 2008, the total energy allocated under Reconciliation by Difference totalled some 12.1TWh. This represents around 1.1% of total gas throughput on Gas Distribution Networks.²²

1.2. Errors in energy allocation occur due to a number of reasons, some of which may be beyond the control of shippers, and others of which shippers may have direct influence.

1.3. The Development Group identified a number of reasons for which possible measurement errors may occur. These are summarised below.

- Read submission issues ('Genuine reconciliation')
- LDZ offtake metering errors
- LDZ shrinkage
- LDZ CSEP reconciliation
- Late registration (Unregistered, unconfirmed and unrecorded sites)
- Supply Point metering errors
- Theft (including unreported meter bypasses)

Read submission issues ('Genuine reconciliation')

1.4. Genuine reconciliation reflects a credit or debit to the SSP sector equal to the difference between total metered consumption in the SSP and LSP sector and the difference between consumption as estimated by the total AOs in each sector at the time of billing. A means of reconciling of such differences formed the initial reasoning behind the RbD methodology.

1.5. The value associated with read submission issues may represent a charge or a credit, depending on the difference between LSP AO calculation and actual consumption at LSP sites based upon meter readings. In effect read submission issues are a function of the accuracy of initial AO estimates rather than throughput, so as AOs in both sectors become more accurate the volume of gas charged to this category should decline.

1.6. The Proposals within scope of this IA do not specifically attempt to incentivise the accurate recording of AOs. However, we note that industry initiatives to increase their accuracy, such as the introduction of Smart Metering and the possible

²² Based on throughput for 2008 of 1,153TWh, based on data provided by National Grid to Ofgem.

introduction of Rolling AOs as proposed by UNC Modification Proposal 209 may lead to increased accuracy of AOs.²³

1.7. Read submission issues are included in the RbD Allocation Table introduced by UNC194, and are deemed to account for 15% of the value apportioned to RbD in UNC228, based on a calculation methodology proposed under UNC194. Since UNC194A and UNC228A relate only to an apportionment of gas to the LSP sector, this charge (or credit) is not reflected in these calculations.

1.8. In their response to UNC229, National Grid Distribution (NGD) criticises the approach for calculating Genuine Reconciliation adopted under UNC228 and UNC228A, noting that this methodology assumes that AOs will evolve steadily through the year and that it is appropriate to apply the same percentage to all RbD energy for the year. NGD also argue that the methodology ignores potential errors in supply point metering and AO calculation, and the impact of frequency of meter readings on AO calculations.

LDZ offtake metering errors

1.9. LDZ offtake metering errors represent misrecordings by instruments recording the quantity of gas taken from the NTS to LDZs. This measure could therefore potentially realise a credit (or debit) to RbD, in the instance of reconciliation following a meter over-recording (or under-recording) the quantity of gas consumed at the LDZ.

1.10. The Proposer of UNC228 notes that "consensus was reached via discussions at the Modification 194 Development Group that there is potential for measurement errors to be caused by LDZ offtake metering". Such measurement errors would result in an under or over-estimation of the quantity of gas offtaken at LDZs, which may in turn create difficulties in estimating the quantity of Unidentified Gas distributed under RbD arrangements. Where a meter was consistently under or over-reporting the quantity of gas passing through it, it appears likely that such measurement errors will vary with throughput.

1.11. In effect, the impact of Offtake Metering Errors will be a factor of both AO accuracy and throughput. Whilst LDZ offtake meter errors are not caused by individual shippers, such errors are more likely to impact upon the SSP sector, due to the greater frequency of AO reconciliation in the LSP sector. In addition, LDZ meter errors will impact shippers who are active at different LDZs at different rates.

²³ "UNC Modification Proposal 209" at <http://www.gasgovernance.com/NR/rdonlyres/AD32D1B7-DCF0-4AAF-833C-17B7D924A679/32629/ModificationProposal0209v30.pdf>.

1.12. An example of the impact of LDZ Offtake Meter Error can be identified in the recent Farningham case. A meter at Farningham in the South-East LDZ was found to be underrecording the quantity of gas offtaken at the LDZ. DM and NDM LSPs were reconciled on actual metered consumption and were therefore less affected by the discovery, whilst funds were reconciled from SSPs with RbD portfolios in the South-East LDZ to the shrinkage manager (although other Shippers overpaid shrinkage costs, as payments had already been made by all shippers in relation to gas mistaken as shrinkage which was in fact underrecorded by the LDZ offtake meter).

LDZ shrinkage

1.13. LDZ Shrinkage comprises of own use gas (gas used in running compressors and preheating) and unaccounted for gas (gas lost or unaccounted for by reason of unidentified theft upstream of the ECV, error in meter correction and leakage, including gas vented in its operation). Shrinkage losses which occur upstream of the emergency control valve (which in practice forms a boundary between the distribution network and LDZs) are charged to shippers via existing arrangements for incentivising gas transporters. Transporters forecast the amount of shrinkage to provide for gas that it is lost at LDZ level on an annual basis. Charges based upon these estimates at the start of a period, are validated at the end of a period and differences reconciled via RbD.

1.14. At present shrinkage costs which are not charged under the Gas Transporters' recovery mechanism are included in RbD calculations and therefore charged solely to the SSP sector. However, these costs will impact upon all users who are upstream of the ECV. Allocating these costs to both LSP and SSP sectors therefore represents a more equitable distribution than the existing arrangements.

1.15. The amount of shrinkage is related to issues such as gas leakage and theft at LDZ meter points, and are certainly unlikely to be attributable to any particular shipper. However, in its 2007 GDPCR, Ofgem noted that "[it does] not accept that there is currently a measurable correlation between leakage and throughput".²⁴ These costs are borne by both SSP and LSP sectors under the terms of both UNC194 and UNC194A.

1.16. UNC228 cites xoserve data presented to the Development Group on 12th June 2008. Ofgem is unable to trace the GWh error volume quoted in National Grid Distribution's presentation and subsequently cited in UNC228. UNC228 assumes that the distribution across industry sectors is allocated on the basis of throughput.

²⁴ Ofgem, "Gas Distribution Price Control Review Final Proposals" at <http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf>, p86

1.17. UNC228A takes the same approach in apportioning Unidentified Gas between industry sectors, and applies the distribution from UNC228 to a fixed volume of Unidentified Gas.

LDZ CSEP reconciliation

1.18. A Connected System Exit Point (CSEP) is a point on a distribution system which comprises one or more individual offtakes which are not metered supply points. These include connections to Independent Gas Transporters (IGTs), which are small, usually self-contained gas networks which levy distribution charges on shippers.

