

## Stage 01: Proposal

# 0346 An Alternative to the Supplier Energy Theft Scheme Based on Throughput

An alternative proposal to MOD0277, seeking to introduce a theft incentive scheme for Shippers based on their market share of throughput rather than market share of supply points.



The Proposer recommends that this proposal should be issued immediately out for consultation.



High Impact:  
Shippers and Suppliers



Low Impact:  
Gas Distribution Network Owners

What stage is this document in the process?

01

Proposal

02

Workstream Report

03

Draft Modification Report

04

Final Modification Report

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19 November 2010

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## About this document:

This document is a Proposal, which will be presented by the Proposer to the Panel on 18<sup>th</sup> November 2010. The Panel will consider the Proposer's recommendation, and agree whether this Proposal should proceed to consultation or be referred to a Workgroup for development.



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### Any questions?

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## 1 Summary

### Why Change?

The current lack of explicit obligations or incentives on Shippers to detect theft has led to a failure of the industry to address the issue, driving up costs for consumers and posing safety issues on the network. This proposal addresses that issue directly with the intention of increasing theft detections by Shippers.

### Solution

This proposal will introduce an incentive scheme on Shippers to detect volumes of theft on their portfolio, with credits flowing from poorly performing Shippers to those who perform well. This will create a commercial incentive on Shippers to detect theft by making it cost money to do nothing and rewarding those who invest in theft detection.

### Impacts & Costs

Development of supporting systems will cost between £220k and £380k. There will also be ongoing costs of approximately £80k per annum, plus an estimated £50k per annum towards the auditing of the scheme (total of £130k p/a).

### Implementation

This Modification Proposal should be implemented immediately following a direction from Ofgem. Please note that xoserve have confirmed that any systems development required the support this proposal could run concurrently with the first Scheme Year.

### The Case for Change

This proposal helps facilitate a number of the UNC relevant objectives, not least in relation to assisting the Gas Distribution Network Owners in meeting their licence obligations, securing effective competition between Shippers and Suppliers, enabling better planning by the Gas Distribution Network Owners for seasonal gas demand and facilitating the administration of the Uniform Network Code. This is explored in more detail within section 4 of this proposal.

### Recommendations

This proposal has already been developed during UNC Development Group 0277 and we therefore recommend that it should therefore proceed directly to consultation.

#### Where can I find out about the context to this debate about theft reform and incentives?

Theft reform has been a topic of discussion in the industry now for a number of years. This modification follows previous work considered by the ERA and ENA in 2005, and more recently, UNC Review Group 0245 and UNC Development Group 0277.

Papers for these groups can be found through the following links.

ERA / ENA Report:  
<http://www.energy-retail.org.uk/papers/ElectricityandGasReportFinalVersionpdf.pdf>

UNC Review Group 0245 papers:  
<http://www.gasgovernance.co.uk/0245>

UNC Development Group 0277 papers:  
<http://www.gasgovernance.co.uk/0277>

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## 2 Why Change?

We believe that within the gas market theft is correlated to throughput and that a mechanism is therefore required which will ensure that the financial risk Shippers bear as a result of theft is linked to the costs which their inaction would drive in to the market. Indeed, our experience is that theft on LSP sites accounts for 6 times more volume as a proportion of throughput than theft on SSP sites.

There are currently no explicit obligations on Shippers or Suppliers to detect theft of gas. There is an obligation on Shippers and Suppliers to notify Transporters of the details related to detected theft, but these should not be confused with an obligation to detect the theft in the first place.

We recognise that revenue protection and brand damage do act as a small incentive, but also recognise that these have singularly failed to provide the level of investment from Suppliers to tackle theft of gas, a fact borne out by the recommendations of the two industry reviews who have looked at this issue.

The joint ENA and ERA report, "Report of the Theft of Energy Working Groups" (April 2006) it was also recognised that "*the present arrangements for electricity and gas do not provide economic reasons for optimal behaviour by industry participants*".

UNC Review Group 0245 also looked at this issue and "*considered there is merit in the development of Shipper/Supplier incentive schemes to drive an increase in the volume of theft of gas incidents detected*" and went on to recommend that "*Suppliers investigate and implement an incentive scheme that promotes the investigation of theft of gas incidents*".

The current lack of incentives to detect theft has caused a lack of investment in theft detection which in turn has allowed theft of gas to go largely unchecked<sup>1</sup>. This is evidenced by the comparatively poor performance in detecting theft that a large number of Shippers show within the monthly xoserve Theft of Gas statistics. This in turn has given rise to three significant issues:

1. Theft of gas is dangerous and presents a real risk to both the integrity of the network and the safety of consumers. Gas metering equipment has inherent safety features within it and tampering or bypassing this equipment is inherently dangerous. At worst this can lead to loss of life to the either the person committing the theft or those living in the immediate vicinity.
2. Theft of gas currently costs all domestic consumers money. The current settlement arrangements mean that unaccounted gas, including theft, is paid for by all shippers in accordance with the rules on Reconciliation by Difference (RbD). All undetected theft which results in lower Annual Quantity values therefore becomes a cost to Suppliers, and is inevitably passed through to end users in the form of higher prices. We also note that under Modification Proposal 0229, non-domestic customers will also start to bear a share of the cost burden created by theft.

