

## Reference 008

### Centrica

1. British Gas welcomes the current industry efforts to quantify and apportion unidentified gas which resides in the system and are therefore supportive of the Allocation of Unidentified Gas Expert's (AUGE) work. It has been accepted by the industry since 2005 that the present allocation of costs is unfair and after many subsequent years of delay, we regard the current momentum towards reform as positive.
2. We do however have concerns that the draft Allocation of Unidentified Gas Statement (AUGS) published on 4<sup>th</sup> May 2011 fails to set out an appropriate methodology for quantifying the size of unidentified gas, and that it contains errors and omissions which are likely to see the unfair allocation of costs to the Small Supply Point (SSP) sector continuing. Our response sets out these concerns and makes recommendations on how we believe the AUGE can address these issues before the final AUGS is published later this year. Whilst this detailed assessment is set out in Appendix One of this response, a summary of the key points is given below.
3. **Narrow range of sources.** The AUGE has only used some of the material available to them in developing the AUGS. Modification Proposals raised on this subject after 2009 are not referenced for example, and the only non-user analysis which is referenced is the TPA Solution report of January 2010.
4. **The assessment of model error is based on a misunderstanding.** In assessing the degree to which model error is attributable between the different market sectors, the AUGE misinterprets xoserve data on LDZ throughput as actual consumption data. The effect of this is that their conclusions on actual consumption do not allow for any unidentified gas, erroneously assigning all of it to the SSP sector in the process and leading to the incorrect conclusion that initial deeming in the SSP sector is more accurate when compared to the Large Supply Point (LSP) sector. In addition, we are concerned that the AUGE do not substantiate their conclusions about the size of model error and thus the central claim that the majority of Reconciliation by Difference (RbD) "*is largely composed of model error*".
5. **The scope of the AUGS is incomplete.** We believe the AUGE is wrong to exclude a number of unidentified gas sources from the scope of the AUGS, creating the real risk that the eventual conclusions will under-report the volume of unidentified gas currently misallocated in the market. In particular we believe the conclusion that errors in the Shrinkage model cannot lead to unidentified gas being misallocated to the SSP sector is flawed and consider that evidence exists which contradicts the AUGE's findings over LSP and LDZ meter error.
6. **The proposed methodology for assessing the known causes of unidentified gas is flawed.** We believe the proposals within the AUGS for quantifying the amount of unidentified gas created by unregistered and shipperless sites, theft and errors on independent Gas Transporter (iGT) networks need further development in order to avoid a large underestimate of the amount of unidentified gas in the system. In particular we disagree with the implication that all theft leads to an allegation being lodged with xoserve and believe that this artificial upper boundary on the levels of true theft is likely to distort the eventual conclusions significantly. Furthermore, as gas theft is difficult to detect and typically leaves no detectable signs unless caught in situ. The upper limit suggested is therefore unrealistic. We also challenge the assertion that individual unregistered sites cannot occur within an iGT network. In our experience they can, and do, exist.
7. Separately to this response we have commissioned an independent assessment on the scale and allocation of unidentified gas from Frontier Economics. As part of this work they have provided their own independent assessment of the draft AUGS, a copy of which has been provided to you under separate cover. The views within it are Frontier Economics' own and do not necessarily represent those of British Gas or Centrica, however we note their endorsement of the points we raise in this response.

8. If you have any questions regarding this response or any of the points raised within it, please do not hesitate to telephone me on 07789 570501.

