ofgem

Making a positive difference
for energy consumers

Interested parties and
stakeholders

Our Ref:
Direct Dial: 020 7901 7105
Email: paul.branston@ofgem.gov.uk

Date: 31 July 2015

Dear stakeholder,

**Consultation on our minded-to position for the review of costs associated with the TPCR4[1] enhanced physical security upgrade programme and the RIIO-T1[2] and RIIO-GD1[3] enhanced physical site security uncertainty mechanisms**

As part of the network price controls, the companies are funded to carry out enhancements to the physical security at specific sites to meet standards set by the Department for Energy & Climate Change (DECC). We are seeking your views on our minded-to position for:

- The allowances we provided in the last transmission price control (TPCR4) where we have now carried out an ex post efficiency assessment of the expenditure incurred and are proposing a reduction to National Grid's (NG's) regulatory asset value (RAV) of £72.5 million, and
- The additional allowances being sought by the companies under the uncertainty mechanisms in RIIO-T1 and RIIO-GD1. Overall, the companies are seeking an additional £756.8 million and we propose to allow £634.7 million.

We would especially welcome responses to the specific questions below:

**Question 1: Do you agree with our assessment and proposed adjustments associated with TPCR4 enhanced physical site security costs for the four Transmission Owners (TOs), NGET, NGGT, SHE Transmission and SPTL?**

**Question 2: Do you agree with our assessment and proposed adjustments associated with the RIIO-T1 enhanced physical security costs for the two TOs, NGET and NGGT?**

**Question 3: Do you agree with our assessment and proposed adjustments associated with the RIIO-GD1 enhanced physical security costs for the five**

[1] TPCR4 is the price control period for transmission companies from 2007 to 2012. For the purposes of this letter, any reference to TPCR4 also includes the TPCR4 rollover year (2012-13).
[2] RIIO-T1 is the price control period for transmission companies from 2013 to 2021.
[3] RIIO-GD1 is the price control period for gas distribution companies from 2013 to 2021.

**GDNs (NGGD's East of England, London, North West networks, and SGN's Scotland and Southern networks)?**

**Question 4: Do you agree with our proposal to introduce an output commitment in relation to enhanced physical security?**

In the interests of security we have made no reference to the specific location of sites that may or may not have had site security upgrades within this letter or the appendices. All figures quoted within this consultation letter and appendices are in 2014/15 prices.

**Our minded-to position**

*TPCR4 review*

Subject to consideration of consultation responses, we are minded to make a reduction of £72.5 million to the £375.1 million allowed into NG's RAV as part of TPCR4. This adjustment would be made in line with NGET's Special Condition 6A and NGGT's Special Condition 5A which cover legacy price control adjustments.

We do not propose making an adjustment to the £3.5 million allowed into SHE Transmission's RAV or the £7.8 million allowed into SPTL's RAV. Table 1 below shows the proposed disallowances against the costs incurred by each of the network companies which incurred costs during TPCR4.

**Table 1: TPCR4 security upgrade costs and proposed adjustments**

| Company | Allowed into RAV | Ofgem proposed adjustment |
|---|---|---|
| NGET | £139.4m | -£27.5m |
| NGGT | £235.7m | -£45.0m |
| SHE Transmission | £3.5m | - |
| SPTL | £7.8m | - |
| Total | £386.4m | -£72.5m |

*RIIO-T1 reopener*

Subject to consideration of consultation responses, we are minded to allow £532.9 million additional revenue in RIIO-T1 against £631.8 million claimed. The additional revenue is claimed in line with NGET's Special condition 6H and NGGT's Special condition 5E which deal with the arrangements for the recovery of uncertain costs. The proposed adjustments meet the relevant materiality thresholds as specified within these conditions.

Based on our analysis of the RIIO-T1 physical security reopener submissions, we are minded to make the adjustments as shown in Table 2.

**Table 2: RIIO-T1 security upgrade reopener claims and proposed allowances**

| Company | Submission | Proposed disallowance | Proposed allowance (pre-IQI) |
|---|---|---|---|
| NGET | £408.6m | £66.1m | £342.5m |
| NGGT | £223.2m | £32.8m | £190.4m |
| Total | £631.8m | £98.9m | £532.9m |


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

*RIIO-GD1 reopener*

Subject to consideration of consultation responses, we are minded to allow £101.8 million additional revenue in RIIO-GD1 against £126.8 million claimed. The additional revenue is claimed in line with Gas Transporter Licence Special condition 3F – Arrangements for the recovery of uncertain costs. All proposed adjustments under these conditions are subject to materiality thresholds and assessed as either single applications or multiple applications[4].

Based on our analysis of the RIIO-T1 and RIIO-GD1 physical security reopener submissions, we are minded to make the adjustments as shown in Table 3.

**Table 3: RIIO-GD1 security upgrade reopener claims and proposed allowances**

| Company | Submission | Proposed disallowance | Proposed allowance (pre-IQI) |
|---|---|---|---|
| NGG East of England | £38.8m | £6.5m | £32.3m |
| NGG London | £20.3m | £3.3m | £17.0m |
| NGG North West | £15.5m | £2.2m | £13.3m |
| SGN Scotland | £18.1m | £4.7m | £13.5m |
| SGN Southern | £34.0m | £8.3m | £25.7m |
| Total | £126.8m | £24.9m | £101.8m |

*Output commitment*

We also propose to put in place a requirement for all network companies[5] to ensure all their sites are critical national infrastructure (CNI)[6] compliant, as required by DECC, by the end of RIIO-T1 or RIIO-GD1, as appropriate.