<sup>1</sup> In 2009, xoserve "TOG Statistics" show that of the 2017 cases of theft found in the industry, British Gas detected 1675 (83%) of them. The other 342 (17%) cases were detected by the combined efforts of 37 other Shippers at an average of 9.24 detections per annum each.



### What is the scale of gas theft, and who pays for it?

Estimates vary, but we believe that approximately £220m of gas per annum is stolen.

Under the rules which govern how energy is settled, this cost is met entirely by domestic suppliers and their customers.

By incentivising the detection of gas theft, the costs of theft can be recovered from the person who committed the theft, rather than the wider population.

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3. We also believe that where theft occurs, that gas is not used efficiently. Thieves are not influenced by price signals or carbon reduction motives, and energy is used inefficiently. This means that where theft occurs damage is being done to the long term ability of the energy industry to manage and reduce energy consumption, damaging the industry's attempts to meet our carbon reduction targets.

## 3 Solution



**Why does the Proposer consider that this solution is sufficiently developed to proceed directly to consultation?**

Although this throughput based model differs from the incentive scheme considered by MOD0277 in how the credits and debits are calculated, it is exactly the same in every other aspect. To this end, this proposal has been developed during Development Group 0277.

Papers for this group can be found here.  
<http://www.gasgovernance.co.uk/0277>



**Where can I find out more information about how this whole process will work in practice?**

Detailed Business Rules which set out precisely that can be found at the very end of this document, in Appendix One.

This modification proposal will introduce a Supplier Energy Theft Scheme (SETS) which will incentivise Suppliers, through their contractual relationship with Shippers, to detect theft by ensuring that those Suppliers potential bear the cost of theft that their inaction would present to the industry. This will ensure that it costs money to do nothing and introduce the concept of competition in the Revenue Protection Market; rewarding those who find theft with financial benefits linked to the volume of theft they have detected. Only those Shippers who have acceded to the Code for the full Scheme Year will be deemed to be part of the SETS. This is detailed further within the Business Rules.

For the purposes of this proposal, theft is defined within Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)).

This proposal is not to be confused with Modification Proposal 0274, "*Creation of a National Revenue Protection Service*". Modification Proposal 0277 is an incentive regime and therefore entirely different from a delivery mechanism for Revenue Protection services, which whether centralised or de-centralised will still require incentives on Suppliers in order to make it effective.

This incentive scheme will mean that at the end of each Scheme Year (as defined within the accompanying Business Rules document) credits and debits for each Shipper will be calculated based on the difference between (a) their market share of throughput<sup>2</sup> in the relevant portion of the market and (b) their share of the total theft volumes detected within the Scheme Year.

If a Shipper has more theft volumes detected than their market share of throughput, they will be due a credit; if they detect less volume than their market share of throughput they will be presented with an invoice. All credits and debits will balance throughout the industry such that money is simply redistributed from those who have performed badly to those who have performed well – rewarding good behaviour and ensuring that the costs associated with theft flow to those who cause them through inaction or poor performance.

As commercial organisations in a competitive environment, it will thus make commercial sense to invest in measures which will detect the theft which resides on their portfolio rather than bear the costs associated with poor performance within the SETS. This will therefore provide an incentive on Suppliers to detect high volumes of theft, leading to an increase in the total amount of theft detected across the industry.

### Principles and Detailed Business Rules

The principles and detailed business rules of the Scheme are defined in the accompanying Process and Business Rules, attached to this Proposal as Appendix One.

### Scope

It is considered that the mandatory Daily Metered sites (where the Daily Read Requirement applies) are sufficiently scrutinised to be excluded from the SETS solution. All other supply points, including DM Elective (DME) and DM Voluntary (DMV), will be in scope for this change.

<sup>2</sup> Throughout this Proposal, throughput is taken to mean aggregate Annual Quantity (AQ).

## Governance

The SETS will form part of a new section within the UNC. This will aid transparency for all parties and will ensure that it is subject to the normal UNC change processes and governance.

This proposal would make the Transporter's Agent the Administrator of this scheme. They already receive all reports of theft on behalf of all Transporters and this would therefore prevent duplication of effort. It is recognised that this role will incur a cost for the Administrator, , and is therefore proposed that those costs are collected through User Pays Charges such that it is entirely revenue neutral for the Transporter's Agent.

In order to validate theft detections submitted to the Administrator, Shippers and Suppliers must collect and retain an agreed minimum level of sufficient evidence to demonstrate that on the balance of probabilities, an offence under the Gas Act has occurred.