1.19. IGTs are bound by CSEP Network Exit Agreements (NExA) to the appropriate Gas Distribution Network (GDN). Failure by IGTs to provide adequate and timely updates to the quantity of gas offtaken at the CSEP may create the risk of misallocation of energy volumes through the RbD smearing mechanism. In addition, individual IGTs may have their own offtake arrangements with other connected networks. These are known as Nested CSEPs.

1.20. Both the UNC194 and UNC194A FMRs set out the view that costs of IGT errors currently included in RbD calculations are applicable to both SSPs and LSPs. British Gas cite the Review Group Report on UNC Review Proposal 157 to identify IGT errors as being structural, rather than attributable to individual shipper performance in their Proposal for UNC228.²⁵

1.21. With this in mind it is questionable whether the existing RbD arrangements offer the best incentive mechanism to reduce IGT error. However, it is likely that Unidentified Gas as a result of IGT error impacts both the SSP and LSP sectors, and both UNC194 and UNC194A represents a more equitable methodology than the existing 100% charge to the SSP sector.

1.22. Figures in UNC228 and UNC228A are attributed to xoserve data presented to the Development Group on 27th March 2008. Whilst a presentation was made by xoserve on that date there is no clear reference to IGT errors. Instead, these figures are referred to in BGT's 11 July presentation. The figures used in UNC228A are derived from these distributions presented in UNC228 and applied to a fixed volume.

Late registered, unregistered, unconfirmed and unrecorded sites)

1.23. Shippers may fail to register certain supply points with xoserve in a timely fashion. Following creation of a supply point, a meter should be registered with a supplier. Where this does not occur, meter points may be left unregistered (not

²⁵ Review Group 157 at <http://www.gasgovernance.com/NR/rdonlyres/8AD4CB29-7979-4D05-A860-9E8965534EB5/26483/0157ReviewGroupReportv11.pdf>

allocated to any shipper), in which case gas consumed from this supply point will be charged to RbD. If the site is subsequently confirmed by a shipper gas consumed prior to the point of confirmation will be charged to RbD, but consumption going forward will be charged to the shipper.

1.24. Gas consumed by sites which remain unregistered will not be considered within the portfolio of any shipper, and will therefore be charged to RbD.

1.25. Both UNC228 and UNC228A include an allocation of Unidentified Gas caused at late confirmed, unregistered and unrecorded LSP sites. All Modification Proposals considered within the scope of this IA argue that some Unidentified Gas may be due to late registration at LSP sites. We consider it unlikely that late registered sites should be confined to the SSP sector, and indeed xoserve presented evidence to Development Work Group 194 indicating that the majority of volume consumed by unregistered sites falls in the LSP sector.²⁶

1.26. Gas consumed by late registered sites will ultimately be reconciled if those sites are subsequently identified with a shipper, in which case a credit will be made to RbD. However, energy consumed by orphaned sites or sites which have 'timed-out' (relating to an error occurring more than four years previously) will not be reconciled and will remain in RbD calculations.

1.27. In their response to UNC194 and UNC194A and submissions to the Development Group, National Grid observes that 'almost all NDM Allocation Profiles show a seasonal trend'. The allocation of a fixed volume to the LSP sector for this energy under UNC194A and UNC228A would therefore not reflect any such seasonality in consumption by LSP NDM sites.

1.28. UNC228 cites the data used in the Proposal as originating from independent xoserve analysis presented to the Development Group on 11 July 2008.²⁷ This analysis indicates that 3.57% of the total charge made to RbD is attributable to unregistered sites, and of this 24% of Unidentified Gas is attributable to shippers in the SSP sector, 74% to the LSP NDM sector and 2% to the LSP DM sector.

1.29. Whilst the percentage split by sector is taken from BGT's own presentation given on this date, Ofgem has been unable to trace the values provided in this presentation to xoserve data given to the Development Group. Neither this presentation nor the Proposal indicates whether this information is publically

²⁶ xoserve presentation to UNC Development Work Group 194 at <http://www.gasgovernance.com/NR/rdonlyres/60AA3421-27AC-4C8B-A5BB-1940D091C894/26866/Mod208Unregistered1.ppt>, 7 July 2008

²⁷ UNC Modification Proposal 194: Development Work Group at <http://www.gasgovernance.com/Code/DWGs/Mod0194/11Jul08/>

available source or provided independently from BGT to Centrica, nor is the term over which the sample is taken indicated anywhere in UNC228.

1.30. UNC228A takes the same approach in apportioning Unidentified Gas between industry sectors, and applies the distribution from UNC228 to a fixed volume (calculated by the Proposer as 10.03TWh) to produce an estimated volume attributable to the LSP sector for RbD charges attributable to Unidentified Gas.

Supply Point metering errors

1.31. Supply Point metering errors relate to inaccurate recording of the quantity of gas by instruments measuring gas taken by customers at individual supply points. This measure could therefore potentially realise a credit (or debit) to RbD, in the instance of a meter over-recording (or under-recording) the quantity of gas consumed by customers at these supply points. Meter accuracy may differ due to the location of the meter (differences in positioning and altitude will effect the temperature and pressure of gas which passes through individual meters, meaning meters measure similar volumes will return different calorific values).

1.32. No evidence was presented to the Development Group to identify levels of supply point meter error. In a manner similar to theft, it is difficult to define levels of Unidentified Gas which may be attributable to this measure without first identifying the occurrence of an error itself. However, meter accuracy is an issue for debate in the industry, with research by Ofgem illustrating that not all meters fall within the prescribed 2% accuracy limits.²⁸ Whilst this measure is included in the RbD Allocation Table under UNC194, no value is associated with it in UNC228. It is absent from the LSP Unidentified Gas Allocation Table in UNC194A and UNC228A. We consider that collation of data on meter accuracy, and particularly differences in meter accuracy between SSP and LSP NDM sites, could potentially have a large impact on calculations of 'genuine' RbD, and would welcome industry initiatives to investigate and improve meter accuracy.

Theft (including unreported meter bypasses)

1.33. The extent of theft of gas is, by its nature, difficult to assess. In its investigation of RbD published in 2006, Ofgem observed that "understanding the extent of theft is not simply a matter of identifying the difference between the inputs to and offtake from the pipeline system".²⁹ Responsibility for detection of theft of gas falls on both suppliers and transporters. However, only a small proportion of total

²⁸ "Gas Meters – Disputed Meter Accuracy" at <http://www.ofgem.gov.uk/Networks/Archive/12304.pdf>

²⁹ 'Review of Reconciliation by Difference (RbD)' at http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/13487-RbD_FinalV1.1.pdf, p18

theft is identified prior to ECV offtake, and therefore the majority of this responsibility falls upon the supplier community. Under existing RbD arrangements, the costs of Unidentified Gas deemed to be the result of theft downstream of the ECV are therefore borne entirely by the SSP sector.