**Introduction**

In order to fund transmission companies' enhanced physical site security upgrade (security upgrade) costs which had been incurred during TPCR4, we allowed an adjustment to the TO's RAV at the start of RIIO-T1. We stated that this funding would be subject to an efficiency review. Four companies (NGET, NGGT, SHE Transmission and SPTL) incurred costs during TPCR4.

At RIIO-T1 and RIIO-GD1 final proposals, we gave the licensees an opportunity to claim for security upgrade works during two reopener windows in 2015 and 2018.

Two transmission owners (NGET and NGGT) and five gas distribution networks (National Grid Gas plc for their East of England (EoE), London (London) and North West (NW) networks, Scotia Gas Networks for their Scotland and Southern networks) have given

[4] Applications under licence condition 3F (paragraph 1A.7(a)) for relevant adjustments to its allowed expenditure for a single cost category are subject to a one per cent materiality threshold.
[5] Any network company (Licencee) that submitted an application for a reopener in relation to Enhanced Physical Site Security Costs under either the Gas Transporter Licence Special Condition 5A – Legacy price control adjustments (NGGT), National Grid Electricity Transmission PLC Electricity Transmission Licence Special Condition 6A – Legacy price control adjustments (NGET) or Gas Transporter Licence Special condition 3F – Arrangements for the recovery of uncertain costs.
[6] Infrastructure assets that are vital to the continued delivery and integrity of the essential services upon which the UK relies, the loss or compromise of which would lead to severe economic or social consequences or to loss of life.


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

Notice to the Authority[7] that they wish to propose an adjustment to expenditure at the 2015 reopener window.

Based on our proposed adjustment the average impact on customer bills for each network operator is set out in Table 4 below. Further details on revenue and customer bill impact are set out in Appendix 6.

**Table 4: Customer bill impact – annual average cost over remainder of RIIO-T1/GD1**

| | Network operator's submission | Ofgem's proposed adjustment |
|---|---|---|
| **Transmission[8]** | | |
| **NGET** | £0.20 | £0.17 |
| **NGGT** | £0.16 | £0.14 |
| | | |
| **Gas distribution[9]** | | |
| **NGG East of England** | £1.91 | £1.36 |
| **NGG London** | £1.91 | £1.62 |
| **NGG North West** | £1.26 | £1.05 |
| **SGN Scotland** | £1.49 | £1.10 |
| **SGN Southern** | £1.17 | £0.88 |

This letter sets out our minded-to position and our;

(i) proposed adjustment to RAV in relation to TPCR4 expenditure
(ii) proposed adjustment for additional efficient costs in relation to RIIO-T1
(iii) proposed adjustment for additional efficient costs in relation to RIIO-GD1.

**Background**

In 2005, DECC identified a number of transmission sites as being CNI. A small number of these sites were approved to undergo an upgrade of the physical security measures at the site.

Following further reviews in 2009, 2011 and 2013 by DECC and CPNI[10], the number of sites which have been approved for a security upgrade has increased substantially. The list of sites has now been widened to include gas and electricity distribution sites.

At the time of setting the allowances for TPCR4 and GDPCR1[11] in 2006 and 2007 respectively, only a few transmission sites has been approved to undergo a security upgrade and the full scope of work required was not known. Due to this, no allowance was made for the upgrade work required at these sites and no uncertainty mechanism was included.

At TPCR4 rollover (2012-13) final proposals we stated that security upgrade costs up to 31 March 2012 would be added to RAV at the start of the rollover year on a provisional basis and that efficient costs incurred during the rollover year would be included in the

[7] Authority means the Gas and Electricity Markets Authority that is established under section 1 of the Utilities Act 2000. In the consultation, references to the Authority are used interchangeably with references to Ofgem.
[8] Transmission costs are borne by all GB customers
[9] Gas distribution costs are borne by customers within each gas distribution area
[10] Centre for the Protection of National Infrastructure
[11] GDPCR1 is the price control for gas distribution companies for the period from 2008 to 2013.


The Office of Gas and Electricity Markets
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

RAV as part of RIIO-T1. We stated that these numbers would remain provisional until we carried out an efficiency review of these costs.

At the time of setting the RIIO-T1 and RIIO-GD1 price controls, NGET claimed for £174.0 million ex ante funding and NGGT claimed for £16.4 million ex ante funding. SPT claimed for £12.7 million. SHE Transmission did not claim for any allowance. We made no specific allowance for GDNs. Due to the ongoing uncertainty surrounding the requirements for this work, no ex ante allowance was given.

Instead, an uncertainty mechanism was included within RIIO-T1 and RIIO-GD1 whereby companies could apply for costs incurred in upgrading the security at CNI sites during two reopener windows in 2015 and 2018.

**Assessment approach**

*TPCR4 review*
As part of the physical security upgrade programme process which was drafted by DECC and Ofgem, companies must allow an independent company to carry out two cost assessments at each site. The majority of these audits have been carried out by Harnser Group (Harnser).