Finally, we are mindful of the discussions currently underway in the Gas Forum on the potential creation of a National Revenue Protection Service (NRPS) and note that this scheme (SETS) is capable of being modified in future to take account of a future NRPS. For example it may be appropriate for users of certain NRPS services to receive aggregate incentive scheme payments based on the average NRPS performance across partaking Suppliers.

## Value of the Scheme

British Gas currently employ a Revenue Protection Unit sufficiently resourced to manage the volume of theft on our portfolio, wherever that may be throughout the country. The funding required to do this to a satisfactory performance level is £4.417m per annum.

We believe that as our funding is sufficient to provide a comprehensive RPU service, that this funding is an appropriate basis upon which to calculate the investment proportionately required for other Shippers in the market.

We believe that the scale of theft on a Shipper's portfolio is correlated to the volume of throughput on their portfolio. In order to properly incentivise the detection of theft therefore, the potential cost to each party must reflect the amount of throughput in the market, and thus the amount of potential cost their inaction could lead to. We therefore propose that the overall value of the scheme is £12.062m<sup>3</sup>, this being the amount of funding (from our experience) needed to provide sufficient Revenue Protection services for 100% of the market.

Note that under the Windfall Avoidance measures (below), the value of the Scheme in Years 1 and 2 may be adjusted downwards to reflect the number of Shippers involved in the Scheme.

## Evidence of Theft

In order to prevent gaming of the system Shippers will need to collect and retain sufficient evidence for each theft detection. Although the exact nature of evidence which must be obtained will be for each Shipper to decide on a case by case basis, sufficient evidence

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<sup>3</sup> Precise calculation based on annual British Gas Revenue Protection budget of £4.417m pro-rated up on the basis that British Gas has approximately 36.62% of NDM market share of throughput (source: xoserve, July 2010). Value of scheme is rounded to nearest £10k for simplicity.

should be retained to prove (on the balance of probabilities) that a meter tampering offence has been committed as defined under The Gas Act (1986) Schedule 2B.

By submitting a detection Shippers will warrant that all information they provide, including the assessment of volumes of gas stolen, is accurate.

#### Determining Volumes of Theft Stolen

Shippers must ensure that the determination of the volume of gas stolen in any detection is calculated as per the rules set out within the Business Rules for this proposal (Appendix One).

#### Implementation and Windfall Avoidance

Review Group 0245 recognised that some parties are more advanced in terms of theft of gas detection processes than others, and that consideration of this should be given in the implementation plan for a SETS scheme so as to avoid any windfall payment to those parties in the first two years. This will allow each Shipper to compete on a level footing throughout the scheme.

We therefore propose that any Shipper who made more than 51% of the total number of theft detections in the industry during the last full calendar year at the time of writing (2009) should be deemed to be advanced in terms of theft detection processes, and therefore be subject to a delayed implementation of the SETS scheme such that they cannot compete for any of the SETS fund in the first two years. For the sake of clarity, any Shipper eligible for Windfall Avoidance measures will not have any funding requirements within Scheme Years 1 and 2 (save for any User Pays charge), but neither will they be able to take any money from the Scheme during that period. Any Shipper eligible for Windfall Avoidance will continue to be affected by all other provisions of the SETS process in this period, including the reporting and audit aspects.

As any Shipper eligible for Windfall Avoidance measures will not be expected to fund any part of the SETS (save for any User Pays charges), the value of the Scheme within Scheme Years 1 and 2 will be effectively reduced by an amount equal to that Shipper's market share.

This ensures that any potential windfall that may have flowed to parties already with advanced theft detection capabilities under a SETS scheme without this measure will be avoided in the interests of allowing all to compete for incentive funding equally. This measure will allow all Shippers a two year period in which to make appropriate Revenue Protection arrangements for their portfolio so that they can compete on an equal footing in the third Scheme Year.

#### **Consequences of non-implementation**

Without implementation of this proposal there will continue to be no effective incentive on gas Shippers or Suppliers to detect theft, and the current poor level of investment will continue. This will place customer safety at risk and allow the high costs associated with gas theft to continue being passed through to end users. Shippers' ability to compete fairly will also continue to be restricted as the costs associated with theft will remain



socialised based on market share and not on any performance measure which assigns cost to those who cause it.

## 4 Relevant Objectives



Proposer's view of the benefits of XXXX against the Code Relevant Objectives	
Description of Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None.
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None.
c) Efficient discharge of the licensee's obligations.	Yes. See below.
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Yes. See below.
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	Yes. See below.
f) Promotion of efficiency in the implementation and administration of the Code	Yes. See below.

### What has led the Proposer to state that the proposal meets these relevant objectives?

During Development Group 0277 it was agreed that a theft incentive scheme following this model would meet the Relevant Objectives set out in Section 4.

#### **Standard Special Condition A11.1 (a): the coordinated, efficient and economic operation of the pipe-line system to which this licence relates;**

Implementation would not be expected to better facilitate this relevant objective.

