

**Development Workgroup Report**  
**Creation of Incentives for the Detection of Theft of Gas (Supplier Energy Theft Scheme)**  
**Modification Reference Number 0277**  
Version 0.1 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**

There are no current obligations on suppliers to detect theft of gas, and reliance is placed on the obligations to inspect each meter once every two years<sup>1</sup>. There is a further obligation on suppliers to notify Transporters of the details related to detected theft<sup>2</sup>, 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 give 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 meters have inherent safety features built within them and tampering or bypassing these is inherently dangerous. At worst this can lead to loss of life to the either the person

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<sup>1</sup> Supply Licence Condition 17.

<sup>2</sup> Supply Licence Condition 16.

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 Resolution by Difference (RbD). All undetected theft therefore becomes a cost to all 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.

This proposal is not to be confused with Modification Proposal 0274, "*Creation of a National Revenue Protection Service*". This 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 obligate all suppliers of relevant supply points to pay in to a centrally managed fund based on their share of meter points. The fund will then be redistributed annually on the basis of how much theft each supplier detected relative to their competitors.

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

- The scheme operates annually, opening on D1.

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<sup>3</sup> 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.

<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

- Theft detections, along with the necessary evidence, are reported to the Administrator of the scheme.
- Interim reports showing the number of theft detections to date are issued once each quarter by the Administrator to aid transparency.
- On D365 the scheme closes before restarting the following day.
- Market share measurements are taken by the Administrator of the scheme at the end of D365.
- Theft detections as a proportion of the total measured for each supplier at the end of D365.
- Credits and debits for each supplier are then calculated and redistributed as follows:

$$X*(STD / TTD) - X*SMS$$

*Where*

*X is the total value of the scheme*

*STD is the volume of theft detections by the supplier.*

*TTD is the total volume of theft detections in the scheme year.*

*SMS is the market share of the supplier expressed as a decimal*

### Scope

It is considered that Daily Metered, including Daily Metered (Elective), sites are sufficiently scrutinised to be excluded from the SETS solution. All other supply points 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

In order to properly incentivise theft detection, the cost to each party must be at least the cost of providing a Revenue Protection Service. Although this may differ slightly from party to party, this proposal will we propose that the overall value of the scheme is £8.74m<sup>3</sup> per annum. This is based on British Gas' current annual spend on

Revenue Protection activities in the gas market, pro-rated up to represent relative spending required across the eligible supply points.

### 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.

### 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. 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 forgone 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<sup>4</sup>.
- 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>
- Ensure competition in the provision of theft detection, which in turn will lead to<sup>6</sup>
  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 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 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.

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

To be developed.

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

To be developed.

## **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 will be a more efficient operation of the pipe-line system through the prevention of unsafe interference in the system that all theft represents.

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 will impact theft across all pipeline systems.

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.

**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;***

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;***

By ensuring that the costs and benefits associated with theft detection are more fairly assigned in the market, 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**

- Provides suppliers with an incentive to detect theft.
- Ensures proper cost allocation.

**Disadvantages**

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**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**