The first value for money audit, VFM1, assesses the forecast costs of the programme. The second, VFM2, assesses the outturn costs of the programme. The costs for VFM1 and VFM2 reports at any one site should be broadly the same except in cases where compensation events or variation orders for unforeseen costs during the project may lead to additional VFM2 costs. Where costs are deemed to be inefficient, these are highlighted in the VFM reports.

We assessed the TPCR4 costs for all network operators based on their VFM reports. For SHE Transmission and SPTL, the VFM2 reports did not highlight any inefficiencies. For NG we had concerns that their VFM2 costs are much higher than the VFM1 costs as a significant proportion of their project management costs had not been included in the VFM1 report. In addition to this, their VFM2 reports identified a number of inefficiencies.

We sought further information from NG via supplementary questions, meetings and a site visit to see the security solutions which had been installed.

*RIIO-T1/GD1 reopener*
For the reopener, we assessed the companies' costs based on the evidence provided within their reopener submissions which we received in May 2015. SGN's submission included VFM1 reports for the majority of their sites. We do not have VFM1 reports for the majority of NG's sites.

We also employed Harnser to review the companies' reopener submissions. We requested that they provide an independent assessment of the following cost areas:

- Project management
- General items & preliminaries[12]
- Fences
- Cameras

A link to their report can be found in Appendix 1.

[12] Costs which are not part of the actual security solution, but have been incurred as part of the project (eg site accommodation and temporary site security).


The Office of Gas and Electricity Markets
9 Millbank London SW1P 3GE Tel 020 7901 7000 Fax 020 7901 7066 www.ofgem.gov.uk

**Minded-to position**

We have reviewed the company submissions and note a number of areas where we feel the companies have not fully demonstrated the case for their proposed adjustments.

*NG*
In NG's submission, they have proposed high project management costs. This is an area we have previously indicated our concern and we do not feel that their submission demonstrates why these costs have not reduced. In addition to this, NG's 'general items & preliminaries costs' are also high in comparison to other network operators. We also do not feel that these costs have been justified. Due to high units costs in these areas we have proposed adjustments to their claim.

SGN
In SGN's submission, we feel that their base costs are efficient. However, we have proposed reductions to their claim for technical variations (risk). In addition we have disallowed funding for one of their sites where we feel SGN have not fully explored all of the options available to them. We have also proposed an adjustment to their claims for operating costs and overheads which are high compared to other network operators.

For the 2018 reopener window we would only expect submissions for shared sites and Site J (referenced in Appendix 5).

The deadline for responses is 1 September 2015 and should be sent to:

Mick Watson
Head of Gas Distribution, Gas Networks
Smarter Grids & Governance
Ofgem
9 Millbank
London
SW1P 3GE

Tel. 020 7901 7416

Email: Mick.Watson@ofgem.gov.uk

Unless clearly marked confidential, all responses will be published by placing them in Ofgem's library and on its website (www.ofgem.gov.uk). Respondents may request that their response, or part of their response, is kept confidential and those who wish to do so should clearly mark their documents to that effect and include reasons for confidentiality. Ofgem shall respect this request, subject to any obligation to disclose information, for example, under the Freedom of Information Act 2000. Responses must be submitted electronically or in writing.

Yours faithfully,

**Paul Branston**
**Associate Partner, Gas Networks**

**Appendices**

**Appendix 1 – Consultants report (Harnser Group)**
**Appendix 2 – Company submissions**
**Appendix 3 – TPCR4 adjustments**
**Appendix 4 – RIIO-T1 adjustments**
**Appendix 5 – RIIO-GD1 adjustments**
**Appendix 6 – Revenue and customer bill impact**
**Appendix 7 – List of sites**


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

**Appendix 1 – Consultants report – Harnser Group**

We employed the services of Harnser to provide an independent assessment of the companies' RIIO-T1 and RIIO-GD1 reopener claims. We did not ask them to provide an opinion on the TPCR4 costs.

We requested that the consultant review the costs incurred relating to:

- Project management
- General items and preliminaries
- Fencing
- Cameras

During the process, we shared all information relating to the RIIO-T1 and RIIO-GD1 reopener claims.

Our consultant concluded that the companies' costs in relation to fencing and cameras are broadly in line with market rates. However, they have identified that National Grid's project management and general items & preliminaries costs are high in comparison to other companies and have proposed reductions in these areas.

The consultant's report can be accessed here[13].

[13] https://www.ofgem.gov.uk/publications-and-updates/consultation-our-minded-position-tpcr4-cost-reviews-and-riio-t1gd1-uncertainty-mechanisms-enhanced-security-upgrades


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 2 – Company submissions

The companies' submissions are redacted for confidential and commercially sensitive material. Links to these reports can be found below:

- NG's submission can be found here.[14]
- SGN's submission can be found here.[15]

[14] https://www.ofgem.gov.uk/publications-and-updates/consultation-our-minded-position-tpcr4-cost-reviews-and-riio-t1gd1-uncertainty-mechanisms-enhanced-security-upgrades

[15] https://www.ofgem.gov.uk/publications-and-updates/consultation-our-minded-position-tpcr4-cost-reviews-and-riio-t1gd1-uncertainty-mechanisms-enhanced-security-upgrades


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 3 - TPCR4 adjustments

At TPCR4 rollover final proposals in 2011, we stated that we would carry out an efficiency assessment of TPCR4 costs associated with the security upgrade programme.