#### **Standard Special Condition A11.1 (b): so far as is consistent with subparagraph(a), the (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters;**

Implementation would not be expected to better facilitate this relevant objective.

#### **Standard Special Condition A11.1 (c): so far as is consistent with subparagraphs (a) and (b), the efficient discharge of the licensee's obligations under this licence;**

This Modification Proposal will provide Shippers with a commercial incentive to detect theft on their portfolio by linking costs and benefits to their performance. As commercial organisations these costs will be passed through to their contracted Suppliers; the parties with the ability and customer relationship necessary to make the detections. In a competitive environment such as the energy supply market the potential costs, being calculated at a sufficient level to provide for an adequate Revenue Protection service (see above), will make it commercially important to detect the theft on their portfolio, with benefits payable for results only. The consequence of this Modification Proposal therefore will be an increase in the amount of theft detected by Suppliers.

By incentivising the detection of theft of gas, and thus increasing the amount of theft detected, there should a more efficient operation of the pipe-line system through the prevention of unsafe interference in the system that all theft represents.

By placing an incentive on Shippers to invest in theft detection, and thus increasing investment in detecting theft, it would be highly probable that there would be a consequential increase in the amount of upstream theft detected and referred to the Network Owner. There are also significant costs associated with handling the fall out from

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downstream theft, for example but not limited to, instances where downstream theft is not detected and results in damage to the pipelines system which must be put right. Also, if the networks have more accurate or complete information about where and how much gas is being taken, this may lead to more effective investment decisions. To the extent that downstream theft leads to inaccurate information and is by its very nature inefficient, this Modification Proposal should increase the amount of theft detection, across the Network, more accurate demand information should be available and the margin of error should be reduced, enabling the Network Owner to better comply with their obligations.

In the course of detecting theft, suppliers should often find instances where theft has occurred upstream of the Emergency Control Valve, and is therefore "in the course of conveyance", as referred to in paragraph 9(1), Schedule 2B of The Gas Act (1986). As this Modification Proposal should increase the volume of theft detected, and considering suppliers existing obligations to notify such theft to the Network Owner, it should also create a marginal increase in the volume of upstream theft detected by the networks, improving the efficiency with which they meet their obligations under Standard Licence Condition 7.

In particular, we note that as Shippers will not be able to distinguish between upstream and downstream theft until they are on site resolving the matter, any incentive on detecting downstream theft will have a consequential positive impact on the amount of upstream theft detected and (as per Supply Licence Condition 16) reported to the Network Owner for resolution. This will thus enable the Network Owner to better comply with their obligations.

Also, providing incentives for the detection of theft, individual instances of theft will be detected sooner than in a market with no incentives. This earlier detection of theft will avoid the potentially greater damage to the network that long term theft risks, for example through explosions. This modification will therefore also enable the Network Owner to better comply with their obligations.

Finally, theft is by its very nature inefficient and results in a lack of information flowing about where gas is being used. As this modification will increase the amount of theft detected, better information will be available and the margin of error will be reduced, increasing the efficient and economic operation of the pipeline system.

**Standard Special Condition A11.1 (d): so far as is consistent with subparagraphs (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;**

This Modification Proposal will provide Shippers with a commercial incentive to detect theft on their portfolio by linking costs and benefits to their performance. As commercial organisations these costs will be passed through to their contracted Suppliers; the parties with the ability and customer relationship necessary to make the detections. In a competitive environment such as the energy supply market the potential costs, being calculated at a sufficient level to provide for an adequate Revenue Protection service (see above), will make it commercially important to detect the theft on their portfolio, with benefits payable for results only. The consequence of this modification therefore will be an increase in the amount of theft detected by Suppliers.

By reducing theft and correcting the apportionment of misallocated energy, costs should be correctly apportioned across those who drive costs into the market, therefore improving competition.

Currently the costs of theft in the market are borne solely by SSP suppliers based on their market share. This is inequitable and disadvantages those shippers in the SSP market who invest in resolving theft on their portfolio. By ensuring that the costs associated with theft are assigned to those Shippers who perform poorly in terms of theft detection, thus driving costs in to the market, costs will be more fairly assigned, and competition between shippers and Suppliers will be improved.

**Standard Special Condition A11.1 (e): so far as is consistent with subparagraphs (a) to (d), the provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards (within the meaning of paragraph 4 of standard condition 32A (Security of Supply – Domestic Customers) of the standard conditions of Gas Suppliers’ licences) are satisfied as respects the availability of gas to their domestic customers;**

This Modification Proposal will provide Shippers with a commercial incentive to detect theft on their portfolio by linking costs and benefits to their performance. As commercial organisations these costs will be passed through to their contracted Suppliers; the parties with the ability and customer relationship necessary to make the detections. In a competitive environment such as the energy supply market the potential costs, being calculated at a sufficient level to provide for an adequate Revenue Protection service (see above), will make it commercially important to detect the theft on their portfolio, with benefits payable for results only. The consequence of this modification therefore will be an increase in the amount of theft detected by Suppliers.