Yours sincerely

David Watson  
Regulatory Manager, British Gas

## Appendix One – Detailed Response

### *Introduction*

9. British Gas welcomes efforts to quantify and fairly allocate the costs associated with unidentified gas and believes the work of the Allocation of Unidentified Gas Expert (AUGE)<sup>1</sup> has the potential to bring to an end to the inaccurate way in which unidentified gas costs are allocated in the market today and lay down a benchmark on how it should be allocated in future. We are also hopeful that the insight the AUGE can bring through this work on the causes of unidentified gas may help the industry develop future solutions which minimise the issue, delivering wider benefits for all customers, regardless of sector.
10. Against these expectations however, we are disappointed that the initial draft of the Allocation of Unidentified Gas Statement (AUGS) is flawed in a number of key areas. We recognise the opportunity this consultation process now gives the industry to identify these issues however, and raise them with the AUGE so that we can collectively avoid a large under-estimate of the amount of unidentified gas attributable to the Large Supply Point (LSP)<sup>2</sup> sector.
11. Our detailed response is set out below, but in particular we have concerns that the AUGE has chosen not to start from scratch in their assessment but have instead decided to rehash a narrow range of previous analyses which have already been shown to be flawed. We believe this has led to mistakes in assessing the value and significance of Model Error, a failure to identify all the potential causes of unidentified gas and errors in the assessment of the scale of unidentified gas correctly identified.
12. We also note that the approach adopted by the AUGE seems to assume that any consumption which cannot be absolutely established as having been generated in the LSP sector must be allocated to the SSP sector, instead of a having a reasoned assessment on how that energy might be fairly allocated between the sectors. Such an approach mirrors the current allocation regime which the AUGE has been brought in to correct, and is flawed as an approach.

### *Alternative method*

13. The alternative method considered by the AUGE<sup>3</sup> is not sufficiently defined for us to make an assessment of its suitability, but there is sufficient detail for us to determine that the approach suggested would lead to erroneous results. For example, the AUGE suggests that they could use demand data from the “training sample” of approximately 4000 meters with daily recording equipment, and then use this to model SSP load. It is not clear how the results of this will be weather corrected and scaled up however, and considering the best known method of doing this currently is the existing NDM allocation process, we have concerns that the AUGE’s approach may perpetuate the misallocation issues currently faced by the SSP sector.

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<sup>1</sup> GL Noble Denton has been appointed as the AUGE.

<sup>2</sup> Large Supply Points are defined as those Supply Points with an annual quantity, or estimated consumption, of >73,200KWh. Small Supply Points are defined as those Supply Points with an annual quantity, or estimated consumption, of <73,200KWh.

<sup>3</sup> Allocation of Unidentified Gas Statement, page 11.

14. Furthermore, and given the purpose of the NDM sample is to derive the consumption profile shapes used in the NDM demand models, we do not believe it is appropriate to use it as indication of SSP market consumption. We also note that the sample may have biases within it, for example, customers have to actively respond to a letter asking for their consent before having demand recording equipment installed and no prepayment customers are included. This may make the sample tend towards more stable customers with fewer house moves and larger gas consumptions. Our conclusion is that whilst a “top down” approach may have merits a different approach would be required by the AUGE.

*A narrow range of sources and reliance on existing flawed analysis*

15. In addition to the concerns expressed above about the high level approach the AUGE has taken to this analysis, we are also concerned that, from the references contained within the AUGS, they have chosen to consider only some of the available material. As the AUGE states, there have been “*several UNC modifications proposals intended to resolve this issue*”<sup>4</sup> and there is therefore a large volume of previous work for the AUGE to draw upon the course of developing their methodology. The AUGS only references unidentified gas related Modification Proposals raised before 2009<sup>5</sup> however, and ignores a number of Modification Proposals which were raised after that point, including 0317, 0317A and 0327.
16. We are also concerned that the AUGS appears to rely solely on a report written by TPA Solutions<sup>6</sup> as the only non-user assessment of unidentified gas when in fact there are other sources of information on the subject too. For example, no direct reference is made to the Cambridge Economic Policy Associates (CEPA) paper on the same subject<sup>7</sup> and neither is it listed as a reference by the AUGE. Whilst we have specific concerns with the accuracy of the TPA Solutions report<sup>8</sup> we believe that ignoring other bodies of work on the subject limits the value of the AUGS itself. Specifically, relying on the analysis of one sector of the industry at the expense of others inevitably risks the AUGS becoming as partisan as the analysis it relies on.
17. By way of example, we wish to stress that the report which the AUGE bases a large part of their work on is characterised by the I&C Shippers and Suppliers Group (ICoSS) as “*not underpinned with sound data*” and that “*more high quality information and data is required before an apportionment methodology (such as the AUGS) could be used in practice*”.<sup>9</sup>
18. Finally, we believe that when the AUGE publish the final AUGS, there exists an opportunity to publish a full list of sources which have been used, enabling the industry and future AUGES to understand the depth of the analysis provided.