1.34. Unlike many the other contributory factors to RbD, theft poses significant externalities. Theft of gas can cause serious potential risks to perpetrators and the public, and can also potentially cause damage to gas distribution networks and meter equipment, and may present an environmental hazard. It is in the interest of all parties that theft of gas and any associated damage is minimised.

1.35. Measuring the extent of theft is problematic due to the large number of premises which use gas and gas meters presenting the potential for theft. Any attempt to assess the extent of theft should therefore take into account not only the level of proven theft but also unproven otherwise unidentified theft. Not all allegations of theft result in the identification of a quantity of gas being lost to theft; nor are all allegations investigated due to resource constraints or timing-out issues. It is difficult to estimate what proportion of Unidentified Gas occurs as a result of theft with any degree of confidence. According to data provided by xoserve to the Development Group, a total of 53GWh of gas (0.004% of total throughput) was attributed to proven theft between April 2007 and March 2008, whilst in to Ofgem's 2006 paper, the figure traditionally attributed to unidentified theft of gas is 0.3% of total LDZ consumption.³⁰

1.36. The UNC228 FMR argues that theft is believed to be by far the biggest contributor to RbD error.³¹ Table 2 shows the number of allegations of theft by sector between 2007 and 2008.

1.37. At present all RbD costs for theft, as with all other RbD costs, are borne by SSPs.³² It is clear from evidence presented to the Development Group by xoserve that a proportion of this theft occurs in the LSP sector. The UNC228 FMR argues that the existing treatment of theft fails to provide appropriate incentives to the LSP sector and to allocate costs of theft in a way which reflects the sector in which they are incurred. We agree that the present methodology fails to present appropriate incentives to the LSP sector to address theft. Moreover, it implies that SSP shippers are required to bear costs which they are unable to influence directly. As the

³⁰ *ibid*, p18

³¹ UNC Modification Proposal 228 at <http://www.gasgovernance.com/NR/rdonlyres/8BC5D13D-A559-4FC6-8096-37FA6A9D75B1/32888/02280228AFinalModificationReportv20.pdf>

³² Although shrinkage payments made by shippers under the GDPCR arrangements include an element for theft which occurs upstream of the Emergency Control Valve (ECV).

investigation of theft incurs costs, LSP shippers therefore currently have little incentive (or even a disincentive)³³ to investigate allegations of theft.

1.38. Investigating theft can be a costly process and can require shippers to devote significant resources without any guarantee that these will be recovered at a later date. Since detection of theft of gas allies significant social benefits with potential private costs, it is reasonable for the costs of detection to be socialised where these costs cannot be recovered from the customer and a supplier has made reasonable efforts to do so. We consider that it is essential that appropriate incentives are in place to encourage suppliers to detect theft. Investigations to address the theft arrangements in both the LSP and SSP sectors through UNC Modification Proposal 231 and UNC Review Group 245 are underway at the time of publication.

1.39. Care must be taken to distinguish between theft allegations and the actual prevalence of detected theft. Table 2 shows data presented to the Development Group by xoserve on 9 June 2008, illustrating that only 29% and 34% of theft allegations were found to be valid in the LSP and SSP sectors respectively. We consider it unlikely that the number of theft allegations reflects the upper limit on the extent of theft. Whilst Ofgem is aware of concerns that some shippers are not investigating all theft allegations, we welcome industry initiatives to better incentivise shippers to reduce theft.

Table 3: Allegations of Theft by Sector, 2007-2008

| Site Type | No of Allegations | %age of Allegations | Valid / Invalid | Reported Stolen kWhs | %age of Total Reported Stolen kWhs | No of Allegations | %age of Allegations |
|---------------|-------------------|---------------------|-----------------|----------------------|------------------------------------|-------------------|---------------------|
| LSP | 271 | 8.18% | Invalid | | | 192 | 5.80% |
| | | | Valid | 22,905,432 | 43.43% | 79 | 2.39% |
| SSP | 3041 | 91.82% | Invalid | | | 1998 | 60.33% |
| | | | Valid | 29,838,344 | 56.57% | 1043 | 31.49% |
| Totals | 3312 | 100.00% | | 52,743,776 | 100.00% | 3312 | 100.00% |

Source: xoserve³⁴

1.40. UNC228 introduces three proposed methodologies for allocating Unidentified Gas due to theft between industry sectors, which are outlined in Chapter 2. It identifies the third option, the mean of the percentage of detected theft by reported volume in each sector and the sum of the percentage of AOs of meter points associated with allegations of theft in each sector, as its preferred methodology.

³³ Note that Users are eligible to claim for some costs of investigating theft through the Reasonable Endeavours Scheme.

³⁴ xoserve: 'Theft of Gas Statistics' at <http://www.gasgovernance.com/Code/DWGs/Mod0194/09Jun08/>

1.41. We consider each of these methodologies to be imperfect. Apportioning gas based purely on the level of allegations in each industry sector will mean that both proven and unproven allegations are reflected in payments made by LSP customers, as will using an average between detected theft and allegations. Using the mean value of allegations and detected theft or a consistently applied 'uplift' to reflect undetected theft will not reflect differences in detection rates between industry sectors, and as a result may lead to misallocation of the quantity of theft in each sector. The possibility of differences in the propensity to commit and incentives to investigate theft are acknowledged in UNC228, but the Proposal does not suggest including any further research in an attempt to assess the true extent of theft in each sector. Indeed, UNC228 argues that the lack of incentives to detect theft at Large Supply Points means that "alleged theft is likely to be a more reliable indicator of apportionment than the level of detected theft". This lack of information regarding theft in each sector creates difficulty in producing a reliable distribution of Unidentified Gas between industry sectors, and calls into question whether such a distribution would represent an improvement on the existing baseline.

1.42. The lack of certainty underlines the need for further investigation of the extent of theft in each industry sector and how individual shippers in each sector are incentivised to target theft and for appropriate incentives to be put in place to reduce the quantity of gas lost to theft.

1.43. The methodology employed by UNC228 uses the extent of detected theft over a period from July 2003 to March 2007. It appears that this period has been chosen for no reason other than that it represents the longest data period provided by xoserve. The methodology employed by UNC228A simply applies the percentage figure for LSP energy devised under UNC228 to a total annual RbD volume to derive a fixed value. The difficulty in tracing the data used to populate the other columns in the tables introduced in UNC228 and UNC228A means it is difficult to identify whether the period used to gather data is consistent across all categories in both tables. Using long-period data (over a five year period, for instance) may dilute the impact of new incentives to reduce theft as shippers will in effect be penalised for poor performance in their sector in the distant past.

Theft and the 'balancing factor'

1.44. In addition, the methodology for the RbD Allocation Table introduced in UNC228 assumes that theft is a 'balancing factor' in RbD calculations where no other explanation for Unidentified Gas is forthcoming, and allocates any energy which is not classified under the other causes of Unidentified Gas using the distribution as for theft. This is replicated in UNC228A, where the value allocated to theft in the LSP Unidentified Gas Allocation Table reflects the balance of the total volume of Unidentified Gas allocated to LSPs.