To the extent that theft is one cause of unidentified gas, theft distorts the information Transporters receive on how much gas is used, how much gas is needed and where that gas is needed. Thus theft has implications on Transporters ability to effectively plan for seasonal gas demand. Introducing UNC incentives associated with theft detection should therefore increase the number of thefts detected. An increased number of theft detections will increase the accuracy of consumption data on the network (e.g. through more reflective AQs) consequently Transporters will gain a better understanding of where gas demand is, and how much it will be, thereby increasing the licensees ability to plan for seasonal gas demand.

**Standard Special Condition A11.1 (f): so far as is consistent with subparagraphs (a) to (e), the promotion of efficiency in the implementation and administration of the network code and/or the uniform network code.**

The information provided by increasing the number of thefts detected will facilitate the activities of the AUGE as required by provisions of UNC Modification 0229.

## 5 Impacts and Costs



### Costs

Include here any proposal for the apportionment of implementation costs amongst parties.

#### Indicative industry costs

Development of supporting systems will cost between £220k and £380k. There will also be ongoing costs of approximately £80k per annum, plus an estimated £50k per annum towards the auditing of the scheme (total of £130k p/a).

### Impacts

#### Impact on Transporters' Systems and Process

Transporters' System/Process	Potential impact
UK Link	<ul style="list-style-type: none"> <li>There may be an increase in the number of cases of reported theft logged on Conquest.</li> </ul>
Operational Processes	<ul style="list-style-type: none"> <li>There may be an operational impact on the Transporter's processes as they receive more reports of theft from Shippers.</li> </ul>
User Pays implications	<ul style="list-style-type: none"> <li>This proposal is User Pays as systems development is needed by xoserve to support it. All costs will be met 100% by Shippers based on their share of throughput.</li> </ul>

#### Impact on Users

Area of Users' business	Potential impact
Administrative and operational	<ul style="list-style-type: none"> <li>There may be an increased operational burden for Users' businesses if they do not currently have a fit for purpose Revenue Protection Unit.</li> </ul>
Development, capital and operating costs	<ul style="list-style-type: none"> <li>There may be increased costs for Users' businesses if they do not currently have a fit for purpose Revenue Protection Unit.</li> </ul>
Contractual risks	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> <li>None identified.</li> </ul>

#### Impact on Transporters

Area of Transporters' business	Potential impact
System operation	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Development, capital and operating costs	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Recovery of costs	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Price regulation	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Contractual risks	<ul style="list-style-type: none"> <li>None identified.</li> </ul>

### Where have these costs come from?

During Development Group 0277 xoserve provided a "Rough Order of Magnitude", or estimate, of the cost associated with supporting and running an incentive scheme using this model. They have confirmed that the minor changes this proposal represents over MOD0277 means that the same estimate is valid for this proposal too.

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Impact on Transporters	
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
Standards of service	<ul style="list-style-type: none"> <li>None identified.</li> </ul>



### Where can I find details of the UNC Standards of Service?

In the Revised FMR for Transco's Network Code Modification **0565 Transco Proposal for Revision of Network Code Standards of Service** at the following location:  
<http://www.gasgovernance.com/networkcodearchive/551-575/>

Impact on Code Administration	
Area of Code Administration	Potential impact
Modification Rules	<ul style="list-style-type: none"> <li>A new section of Code would be created by this proposal for the management of the scheme.</li> </ul>
UNC Committees	<ul style="list-style-type: none"> <li>None identified.</li> </ul>
General administration	<ul style="list-style-type: none"> <li>None identified.</li> </ul>

Impact on Code	
Code section	Potential impact

Impact on UNC Related Documents and Other Referenced Documents	
Related Document	Potential impact
Network Entry Agreement (TPD I1.3)	None identified.
Network Exit Agreement (Including Connected System Exit Points) (TPD J1.5.4)	None identified.
Storage Connection Agreement (TPD R1.3.1)	None identified.
UK Link Manual (TPD U1.4)	None identified.
Network Code Operations Reporting Manual (TPD V12)	None identified.
Network Code Validation Rules (TPD V12)	None identified.
ECQ Methodology (TPD V12)	None identified.
Measurement Error Notification Guidelines (TPD V12)	None identified.
Energy Balancing Credit Rules (TPD X2.1)	None identified.
Uniform Network Code Standards of Service (Various)	None identified.

Impact on Core Industry Documents and other documents	
Document	Potential impact
Safety Case or other document under Gas Safety (Management) Regulations	None identified.
Gas Transporter Licence	None identified.
Transportation Pricing Methodology	None identified.

