Development Workgroup Report
Creation of Incentives for the Detection of Theft of Gas (Supplier Energy Theft Scheme)
Modification Reference Number 0277

Version 0.54 Draft

This Development Work Group Report has been prepared by Group Members and follows the format required by the UNC Modification Rules. The Group considered the merits of the Proposal and implementation options.

The Development Work Group considers that the Proposal is sufficiently developed and should now proceed to the Consultation Phase.

1 The Modification Proposal

Introduction

Other than the obligation to inspect each meter once every two years[1], there are no current 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[2], 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*". Indeed following the amendments to the incentive schemes on Electricity Network Owners in DPCR4, theft detections on their networks increased significantly. Although we can see issues with the way in which a centralised theft detection body, operating in isolation of Suppliers, can present in the current market, we consider the benefits brought about by incentives to be beneficial.

[1] Supply Licence Condition 17.

[2] Supply Licence Condition 16.

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[3]. This 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 costs currently *all* 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.
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 user 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 the Supplier Energy Theft Scheme (SETS) incentives recommended as a solution initially by the ENA and ERA in April 2006 and then again by UNC Review Group 0245 in its November 2009 report. This scheme will incentivise Suppliers to detect theft by ensuring that it costs money to do nothing, introducing the principle of competition in the Revenue Protection Market and rewarding those who do most to reduce theft with financial benefits.

For the purposes of this proposal, theft is defined as an offence under The Gas Act (1986), Schedule 2B, clause 10.

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[3] 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.

[4] Precise calculation based on annual British Gas Revenue Protection budget of £3.854m pro-rated up on the basis that British Gas has approximately 44.1% of NDM market share (source: xoserve). Value of scheme is rounded to nearest £10k for simplicity.

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

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

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

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 supply points in scope of the scheme and (b) the share of the total theft detections made within the Scheme Year. If a Shipper has more theft detected than their market share, they will be due a credit; if they detect less than their market share they will be presented with an invoice. All credits and debits will balance throughout the industry (save for a deduction covering the reasonable costs of operating the scheme) such that money is simply redistributed from those who have performed badly to those who have performed well – rewarding god behaviour.

This will provide an incentive on Suppliers to invest in theft detection activities, leading to an increase in the 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, and is therefore proposed that those costs be agreed and then deducted from the overall SETS fund each year, such that it is entirely revenue neutral for the Transporter's Agent.

In order to validate theft detections submitted to the Administrator Suppliers must collect an agreed minimum level of evidence

Value of the Scheme

British Gas currently employ a Revenue Protection Unit sufficiently resourced to manage any theft which is occurring on its portfolio, wherever that may be throughout the country. The funding required to do this to a satisfactory performance level is £3.854m 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.

In order to properly incentivise the detection of theft, the potential cost to each party must be at least the cost of providing a Revenue Protection Service. Although this cost may differ slightly from party to party depending on their portfolio, we propose that the overall value of the scheme is £8.74m[4] plus Network Owner and xoserve costs (*to be confirmed in the ROM*) per annum.

Evidence of Theft

In order to prevent gaming of the system an agreed level of evidence will need to be collected by the Supplier 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, clause 10.

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 Supplier to compete on a level footing throughout the scheme.

We therefore volunteer that under this proposal there will be a phased implementation of the SETS scheme for British Gas (only), such that we 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 British Gas' liability to the Scheme, with the effect that British Gas may not profit from the SETS in the first two years. Any amount of revenue which British Gas forgoes 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 British Gas under a SETS scheme without this measure, as a result of their initial investment position, will be forgoed in the interests of allowing all to compete for incentive funding equally.

Benefits of SETS

- Provides Suppliers with an incentive to detect theft.
- Ensures proper cost allocation, by ensuring those who do nothing subsidise those who do something. This will be done in "*a transparent and easy to*

understand" way[5].

- 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.[6]
- Ensure competition in the provision of theft detection, which in turn will lead to[7]
    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 could apply to both the domestic and non-domestic 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.

2 User Pays

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

This proposal is not User Pays. Shippers will pay the Transporter's Agent for the full costs of administering the scheme from the annual scheme fund.

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.~~Not applicable.~~

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

Not applicable.

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

Not applicable.

3 Extent to which implementation of the proposed modification would better facilitate the relevant objectives

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

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 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 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.

Providing incentives for the detection of theft, individual instances of theft should be detected sooner than in a market with no incentives. This earlier detection of theft should reduce the risk of damage to the network that long term theft risks, for example through explosions. This modification should therefore also improve the economic operation of the network.