We allowed £375.1 million into NG's RAV for security upgrade costs incurred during TPCR4 (£139.4 million for NGET, £235.7 million for NGGT).

We allowed £3.5m into SHE Transmission's RAV and £7.8m into SPTL's RAV for costs associated with this programme.

### SHE Transmission and SPTL

SHE-T and SPTL have each carried out security upgrade work at a small number of sites classed by DECC as CNI.

Harnser have carried out VFM audits for each of these sites. The difference between the forecast costs and outturn costs are low which shows that both companies were able to keep costs under control during the project. Harnser did not identify any inefficiencies and have stated that the costs for each site are 'value for money'. We have reviewed the VFM reports and have not identified any costs we consider to be inefficient.

*Minded-to position (SHE Transmission and SPTL)*

We do not propose to make a RAV adjustment for SHE-T or SPTL. The costs incurred by both companies are below average for security upgrade work. In addition to this, the VFM2 reports for each site have not identified any inefficiencies and have stated that the costs are 'value for money'.

### National Grid

This section sets out our detailed analysis of NG's expenditure and the rationale for any adjustments to their allowance. As most of the issues affect both NGET and NGGT, this section looks at NG as a whole before showing the proposed adjustments for each licensee.

NG incurred £375.1 million of costs during the TPCR4 period. NGET incurred £136.9 million of capex and £2.5 million of opex, NGGT incurred £231.9 million of capex and £3.8 million of opex.

We have identified four key areas where we intend to make adjustments to NG's allowances. These are:

- project management costs
- initial contractor costs
- site specific queries highlighted in VFM2 report
- opex.

*Project management costs*

During TPCR4 NG incurred project management costs which were approximately 33% of the total project cost. This is higher than the project management costs incurred by other network operators which average approximately 15%.

Although these costs were not flagged as inefficient within the VFM2 report, we believe these costs are high in comparison to other civils projects and, in particular, other network operators who are carrying out similar security upgrade projects.


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

It is unclear from the VFM2 reports what the total level of project management costs is. These costs appear under two main areas; programme project management and NG project management. However, further project management costs have been identified within compensation events so it is likely that the full project management costs are higher than 33%.

We consider these project management costs to be high. The Electricity Transmission Costing Study by Parsons Brinckerhoff[16] states that project management costs for capital projects within the electricity transmission industry would typically be between 2.5% and 4%. We raised our concerns regarding the project management costs with NG during meetings in late 2014. NG responded by stating that the characteristics of programmes such as the security upgrade works (eg multiple projects across the country, live sites, many stakeholders) would naturally lead to a higher proportion of project management costs than other projects. While some of the challenges are unique to NG (eg high number of sites, Olympics deadline to complete a specific number of sites) other challenges are also faced by other network operators (eg live sites, multiple stakeholders) who achieve this with lower project management costs.

NG commissioned a report from EC Harris to provide evidence that their project management costs were efficient. However, there is insufficient detail within the report to demonstrate the relevance of comparators to the security upgrade programme other than project cost. For this reason, we do not consider that the EC Harris report provides clear evidence that NG's TPCR4 project management costs are efficient.

We have considered the arguments put forward by NG. We acknowledge that the scope of security upgrade work was not fully defined at the start of the programme and that they were responsible for delivering more projects than other network operators. However, while we understand project management costs may have been high initially, we would have expected to see these costs reduce as they completed more sites and gained more experience. This has not happened. We are therefore minded to reduce NG's project management costs to 15% of project costs to bring this into line with other network operators. This results in a £19.1 million reduction for NGET and £32.3 million reduction for NGGT.

*Initial contractor*

In 2005 NG employed a relatively small contractor (the company) to design and install the security solutions for sites which were part of the enhanced physical security programme. Despite some problems in delivery, as the programme was scaled up, NG awarded further sites to the company and extended the agreement in December 2007. In 2010 this agreement was terminated with NG in legal dispute with the company over performance. In 2012 a final settlement of £49.3 million was agreed between National Grid and the company for work completed so far.

We appointed KEMA to review NG's management of the contract for this work and, in particular, the decisions to extend the contract in 2007 and to terminate the contract in 2010.

KEMA's views were that the decision to appoint the company as sole contractor was a concern due to their financial standing (in comparison to the size of the contract awarded) and that their expertise was in installing security systems rather than civil works (which is a major component of the security upgrade programme).

[16] https://www.ofgem.gov.uk/publications-and-updates/consultation-our-minded-position-tpcr4-cost-reviews-and-riio-t1gd1-uncertainty-mechanisms-enhanced-security-upgrades


The Office of Gas and Electricity Markets
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

KEMA was not provided with all of the documents they requested and so was unable to reach a definitive conclusion on the issue of the contract extension. However, they reviewed a considerable amount of NG's documents from this period and discovered indications that NG was not satisfied with the performance of the company in 2007. This includes a note identifying a report sent to the Company by NG outlining poor quality of works and a briefing note to the Transmission Investment Committee noting problems with delivery and quality). We consider that the decision to extend the company's contract led to inefficient costs being incurred.