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## Impact on Core Industry Documents and other documents

Statement

## Other Impacts

Item impacted	Potential impact
Security of Supply	As detailed in section 4, we believe that this proposal will have a beneficial impact on security of supply management through better quality of information about how much, and where, gas is used.
Operation of the Total System	None identified.
Industry fragmentation	None identified.
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	<p>As the costs associated with undetected theft, this proposal will impact all consumers through the reduction in cost associated with the reduced socialisation of costs.</p> <p>This proposal will also impact any consumers who are currently stealing gas by making it more likely that they will be detected.</p>

## 6 Implementation

Implementation of this proposal can occur immediately following a direction to implement from Ofgem. There is some systems development which is required to support the processes considered by this proposal, but xoserve have confirmed that this can occur concurrently with the first Scheme Year.



## 7 The Case for Change

In addition to that identified the above, the Proposer has identified the following:

### Advantages

1. Provides Suppliers with an incentive to detect theft.
2. Ensures proper cost allocation, by ensuring that those who present the biggest risk of generating unidentified gas costs from inaction in resolving theft bear the biggest risk, and those who effectively manage their risk are rewarded. This will be done in “*a transparent and easy to understand*” way<sup>4</sup>.
3. Administration costs are not onerous. The data required in order to make the scheme operate is already known and operating costs would be similar to the marginal cost of the Reasonable Endeavours Scheme.<sup>5</sup>
4. Ensure competition in the provision of theft detection, which in turn will lead to<sup>6</sup>
  - 4.1. Lower prices for Suppliers using Revenue Protection (RP) services.
  - 4.2. Greater discipline on RP providers to keep costs down.
  - 4.3. Improvements in processes and techniques with positive effect on theft detection rates.
  - 4.4. A greater variety of products and services in the RP market.
  - 4.5. A faster pace of invention and innovation in theft of gas detection techniques.
  - 4.6. Improvements to the quality of service for Suppliers using RP services.
  - 4.7. Better information for Suppliers on RP services, allowing them to make more informed choices.
5. The governance of the scheme is relatively easy to create and manage.
6. SETS will apply to both the domestic and non-domestic, excluding Daily Metered sites (where the Daily Read Requirement applies) sector, and the nature of the scheme is such that it could provide a future dual fuel solution.
7. SETS is self-financing; total credits will equal total benefits (less scheme administration costs).

### Disadvantages

1. Requires a standalone Code of Practice in order to standardise approach to theft detection.

## 8 Recommendation

The Proposer invites the Panel to:

- DETERMINE that Modification Proposal 0346 progress to Consultation.

<sup>4</sup> ENA / ERA “Report of the Theft of Energy Working Groups”, page 67.

<sup>5</sup> ENA / ERA “Report of the Theft of Energy Working Groups”, page 67

<sup>6</sup> As per the findings of “The Benefits from Competition: some illustrative UK cases” DTI

# MOD0346 – Appendix One

## **Business Rules**

## INTRODUCTION

1. This document has been drafted to support Modification Proposal 0346. It explains in more detail the process which will be used in order to operate the Supplier Energy Theft Scheme (SETS).

## BUSINESS RULES

2. The following business rules have been drafted to help set out the operation of the proposed SETS scheme.
3. Offences which are in scope for submission under the Scheme are defined within Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)). As part of the scheme, Shippers will have to warrant that have they clear evidence to prove (on the balance of probabilities) that a meter tampering offence has been committed which meets the definition under this part of the Act. For the avoidance of doubt, the person guilty of an offence need not be present at a site for an offence to qualify under this Scheme.
4. For the avoidance of doubt, valid detections under this scheme are those which meet the definitions for relevant offences under Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)). Shippers also need to ensure that theft detections they submit have complied with any relevant Code of Practice for handling theft which may exist at that time.
5. The initial "Scheme Year" (the annual period within which the scheme operates) will commence at 6.00am on the first calendar day of the month immediately following the month in which Transporters implement this MOD, and end one year later. The next Scheme Year will start immediately at the end of the initial Scheme Year with subsequent Scheme Years following in the same manner.
6. From the start of the Scheme Year, Shippers may report, but subsequently withdraw, anything they detect which meets the definitions for relevant offences under the Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)) to the gas Distribution Network Operators (expected to be through their agent xoserve, using the agreed communications method prevalent at that time<sup>7</sup>).
7. The introduction of the SETS will not change the data that must be submitted with each reported offence, nor will it introduce any obligations on the Network Owners or their agent to validate that data on receipt.
8. Volumes of gas detected must be calculated both fairly and accurately. Shippers must not knowingly under or overstate the estimate of gas stolen. As the nature of gas theft is different on a case by case basis, the precise method through which this occurs must be selected by the Shipper on a case by case basis. In the absence of any industry Code of Practice which provides for acceptable methods of calculating the volume of stolen gas, any of the following methods are be considered to be appropriate.
  - a. Where there is a clear pattern from past consumption history, by which is meant an obvious step change following an earlier established level or pattern, then this may be used as the basis for assessing what should have been consumed from the time of that change. Less obvious but inconsistent consumption history may also be used in support of, or to check, the general value obtained using other methods.
  - b. If the consumption history is not conclusive, and where the customer permits an audit of appliances, then this method should be used. Assumed consumption figures should be applied, concentrating on the major appliances which the customer admits to using or have obviously been in use. Account should be taken of valid input from the customer to assess whether some scaling of the figures might be appropriate.

