



ED1 site security reopener submission

NORTHERN POWERGRID'S KEY POINTS

- Northern Powergrid was funded for the cost of upgrading security at two nationally critical sites in its ED1 cost allowances.
- At the time these allowances were set the need for upgrades at further sites, and their cost, was unclear. As a result these costs were not included in Northern Powergrid's allowances.
- Since then, the physical security upgrade programme (PSUP) process led by BEIS and the CPNI has identified the need for upgrades at several more sites.
- This reopener submission requests funding for the cost of these upgrades, totalling £3.0m in 2012/13 prices.
- The requirements have been confirmed through an extensive process of engagement with both BEIS and the CPNI acting on its behalf.
- This process has allowed a proportionate security strategy to be developed, avoiding much more expensive approaches to security that could have been required.
- The majority of the costs associated with the upgrades have been competitively tendered, with works expected to be completed in 2019/20.
- The PSUP programme also requires technical audit, at both the design and build stage, giving assurance that the requirements will be delivered in full.

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1. Introduction

1. Northern Powergrid's up-front cost allowances in the ED1 period (2015/23) included funding for enhanced physical security at two sites that the Secretary of State for Energy deemed to be critical in relation to national infrastructure. This status was confirmed and evaluated under the government's Physical Security Upgrade Programme (PSUP), which fell under the Department for Energy and Climate Change (DECC) at the time most of the requirements were being developed. These cost allowances were provided on a fixed basis per site and can no longer be revisited.
2. The PSUP also requires upgrades at a number of other sites where the required upgrades and associated costs were relatively uncertain. Northern Powergrid did not request or receive any base price control funding.
3. Ofgem provided a mechanism to give a cost allowance for sites that were not covered by the base price control, through the opportunity to trigger a cost reopener in May 2019. This document sets out Northern Powergrid's funding request through this mechanism

2. Legal requirements

4. This document constitutes a notification by Northern Powergrid to the Gas and Electricity Markets Authority (“GEMA”) under the provisions of electricity distribution licence charge restriction condition (“CRC”) 3F, proposing an adjustment to the level of allowed expenditure in respect of Enhanced Physical Site Security Costs (“site security costs”).
5. Northern Powergrid provides this notification on behalf of its two licensees, Northern Powergrid (Northeast) Limited (hereafter “Northeast” or “NPgN”) and Northern Powergrid (Yorkshire) plc (hereafter “Yorkshire” or “NPgY”) (together “NPg”).
6. The proposed adjustment to allowances, including the years to which it relates, is set out in the table below.

Table 1: proposed relevant adjustments (£m, 2012/13 prices)

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Total
Yorkshire	0.01	0.02	0.04	0.14	1.85	0.01	0.01	0.01	2.08
Northeast	0.01	0.01	0.02	0.06	0.84	0.00	0.00	0.00	0.93

7. This adjustment to allowed expenditure meets all of the requirements of charge restriction condition (“CRC”) 3F.8 of Northern Powergrid’s electricity distribution licences (“the licence”). These requirements include that the forecast costs:
 - a. are based on information on the level of efficient cost that was unavailable or did not qualify for inclusion when Northern Powergrid’s base revenue allowance was derived;
 - b. meet the specified materiality threshold;
 - c. relate to April 2015 onwards; and
 - d. cannot be made through any other licence mechanism.
8. The costs that constitute the proposed adjustment meet the requirements set out in the RIGs, since they are:
 - a. associated with complying with a DECC/BEIS requirement in relation to critical national infrastructure; and
 - b. “in respect of sites not included as part of ex ante allowances”.

3. Stakeholder engagement and assessing options

9. Northern Powergrid first engaged with the Department for Business, Energy and Industrial Strategy's Physical Security Upgrade Programme (PSUP) in 2010. This commenced an extensive process of stakeholder engagement and option assessment, with key milestones in this process set out below.
 - a. CPNI visited various sites in January 2013.
 - b. In May 2014 CPNI visit more sites.
 - c. In August 2014, DECC wrote to Northern Powergrid confirming the criticality status of various sites.
 - d. In June 2015, DECC wrote to us to arrange visits for it and CPNI to continue work to determine the security upgrades needed.
 - e. Further CPNI visits to all PSUP sites took place in December 2015. These visits assessed that current levels of security at a number of additional sites were not adequate.
 - f. Northern Powergrid developed its operational requirements document (in effect a security strategy) in line with the CPNI's requirements.
 - g. Northern Powergrid submitted its operational requirements document to CPNI. In March 2017 the CPNI confirmed, in writing, that it had recommended our security strategy to BEIS.
10. Importantly for securing value for money, this process of dialogue allowed lower-cost security solutions to be developed, compared to some of those that CPNI indicated may be required.

4. Cost breakdown

11. During the course of the ED1 period to date, we have developed a detailed specification and gone through a procurement process.
12. The cost of the PSUP upgrades covered by this reopener submission are set out in the table below, split by site.

Table 2: cost breakdown by site (£m, 2012/13 prices)

Site	Total cost
Yorkshire	
Site 1	0.64
Site 2	0.37
Site 3	0.92
Project management	0.15
Northeast	
Site 4	0.78
Site 5	0.08
Project management	0.06

13. The calculation has been based primarily on site specific costs including:
 - a. A site specific breakdown of tendered cost provided by our main site contractors;
 - b. A site specific breakdown of external costs (e.g. equipment purchase) developed by our telecoms team;
 - c. A small number of additional site specific costs invoiced costs, such as electrical studies.
14. A number of costs relate to multiple sites and are not broken down. In these cases, we have either split the costs 50:50 (where they relate to two sites only) or pro-rated the costs across sites according to the proportion of site-specific costs accounted for by the relevant sites (either on a licensee or whole project basis).¹ These costs include:
 - a. The detailed design element of our main site contractors charges, which have already been invoiced for;
 - b. The external costs of the “core” telecoms upgrades already incurred; and
 - c. A number of IT related items.
15. Costs included under project management are:

¹ Where the overhead cost relates partly to sites provided for under our base allowances, we have allocated part of the overhead to those sites (based on their actual costs) and not included it in this submission. For Yorkshire licensee specific costs, this proportion is just under 50%; for whole project costs, this proportion is just under 40%.