*The conclusions on model error are based on a misunderstanding of the data.*

19. The AUGE concludes that “*the RbD quantity, whilst containing an element of Unidentified Gas, is largely composed of model error*”<sup>10</sup> and that as such the majority of RbD should be apportioned to the SSP sector. This statement appears to be based on TPA Solutions figures which purport to show that in the initial allocation LSP sites are over allocated by an average of 8.9% per annum whereas SSP sites are over allocated by an average of just 1.8% per annum<sup>11</sup>. The AUGE uses this to make two distinct conclusions, firstly that that LSP sites suffer from a greater degree of over-allocation compared to SSP sites and secondly that the

<sup>4</sup> Allocation of Unidentified Gas Statement, page 1.

<sup>5</sup> The most recent Modification Proposal referenced in the Allocation of Unidentified Gas Statement is MOD0229, raised in October 2008.

<sup>6</sup> This report is available here:

<http://www.ofgem.gov.uk/Licensing/GasCodes/UNC/las/Documents1/TPA%20response%20to%20Identification%20and%20Apportionment%20of%20Costs%20of%20Unidentified%20Gas.pdf>

<sup>7</sup> This CEPA paper was provided in British Gas’ response to Modification Proposal 0228, given as Appendix Three. [Link.](#)

<sup>8</sup> These were set out in full within our response to Modification Proposal 0317.

<sup>9</sup> Quantification and Apportionment of “Unidentified” Gas, page 1 (February 2010, ICoSS). Appended to Modification Proposal 0317.

<sup>10</sup> Allocation of Unidentified Gas Statement, page 10.

<sup>11</sup> Allocation of Unidentified Gas Statement, page 8. Based on 2005 to 2009 data quoted in the TPA Solutions report.

majority of RbD is made up of model error and should therefore be allocated to the SSP sector.

20. In the first instance we believe that the AUGE can do more to substantiate the claim that unidentified gas is largely made up of model error. Although some reference is made to the analysis completed by TPA Solutions the data referenced only pertains to the *degree* to which any model error should be ascribed between the LSP and SSP sectors, not to the scale of model error itself. We believe that given the importance the AUGS places on this point, further evidence of the actual scale of model error should be brought forward by the AUGE before the final draft is released.
21. In addition, we also have concerns with the conclusion that the majority of model error is attributable to the SSP sector. An examination of the TPA Solutions report itself reveals that instead of providing figures which are representative of actual consumption in each sector, they have instead taken total LDZ throughput, deducted DM consumption and then deducted LSP allocation from the remainder leaving a figure purported to be "*SSP Consumption*".<sup>12</sup>
22. Given unidentified gas has not been allowed for in this process, the result is that the values provided for "*SSP Consumption*" contains a quantity unidentified gas and does not therefore truly show the degree to which SSP sites are over-allocated. In effect the analysis from both TPA Solutions and the AUGE shows that even when the SSP sector is allocated all unidentified gas, the sector is still over allocated by an average of 1.8%. This does not therefore demonstrate the extent of model error in the SSP deeming algorithm. We note that if the AUGE believed that they had received figures denoting actual SSP and LSP consumption then unidentified gas could be calculated more accurately using the "top-down" approach as proposed in Modification Proposal 0327<sup>13</sup>
23. To the extent that LSP and SSP sites do not actually reconcile the actual consumption of each sector is not known. If it was, we wouldn't need the AUGE to quantify unidentified gas. The comparison of the difference between AQ and allocation tells us nothing about AQ accuracy as we do not know the actual consumption. A true test of the accuracy of the error of the demand attribution process would require a comparison of actual consumption with allocation for each sector.
24. The conclusion that the majority of any model error should remain attributable to the SSP sector is therefore wholly inaccurate. We are disappointed at the nature of the error made by the AUGE in this regard, but believe that the drafting and consultation process give them an opportunity to resolve the matter before the final draft. Our view is that the evidence does not substantiate the claim that the SSP sector is subject to more model error than the LSP sector, and that the initial conclusion that "*the RbD quantity, whilst containing an element of Unidentified Gas, is largely composed of model error*" is therefore flawed.

#### *Incomplete Scope of the AUGS*

25. We believe that the AUGE's decision to de-scope a number of potential causes of unidentified gas is incorrect, and fails to take in to account the risk that such issues can lead to significant amounts of unidentified gas falling in to RbD. The exclusion of these issues is therefore likely to detract from the accuracy of the AUGS' conclusions. We have addressed each of these individual components below.