*Initial contractor – unsubstantiated costs*

As stated in NG's response to KEMA's report, NG was unable to allocate £4.8 million of the commercial settlement to works carried out at any specific site. As these costs were not substantiated, we propose to disallow them (NGET £1.8 million, NGGT £3.0m).

*Initial contractor - duplicate design costs*

In addition to this, NG has also incurred £1.1 million duplicate design costs as a result of the company. The duplicate design costs have been incurred as a result of the contract being cancelled after the design stage. In these cases, the new contractor has then been unable to utilise the previous designs and has incurred further design costs. We believe these costs have been inefficiently incurred as a result of extending the company's contract.

At **Site A**, Harnser identified within the VFM2 report that only £775,000 of a total bill of £4.5 million was for works which could be measured. We propose to disallow these unmeasured costs. We also propose to disallow a further £864,000 at this site relating to project services costs and security related costs (among other items) which were incurred during the company's tenure. We believe these costs have been incurred as a result of extending the company's contract.

We believe that the decision to extend the company's contract in 2007 led to additional unnecessary additional costs. Concerns about the contractor's performance had already been raised. We have identified £10.5 million (£4.8 million commercial settlement, £1.1 million duplicate design costs and £4.7 million incurred at Site A) of costs which we believe could have been avoided if National Grid had not extended the contract. We propose to disallow £10.5 million of the £49.3 million which was incurred.

*Site specific queries*

The VFM2 reports identified a number of site specific queries where suspected inefficient costs had been referred to Ofgem. We raised these queries with NG via the supplementary question process and subsequent meetings with NG. NG was able to justify the additional costs in some cases. The sites where we intend to disallow some costs are discussed below.

**Site B**: This is a new-build site which is part of the Milford Haven project. NGGT were aware of the site's CNI status prior to construction and the work should have been included within the Milford Haven project. We propose to disallow these costs (£5.4 million) from the security upgrade costs as they have been reviewed as part of the Milford Haven efficiency review.

**Site C**: Delays were caused by the emergency replacement of some equipment at this site. It was known before the start of work that this equipment would need replacing. National Grid stated that due to unforeseen deterioration and the risk of an explosion, the decision was taken to place the security upgrade work on hold while the


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

equipment was replaced. This decision was taken one month after the contract had been signed for the security upgrade work.

We believe that these assets should have been monitored prior to the project start to minimise the risk of the asset deterioration impacting the works. We propose to disallow £1.3 million due to the additional costs incurred as a result of this emergency work.

**Site D**: Additional project management and security costs were incurred at this site due to the project overrunning. NG failed to order sufficient fence posts which led to delays while waiting for these to be delivered. We believe that these are costs are the result of poor project management and could have been avoided. We propose to disallow the additional costs (£0.4 million) incurred as a result of this.

**Site E**: During works at this site, it was discovered that the energy supply to the site was insufficient to power the fence. We consider that this is due to poor design and is therefore inefficient. We propose to disallow the additional security costs incurred (£0.4 million) whilst this was corrected.

**Site F**: Company design costs of £780,497 were incurred at this site. Harnser have only been able to verify £225,067 of this figure. We propose to disallow £555,430 of this figure.

In total we propose to disallow £8.2 million of site specific costs which have been identified by Harnser.

*Opex*

NG has incurred £6.3 million of opex during the TPCR4 and rollover period (£3.8 million gas, £2.5 million electricity) across their sites.

Harnser have carried out VFM2 audits on opex costs and have found all costs incurred so far to be efficient. However, we consider that NG's £2.5 million opex costs for 2012-13 was funded as part of the TPCR4 rollover price control allowance. To ensure that NG are not funded twice for this (through the rollover allowance and as part of the £375.1 million allowed into RAV) we propose to disallow £2.5 million.

*Minded-to position (NG)*

As a result of the above adjustments we propose to disallow £72.5 million of the £375.1 million allowed to NG during TPCR4 and the rollover year. This will result in deductions of £27.5 million from NGET's RAV and £45.0 million from NGGT's RAV.

We do not propose any adjustment to the allowances of SHE-T (£3.5 million) and SPTL (£7.8 million) as these costs were found by Harnser's VFM report to be value for money.

Further detail of how these adjustments will be implemented can be found in Appendix 6.


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 4 – RIIO-T1 adjustments

### RIIO-T1 – NG

This section sets out our analysis of NGET's and NGGT's claims for an adjustment for security upgrade work at their CNI sites and the rationale behind our proposed adjustments.

NGET have applied for an adjustment of £408.6 million at the May 2015 reopener window. They received £139.4 million funding for security upgrade work during TPCR4 which we have reviewed and are consulting on within this document. They did not receive any ex ante funding as part of their RIIO-T1 allowance.

NGET's claim is in excess of the materiality threshold set out in the Special Condition 6H of their licence and all of the sites within their submission are classed by DECC as CNI.

NGGT have applied for an adjustment of £223.2 million at the May 2015 reopener window. They have received £235.7 million funding for security upgrade work during TPCR4 which we have reviewed and are consulting on within this document. They did not receive any ex ante funding as part of their RIIO-T1 allowance.

