CODE MODIFICATION PROPOSAL No xxxx
<An Alternative to the Supplier Energy Theft Scheme Based on Throughput>
Version 0.2

Date: 27/10/2010

Proposed Implementation Date:

Urgency: Non Urgent

1 The Modification Proposal

a) Nature and Purpose of this Proposal

Introduction

We believe that within the Non-Daily Metered 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 Suppliers to detect theft of gas. There is a further obligation on Suppliers to notify Transporters of the details related to detected theft[1], 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

[1] Supply Licence Condition 16.

unchecked[2]. 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 in May 2012, backdated to April 2011.

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.

The Proposal

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

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[2] 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.

[3] 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.

[4] ENA / ERA"Report of the Theft of Energy Working Groups", page 67.

[5] ENA / ERA"Report of the Theft of Energy Working Groups", page 67

[6] As per the findings of "The Benefits from Competition: some illustrative UK cases" DTI

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 as an offence under The Gas Act (1986), Schedule 2B.

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 NDM throughput 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 document, attached to this Proposal as Appendix One.

Scope

It is considered that Daily Metered sites 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.

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.

In order to validate theft detections submitted to the Administrator, Suppliers must collect and retain 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^3, this being the amount of funding (from our experience) needed to provide sufficient Revenue Protection services for 100% of NDM throughput in the market.

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 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 found more than 51% of the total number of theft detections in the industry during the last full year (2009) should be deemed to be advanced in terms of theft detection processes, and therefore be subject to a phased implementation of the SETS scheme, such that they may only compete for a capped amount of the SETS fund in the first two years. This cap will be set at the relevant percentage market share used for calculation of their liability to the Scheme, with the effect that they may not profit from the SETS in the first two years. Any amount of revenue which they forgo as a result of this measure will roll forward in to the scheme fund for the subsequent year, for all parties to compete for.

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.

Benefits of SETS

- Provides Suppliers with an incentive to detect theft.
- 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[4].
- 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.[5]

- Ensure competition in the provision of theft detection, which in turn will lead to[6]
    1. Lower prices for Suppliers using Revenue Protection (RP) services.
    2. Greater discipline on RP providers to keep costs down.
    3. Improvements in processes and techniques with positive effect on theft detection rates.
    4. A greater variety of products and services in the RP market.
    5. A faster pace of invention and innovation in theft of gas detection techniques.
    6. Improvements to the quality of service for Suppliers using RP services.
    7. Better information for Suppliers on RP services, allowing them to make more informed choices.
- The governance of the scheme is relatively easy to create and manage.
- SETS will apply to both the domestic and non-domestic (NDM) sector, and the nature of the scheme is such that it could provide a future dual fuel solution.
- SETS is self-financing; total credits will equal total benefits (less scheme administration costs).

Consequences of non-implementation

Without implementation of this proposal there will continue to be no effective incentive on gas 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.

b) Justification for Urgency and recommendation on the procedure and timetable to be followed (if applicable)

c) Recommendation on whether this Proposal should proceed to the review procedures, the Development Phase, the Consultation Phase or be referred to a Workstream for discussion.

2 User Pays

a) Classification of the Proposal as User Pays or not and justification for classification

This proposal is User Pays as it will require the Network Owners to provide

new services, for which they currently do not receive funding.

b) Identification of Users, proposed split of the recovery between Gas Transporters and Users for User Pays costs and justification

100% costs attributed to Shippers.

c) Proposed charge(s) for application of Users Pays charges to Shippers

All costs identified by the Network Owners as part of their Rough Order of Magnitude work.

d) Proposed charge for inclusion in ACS – to be completed upon receipt of cost estimate from xoserve

3 Extent to which implementation of this Modification Proposal would better facilitate the achievement (for the purposes of each Transporter's Licence) of the Relevant Objectives

(c) so far as is consistent with sub-paragraphs (a) and (b), the efficient discharge of the licensee's obligations under this licence;

This modification 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 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 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 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.

(d) so far as is consistent with sub-paragraphs (a) to (c) the securing of effective competition between relevant shippers and between relevant suppliers;

This modification 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.

(e) so far as is consistent with sub-paragraphs (a) to (d), the 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;

This modification 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. By increasing the incentives associated with theft detection as this modification does, 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.

Environmental Benefits

This modification 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.

When theft occurs it is rarely done efficiently. Thieves are not affected by the same drivers as other customers, for example price and carbon reduction. This modification proposal will deliver an increase in the amount of theft detected, and therefore marginally reduce the amount of inefficient gas usage in the UK, with a consequential reduction in emission levels.

Furthermore, where theft occurs, industry parties are unlikely to know how much gas is being used or who is using it. They are therefore unable to target carbon reduction communication and measures at those responsible, for example measures

available under Carbon Emission Reduction Target (CERT) measures. As this modification will lead to an increase in the amount of theft detected, and therefore an improvement in the quality of information on who is using what, Suppliers will be better able to help reduce the carbon emissions of consumers.