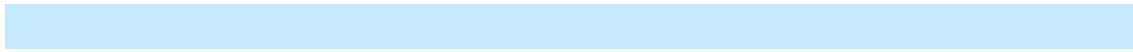
1.45. In their response to UNC228, BGT argue that "no alternative view or supporting evidence has been put forward that can explain why after known errors and genuine reconciliation are accounted for that RbD remains so high". Whilst it is the case that none of the Modification Proposals within scope of this Impact Assessment offers a solution to gas which remains unidentified following the presentation of data to the

Development Group, the appointment of a third party expert under UNC229 offers a path to a fully researched methodology which may develop the industry's understanding of Unidentified Gas.

1.46. Whilst this methodology allows all risk from Unidentified Gas to be shared between both SSP and LSP sectors through the RbD arrangements, it is likely that factors unknown other than theft may contribute to this 'balancing item'. As is acknowledged by the UNC228 FMR, there is potential for measurement error caused by supply point metering and LDZ offtake metering, but this value is set at zero. It is likely that the true extent of Unidentified Gas as a result of all underlying causes is likely to remain uncertain until detection of the underlying problem. This creates a significant risk that applying a 'balancing factor' based on the distribution for theft may risk misallocating gas.

1.47. In their response to UNC228, BGT suggest that the only alternative to using theft as a 'balancing item' is to charge all gas which remains unallocated after tracing the causes of Unidentified Gas be charged to LSP and SSP sectors on a throughput basis. We consider that such an approach would risk misallocation of energy and would therefore not represent an improvement on the position offered by status quo. Given the shortage of available information we consider that a conservative approach, targeting costs which can be positively associated with the LSP sector, to be preferable.

1.48. In Ofgem's decision letter on UNC115 and UNC115A, we stated that "whilst it may be inappropriate for LSPs to contribute nothing to the cost of theft, it would also be inappropriate for them to contribute too much".³⁵ Whilst we welcome the additional efforts taken by both UNC194 and UNC228 to positively identify Unidentified Gas which is the result of theft, we consider that there is still little evidence to support the contention that all Unidentified Gas which cannot be allocated to one of the categories within the RbD Allocation Table should be distributed according to the values for allocating Unidentified Gas due to theft. Therefore we consider that allocating Unidentified Gas on this basis may lead to a misallocation of gas between industry sectors. We consider that a more pragmatic approach, based on allocating Unidentified Gas which can be positively identified as originating in the LSP sector or based on assumptions tested by rigorous analysis from an independent third party, represents an improvement on the existing baseline.



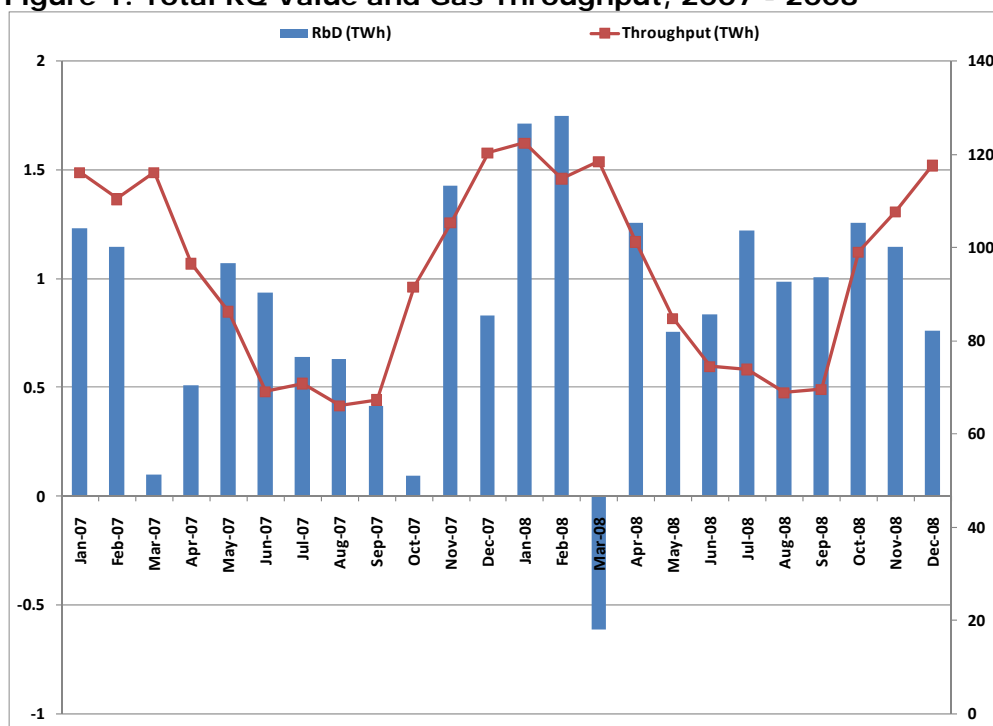
³⁵ Ofgem decision on UNC Modification Proposal 115 at <http://www.gasgovernance.com/NR/rdonlyres/6CCDB58B-AB98-4CB5-A97E-D2CA300995AC/20937/01150115AOfgemDecision.pdf>, p6

Appendix 3 - Seasonality and Reconciliation by Difference

1.1. The extent of the Unidentified Gas allocated under the RbD mechanism can vary greatly from year to year, both in volumetric and cash terms. In 2008 the total energy allocated amounted to 12.1TWh, an increase of 32% from 2007's figure of 9.1TWh. Presently RbD is charged to SSPs at the applicable daily rate of SAP for the duration of reconciliation. Variations in the total charge made under RbD can therefore vary due to swings in SAP rates, or due to changes in the volume of gas which is unidentified.

1.2. Figure 1 shows the monthly volume of Unidentified Gas mapped against throughput.³⁶ Whilst it is difficult to observe a strong seasonal pattern, it should be noted that xoserve's processes of accounting for RbD may mean that the month in which costs of Unidentified Gas are charged to RbD does not necessarily reflect the month in which the error occurred. Whilst the sample illustrated in Figure 1 is small, it is possible to see some limited link with seasonality, in that the highest RbD charges are made when throughput is highest.

Figure 1: Total RQ Value and Gas Throughput, 2007 - 2008



Source: xoserve, National Grid

³⁶ Negative values for the RbD quantity reflect a monthly credit rather than charge to the RbD pot in that month.

1.3. The RbD Allocation Table proposed by UNC194 distributes the volume of Unidentified Gas on the basis of each sector bearing a fixed proportion of total gas charged to RbD. This allows for significant variability in the quantity of gas charged to each sector under the RbD arrangements, which would reflect any seasonal variance in RbD.