NGGT's claim is in excess of the materiality threshold set out in the Special Condition 5E of their licence and all of the sites are classified by DECC as CNI.

*General items & preliminaries*

This item covers costs associated with the site office, temporary security (manned guarding and temporary fencing/barriers) and project management costs (associated with the main works contractor).

Harnser's report indicates that NG's costs in this area are substantially higher than for other network operators. On average, NG's costs are approximately £23,000 per site per week. The average for network operators is £11,000 per site per week.

NG has not provided evidence within their report of the reason for the high costs in this area. Harnser has identified that these costs are higher due to extra manned guarding levels at their sites as well as additional site establishment costs (including off-site lay-down areas). However, NG have not provided within their submission, the justification for these costs being so much higher than other network operators (ie whether the extra site security is a specific CPNI requirement and why this does not apply to other network operators).

We are minded to disallow a proportion of the costs associated with general items and preliminaries in order to bring these down to the average level of costs. Harnser have recommended a reduction of 52% of these costs within this area. We propose to apply this reduction. This reduces NGET's allowance by £35.3 million and NGGT's allowance by £17.5 million.

*Project management*

During TPCR4 NG incurred project management costs which were approximately 33% of the total project cost. We note that the average project management costs have reduced to 25% for the RIIO-T1 submission. However, this is higher than the project management costs incurred by other network operators which average approximately 15%.

As set out in Appendix 3, during our review of TPCR4 costs we raised our concerns with NG surrounding their high project management costs. NG commissioned a report from EC Harris to provide evidence that their project management costs were efficient. However, the report comparators appear to have been chosen based upon project cost. It is not clear how the projects are deemed to be comparable to the physical security upgrade project. Due to these reasons, we do not consider that this report provides clear evidence that NG's TPCR4 project management costs are efficient.

As such we propose reductions to NG's RIIO-T1 project management costs to 15% of project costs. This results in a £30.8 million reduction for NGET and £15.3 million reduction for NGGT.

**Table 1 NG minded-to position**

| | Submission | Total Adjustment | Ofgem proposed allowance |
|---|---|---|---|
| **NGET** | £408.6m | -£66.1m | £342.5m |
| **NGGT** | £223.2m | -£32.8m | £190.4m |
| **NGT total** | £631.8m | -£98.9m | £532.9m |


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 5 – RIIO-GD1 adjustments

### RIIO-GD1 reopener claims

### RIIO-GD1 – SGN claim

#### *SGN Southern*

This section sets out our analysis of SGN Southern's claim and the rationale behind our proposed adjustments.

SGN Southern have applied for an adjustment of £34.0 million at the May 2015 reopener window for security upgrade work and ongoing maintenance costs at their sites (including their share of a site shared with SGN Scotland).

SGN Southern's claim is in excess of the materiality threshold set out in the Special Condition 3F of their licence and all of the sites are classified by DECC as CNI.

SGN Southern have provided VFM1 reports for the majority of their sites and no inefficiencies have been identified.

#### *SGN Scotland*

SGN Scotland has applied for funding of £18.1m at the May 2015 reopener window for upgrade work and ongoing maintenance costs at their sites (including their share of a site shared with Southern). They have received no previous funding for security upgrade work.

SGN Scotland's claim is in excess of the materiality threshold set out in the Special Condition 3F of their licence and all of the sites are classified by DECC as CNI.

SGN Scotland has provided a VFM1 report for one of their sites.

#### *SGN assessment of costs*

*Site J*
Site J is a site which is shared by both of SGN's networks. In their submission SGN state that, following consultation with CPNI and CAST[17], the existing site is not suitable for an efficient and effective security upgrade. SGN propose to build a new site on nearby land which they own at a total cost of £8.3 million which will be split between Southern (£5.3 million) and Scotland (£3.0 million).

We have reviewed SGN's claim for Site J. This site has a different function to their other operational sites and so is not comparable with them. They state that their approach to this site is the most efficient option, but we do not consider that SGN have demonstrated they have explored other options sufficiently.

*Technical variations*

SGN has also claimed for £4.1 million of technical variation costs for sites where additional costs may be incurred due to uncertain factors (eg ground conditions, unidentified plant such as buried pipes). They have allocated sites with a risk rating

[17] Centre for Applied Science and Technology. This branch of the Home Office provides technical advice regarding security solutions.


The Office of Gas and Electricity Markets
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

(high, medium or low) which has been used to set the percentage by which costs have been uplifted (20%, 15% and 10% respectively).

We consider that the totex incentive mechanism provides companies with a level of protection which incentivise companies sufficiently to control costs. Harnser state in their report that risk should reduce as the programme progresses. For these reasons, we propose to reduce the technical variations costs to 5% per site for all sites.

*Operating costs and central overheads*

These costs include the post-delivery support agreement for ongoing maintenance and some additional overhead costs. These costs are high (c.£66,000 per site per year) in comparison to NG's operating costs. We propose to disallow a proportion of these costs to fall in line with the average cost of NG's sites (c. £43,000 per site per year). We propose to reduce SGN's opex costs by £1.4 million (34%).