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<sup>7</sup> At the time of writing, this is currently done through a Conquest form.

- c. If consumption history is not conclusive and the customer will not co-operate by allowing audit of appliances, then standard load profiles with typical consumption levels should be applied, taking into account where available the type of premises, tariff in use, number of occupants and occupancy patterns (e.g. night working), other fuels available, geographic location etc.
9. Any method of calculating the volume of gas stolen contained within a future industry Code of Practice shall have precedence over paragraph 8.
  10. The Network Owners (or their agent on their behalf) will log each reported and qualifying offence against the reporting Shipper, and reported offence will be applied to each Scheme Year based on the date on which the report is closed.
  11. A report will be issued out to each Shipper by the Network Owners (or their agent on their behalf) after the end of each month which shows the number of valid offences recorded by that Shipper, the volume of gas detected, the aggregate number of valid offences recorded by all Shippers in the Scheme Year to date, and the aggregate volume of gas detected by all Shippers in the Scheme Year to date.
  12. Credits and debits from the Scheme Year will be calculated based on the volume of gas detected shown in the monthly report for final month of each Scheme Year and the market share (based on aggregate AQ) as the end of the Scheme Year. This avoids the issue which would be created were market share of aggregate AQ figures to be taken part way through a year in which a Shipper either entered or left the market, skewing the data before the date of that entry or exit. This will be done from the following formula:
  13.  $(X*(SVD / TVD)) - (X*SMS)$

except where SMS equals zero when calculated to four decimal places, in which case no credit or debit will be applied.

*Where*

*X is the total value of the scheme, amended in line with the percentage change in RPI<sup>8</sup> between the index published for the start and the end of the Scheme Year.*

*SVD is the amount of gas in volume detected and recorded as stolen by the Shipper.*

*TVD is the total amount of volume detected and recorded as stolen by all Shippers in the Scheme Year.*

*SMS is the Supply Point market share of aggregate AQ (excluding sites which are deemed out of scope by the modification proposal) of the Shipper expressed to four decimal places.*

14. These credits and debits (the Provisional Assessment) for each Shipper will be communicated to that Shipper by the Network Owner (or their agent).
15. A "Qualifying Shipper" is a User who has been active in the market throughout the Scheme Year, i.e. excludes those Shippers who have acceded to the Code in the Scheme Year, or those who have discontinued their accession within the Scheme Year. This will ensure that those entering or leaving the market during a Scheme Year are not unfairly disadvantaged.
16. Any Shipper who found more than 51% of the total number of theft detections in the industry during the last full year (2009), according to xoserve "cleared as valid" theft of gas statistics, shall be deemed to be in the position of having advanced theft detection capabilities in relation to the market, and thus eligible for Windfall Avoidance measures.
17. Any Shipper eligible for Windfall avoidance measures will not take part in the Scheme during the first and second years as they will be deemed to be in a position which may confer a windfall upon them.

<sup>8</sup> RPI figure to be taken from the prevailing figure published by the Office for National Statistics. [Link here.](#)

The Scheme value in the first and second years will be reduced by the aggregate market share of supply points for all Shippers eligible for Windfall Avoidance, as measured at the start of the relevant Scheme Year. For the avoidance of doubt, any Shipper eligible for Windfall Avoidance measures will still be subject to the remainder of the provisions within the Scheme, including reporting and auditing process.

18. By the third Scheme Year it is assumed that all Shippers will be in a position to compete on a level playing field, and thus that no windfalls may be gained. All Shippers will therefore be included within the Scheme at this point, and will be eligible to compete for the entire fund. A worked example of this is given below.

19. Windfall Avoidance example.

*During 2009, Shipper A detected 75% of all theft. They are therefore the only Shipper eligible for Windfall Avoidance measures.*

*The Scheme value for the entire market is £10.062m, thus the scheme value for Scheme Years 1 and 2 (the period of Windfall Avoidance measures) will be that amount adjusted such that it represents the proportion of the market qualifying for the Scheme in Scheme Years 1 and 2.*

*Shipper A's market share at the start of Scheme Year 1 is 50%, therefore the value of the Scheme in Year 1 will be £5.031m. Shipper A will have no funding requirements for this amount, nor will they be able to claim any credits for this amount.*

*At the start of Scheme Year 2, Shipper A's market share has increased to 55%, thus the Scheme value in Scheme Year 2 will be £4.528m (adjusted for inflation), Again, Shipper A will have no funding requirements for this amount, nor will they be able to claim any credits for this amount.*

