

**Restricted circulation**

# Southern Gas Networks

**Submission to Ofgem under Special Condition 3F of  
RIIO –GD1 for the Physical Security Upgrade  
Programme Costs**

May 2015



**SGN**

Your gas. Our network.

# Contents

|                                                          |          |
|----------------------------------------------------------|----------|
| <b>1 Executive Summary</b> .....                         | <b>3</b> |
| <b>2 Background</b> .....                                | <b>4</b> |
| 2.1 Legislative guidance on CNI.....                     | 4        |
| 2.2 Shared Sites.....                                    | 4        |
| <b>3 Qualification Criteria</b> .....                    | <b>5</b> |
| <b>4 Timeline of PSUP in Southern Gas Networks</b> ..... | <b>5</b> |
| <b>5 Project process of CNI Sites</b> .....              | <b>5</b> |
| 5.1 Design.....                                          | 5        |
| 5.2 Installation.....                                    | 6        |
| 5.3 Past experiences .....                               | 6        |
| <b>8 Stakeholder engagement</b> .....                    | <b>6</b> |
| 8.1 Customers.....                                       | 6        |
| 8.2 External Agencies.....                               | 7        |
| 8.3 Bi-Monthly PSUP forum.....                           | 7        |
| 8.4 DN's – EC3 Group.....                                | 7        |

## 1 Executive Summary

SGN has received confirmation from the Department of Energy and Climate Change (DECC) that **REDACTED** of our sites are considered as Critical National Infrastructure (CNI), this has been provided for reference. **REDACTED** of these sites are located in our Southern Gas Networks licence area with **REDACTED** located in our Scotland Gas Networks licence area. Section 2 covers the identification of these sites in further detail. Site J upgrade costs have been allocated between both Southern Gas Networks and Scotland Gas Networks based on our existing allocation model split, to recognise that the asset serves both networks, section 7.5 covers this in more detail.

As part of the RIIO GD1 Price Control, Special Condition 3F 'Arrangements for the recovery of uncertain costs' of our Gas Transporter Licences, allows for an uncertainty mechanism related to the Physical Security Upgrade Programme (PSUP). This provides the opportunity of two reopener windows; one in May 2015 and the second in May 2018. More detail of the specific requirement is provided in section 3. It is our intention to apply for all additional PSUP costs in the May 2015 reopener window. This will provide certainty for all interested parties moving forward and allow stakeholders to benefit from any efficiencies we can achieve in delivering the requirements of the PSUP.

Southern Gas Networks are applying in the May 2015 window for a total amount of £31.398 million (in 2009 / 10 prices). It should be noted, all prices stated henceforth will be in 2009/10 prices unless otherwise clarified. However, as part of the RIIO-GD1 final proposals, Southern Gas Networks was allowed £2.800 million for the commencement of the security upgrade work and this amount has therefore been deducted from the amount of additional funding that we are now seeking. This means that in the May 2015 reopener window, we are applying for a total amount of £28.598 million.

The submission is made up of:

- **Base Costs:** Actual and forecasted costs for the remaining period of RIIO-GD1 based on actual technical requirements in approved Tech 1 Audits, from the Centre of Applied Science and Technology (CAST) and the Home Office. Base costs have also been validated through the VFM1 audit process by Harnser. The base costs include project management associated with the upgrade programme. Nine sites in Southern Gas Networks qualify under this criteria;
- **Estimated costs:** Forecasted costs based on previous experience and site specific factors. The estimated costs include project management associated with the upgrade programme. **REDACTED** sites in Southern Gas Networks qualify under this criteria;
- **Technical Variations:** An allowance for the efficient level of variations based on the probability of occurrence of specific factors; and
- **Operating and central overhead costs:** Ongoing operating costs once the sites are completed for the remainder of GD1 and relevant central overheads required to support PSUP

Additional information on these costs is provided in section 7.

Our licence requires us to, provide evidence that project costs are efficiently incurred. Documentation to support our application in this regard is included in section 6. We have pushed the boundaries to generate cost efficiencies at every opportunity. The specific scope of each site has been challenged and savings of £9.634 million have been identified across both distribution networks.

Through effective engagement with our key stakeholders, we have identified issues at the earliest opportunity in order to improve decision making and accountability which has driven performance. A comprehensive list of stakeholders we have engaged with is provided under Appendix A.

Independent external auditing processes provide the necessary assurance that the design and implementation of security upgrades meet the technical requirements. These include 'Tech 1 audits' and; 'VFM1 audits,' that demonstrate the forecasted expenditure represents value for money. We have successfully obtained these for **REDACTED** of the **REDACTED** sites in our Southern Gas Networks. We are currently focusing on obtaining the 'Tech 1' and 'VFM1' audits for the remaining **REDACTED** of the **REDACTED** sites in Southern Gas Networks. The

full process and the timeframes around the design and implementation of the upgrade programme is covered in section 4 and 5.