1.4. In the UNC194A FMR, Corona Energy argues that the monthly profile of RbD is not predictable, and as such does not follow the expected pattern of imbalance energy. In their responses to UNC194, several LSP shippers have suggested that unidentified energy will not vary along a seasonal pattern, rendering a fixed monthly charge as a more equitable means of attributing unidentified energy to shipper communities. In addition, UNC194A suggests that behaviour of customers at LSPs is more predictable than SSPs, and is less subject to seasonal variation.

1.5. In their response to UNC194, National Grid Distribution (NGD) suggest that almost all NDM Allocation profiles show seasonal trends consistent with weather sensitivity.³⁷ They also argue that energy charged to RbD also shows a seasonal trend, as is borne out to some extent by the evidence above; whilst winter months generally show higher levels of energy charged to RbD than summer months. (The exception to this is the volume of gas charged to RBD in March, which are lowered by the Mod 640 offline adjustment made by xoserve in March every year).³⁸

1.6. In their response to UNC194 and UNC194A National Grid notes that supply points which are unregistered or stealing gas are likely to remain sensitive to seasonal changes in temperature, as most SSP and NDM LSP sites use gas mainly for space heating. However, it is possible to argue that a fixed volumetric charge would not take into account any proven seasonal variations in consumption at unregistered sites and in gas taken through theft, and that if consumption is higher in winter months when gas prices are likely to be higher, the cash sum charged to LSP shippers reflecting this fixed volumetric allowance under the arrangements under UNC194A and UNC228A is likely to be understated.

1.7. The main known components of the Unidentified Gas are theft and gas offtaken at unregistered sites. Whilst the final proposals for the December 2007 GDPCR, Ofgem recognised that the volume of gas lost to theft at GDN level was likely to be insignificant enough not to merit a specific volume based metric,³⁹ intuitively it is

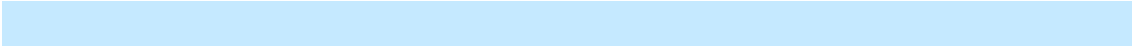
³⁷ "National Grid Distribution response to UNC Modification Proposal 194" at <http://www.gasgovernance.com/NR/rdonlyres/83FF5B92-5D9D-4B38-A0F8-06FD8E39349E/29269/01940194ANGDistributionresponse.pdf>

³⁸ An end-of year reconciliation performed by xoserve to correct for supply points crossing the threshold between SSPs and LSPs. More details may be found at <http://www.gasgovernance.com/networkcodearchive/640-700/0640.zip>

³⁹ "Gas Distribution Price Control Review Final Proposals" at <http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf>, p86

unproven that patterns of consumption due to theft or at unregistered sites will differ greatly from those which are not registered with a shipper without further investigation of the these factors. Therefore it we believe it is possible that both of these components could be expected to have a seasonal profile.

1.8. We note that there is an amount of apparently conflicting evidence regarding the seasonal nature to the make-up of Unidentified Gas. In the light of this, we feel that apportioning a fixed volume of energy to the LSP sector represents a pragmatic approach and will present an improvement on the existing baseline. However, should further investigation of conclusive evidence of seasonal factors affecting the underlying causes of Unidentified Gas, we would expect any methodology for the allocation of Unidentified Gas (including any methodology proposed by an independent third party) to reflect this.



Appendix 4 – xoserve data provided to Ofgem

This appendix comprises the data provided to Ofgem by xoserve and employed in Ofgem's analysis to calculate estimated impacts of the Modification Proposals within scope of this Impact Assessment.

Table 1: Total Gas Volume and Financial Value Charged to Reconciliation by Difference, 2007- 2009

| | Total RQ Value | Total Financial Value |
|---------------|------------------------|-------------------------|
| Jan-07 | -1,232,505,080 | -£16,484,465.24 |
| Feb-07 | -1,150,449,645 | -£17,507,534.94 |
| Mar-07 | -102,446,611 | £6,199,537.12 |
| Apr-07 | -514,654,184 | -£7,642,520.92 |
| May-07 | -1,071,891,999 | -£16,585,089.96 |
| Jun-07 | -936,181,351 | -£12,876,509.16 |
| Jul-07 | -640,866,695 | -£10,152,556.83 |
| Aug-07 | -630,687,895 | -£9,232,414.57 |
| Sep-07 | -416,809,817 | -£6,660,243.56 |
| Oct-07 | -96,334,038 | -£2,289,160.91 |
| Nov-07 | -1,431,059,030 | -£17,595,641.85 |
| Dec-07 | -834,866,122 | -£11,300,611.34 |
| Jan-08 | -1,713,981,542 | -£24,541,649.94 |
| Feb-08 | -1,747,666,018 | -£24,756,928.43 |
| Mar-08 | 609,070,205 | £6,400,174.18 |
| Apr-08 | -1,257,040,123 | -£17,697,335.60 |
| May-08 | -759,989,334 | -£11,039,047.19 |
| Jun-08 | -836,767,913 | -£14,720,256.55 |
| Jul-08 | -1,225,070,151 | -£22,181,995.62 |
| Aug-08 | -987,223,228 | -£16,258,591.27 |
| Sep-08 | -1,010,380,475 | -£16,830,065.25 |
| Oct-08 | -1,260,996,174 | -£22,612,766.44 |
| Nov-08 | -1,146,748,635 | -£19,114,350.88 |
| Dec-08 | -762,907,441 | -£13,907,925.08 |
| Jan-09 | -1,878,719,128 | -£34,764,905.92 |
| Feb-09 | -623,239,709 | -£8,581,652.23 |
| Mar-09 | -1,248,665,044 | -£21,019,417.47 |
| Apr-09 | -894,884,777 | -£17,299,495.13 |
| Totals | -25,803,961,954 | -£401,053,420.98 |