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, increasing the efficient and economic operation of the pipeline system.

[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.][To be reviewed]

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 improve the efficient and economic operation of the pipe-line system.

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 improve the economic operation of the network.

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 (b): ***so far as is consistent with sub-paragraph (a), the (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters;***

As above, this modification could impact theft across all pipeline systems.

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

In the course of detecting theft, Suppliers will often find instances where theft has occurred upstream of the Emergency Control Valve, and is therefore "in the course of conveyance", as defined by paragraph 9(1), Schedule 2B of The Gas Act (1986). As this modification proposal will increase the volume of theft detected, and considering Suppliers existing obligations to notify such theft to the Network Owner, it will 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 Licence Condition 7.

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

Standard Special Condition A11.1 (d): ***so far as is consistent with sub-paragraphs (a) to (c) the securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers;***

Some Development Group Members consider 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.

Some Development Group Members believed that investment decisions/strategies would not lead to an increase in effective supply competition. The competitive activity relates to the detection of theft.

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 sub-paragraphs (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;***

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.

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

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

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

No implications on security of supply, operation of the Total System or industry fragmentation have been identified.

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

a) implications for operation of the System:

No implications for operation of the system have been identified.

b) development and capital cost and operating cost implications:

No development or capital costs would be incurred.

c) extent to which it is appropriate to recover the costs, and proposal for the most appropriate way to recover the costs:

No additional cost recovery is proposed.

d) Analysis of the consequences (if any) this proposal would have on price regulation:

No consequence for price regulation has been identified.

6 The consequence of implementing the Modification Proposal on the level of contractual risk of each Transporter under the Code as modified by the Modification Proposal

No such consequence is anticipated.

7 The high level indication of the areas of the UK Link System likely to be affected, together with the development implications and other implications for the UK Link Systems and related computer systems of each Transporter and Users

No changes to systems would be required as a result of implementation of this Proposal.

8 The implications of implementing the Modification Proposal for Users, including administrative and operational costs and level of contractual risk

Administrative and operational implications (including impact upon manual processes and procedures)

No such implications have been identified.

Development and capital cost and operating cost implications

No such costs have been identified.

Consequence for the level of contractual risk of Users

No such consequence has been identified.

9 The implications of implementing the Modification Proposal for Terminal Operators, Consumers, Connected System Operators, Suppliers, producers and, any Non Code Party

No such implications have been identified.

10 Consequences on the legislative and regulatory obligations and contractual relationships of each Transporter and each User and Non Code Party of implementing the Modification Proposal

No such consequences have been identified.

11 Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Advantages

The Development Group considers the Proposal offers the following advantages:

- Helps the industry become more proactive in theft detection.
- Improve customer safety.
- The scheme rules do not discriminate between SSP/LSP markets.
- 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.

Some Development Group members considered the Proposal offers the following advantages:

- This scheme ensures shippers are directly accountable for theft in their portfolio.
- Simple scheme governance. [? Pending ROM]
- Benefits outweigh costs.
- Provides suppliers with an incentive to detect theft.
- Ensures more accurate cost allocation.

Disadvantages

The Development Group considers the Proposal has the following disadvantages:

- Compared to other theft proposals, SETTS does not provide an industry wide view of theft.

- SETTS requires a standalone code of practice to guarantee information sharing and fair customer treatment.

Some Development Group Members consider the Proposal has the following disadvantages:

- Increases costs to Shippers and therefore consumers.
- SETTS does not make provision for reallocation of settlement costs incurred across the industry as other proposals do.
- SETTS is a commercial incentive so may not protect vulnerable customers without a code of practice.

12 Summary of representations received (to the extent that the import of those representations are not reflected elsewhere in the Workgroup Report)

Environmental Benefits

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.

13 The extent to which the implementation is required to enable each Transporter to facilitate compliance with safety or other legislation

No such requirement has been identified.

14 Any other matter the Workgroup considers needs to be addressed

15 Programme for works required as a consequence of implementing the Modification Proposal

No programme for works has been identified.

16 Proposed implementation timetable (including timetable for any necessary information systems changes)

Implementation could be immediate on receipt of a decision.

17 Implications of implementing this Modification Proposal upon existing Code Standards of Service

No implications of implementing this Modification Proposal upon existing Code Standards of Service have been identified.

18 Workgroup recommendation regarding implementation of this Modification Proposal

The Workgroup considers that the Proposal is sufficiently developed and should now proceed to the Consultation Phase. [The Workgroup also recommends that the Panel requests the preparation of legal text for this Modification Proposal.]

19 Workgroup's comments on legal text

20 Text