nationalgrid

IED consultation: the timeline and commentary made by NGGT and Ofgem since December 2012

<table>
<tr><th></th><th>Ofgem</th><th>National Grid</th></tr>
<tr><td>Final Proposals - Peterborough and Huntingdon

December 2012</td><td>Cost assessment and uncertainty supporting document 7.93.
We maintain our view that the projects at Peterborough and Huntingdon relating to IPPCD Phase 3 should be funded ex ante. Having set out our position to NGGT regarding the size of the compressor units, we received no evidence contradicting this. Therefore, we maintain our views that the size of the compressor units should be 24MW for both stations and have set the allowances accordingly.

Output

<table>
<tr><th>Project scheme</th><th>Output</th><th>Start date</th><th>Delivery date</th><th>Cost (£)</th></tr>
<tr><td rowspan="3">IPPCD Phase 3 &
IED Phase 1</td><td>Peterborough</td><td rowspan="3">2013</td><td rowspan="3">2020</td><td rowspan="3">142.7</td></tr>
<tr><td>Huntingdon</td></tr>
<tr><td>Aylesbury</td></tr>
<tr><td>Emissions abatement Optioneering</td><td>Development of emissions abatement integrated plan</td><td>2013</td><td>2015</td><td>9</td></tr>
<tr><td>IPPCD Phase 4
and
IED Phase 2</td><td>Integrated plan to set outputs</td><td>2015</td><td></td><td>269.3 subject to reopener</td></tr>
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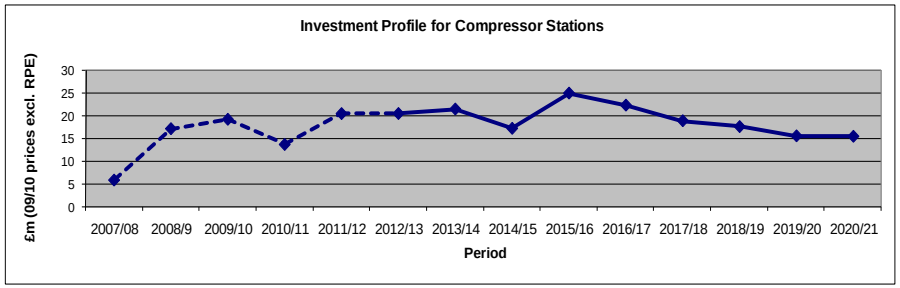
Final Proposals December 2012	Cost assessment and uncertainty supporting document 7.96. In setting the baseline for Final Proposals, we considered the uncertainty around the actual sites targeted for investment under IPPCD Phase 4 and the transposition of the IED into UK law, which is due to occur in January 2013. We also expect the competent authorities to follow with issuing specific guidance on technical aspects of the IED. These will provide clarity regarding NGGT"s future obligations. 7.97. Furthermore, evidence reviewed following NGGT"s response to our Initial Proposals indicates that NGGT has been considering a wide range of options to deal effectively with the IED. Some of these options are listed below: (1) Decommissioning of compressor sites – this was indicated for two sites due to the evolution of the NTS (2) Retrofitting DLE equipment on existing gas turbines – NGGT has experience of such works and similar gas turbines have been operating at other installations (3) Exchange of non-compliant gas turbines with compliant ones and use existing facilities (4) Installation of additional compliant compressor units in parallel with the operation of existing units – this resembles the principle followed for investment under IPPCD (5) Decommissioning of existing units and replacement with new compliant ones. 7.98. We also consider that NGGT may be able to make use of the emergency derogation as provided within the IED51 for existing sites, where compression capability allows such options, and subject to EA and SEPA guidance. 7.99. We welcome NGGT"s revised approach to consider potentially more cost effective solutions in order to deal with	RIIO T1 Business Plan E33: As per the graph below, the asset health related investment on compressor stations is forecast to decline from 2015/16, given the compressor replacement works required to ensure our compliance with the Industrial Emissions Directive (IED). For further detail please refer to Appendix D in the 'Detailed plan' annex. This IED related investment will replace all gas generator units that are unable to comply with the emission limit values as defined. Given older units will typically be unable to satisfy these new limits and have either exceeded or are nearing the end of their design life, their replacement will result in a reduced maintenance and refurbishment requirement across the entire fleet. The sites with compliant units will however, continue to require secondary asset investment, predominantly on those assets required to support a high operational duty. These might include: unit control systems, exhausts, air intakes, gas generators, power turbines, compressors, and fire and gas detection systems. 