Source: xoserve

Table 2: Total Directly Connected Sites by classification, 2007 - 2009

| | Small SP | Small I&C | Large I&C | Totals |
|---------------|------------|-----------|-----------|------------|
| Jan-07 | 21,001,386 | 340,094 | 35,356 | 21,376,836 |
| Feb-07 | 21,016,149 | 338,884 | 35,334 | 21,390,367 |
| Mar-07 | 21,018,176 | 339,630 | 35,371 | 21,393,177 |
| Apr-07 | 21,023,909 | 339,734 | 35,405 | 21,399,048 |
| May-07 | 21,028,671 | 339,624 | 35,443 | 21,403,738 |
| Jun-07 | 21,039,244 | 338,554 | 35,456 | 21,413,254 |
| Jul-07 | 21,051,218 | 336,309 | 35,464 | 21,422,991 |
| Aug-07 | 21,056,103 | 336,395 | 35,475 | 21,427,973 |
| Sep-07 | 21,061,520 | 336,560 | 35,488 | 21,433,568 |
| Oct-07 | 21,063,593 | 336,616 | 35,490 | 21,435,699 |
| Nov-07 | 21,081,667 | 326,941 | 33,530 | 21,442,138 |
| Dec-07 | 21,091,915 | 325,486 | 33,513 | 21,450,914 |
| Jan-08 | 21,102,946 | 323,685 | 33,443 | 21,460,074 |
| Feb-08 | 21,110,424 | 322,789 | 33,423 | 21,466,636 |
| Mar-08 | 21,118,430 | 321,885 | 33,421 | 21,473,736 |
| Apr-08 | 21,125,693 | 322,210 | 33,413 | 21,481,316 |
| May-08 | 21,133,724 | 321,259 | 33,431 | 21,488,414 |
| Jun-08 | 21,141,910 | 320,737 | 33,429 | 21,496,076 |
| Jul-08 | 21,149,226 | 320,538 | 33,419 | 21,503,183 |
| Aug-08 | 21,154,200 | 320,398 | 33,400 | 21,507,998 |
| Sep-08 | 21,160,204 | 320,517 | 33,441 | 21,514,162 |
| Oct-08 | 21,189,218 | 299,662 | 32,828 | 21,521,708 |
| Nov-08 | 21,179,365 | 299,422 | 32,811 | 21,511,598 |
| Dec-08 | 21,182,310 | 298,951 | 32,851 | 21,514,112 |
| Jan-09 | 21,189,986 | 296,911 | 32,884 | 21,519,781 |
| Feb-09 | 21,190,108 | 295,544 | 32,910 | 21,518,562 |
| Mar-09 | 21,194,500 | 295,130 | 32,966 | 21,522,596 |
| Apr-09 | 21,201,072 | 294,807 | 32,984 | 21,528,863 |

Source: xoserve

Appendix 5 – Proposed Theft Distributions under UNC228

1.1. UNC228 offers three options for apportioning Unidentified Gas in the theft category (i.e. actual theft as well as the 'balancing factor'). All methods consider that the propensity for theft at daily metered sites is 'negligible'. Option 3 (below) is used by the proposer of UNC228, but other options are included for comparison. The options are;

- **Option 1 - Percentage of AQ of Allegations**

This methodology proposes apportionment of Unidentified Gas in theft category based on the proportion of AQ at sites at which allegation of theft have been made in each sector. The proposal cites xoserve data to estimate that 55.35% of RbD volume allocated to theft would be borne by the SSP sector using this measure, with the remaining 44.65% borne by the LSP NDM sector.

- **Option 2 – Corrected Percentage of 'valid' theft energy**

This methodology proposes to apportion Unidentified Gas to the LSP sector by applying a conversion factor to detected theft to reflect the extent of theft allegations in this sector. This would uplift the 3.3% of detected theft occurring in the LSP NDM sector to 7.9%. UNC228 argues that this will compensate for the "frequent failure of many LSP suppliers to submit the kWh volume of stolen gas to the Transporter" and to "correct for the significantly lower detection rate of LSP suppliers that is a result of the lack of incentives upon them to detect theft". However, UNC228 argues that this would still underestimate the extent of theft within the LSP sector, due to the reduced incentives that exist within the LSP sector to combat theft.

- **Option 3 – Simple average between allegations and detected theft**

This methodology proposes calculating a mean of the percentage of allegations and percentage of detected theft present in each sector. This would apportion 29.35% of Unidentified Gas in the theft category to the LSP sector and 70.65% to the SSP sector.

1.2. The proposer expresses a preference for Option 3, on the basis that this presents "a more conservative approach". This methodology is used to populate the table proposed in UNC228.

Appendix 6 – RbD Allocation Tables

This appendix represents the proposed distributions of Unallocated Gas under UNC228 and UNC228A.

Table 1: Proposed Distribution of Unidentified Gas under UNC228: RbD Allocation Table

| Apportionment of RbD under UNC228, Option 1: Percentage of Allegations | | | | | | | | | | |
|--|----------------|------------------------|-----------------------------|----------|-----------------------------|----------|----------------------|---------|------------|-----------|
| ISSUE | % Of Rbd Error | APPORTIONMENT OF ERROR | | | | | APPORTIONMENT OF RbD | | | |
| | | % SSP | SSP Remote Metering Reading | %LSP NDM | LSP Remote Metering Reading | % LSP DM | SSP | SSP AMR | LSP NDM | LSP AMR |
| Read submission issues | 15% | 100% | | 0% | | 0% | 15% | | 0% | 0% |
| Late Confirmations | 3% | 24% | | 74% | | 2% | 1% | | 2% | 0% |
| Temp & Press I&C (LSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Temp & Press Dom (SSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| IGT issues | 6% | 88% | | 12% | | 0% | 5% | | 1% | 0% |
| LDZ Shrinkage | 0% | 62% | | 24% | | 14% | 0% | | 0% | 0% |
| Theft | 76% | 55% | | 45% | | 0% | 42% | | 34% | 0% |
| LDZ Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| End Supply Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Other | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| TOTAL | | | | | | | 63% | | 37% | 0% |

| Apportionment of RbD under UNC228, Option 2: Percentage of Allegations with 'uplift' | | | | | | | | | | |
|--|----------------|------------------------|-----------------------------|----------|-----------------------------|----------|----------------------|---------|-----------|-----------|
| ISSUE | % Of Rbd Error | APPORTIONMENT OF ERROR | | | | | APPORTIONMENT OF RbD | | | |
| | | % SSP | SSP Remote Metering Reading | %LSP NDM | LSP Remote Metering Reading | % LSP DM | SSP | SSP AMR | LSP NDM | LSP AMR |
| Read submission issues | 15% | 100% | | 0% | | 0% | 15% | | 0% | 0% |
| Late Confirmations | 3% | 24% | | 74% | | 2% | 1% | | 2% | 0% |
| Temp & Press I&C (LSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Temp & Press Dom (SSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| IGT issues | 6% | 88% | | 12% | | 0% | 5% | | 1% | 0% |
| LDZ Shrinkage | 0% | 62% | | 24% | | 14% | 0% | | 0% | 0% |
| Theft | 76% | 92% | | 8% | | 0% | 70% | | 6% | 0% |
| LDZ Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| End Supply Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Other | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| TOTAL | | | | | | | 91% | | 9% | 0% |

| Apportionment of RbD under UNC228, Option 3: Average between allegations and detected theft | | | | | | | | | | |
|---|----------------|------------------------|-----------------------------|----------|-----------------------------|----------|----------------------|---------|------------|-----------|
| ISSUE | % Of Rbd Error | APPORTIONMENT OF ERROR | | | | | APPORTIONMENT OF RbD | | | |
| | | % SSP | SSP Remote Metering Reading | %LSP NDM | LSP Remote Metering Reading | % LSP DM | SSP | SSP AMR | LSP NDM | LSP AMR |
| Read submission issues | 15% | 100% | | 0% | | 0% | 15% | | 0% | 0% |
| Late Confirmations | 3% | 24% | | 74% | | 2% | 1% | | 2% | 0% |
| Temp & Press I&C (LSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Temp & Press Dom (SSP) | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| IGT issues | 6% | 88% | | 12% | | 0% | 5% | | 1% | 0% |
| LDZ Shrinkage | 0% | 62% | | 24% | | 14% | 0% | | 0% | 0% |
| Theft | 76% | 71% | | 29% | | 0% | 54% | | 22% | 0% |
| LDZ Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| End Supply Metering | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| Other | 0% | 62% | | 38% | | 0% | 0% | | 0% | 0% |
| TOTAL | | | | | | | 75% | | 25% | 0% |