This reopener claim relates to costs assuming current upgrade specifications. If there are changes to the criteria and classification of the CNI sites, we intend to seek further funding through the May 2018 reopener window.

Table 1 – The total base cost formation for the reopener submission for May 2015 by Southern Gas Networks of £31.398 million should be reduced by £2.800 million (previously funded expenditure) to £28.598 million

**REDACTED**

## 2 Background

The UK's utilities networks have been identified as of interest to those wishing to cause the UK harm; the main security risk facing the UK arises from international terrorism.

Considering the potential impact such an attack would have on the nation, DECC, working on behalf of the UK government has implemented a PSUP, based upon recommendations made by the Centre for the Protection of National Infrastructure (CPNI), to reduce the vulnerability of the most critical assets on the gas and electricity networks. A comprehensive list of stakeholders we have engaged with is provided under Appendix A.

In 2009 CPNI, in collaboration our Security and Asset Management, recommended that **REDACTED** key gas distribution assets should be considered as Critical National Infrastructure (CNI). Up until recently, we had only engaged with CPNI on the original **REDACTED** sites for evaluation and broadly discussed their security requirements which were documented by CPNI.

### 2.1 Legislative guidance on CNI

In August 2013, DECC and Ofgem issued joint guidance to the electricity and gas network operators on the physical security upgrade of their assets categorised as CNI. The guidance detailed the processes to be followed to deliver these essential enhancements and the arrangements provided by Ofgem to allow for the recovery of efficiently incurred costs from energy consumers.

In May 2014, DECC issued the revised criteria for categorising CNI assets. This formed the basis of a quantitative root and branch review of the CNI status of our key distribution assets. DECC was advised of **REDACTED** assets considered by us to be CNI based on these criteria.

At the beginning of August 2014, DECC advised us of their final assessment of CNI assets against the finalised CNI criteria. DECC confirmed that they now considered **REDACTED** of our major assets as CNI. Under the terms of the RIIO-GD1 price control and our licence, we consider these costs would qualify for funding through the PSUP reopener mechanism.

**REDACTED**

### 2.2 Shared Sites

Shared sites refer to where there is a 'site user' as well as a 'site owner.' Southern Gas Networks has **REDACTED** shared sites with other users. These are shown below under table 2.2:

**REDACTED**

**Table 2.2** – NGT (National Grid Transmission), NGD (National Grid Distribution)

Currently, a proposal has been drafted to govern the cost sharing mechanism for the shared sites by National Grid (NG). As per the proposal if the total leased land by the third party on the shared site exceeds 10% then each DN would apply on the basis of the percentage apportionment of the shared site. We would protect both a third party and their own assets within the site regardless of the cost sharing mechanism.

We currently have one shared site, Site G with a site user share of more than 10%. The site is shared by NG between their distribution and transmission divisions, National Grid Distribution (NGD) lease 22% with National Grid Transmission (NGT) leasing 2%.

As of yet no formal agreement or proposal has been implemented. Therefore as we are site owners, have applied on the basis of 100% funding for the shared site.

### 3 Qualification Criteria

As part of the RII0-GD1 Price Control, gas network transporters are able to apply for PSUP related expenditure both *ex post* and *ex ante*. The additional costs are able to be recovered through changes to allowed revenue and ultimately impact customer charges via the Annual Iteration Process.

The threshold is defined as ‘an amount of change to the allowed expenditure which, when multiplied by the relevant Distribution Networks Totex Incentive Strength exceeds or is likely to exceed 1% of the Distribution Network’s materiality threshold amount.’

The materiality threshold calculation therefore for Southern Gas Networks is as follows:

|                                 | Calculations              | Base    | Licence                                            |
|---------------------------------|---------------------------|---------|----------------------------------------------------|
| <b>Materiality Threshold</b>    | 1% of £605.906m = £6.06m  | 2009/10 | SC3F Appendix 2                                    |
| <b>Totex Incentive Strength</b> | 63.73 % of £9.51m =£6.06m | 2009/10 | SC3F Appendix 1                                    |
| <b>RPI</b>                      | 1.18957 * £9.51m = £11.3m | 2014/15 | RPI Latest Actual Forecast (3 bank average Apr 15) |

**Table 3 – Materiality Threshold for Southern Gas Networks**

We are be applying for both *ex ante* and *ex post* funding for **REDACTED** sites as identified in section 7.

### 4 Timeline of PSUP in Southern Gas Networks

Projects have been planned to be completed between 2013/14 and 2018/19. The implementation of each CNI site along with the date of commencement and the approximated timeframe of completion have been attached for reference.