*In Scheme Year 3, Windfall Avoidance measures end and Shipper A enters the Scheme. As the entire market is now involved in the Scheme, the Scheme value will be £10.062m (adjusted for two year's inflation).*

*This ensures that (a) any Shipper with advanced theft detection capabilities does not benefit from any incentive payments in the first two Scheme Years, and that (b) in the third Scheme Year, there will be no Windfall Avoidance measures.*

20. Throughout the Scheme Year an ongoing audit will be completed on a sample of the theft detection claims made by each Shipper. Specifically the Auditor will have the power to select a sample of theft detections that Shipper has made during the Scheme Year, and assess in each case within the selected sample whether there is sufficient evidence held by that Shipper to demonstrate that on the balance of probabilities a relevant offence took place under Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)), whether the Shipper in question adhered to the rules within any relevant Theft Code of Practice which may be in place at that time and whether the Shipper has complied with the provisions within these Business Rules on calculating the volume of gas which has been stolen. The audit will be expected to be impartial and even handed at all times in its approach to Shippers. The costs of the audit must be reasonable in relation to the overall value of the scheme.
21. The Network Owners will provide a report of the audit's findings to Users and the Authority, including an opinion as to whether each claim within the sample audited was valid or not. An amended version of this report which contains no confidential or commercially sensitive information will be made publicly available. As a minimum it is expected that this report will contain the name of the Shipper, total volume of gas detected as stolen in the Scheme Year, and the error rate found by the auditor. The report will be final.
22. Upon receipt of the final audit reports covering all relevant Users, the Network Owners will recalculate each Shippers Provisional Assessment such that a volume of gas theft detected and submitted within the Scheme Year proportional to the volume of gas detected which has found to have been made erroneously during the audit are discounted. This will use the following formula:

$$23. (X*((STD*SER) / (TTD*TER)) - (X*SMS))$$

except where SMS equals zero to four decimal places, in which case no credit or debit will be applied.

*Where*

*X is the total value of the scheme, increased in line with the percentage change in RPI between the index published for the start and the end of the Scheme Year.*

*SVD is the total volume of gas theft detected by the Shipper in the Scheme Year.*

*SER is the percentage of volume for that Shipper which have been audited and found to be valid, expressed as a decimal.*

*TVD is the total volume of gas detected as stolen in the Scheme Year.*

*TER is the percentage of volume in the whole market that Scheme Year which have been audited and found to be valid, expressed as a decimal.*

*SMS is the Supply Point market share of aggregate AQ (excluding sites which are deemed out of scope by the modification proposal) of the Shipper expressed to four decimal places.*

24. A working example of the correction described above is given below:

*Shipper A's total volume detected within the Scheme Year = 1000 gWh.*

*Audit sample was 100 gWh, of which 5 gWh was found to be invalid, i.e. did not have sufficient evidence to demonstrate an offence under Gas Transporters Standard Licence Condition 7(4) (a), (b), (c), (which includes offences under the Gas Act (1986), Schedule 2B, paragraph 10(1) and paragraph 11(2)). Failure rate of 5%.*

*The Provisional Assessment made by the Network Owner or their agent should now be amended such that the total volume of theft detected claimed by Shipper A is reduced by 5%, to 950 gWh.*

*The figure of 950 gWh is then used to compare the Shipper's relative performance in relation to theft detections.*

25. Not less than one month after the recalculation described in paragraphs 2.14 and 2.15 has been completed, the Network Owners will calculate a final set of credits and debits for each Shipper (the Final Assessment), and issue an anonymised report to each Shipper setting out the Final Assessments. Each Shipper will be told who they are within the anonymised report and will receive an appropriate invoice or credit note.
26. It is expected that, for the ease of administering the process for issuing credits and debits, the Network Owners will divide up the responsibility for issuing credit notes and invoices. Credits will be issued out within three months of corresponding debits being received, such that the Network Owners are never faced with a deficit and Shippers are not waiting for 100% of all debits to be paid before receiving any credits. This should be done in such a way as to not discriminate between Shippers, by paying out the proportion of credits to all eligible Shippers commensurate to the proportion of debits received at that time.
27. Credits and debits under the scheme will be managed under the process set out in Section S of the UNC.
28. If a Party believes that a material event has rendered the outcome of the scheme demonstrably inequitable, such as Supplier of Last Resort being invoked for a significant portfolio towards the end of a scheme year, they may propose to the UNCC that the scheme for that year be set aside in its entirety. Any decision of the UNCC to do so however must be both unanimous and made before the credits and debits are issued out by the Network Owners.
29. For the avoidance of doubt, although the settlement of credits and debits will not complete until at least one month after the end of the Scheme Year, the next Scheme Year will still commence at 06:00am the day after the Scheme Year ends, that being the anniversary of the start of the first Scheme Year. This will effectively mean that the processes for two years' Schemes will overlap slightly.