#### *Shrinkage*

26. We disagree with the AUGE's statement that any differences between estimated and actual Shrinkage "*are not a part of Unidentified Gas, due to the fact that Unidentified Gas is a (positive) physical quantity of gas that has been used somewhere in an unrecorded manner*"<sup>14</sup>. The suggestion that gas lost to Network Owner related activities or responsibilities is not "*physical*" seems illogical, and the reliance on the fact that Shrinkage

<sup>12</sup> "UNC Modification Proposal 0228 and 0228A – an assessment by TPA Solutions Limited" report, p.54-55.

<sup>13</sup> Modification Proposal 0327, link [here](#).

<sup>14</sup> Allocation of Unidentified Gas Statement, page 17.

errors may be either positive or negative does not address the point that it has the potential to cause unidentified gas to be allocated to the SSP sector through RbD.

27. Shrinkage represents an estimate of the level of unidentified gas lost during activities or areas of responsibility attributable to Network Owners, with any errors in this estimation leading to that unidentified gas being allocated to the SSP sector through RbD. Any under or over estimation in the volume of Shrinkage in any given year leads to a direct and corresponding over or under estimation of the NDM allocation, in effect moving unidentified gas between the Network Owners and the Shipper community.
28. We note that despite their view that errors within the Shrinkage model do not have the capability to pass unidentified gas in to the system, the AUGE asserts that "*the current Shrinkage estimation system is fit for purpose and provides the most equitable solution available*"<sup>15</sup>. This statement goes further than before and suggests that the Shrinkage model is sufficiently accurate to not pass unidentified gas from the Network Owner to the SSP sector. This claim is not directly substantiated, but we infer from the AUGS that it is the AUGE's position that as "*each element of Shrinkage is already calculated using the most accurate information available*"<sup>16</sup> there is little scope for the Shrinkage model to be incorrect.
29. Furthermore, the AUGE states that as the Shrinkage model comprises "*estimates based on GL Noble Denton models for mains and service leakage, AGI leakage, and OUG ... any corrections would be more likely to increase errors rather than decrease them*"<sup>17</sup>, suggesting that even if Shrinkage model errors could lead to unidentified gas being incorrectly allocated to Shippers rather than Network Owners, and even if the model was inaccurate, any inaccuracy would actually be in Shipper's favour, reducing the unidentified gas bill they face. If true then we accept that this could lead to a deduction from any eventual assessment of the scale of unidentified gas, however this point is not substantiated, and therefore either needs to be fully evidenced in the final AUGS or removed altogether.
30. It is our belief that not only is Shrinkage a potential cause of unidentified gas, but that the model upon which it is based on is both out of date and comprising of questionable assumptions which are likely to cause unidentified gas to be allocated to the SSP sector unnecessarily and therefore should be within scope of the AUGS.
  - a) Leakage. The leakage survey used to estimate the amount of gas lost in leaks was completed in 2002/03, some nine years ago, and we believe that the age of this research calls in to question its ongoing suitability for calculating shrinkage quantity levels. We also note that although the conclusions of the leakage survey are known, the detail of the survey itself is not known and cannot be scrutinised by the wider industry. The claim that it is therefore "*fit for purpose*" cannot therefore be independently substantiated.
  - b) Upstream Theft. The leakage model assumes a certain level of theft from the Network which is largely based on actual theft levels found downstream of the meter. As the AUGE themselves accept, "*this will under-estimate true theft*"<sup>18</sup> due to the poor level of industry investment in theft detection activity. Our own experience is that there is a significant amount of upstream theft and that the fact that the assumptions contained within the Shrinkage model are based on such poor quality data means that more unidentified gas will flow through to the SSP sector. The statement by the AUGE that there is "*consensus*"<sup>19</sup> over the assumed upstream theft levels is also without foundation. We note that were the assumptions within the model be understated by just 0.005% this would equate to approximately 25 GWh of unidentified gas being allocated to the SSP sector<sup>20</sup> per annum. The potential for this issue to contribute to unidentified gas is therefore significant and is worthy of further analysis.

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<sup>15</sup> Allocation of Unidentified Gas Statement, page 17.

<sup>16</sup> Allocation of Unidentified Gas Statement, page 17.

<sup>17</sup> Allocation of Unidentified Gas Statement, page 17.