Source: UNC228, Ofgem analysis

Table 2: Proposed Distribution of Unidentified Gas under UNC228A: LSP Unidentified Gas Allocation Table

| Annual Apportionment of RbD under UNC228A | | | |
|---|-----------------|--------------|-----------------|
| ISSUE | Market Segment | | Total |
| | LSP NDM (GWh) | LSP DM (GWh) | |
| Late Confirmations | 211.83 | 5.72 | 217.55 |
| IGT issues | 68.7 | 0 | 68.7 |
| LDZ Shrinkage | 0.009 | 0.005 | 0.014 |
| Theft | 2691.74 | 0 | 2691.74 |
| TOTAL | 2972.279 | 5.725 | 2978.004 |

Source: UNC228A

Appendix 7 - Governance of the Apportionment of Unidentified Gas Expert (AUGE) under UNC229

1.1. This appendix examines the proposed governance arrangements for the appointment of an Apportionment of Unidentified Gas Expert (AUGE) under UNC229.

Challenging appointment of an AUGE

1.2. The UNCC will draw up a set of criteria for tenders from candidates for the position of AUGE. If more than one prospective candidate indicates interest, each tender will be assessed against how well they meet those criteria.

1.3. A prospective AUGE is required to inform GTs of any potential conflict of interest or duty which may compromise the contract held with GTs. GTs will forward this information to Users and Committee Members, any of whom may object to the appointment of the AUGE within five working days of disclosure of this information. In this instance a new AUGE will be appointed by repeating the tender sift process.

Challenging the methodology and AUGS produced by the AUGE

1.4. There are a number of opportunities for submissions to be made to allow shippers to impress their views upon the AUGE prior to publication of a final AUGS, most notably a 28 day consultation period following publication of a draft methodology by the AUGE and prior to the UNCC vote to approve the AUGS.

1.5. The Unidentified Gas Statement will be approved by a vote of the UNCC. Decisions made by the UNCC may be challenged by raising a Modification Proposal. The UNCC is made up of the same representatives as the Modification Panel, i.e. five Transporter and five Shipper representatives (presently two domestic shippers and three from the independent I&C sector). As with the Modification Panel, the UNCC presently does not include consumer representatives.

1.6. In addition, submissions may be made to the AUGE following approval of the final AUGS through an online query process. UNC Code Parties may raise issues with the AUGE using an online query form. Issues raised by this process will be assigned a classification according to whether the AUGE believes they will require material changes to the AUGS. If the AUGE determines any issue raised will have a material impact on final gas volumes, it will offer a revised AUGS. However, the materiality and outcome of any such query will ultimately be determined by the AUGE itself.

1.7. Finally, if a User believes the AUGE has not followed its mandate in implementing the methodology as prescribed by the AUGS, it would have the right of appeal to Ofgem via the Modification process.

Appendix 8: Previous decisions made by Ofgem

1.1. This appendix examines previous decisions made by Ofgem relating to Reconciliation by Difference.

UNC Modification Proposals 115 and 115A

1.2. UNC Modification Proposal 115 was proposed by BGT on 8 March 2007. An alternative, UNC Modification Proposal 115A, was proposed by GdF on 19 April. Both proposals were rejected by Ofgem on 25 October 2007.

1.3. In its decision on UNC Modification Proposals 115 and 115A, Ofgem said that neither proposal addressed the underlying issues which contribute to RbD. Ofgem considered the underlying issues were leading to a higher than acceptable RbD charge, and that they had failed to be addressed by either proposal, for example by introducing incentives for either sector to reduce the quantity of gas allocated to RbD. Ofgem did consider that exposing LSP shippers to the costs of RbD may provide a diluted incentive for them to seek improvements in some areas, for instance around LSP reconciliation periods.

1.4. Ofgem's decision letter considered that proper assessment of RbD would require consideration of each contributing factor to the RbD costs to be assessed in turn and if possible quantified. Ofgem did observe that the proposals "have made a convincing case for LSP sites to make a contribution to RbD costs", but also noted that the proposals did not provide sufficient evidence as to how big that contribution should be.

UNC Modification Proposal 232

1.5. UNC Modification Proposal 232 (UNC232) was raised by Total Gas and Power Ltd on 14 October 2008. It proposed that the existing Shrinkage methodology be expanded to cover Unidentified Gas, including late confirmations, unregistered and orphaned sites, shrinkage errors not accounted for by the transporters' allowance and theft. These new shrinkage costs would be recovered from shippers via GDN distribution charges.

1.6. Information provided to Ofgem by xoserve indicates that the volumes charged to the SSP sector through the RbD mechanism in 2007 and 2008 totalled 9.1TWh and 12.1TWh. Ofgem's Gas Distribution Price Control Review (GDPCR), published in December 2007, provides for a fixed allowance of gas volume to be charged to Shippers under the shrinkage arrangements, which will vary between 4,090 GWh for

2009/10 and 3,904 GWh for 2012/13.⁴⁰ From this it was clear that the level of Unidentified Gas charged under the present methodology for calculating RbD is significantly larger than the fixed volumetric allowance for shrinkage under the Price Control mechanism.

1.7. The GDPCR set out the mechanism by which GDNs are able to recover shrinkage costs and associated incentive schemes (including incentives to reduce shrinkage) for five years from April 2008. Ofgem's Gas Final proposals for the GDPCR included an assessment of the GDNs shrinkage and leakage forecasts and did not include Unidentified Gas as envisaged by UNC232. To include Unidentified Gas in the shrinkage mechanism would require a change to the GDN baseline allowances and reconsideration of the shrinkage incentive itself.

1.8. Both of these are significant pieces of work that would require full discussions with the GDNs, collection and analysis of significant volumes of information, and ultimately recalculation of the shrinkage and hence price control allowances. For this reason Ofgem decided that to implement UNC232 would require a re-opening of the GDPCR. Ofgem indicated that they were unlikely to consider this appropriate for the purposes of this Proposal, and for this reason the proposal had little reasonable prospect of being accepted.