*Our minded-to position*

We agree with the base costs as set out in SGN's submission as the majority of their sites have had their proposed costs audited via the VFM process and identified as value for money. Of the remaining sites we are satisfied that the forecast base costs are efficient.

We consider that 5% technical variation costs per site provides SGN with an appropriate level of protection. We propose to disallow technical variation costs of £1.3 million from Scotland's claim and £2.0 million from Southern's claim. We also propose to disallow £1.4 million from their claim for operating costs and central overheads which we consider to be inefficient. We are also minded to disallow as part of this reopener the costs requested for Site J.

**Table 1 SGN minded-to position**

| | Submission | Adjustment | Ofgem proposed allowance |
|---|---|---|---|
| **Scotland** | £18.1m | -£4.7m | £13.5m |
| **Southern** | £34.0m | -£8.3m | £25.7m |
| **SGN total** | £52.1m | -£13.0m | £39.2m |

**RIIO-GD1 – NGGD claim**

**North West**

This section sets out our analysis of NGGD NW's claim and the rationale behind our proposed adjustments.

NGGD NW has applied for funding of £15.5 million at the May 2015 reopener window for upgrade work and ongoing maintenance costs at their sites. They have received no previous funding for enhanced physical security work.

NGGD NW's claim is in excess of the materiality threshold set out in the Special Condition 3F of their licence and all of the sites are classified by DECC as CNI.

**London**

This section sets out our analysis of NGGD London's claim and the rationale behind our proposed adjustments.

NGGD London has applied for funding of £20.3 million at the May 2015 reopener window for upgrade work and ongoing maintenance costs at their sites. They have received no previous funding for enhanced physical security work.

NGGD London's claim is in excess of the materiality threshold set out in the Special Condition 3F of their licence and all of the sites are classified by DECC as CNI.

**East of England**

This section sets out our analysis of NGGD EoE's claim and the rationale behind our proposed adjustments.

NGGD EoE has applied for funding of £38.8 million at the May 2015 reopener window for upgrade work and ongoing maintenance costs at their sites. They have received no previous funding for enhanced physical security work.

NGGD EoE's claim is in excess of the materiality threshold set out in the Special Condition 3F of their licence and all of the sites are classified by DECC as CNI.

**NGGD assessment of costs**

*General items and preliminaries*

General items and preliminaries refers to costs of setting up and running the site during the project (eg site office, utilities costs, security and temporary fences).

For general items and preliminaries, National Grid's costs are, on average, 52% higher than the average of all network operators. National Grid has not provided evidence within their submission to explain the reason for their high costs in this area. As suggested by our consultants, we have proposed a reduction of 52% of their general items and preliminaries costs.

*Project management*

NGGD have forecast project management costs of approximately 25% for the RIIO-T1 period. This is higher than the project management costs incurred by other network operators which average approximately 15% (see Appendix 4). We propose to reduce NGGD project management costs to this level.

*Our minded-to position*

We are minded to allow partial costs for NGGD. We propose that their proposed adjustments are reduced due to the high forecast costs for general items & preliminaries and project management costs. The table below shows our minded-to position.


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

**Table 2 NGGD minded-to position**

| | Submission | Total Adjustment | Ofgem proposed allowance |
|---|---|---|---|
| **NW** | £15.5m | -£2.2m | £13.3m |
| **London** | £20.3m | -£3.3m | £17.0m |
| **EoE** | £38.8m | -£6.5m | £32.3m |
| **NGGD total** | £74.6m | -£12.0m | £62.6m |


**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 6 – Revenue and customer bill impact

### TPCR4 adjustment (legacy values)

The legacy values have been treated separately through the legacy component of the Annual Iteration Process by updates to the legacy values LAR[18] and LRAV[19]. The adjustment to the LAR and LRAV values are informed by SAR[20] and SRAV[21], and not subject to the RAV rolling mechanism.

Determination of component values SAR and SRAV, is set out in accordance with the methodology set out in the Price Control Financial Handbook (Electricity Transmission – Part 4, Chapter 15, Gas Transmission - Part 3, Chapter 1).
The methodology outlines the process for calculating the values for SAR and SRAV respectively, and does not refer to treatment through a capex incentive mechanism.

The results on the bill impact on legacy over the period are noted below:

| Annual Bill Impact - CNI Legacy | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | **2015-16** | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| National Grid - Electricity Transmission | £ | (0.09) | (0.87) | (0.77) | (0.74) | (0.73) | (0.69) |
| National Grid - Gas Transmission | £ | (0.17) | (0.07) | (0.07) | (0.07) | (0.07) | (0.07) |

The bill impact figures show how the adjustment to revenue allowances translates into consumer's bills in the relevant year. In practice, because of the requirement to give two years notice of changes, the earliest these will take effect is in 2016-17 (although the decision of how this is reflected in consumer's bills is for suppliers to determine).

### RIIO reopeners adjustment

The mechanism for implementation of adjustments to the variable value re-openers within the price control period will follow the procedures as outlined in the financial handbook Chapter 7 for Electricity Transmission, Gas Transmission and Gas Distribution and can be outlined as follows:

Revision to the allowances will be implemented through the PCFM as part of the Annual Iteration Process. The changes to the allowances will impact on the value of MOD through changes in Totex.