<sup>18</sup> Allocation of Unidentified Gas Statement, page 21.

<sup>19</sup> Allocation of Unidentified Gas Statement, page 16.

<sup>20</sup> Current Shrinkage models estimate upstream theft at no more than 0.02% of throughput. If the true level of upstream theft was actually 0.025% of throughput then 25 GWh extra of energy would be being stolen each year over the baseline assumption, assuming 0.02% of throughput is equivalent to 100 GWh.

31. Finally, we are also mindful of the risks created by the apparent conflict of interest on this specific point, with the AUGE (GL Noble Denton) being asked to assess the credibility of the work underpinning the Shrinkage model (completed by GL Noble Denton). We are keen to stress that there is no evidence of improper behaviour by the AUGE, however we believe that the very existence of this conflict of interest presents a risk that the integrity of the process itself may be called in to question, endangering the final AUGS and therefore the correction the SSP sector is entitled to.

#### *Meter Error*

32. We disagree with the AUGE's conclusion that Meter Errors are not a cause of unidentified gas. The AUGS concludes that although "*Metering errors ... can have an effect on the calculated loads for each market sector if there is found to be a non-zero bias over time*", "*Metering Error does not contribute to Unidentified Gas*" because "*LDZ meters and LSP meters ... demonstrate no particular bias in metering error*"<sup>21</sup>. We believe that not only is it demonstrable that LDZ Offtake Meter errors are generally biased towards an under-recording, but that the information which shows this is publicly available for the AUGE to scrutinise in advance of the final draft.

33. We also believe that LSP meters are equally as susceptible to fault as SSP meters and that these too are a source of unidentified gas which the AUGE must account for.

34. The Joint Office of Gas Transporters record and report information on all LDZ meter errors<sup>22</sup> and this shows the vast majority of recorded errors were an under-recording, with a material amount of energy allocated to RbD in the process. We believe that the AUGE now has an opportunity to analyse the xoserve held data with a view to reassessing their claim that "*LDZ meters ... demonstrate no particular bias in metering error*" before the final AUGS is published. The AUGE dismisses the historic examples of large scale meter error by saying that they are subsequently corrected, however this fails to highlight that the corrective action taken is to allocate the resulting energy entirely to the SSP sector.

35. Furthermore, we do not agree with the AUGE's assertion that "*LSP meters are of a different construction to SSP meters*"<sup>23</sup>. Whilst we accept that some LSP meters do not have diaphragms within them, a large proportion of the LSP market uses meters with similar constructions to typical SSP meters, and are thus no more or no less accurate. For example, at least 80% of LSP sites registered with British Gas have a meter installed on site which uses the same diaphragm technology as a typical SSP site. A good example of this is the U16 meter typically found in a large number of LSP sites, although we note that this is not the only example. We understand xoserve will have market wide data on the meter types prevalent in the LSP community. Any mis-measurement within the LSP sector will result in RbD volumes attributed to the SSP sector.

36. We also note that no evidence was provided to support the assertion that LSP meters which do not use diaphragm components are more accurate. Given this point is central to the conclusion that LSP meters are more accurate than SSP meters, we believe that the AUGE needs to do more before it can conclude that LSP meter errors do not generate unidentified gas. We believe ourselves that such issues have the potential to create substantial volumes of unidentified gas given the size of aggregate LSP AQ, and that the AUGE should take this opportunity to attempt a quantification of the scale issue. In doing so, the AUGE should take in to account both the absolute bias in meter error within each sector and the degree to which that bias differs between the sectors.

37. We also wish to highlight the existence of meters which fail completely, and are referred to as "passing unregistered gas". This type of meter is regularly found and exchanged by Suppliers in both the SSP and LSP sector with the impact of the meter failure being a failure to record any gas usage, as opposed to just a percentage. We believe that the existence of

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<sup>21</sup> All quotes taken from Allocation of Unidentified Gas Statement, page 22.

<sup>22</sup> [http://www.gasgovernance.co.uk/sites/default/files/Measurement%20Error%20Reports%20Summary\\_1.xls](http://www.gasgovernance.co.uk/sites/default/files/Measurement%20Error%20Reports%20Summary_1.xls)

<sup>23</sup> Allocation of Unidentified Gas Statement, page 22.

these meters also needs to be quantified by the AUGÉ so that they may estimate the amount of gas which has passed unregistered to LSP sites. In doing this, the AUGÉ must have regard for the fact that LSP sites with meters passing unregistered gas may erroneously be shown as SSP sites on industry systems..