1.9. The Proposal was withdrawn on 4 February 2009. However, it was decided that the deliberations of the Distribution Workstream on the proposal should be retained on file.

⁴⁰ 'Gas Distribution Price Control Review: Final Proposals' at <http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf>, 3 December 2007

Appendix 9 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.⁴¹

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly⁴².

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them⁴³;
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.⁴⁴

⁴¹ Entitled "Gas Supply" and "Electricity Supply" respectively.

⁴² However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

⁴³ under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed⁴⁵ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation⁴⁶ and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

⁴⁴ The Authority may have regard to other descriptions of consumers.

⁴⁵ or persons authorised by exemptions to carry on any activity.

⁴⁶ Council Regulation (EC) 1/2003

Appendix 10 - Glossary

A

Annual Quantity (AQ)

The sum (measured in kWh or therms) of the annual consumption of all meters on a site. AQs are based on historical usage from previous years and are used by NGG to forecast the demand for gas across its network.

Allocation of Unidentified Gas Expert (AUGE)

An independent expert to determine a methodology for the allocation of Unidentified Gas, to be appointed under the terms of UNC Modification Proposal 229.

Allocation of Unidentified Gas Statement (AUGS)

A statement detailing the proposed distribution of Unidentified Gas across industry sectors, to be produced by the AUGE under the terms of UNC Modification Proposal 229.

AQ Review

A review of the User's determination of the Annual Quantity in respect of a Supply Meter Point.

C

Connected System Exit Point (CSEP)

A point on the distribution system that comprises one or more individual offtakes that are not metered supply points. These include connections to Independent Gas Transporters (IGTs).

Customers

Parties who have a contract with a Supplier to offtake gas at a Supply Point.

D

Daily Calorific Value

The ratio of energy to volume measured in megajoules per cubic metre on a daily basis, under standard conditions of temperature and pressure.

Daily Metered (DM) Supply Points

Supply points that have annual gas consumption greater than 58,600,000KWh. DM Supply Points are equipped mandatory telemeter equipment, such as a datalogger. Any supply point which is directly connected to the NTS will also be daily metered.

Datalogger

An attachment to the meter to allow readings of gas consumed at the Supply Meter point to be recorded and communicated, usually on a daily basis.

E

Emergency Control Valve (ECV)

A valve which limits the supply of gas to an individual Supply Point.

End User Category

A category of NDM Supply Point Components in an LDZ.

G

Gas Distribution Network (GDN)

A network through which gas is taken from the high pressure transmission system and distributed through low pressure networks of pipes to industrial complexes, offices and homes. There are eight GDNs in Britain, each covering a separate geographical region.

Gas Transporters (GTs)

Holders of a licence to operate a system to convey gas granted under section 7 paragraph 4 of the Gas Act 1986 as amended.

I

Independent Gas Transporter (IGT)

An operator of a small local gas network, most of which are been built to serve new housing. IGTs may levy distribution charges on shippers.

L

Large NDM Supply Meter Points

see Non Daily Metered (NDM) Supply Meter Points

Large Supply Point Unidentified Gas Allocation Table

A table which is proposed to be added as an appendix to UNC under the terms of UNC Modification Proposal 194A.

Local Distribution Zones (LDZs)

Low pressure pipeline systems which deliver gas to final users and IGTs. There are twelve LDZs which take gas from the high pressure transmission system for onward distribution at lower pressures.

N

[National Grid Gas Plc \(NGG\)](#)

The owner and operator of the National Transmission System throughout Great Britain and owns and operates a Gas Distribution network in central England. NGG also provides, installs and maintains the vast majority of domestic gas meters in Great Britain.

[National Transmission System \(NTS\)](#)

National Grid's high pressure transmission system.

[Nested CSEP](#)

A CSEP which forms where an IGT adjoins another IGT network.

[Network Exit Arrangement \(NExA\)](#)

An arrangement created between gas distribution networks and IGTs, governing the responsibilities of either party.

[Non Daily Metered \(NDM\) Supply Meter Points](#)

Points at which consumers take gas from the network that do not have a meter recording daily flows. NDM Supply Meter Points are banded by AQ thresholds.

Small NDM Supply Meter Points have an AQ of less than 73,200 KWh per annum. The majority of Small NDM Supply Points are domestic consumers, although some may be used by smaller Industrial and Commercial customers.

Large NDM Supply Meter Points have an AQ between 73,200 and 58,600,000KWh per annum. A Supply Point with an AQ greater than 58,600,000KWh is required to be a Daily Metered Supply Point.

R

[RbD Allocation Table](#)

A table which is proposed to be added as an appendix to UNC under the terms of UNC Modification Proposal 194.

[Reconciliation by Difference \(RbD\)](#)

A methodology for reconciling the difference between allocated and actual energy consumed by small supply points which have an Annual Quantity (AQ) of up to 73,200 kWh.

Reconciliation Clearing Value (RCV)

Values derived from Meter Point Reconciliations in a LDZ within a billing period, and are aggregated into one of 3 sectors (the 6-monthly and 12-monthly and monthly sectors) depending on the source of the clearing value.

Reconciliation Quantity (RQ)

The difference between allocated and actual consumption which arises during the reconciliation of an LSP.

S

Shipper

An agent who arranges for the conveyance of gas over the distribution network to final consumers. Shippers pay distribution charges to the relevant gas transporter and are holders of a licence given under Section 7A (2) of the Gas Act 1986 as amended.

Shrinkage

Gas used by the system, for instance in the use of heaters or compressors, leakage and theft of gas. Further details are provided in Chapter 2.

Small NDM Supply Meter Points

see Non Daily Metered (NDM) Supply Meter Points

Supplier

Holders of a licence to supply gas given under Section 7A (1) of the Gas Act 1986 as amended or a person excepted from the requirement to hold a licence by virtue of paragraph 5 of schedule 2A of the Act.

Supply Meter Point (SP)

A point at which consumers take gas off the Network.

System Average Price (SAP)

The price set by all NGG (formerly Transco) and shipper trades on the OCM (on-the-day commodity market) on a given day.

U

Unidentified Gas

Gas which is offtaken at LDZs without being charged to any one shipper.

Uniform Network Code (UNC)

The contractual framework for the NTS, GDNs and System Users. Replaced NGG's Network Code on 1 May 2005.

Uniform Network Code Committee (UNCC)

A Committee established under the terms of the UNC, which may arrive at some decisions on matters of the UNC without reference to Ofgem. All members of the UNC Modification Panel are automatically members of the UNCC.

X

xoserve

A joint venture delivering transportation transactional services, owned by the five major GDNs and NGG.

Appendix 11 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

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