4 The implications of implementing this Modification Proposal on security of supply, operation of the Total System and industry fragmentation

No impacts identified.

5 The implications for Transporters and each Transporter of implementing this Modification Proposal, including:

a) The implications for operation of the System:

No impacts identified.

b) The development and capital cost and operating cost implications:

By identifying theft earlier, and thus enabling there to earlier interventions in resolving theft, the costs associated with that resolution will be reduced. This includes, but is not exclusive to, the capital cost savings associated with fewer gas explosions arising from unresolved theft, and lower operating costs associated with the expected reduction in theft (both upstream and downstream) that this Modification Proposal will bring.

c) Whether it is appropriate to recover all or any of the costs and, if so, a proposal for the most appropriate way for these costs to be recovered:

All costs should be recovered via the User Pays process.

d) The consequence (if any) on the level of contractual risk of each Transporter under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal

No impacts identified.

6 The extent to which the implementation is required to enable each Transporter to facilitate compliance with a safety notice from the Health and Safety Executive pursuant to Standard Condition A11 (14) (Transporters Only)

There is no safety notice to which this modification proposal specifically relates to, although we stress that by encouraging investment in theft detection, instances of theft will be resolved earlier. This in turn will improve the safety of the network through reduced interference with gas supplies and the potentially lethal consequences that can entail.

7 The development implications and other implications for the UK Link System of the Transporter, related computer systems of each Transporter and related computer systems of Users

No impacts identified.

8 The implications for Users of implementing the Modification Proposal, including:

a) The administrative and operational implications (including impact upon manual processes and procedures)

Users will be incentivised to provide for an adequate Revenue Protection service for their portfolio. If a User does not have such a service then this modification proposal will mean that they are faced with the increase in administrative burden associated with providing for that.

b) The development and capital cost and operating cost implications

Users will be incentivised to provide for an adequate Revenue Protection service for their portfolio. If a User does not have such a service then this modification proposal will mean that they are faced with the increase in costs associated with providing for that.

c) The consequence (if any) on the level of contractual risk of Users under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal

No impacts identified.

9 The implications of the implementation for other relevant persons (including, but without limitation, Users, Connected System Operators, Consumers, Terminal Operators, Storage Operators, Suppliers and producers and, to the extent not so otherwise addressed, any Non-Code Party)

By virtue of the commercial contracts which exist between Shippers and Suppliers, by placing incentives on Shippers for the detection of theft, those costs will be passed through to Suppliers, thus providing them with an incentive to manage the theft which exists on their portfolio. In a competitive market, and with the incentive set at a sufficiently high level to represent the Revenue Protection provision costs (see above), this increased cost will result in Suppliers investing in Revenue Protection services, thus increasing the amount of theft detected.

As the cost of theft are currently socialised across all customers, any increase in theft detection will mean that the costs associated with theft are borne increasingly by those who steal and not the wider law abiding population. This improvement in cost allocation will represent an increase in fairness across the market.

Furthermore, given the inherently unsafe nature of theft, an increase in the volume of theft detected will improve the overall level of customer safety, in particular for those who live in or near properties where theft is taking place.

10 Consequences on the legislative and regulatory obligations and contractual relationships of the Transporters

No impacts identified.

11 Analysis of any advantages or disadvantages of implementation of the Modification Proposal not otherwise identified in paragraphs 2 to 10 above

Advantages

- Helps the industry become more proactive in theft detection.
- Improves customer safety.
- Increase in innovation and/or development of theft detection techniques resulting from the effects of competition.
- This will potentially reduce the amount of unidentified gas and consequential improvement in the accuracy of information used in the allocation process.
- Minimal implementation costs/time for xoserve [pending ROM]
- Avoids a windfall in the first two years for British Gas.
- This scheme ensures shippers are directly accountable for theft in their portfolio.
- Simple scheme governance. [Pending ROM]
- Benefits outweigh costs.
- Solution avoids a number of significant costs other proposals currently being considered will incur..
- Provides suppliers with an incentive to detect theft.
- Ensures more accurate cost allocation, ensuring those who allow unidentified gas to be created pay more.

Disadvantages

- Requires a separate Code of Practice to standardise Supplier approach to handling theft once detected.

12 Summary of representations received as a result of consultation by the Proposer (to the extent that the import of those representations are not reflected elsewhere in this Proposal)

13 Detail of all other representations received and considered by the Proposer

14 Any other matter the Proposer considers needs to be addressed

15 Recommendations on the time scale for the implementation of the whole or any part of this Modification Proposal

16 Comments on Suggested Text

17 Suggested Text

Code Concerned, sections and paragraphs

Uniform Network Code

Transportation Principal Document

Section(s)

Proposer's Representative

Name (*Organisation*) David Watson, British Gas

Proposer

Name (Organisation) David Watson, British Gas