38. The AUGÉ makes no acknowledgement of the fact that customers may switch between SSP and LSP with no change of meter type. The assertion that LSP meters are more accurate than SSP meters is therefore meaningless and should be corrected before the final AUGS is published.
39. Given both the inherent bias of LDZ Offtake meter errors and the propensity for LSP meters to become inaccurate we disagree with the AUGÉ's initial decision to exclude Meter Error as a potential cause of unidentified gas, and ask that this is revisited as soon as possible so that the final AUGS contains a reasonable quantification of Meter Error across both sectors as a cause of unidentified gas.

*Inadequate assessment of factors deemed to be in scope*

40. The AUGS correctly highlights that Shipper responsible, or downstream, theft, unregistered and shipperless sites and iGT measurement errors are all potential causes of unidentified gas and sets out analysis designed to quantify the effects of these issues. Whilst we agree with the AUGÉ that these issues are causes of unidentified gas, we believe the quality and depth of analysis completed on them is lacking in places, and believe that in each case the AUGS understates the impact they have. Our reasoning is provided below.

*Downstream theft*

41. We consider that whilst the AUGÉ is correct when they say that "*the problem with calculating theft levels is that the true level is unknown*", we do not agree that the "*detected theft and alleged theft [act] as lower and upper bounds respectively*"<sup>24</sup>. There is no evidence to support the premise that every instance of theft leads to an allegation; indeed the suggestion that number of allegations form the upper boundary of a particular crime would be automatically dismissed as incorrect were this any other matter, for example burglary or fraud. The artificial cap on the volume of theft is not only both inaccurate and without rationale, but is likely to skew the resulting conclusions on the scale of theft and thus the validity of the AUGS itself. A more realistic method must be sought.
42. The AUGÉ dismisses the higher industry estimations on the scale of theft by arguing that should such levels of theft exist then "*one would expect a much more concerted effort to detect and prevent theft*"<sup>25</sup>. In doing so the AUGÉ fails to understand that the current lack of investment in theft detection is not owing to a lack of theft on Suppliers' portfolios but more a failure in the current market arrangements. Ofgem themselves have supported efforts to address this problem and continue to press the industry on the delivery of reform which will address the current lack of investment in theft detection activities..
43. As undetected theft forms part of RbD a supplier would recoup only their SSP market share of any theft prevented. As such this carries differing levels of incentive depending on SSP market penetration. An LSP only supplier has zero incentive since RbD volumes do not apply to them currently. The potential to collect the lost revenue rarely acts as an incentive, indeed we have presented Ofgem with evidence which suggests that the bad debt charge associated with theft is as high as 75%. Given the high cost of building and maintaining a Revenue Protection business, these factors combined mean that many Suppliers simply choose to do nothing but the bare minimum in terms of theft detection.
44. This is borne out by the industry statistics on theft detection performance, collated and published by xoserve<sup>26</sup>. These show that in 2010 British Gas made 78% of all theft detections, despite having a combined market share of almost 45%. Furthermore, those

<sup>24</sup> Allocation of Unidentified Gas Statement, page 21.

<sup>25</sup> Allocation of Unidentified Gas Statement, page 21.

<sup>26</sup> "Theft of Gas Analysis All Shippers", produced monthly by xoserve.

same statistics show that only 33% of the total industry leads in the same period related to British Gas sites. If the AUGE was right and that investment naturally followed the true level of theft then they are essentially claiming that a British Gas customer is much more likely to steal gas than a customer at another Supplier; an assertion which is shown to be false by the published xoserve data.