Treatment on the revision of allowed Totex will be subject to the Totex Incentive Mechanism (TIM), whereby, subject to the various capitalisation rates across Electricity and Gas Transmission and Gas Distribution allowed Totex; will be split into fast pot expenditure and slow pot expenditure.

Fast pot expenditure is treated as revenue and will inform the changes to base revenue. Slow pot expenditure is added to the RAV and is recovered over the life of the RAV through regulatory depreciation and return.

All values provided are in 2014-15 prices.

[18] legacy price control revenue allowance adjustments
[19] legacy price control adjustments to RAV balance additions
[20] revenue allowance adjustment in respect of logged up and security costs in the legacy period
[21] adjustment to the licensee's RAV balance additions in respect of adjustments for logged up and security costs in the legacy period


The Office of Gas and Electricity Markets
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

### Revenue adjustment

The revenue impacts across the price control period based on network submissions and final Ofgem allowances:

| Revenue Impact - RIIO Submissions | | | | | | |
|---|---|---|---|---|---|---|
| **Transmission** | | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| National Grid - Electricity Transmission | £m | 26.68 | 8.46 | 13.66 | 19.47 | 22.57 |
| National Grid - Gas Transmission | £m | 15.59 | 8.14 | 9.86 | 9.74 | 8.86 |
| **Gas Distribution** | | | | | | |
| National Grid (North West) | £m | 7.78 | 2.17 | 2.97 | 0.74 | 0.43 |
| National Grid (London) | £m | 2.18 | 9.25 | 5.03 | 1.83 | 0.21 |
| National Grid (East) | £m | 2.63 | 16.20 | 12.34 | 2.50 | 0.39 |
| SGN (Scotland) | £m | 14.08 | 0.07 | 0.15 | 0.23 | 0.28 |
| SGN (Southern) | £m | 18.09 | 4.68 | 5.38 | 0.35 | 0.48 |

**Revenue Impact values are calculated from submitted data*

| Revenue Impact - Final Ofgem Allowances | | | | | | |
|---|---|---|---|---|---|---|
| **Transmission** | | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| National Grid - Electricity Transmission | £m | 22.27 | 7.08 | 11.42 | 16.28 | 18.89 |
| National Grid - Gas Transmission | £m | 13.23 | 6.90 | 8.36 | 8.30 | 7.61 |
| **Gas Distribution** | | | | | | |
| National Grid (North West) | £m | 6.62 | 1.86 | 2.52 | 0.68 | 0.40 |
| National Grid (London) | £m | 1.78 | 7.71 | 4.20 | 1.56 | 0.22 |
| National Grid (East) | £m | 2.07 | 13.49 | 10.29 | 2.14 | 0.40 |
| SGN (Scotland) | £m | 10.59 | (0.00) | 0.06 | 0.12 | 0.16 |
| SGN (Southern) | £m | 12.29 | 4.34 | 4.83 | 0.13 | 0.23 |

**Revenue impact values calculated from finalised Ofgem allowances*



**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

Customer bill impact across the price control period calculated from network submissions and final Ofgem allowances:

| Annual bill impact changes - RIIO Submissions | | | | | | |
|---|---|---|---|---|---|---|
| **Transmission** | | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| National Grid - Electricity Transmission | £ | 0.29 | 0.09 | 0.15 | 0.21 | 0.25 |
| National Grid - Gas Transmission | £ | 0.24 | 0.13 | 0.15 | 0.15 | 0.14 |
| **Gas Distribution** | | | | | | |
| National Grid (North West) | £ | 2.56 | 0.71 | 0.98 | 0.24 | 0.14 |
| National Grid (London) | £ | 0.77 | 3.25 | 1.77 | 0.64 | 0.07 |
| National Grid (East) | £ | 0.63 | 3.89 | 2.96 | 0.60 | 0.09 |
| SGN (Scotland) | £ | 7.07 | 0.03 | 0.08 | 0.11 | 0.14 |
| SGN (Southern) | £ | 3.65 | 0.94 | 1.08 | 0.07 | 0.10 |

| Annual bill impact changes - Final Ofgem Allowances | | | | | | |
|---|---|---|---|---|---|---|
| **Transmission** | | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| National Grid - Electricity Transmission | £ | 0.24 | 0.08 | 0.12 | 0.18 | 0.21 |
| National Grid - Gas Transmission | £ | 0.20 | 0.11 | 0.13 | 0.13 | 0.12 |
| **Gas Distribution** | | | | | | |
| National Grid (North West) | £ | 2.18 | 0.61 | 0.83 | 0.22 | 0.13 |
| National Grid (London) | £ | 0.63 | 2.71 | 1.48 | 0.55 | 0.08 |
| National Grid (East) | £ | 0.50 | 3.24 | 2.47 | 0.51 | 0.10 |
| SGN (Scotland) | £ | 5.32 | (0.00) | 0.03 | 0.06 | 0.08 |
| SGN (Southern) | £ | 2.48 | 0.88 | 0.97 | 0.03 | 0.05 |



**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**

## Appendix 7 – List of sites

**REDACTED**



**The Office of Gas and Electricity Markets**
9 Millbank London SW1P 3GE **Tel** 020 7901 7000 **Fax** 020 7901 7066 **www.ofgem.gov.uk**