### 5 Project process of CNI Sites

A diagrammatic representation of the PSUP design, implementation and completion process can be found in the reference documents. A standard site build can take between **REDACTED**; 12 week design, 30 week build and 18 week audit process. Key stages of the process generate outputs which are imperative in documenting the costs and efficiencies of the programme.

#### 5.1 Design

Once DECC have confirmed the CNI sites to us, a ‘Site Vulnerability Assessment’ must be carried out. In association with CPNI, a documented assessment is provided on the current security and requirements to achieve the CNI standard. We provide an overriding document known as the ‘Operational Requirement’ (OR) with specific necessities to reduce vulnerability. We then produce a ‘Site Specific Operational Requirement’ (SSOR) to detail the minimum security solution required. Copies of these reports have been submitted alongside this submission.

We design the solution to meet these requirements efficiently both operationally and financially. The OR, SSOR and are sent to CAST for review. The design is tested as ‘fit-for-purpose’ by CAST which provides us with a ‘Tech1’ audit sign off on the technical design. We are then able to cost the technical specification and pass this forward for ‘VFM1 - value for money’ audit by Harnser. A copy of the Tech1 audit has been provided to support this submission.

## 5.2 Installation

Depending on the approval of these audits, work can then commence on the sites. Once completed the sites undergo a 'Tech2' and 'VFM2' audit. These audits state that the technical specification has been met in the installation of the site and the final costs, plus/minus any deviations that, are fully justifiable.

Each time a design change is implemented a 'Technical Query' is raised to justify any cost variation. This is sent to CAST and made available to Harnser for documentation and completion of the VFM2. An example of a technical query is attached as supplementary information; it provides detail on the change in design specification as required after a site review and the consequential solution.

## 5.3 Past experiences

We have completed the **REDACTED** at Site A in our Southern Gas Network and we intend to apply learning from this project across our remaining CNI sites. Following our project governance process, we have applied the lessons learnt from this initial installation into the contracting and delivery strategy for the other sites. Some of these changes have resulted in operational and financial efficiencies detailed in section 6.

### Approach

Initially the **REDACTED** upgrade was assigned to multiple contractors. However, this approach identified issues that could have been eliminated with a turnkey approach. This type of approach gave us a greater ability to control costs as the contractor was able to negotiate savings due to having the contract for the full duration of the upgrade.

It also provided us with greater control on site and removed the added possibility of conflict between works of multiple contractors, ensuring a smoother transition between work phases.

Furthermore the process was shortened as it wasn't reliant on one contractor finishing before another could begin. Due to the nature of the SSOR, it wasn't possible to find contractors with the necessary skills and competencies to complete the upgrade to the required standards and within cost efficiencies. Therefore using a turnkey contractor meant that the necessary requirements would be fulfilled.

### CPNI Requirements

During the design and implementation of the **REDACTED** upgrade, we were better able to understand exactly what the CPNI requirements were and how the contractors could be best advised to meet them. Ultimately a more educated approach was taken and time was saved in the designing and identification of materials required for alternative sites.

**REDACTED**

## 8 Stakeholder engagement

We ensure that our stakeholders are well informed and communicated with on a regular basis. We provide specific examples of how we have engaged with our PSUP stakeholders in the agendas and minutes that are included in the supplementary information.

### 8.1 Customers

The primary aim of PSUP is to enable the security and reduce the threat to customers of losing gas supply as a result of an attack, as well as the obvious danger presented geographically to those living close to the CNI sites. As a part of the site assessments and the criticality scale of the categorisation of the sites the loss to the number of customers has been taken into account.

The OR document presents the minimum requirements to reduce the impact of such vulnerabilities as mentioned previously in section 5.

## **8.2 External Agencies**

Regular meetings and correspondence have been undertaken with external agencies as a part of the PSUP process. Guidance has been taken from CPNI and CAST on the designs and the specification of the technical requirements. The various agencies that have been consulted on the design and implementation of the upgrade programme are mentioned below:

DECC – **REDACTED**

CAST – **REDACTED**

CPNI - **REDACTED**

Councils - **REDACTED**

CTSA (Counter Terrorism Security Advisors) – **REDACTED**

Various stages of the upgrade will require us to seek advice or inform certain stakeholders to ensure that the upgrade is completed as effectively and efficiently as possible.

## **8.3 Bi-Monthly PSUP forum**

The PSUP forum is attended by:

- CPNI
- Home Office
- DECC
- Ofgem
- Northern DN
- Wales & West
- National Grid
- Electricity companies; SSE/ Centrica

This is an opportunity for the stakeholders to engage and discuss issues, experiences and possible problems arising from the upgrade.

## **8.4 DN's – EC3 Group**

The EC3 group allows for the discussion, sharing information and experiences on site design and technical solution as well as the possible efficiencies.