45. Despite this, the AUGE continues by proposing that the most accurate way of estimating the level of theft in the market is to use actual Shipper performance from periods in time when those Shippers were taking adequate steps to address theft, in effect using actual theft detection performance of those with active Revenue Protection services to suggest theft levels for the rest. Even though this suggests that the estimate of theft detection levels would be based solely on our theft detection activity alone, there is no evidence to suggest why this is likely to produce a “reasonable figure”<sup>27</sup>. Indeed the AUGE’s conclusion that this approach should find a solution “that all parties are happy with”<sup>28</sup> appears to be the primary driver, something we believe risks undermining the eventual AUGS.
46. Indeed, we consider that there are good reasons to conclude that even using our own theft detection performance to estimate true theft levels is likely to lead to inaccurate results. For example, it is our belief that despite investing considerable sums in theft detection activity, we are only partially successful at managing theft on our portfolio and that much work remains for us to do. We continue to make year on year improvements in the volume of theft detected, and see this as an indicator that the amount of theft we have detected is only a small part of the actual total.
47. Furthermore, theft of gas is, by its very nature, difficult to detect with thieves able to remove meter tamperers within only a few seconds and, unlike in electricity theft, little evidence being left behind once the tamper has been removed. The result is that Suppliers have to catch the customer in the act if they are to successfully detect the offence. Our conclusion is that even if we were to inspect every property in our portfolio with an experienced theft team we would only detect a proportion of the total theft which occurs.
48. In addition, and as we have demonstrated above, our theft detection activities in recent years have had the effect reducing our share of total theft in the market. This indicates that using the performance of Suppliers with active Revenue Protection services to estimate theft in the remainder of the market is likely to under-estimate the true volume of theft present in the market, as the sample chosen will be entirely based on the “cleaner” portfolios of Suppliers who have invested most effort in to detecting theft.
49. Our experience is that theft on LSP sites is harder to find than on SSP sites. It is also worth noting that meter readers are likely to under-report LSP theft because unless caught in situ it leaves little or no evidence and meter readers’ primary incentive is to maximise the number of accurate reads they record each day. As the nature of LSP sites is such that the number of properties a meter reader can visit on one day is less than for SSP sites on a housing estate, there is greater pressure on throughput of reads and less on theft detection for this reason alone. In reality meter readers, including Must Inspect Visits, generally do not identify where theft has occurred.
50. We argue that, whatever model is chosen, the AUGS needs to take account of the different risks associated with theft in the SSP and LSP sectors. For example, although only 17% of our theft detections in 2010 were on LSP sites, the amount of gas assessed as stolen on these sites accounts for 44% of the total assessed gas stolen over our entire portfolio in the same period<sup>29</sup>.
51. Finally, the AUGE also states that “theft levels are likely to differ between geographical areas, with such activities likely to be centred in large cities”<sup>30</sup>. We would appreciate clarification from the AUGE that this refers to absolute numbers of theft detections and not a statement

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<sup>27</sup> Allocation of Unidentified Gas Statement, page 22.

<sup>28</sup> Allocation of Unidentified Gas Statement, page 22.

<sup>29</sup> These figures were collected and reported to Ofgem as part of our response to their recent Theft Questionnaire.

<sup>30</sup> Allocation of Unidentified Gas Statement, page 22.

that the incidence of theft *per capita* is higher in large cities than it is anywhere else in the country. Our experience is that theft can be found in all sectors, in all geographies and we would expect any finding to the contrary to be accompanied with sufficient evidence.

52. Our conclusion is that the volume of undetected theft is higher than the total number of allegations which are made and that any model which seeks to estimate it based on actual theft detection levels will lead to erroneously low results. We therefore believe the AUGE should take this opportunity to revisit its proposed methodology here and develop something which is likely to properly assess the scale of theft.