- a. The costs of our external site oversight, quantity surveyor and audit partners;
 - b. The internal time cost forecasts developed by our telecoms team for the project; and
 - c. A management allocation of staff time, for those staff with significant involvement in developing the project requirements.
- 16. We have not included any allocation of wider internal business support costs, such as staff time cost incurred by our procurement and legal teams.
- 17. To move from costs in nominal terms to 2012-13 prices we have used ONS RPI figures to March 2019. Beyond this, we have imputed an RPI index based on the quarterly RPI inflation figures published by the Office for Budget Responsibility in its March 2019 Economic and Fiscal Outlook. We have applied the same index to recurring costs that would be expected to stay constant in real terms.

5. Technical assurance

18. The BEIS PSUP process requires audit at several stages, including before construction (to technically assure the design) and after.
19. The audit is being conducted by an independent auditor who met the requirements of BEIS i.e. a member of the Register of Security Engineers and Specialists, who was appointed following a “mini-tender” exercise.
20. We submitted for Technical audit one (Tech 1) in October 2018 as per BEIS requirements. This involved a paper based review of the security design against industry standards and the agreed security strategy. This was completed successfully as Tech 1 reported that the design was fit for purpose and met the agreed security strategy. This triggered payment of our contractors for the first phase of the design and build contract.
21. Mid-construction visits will be conducted by the lead auditor and his team to all the PSUP sites at points in the delivery programme to ensure that security features are being correctly installed.
22. Technical Audit 2 will be conducted during the test and commissioning phase. This technical audit 2 must be passed in order to confirm the upgrades meet BEIS requirements. Final stage payments to our contractors are dependent on this audit certifying that the systems as built deliver the agreed security strategy. The requirement for this audit also means that Ofgem has assurance that the work will be completed to the tendered specification, and will deliver the required functionality.

6. Evidence of value for money

23. We have ensured value for money through two primary routes:
- a. Working with CPNI to ensure solutions were not disproportionate; and
 - b. Market tendering of the majority of the physical requirements to establish efficient costs.
24. Beyond this we have also used specialist advice where appropriate (for example quantity surveyors) and sought to minimise cost through re-use of existing equipment where possible.
25. Our process of engagement with CPNI in establishing requirements is set out in section 3 above. Importantly for value for money:
- a. At the start of the process some of the security solutions being discussed would have led to disproportionate cost.
 - b. Through the process of engagement with CPNI an alternative strategy was developed that is more proportionate.
 - c. We did not fully specify the worst case scenario, or establish costs by tendering, but we think it could realistically have cost significantly more than the solution developed with CPNI that now forms the requirement.
26. Once requirements were determined, the large majority of the relevant costs were covered by a competitive procurement process that took place in late 2017 and early 2018. This tendering process:
- a. Was competitive and transparent.
 - b. Involved a prequalification questionnaire was issued to 174 suppliers, of which 10 were considered suitable to progress to tender.
 - c. Was judged under award criteria that were weighted 60% towards price; with the contract ultimately being awarded on the basis of the lowest cost tender.
27. Having awarded the contract, to further manage the risks and cost we have engaged two external resources:
- a. A project services company to provide overall co-ordination and review progress against the programme through weekly site meetings, ensuring that the works are undertaken in the appropriate manner and to the required standard as well as managing the change request process, establishing the validity of any changes and verifying financial implications.
 - b. A quantity surveyor / cost consultant for the building and civils elements of the project, providing advice on cost elements, on form of contract and its requirements (in

conjunction with Northern Powergrid's solicitors) and ensuring that monthly payments made reflect works undertaken.

28. We have also take steps to reduce costs where possible, for example:

- a. As part of the design process we asked our appointed contractor to assess the possibility of using some of our existing security systems.
- b. At all sites swipe card readers, where fitted and associated controllers are being reused as these were only recently purchased by Northern Powergrid following CPNI advice.
- c. The process of detailed review of specifications used by our appointed contractor identified savings where possible, including a saving of £62,000 in total at relevant sites.²

29. Finally, we have externally benchmarked the project management and overhead costs incurred in relation to the sites relevant to the reopener. The table below compares our project management costs with benchmarks from the recent gas distribution site security reopener.

	Northern Powergrid	Ofgem T1 and GD1 site security benchmark	WWU (GD1 reopener)	National Grid (T1 reopener)
Proportion of total costs accounted for by project management	7.5% (7.3% Northeast, 7.6% Yorkshire)	15%	7%	24%

30. We recognise that some building and civil projects can be achieved at lower project management overheads. The upgrades covered by this submission are, however:

- a. not limited to building security upgrades, since the costs extend to telecommunications and IT development; and
- b. relatively complex in relation to the building and civil aspects, requiring significant management attention to develop the requirements and incurring additional costs associated with the enhanced technical assurance required by this process.

31. Overall the 7.5% of the total cost covered by this submission accounted for by project management is low, at half of the benchmark level allowed by Ofgem in the previous (T1 and GD1) site security reopeners, and around the same level as WWU incurred in relation to the GD1 security reopener.³

² The audit process also highlighted additional requirements, which are not included in these figures.

³ In making this comparison, we note that the calculations of project management costs may be on a different basis across the multiple re-openers.