#### *Unregistered and Shipperless Sites*

53. Although we broadly support of the direction the AUGE has taken on assessing the volume of unidentified gas associated with Unregistered and Shipperless sites, we believe that there are improvements which can be made to the proposed model. We consider that this is a material cause of unidentified gas, xoserve's own figures<sup>31</sup> show there are over 78,000 known unregistered and shipperless MPRNs with an additional number as yet unknown. We are keen that the AUGE take every possible step to improve the accuracy of its methodology in this area.
54. In relation to the sites classified by xoserve as being "Shipper Activity" or "Orphaned" we recognise the AUGE's reliance on the xoserve view over which of these sites is believed to have a meter or not. It is our understanding that that there is scope for a proportion of the sites where a meter is not believed to exist to actually have a meter and be burning gas. Our own analysis of xoserve's data shows that of the sites defined as Orphaned and without a meter in May 2010, 568<sup>32</sup> were subsequently found to have a meter one year later.
55. We believe that the AUGE should work with xoserve and Shippers to establish the accuracy of these pots before proceeding to use them as the basis for any assessment of the number of sites which are burning gas. Notwithstanding this, we believe that the principle of adjusting the resultant number of sites believed to have a meter by an estimation of the proportion of those sites likely to be actually burning gas to be sound and likely to produce a reasonably accurate outcome. This is also our view for the proposed remedy for those shipperless and unregistered sites created less than twelve months ago.
56. We believe the AUGE may experience difficulties however with the proposed approach to assess the proportion of sites which have seen an advance on the meter index from "zero" given the lack of robust data. It is our understanding for example that xoserve, having rejected the metering flows sent by the Shipper for these sites, will not hold installation or read data, and that this may frustrate the proposed approach. We instead recommend that the AUGE analyse the AQ data provided when the site was originally nominated.
57. With regard to sites classified as legitimately unregistered, we dispute the argument that all these sites will have no meter and are therefore unable to generate unidentified gas. Unregistered sites are merely defined as sites without a registered Shipper and have not previously been registered by a Shipper. To this end there is no reason why such a site cannot exist without a meter and without burning gas. This includes those considered to be "legitimately" unregistered, where the assessment of legitimacy is based only on assumptions. We therefore ask the AUGE to complete some analysis, perhaps involving site visits, on supply points within this pot to determine how many genuinely have no meter and are not burning gas before they draft their final AUGS.
58. Analysis of xoserve's data shows there to be unregistered and shipperless LSP sites with significant scale of usage. The latest data<sup>33</sup> shows that the aggregate AQ of orphaned LSP sites believed to have a meter present to be 939 GWh, and the aggregate AQ of LSP Shipperless sites to be 129 GWh. This was reinforced by xoserve at a recent industry

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<sup>31</sup> xoserve presentation to the Unregistered and Shipperless Working Group, 8<sup>th</sup> June 2011, slide 4, shows that there are 78,739 known unregistered and shipperless sites.

<sup>32</sup> This is equivalent to approximately 4% of the total pot. This should be considered the minimum error rate.

<sup>33</sup> xoserve Unregistered Sites Monthly Customer Pack, April 2011.

forum<sup>34</sup> when they presented data showing that the total Orphaned population had an aggregate AQ in excess of 1000 GWh and that LSPs made up approximately 18% of those sites, with a much larger share of the aggregate AQ.

59. Whilst we accept that a small proportion of the orphaned sites may be attributable to data errors, for example meters which are already registered under an alternative MPRN, the data suggests that the amount of unidentified gas generated by Shipperless LSP sites alone could be as much as £2m per annum<sup>35</sup>, with Orphaned “believed to have a meter“ sites contributing more to unidentified gas; potentially as much as £15m per annum. Given the size of this cause of unidentified gas, we believe the AUGÉ should work closely with xoserve to get the data it needs in advance of the final AUGS.

#### *iGT CSEPS*

60. We do not agree with the AUGÉ’s understanding that “*it is not possible for a site to exist and be taking gas within a CSEP without it being registered on the relevant iGT system*” and are surprised that given this claim is central to their findings in this area the statement is not substantiated. It is our view that it is just as possible for individual sites on iGT networks to become unregistered as it is on other networks, and that, given the prevalence of new build SSP and LSP properties on iGTs, the risk of unregistered and shipperless sites is actually higher than average.
61. We therefore believe the AUGÉ should use the opportunity afforded to them by this consultation process to either substantiate this point or take steps to estimate the scale of the issue, potentially by extrapolating out from known unregistered and shipperless data from the large Network Owners if iGT data is not made available. Were this not to happen then any unregistered site burning gas within a CSEP would continue to create unidentified gas which has the potential to be incorrectly allocated, undermining the validity of the AUGS in the process.
62. We understand the rationale behind the AUGÉ’s intention to use average CSEP composition from known iGT networks to infer data for unknown iGT networks, and hope that this will not be necessary. If a lack of response from iGT network does make this necessary however, we expect to see accompanying evidence from the AUGÉ which demonstrated the degree to which those known iGT networks were representative, or not, of the overall picture.

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<sup>34</sup> xoserve presentation to the Unregistered and Shipperless Working Group, 8<sup>th</sup> June 2011, slide 6.

<sup>35</sup> Assuming a p/GWh value of £16k