	the environmental legislation, similar to those considered by its European counterparts. We recognise that there is no "one solution fits all" principle. We also acknowledge that NGGT will still be required to undertake works for both IPPCD Phase 4 and the remaining sites considered within the IED (second phase) and optimise its portfolio of options. 7.100. Mindful of future circumstances regarding flow patterns, and consistent with our approach for future flexibility capex, we propose a baseline of £9m for emissions abatement optioneering. This will enable NGGT to develop an integrated and cost effective plan to comply with the requirements of IPPCD Phase 4 and IED Phase 2). 7.101. Additionally, we are including £269.3m in the baseline for the IPPCD Phase 4 and IED Phase 2 projects, to recognise NGGT‟s obligation to incur expenditure to comply with this legislation. The level of this baseline is based on the currently available information, where capex projects are forecast. If NGGT‟s planned expenditure is different to this amount, we will adjust the baselines up or down. We expect that NGGT‟s integrated plan may include opex solutions as well as capex projects. As a result, we have divided the baseline between capex (75 per cent or £202.0m) and opex (25 per cent or £67.3m).	

Final Proposals December 2012	<u>Cost assessment and uncertainty supporting document</u> *Compressors asset health* 7.125. We reviewed NGGT's argument regarding the potential impact of a reduced replacement programme on the condition of its compressor stations. We note that NGGT did not provide any substantive data to support this. Furthermore, NGGT"s forecast significant volumes of work through the emissions-related expenditure. 7.126. NGGT's business plan has not taken into consideration that compressor stations will be operated on average 40 per cent less than in previous years. The level of asset health expenditure required on average for compressor stations in TPCR4 was approximately £200 per actual fleet operating hour. On the assumption that NTS compressors operate on average around 50,000 hours per year, our baseline asset health expenditure relating to compressor stations, as set out in Initial Proposals, is higher on a per hour basis than TPCR4. We also note that the emissions uncertainty mechanism will cover all non-compliant compressors. 7.127. In view of the above, we maintain our views on the baseline as it was set in Initial Proposals.	
2015 reopener September 2015	<u>Ofgem - RIIO-T1: Our decision on National Grid Gas Transmission's application under the RIIO-T1 Compressor Emissions uncertainty mechanism</u> In our consultation we acknowledged the work that NGGT had undertaken to develop its revised plan. In particular we welcomed the stakeholder engagement and recognised that NGGT had considered the views of network users as part of the process. We believe that this is an important part of the development of any business plan that we have to evaluate and had improved the quality of the submission overall, compared to the RIIO-T1 business plan.	<u>NGGT response:</u> As previously noted, in our view Ofgem's minded to position is not in the interests of consumers and users of the gas transmission network, as it creates significant regulatory uncertainty in relation to this critical IED investment programme. The regulatory uncertainty created by the proposed ex-post regulation in 2018 will lead to investment decision delays with more works being scheduled for later in the programme. This approach is therefore likely to reduce bundling opportunities, for example at Peterborough and Huntingdon, and lead to less efficient delivery, which will ultimately increase costs to consumers.

	We also recognised the efforts made by NGGT to consider some alternatives to investment more actively, especially the use of the available exemptions and derogations which may allow continued use of some compressors and which represents a good outcome for consumers. However, we did not believe that NGGT had fulfilled the specific requirements we set out for the re-opener submission. In particular it had not included a comprehensive cost benefit analysis, clearly identifying all assumptions made, of its revised plan to justify the additional expenditure. We think a clear demonstration of the costs and benefits of each option is an important part of the stakeholder engagement, to help stakeholders in forming their views. Where NGGT had discounted particular solutions, such as the use of catalysts to treat exhaust stacks, it was unable to quantify the impacts. Ofgem recognises that there are difficulties with ex post assessment as the company faces the risk that costs will be disallowed but has no opportunity to outperform in the way that it can with an ex ante allowance. This can distort incentives and lead to companies taking an unduly cautious approach in how they manage projects. For this reason Ofgem generally prefers to set ex ante allowances where it can. Given this we accept that we need to provide some clarity about the approach we will adopt in the future in judging the appropriate allowance, recognising that NGGT may need to make investment decisions ahead of the next re-opener window.	We are committed to work with Ofgem over the coming weeks to reach an agreement on the essential elements, where we need regulatory certainty to avoid increased costs to consumers and delivery risk. **Appendix 4 – CBA Peterborough / Huntingdon** Peterborough and Huntingdon are very similar sites, therefore for the purposes of this CBA we only discuss Peterborough, but the results are equally as applicable to Huntingdon. At Peterborough there are three medium sized compressors and we have secured funding under IPPC3 to install one new unit. In our submission we have proposed to install a further unit under the continuing requirements of IPPC and this has been agreed with the Environment Agency as part of the Network Review process. This recognises that even though we will be installing one new unit under IPPC3, Peterborough will still be one of the most polluting sites, as shown in the emissions data within Appendix 3. Two units are required at both sites to meet our 1 in 20 obligations in the South East and South West exit zones. All of the existing units on the site will need to be addressed as part of the Medium Combustion Plant Directive, which requires units that cannot meet the relevant emission limits, to either close or operate under a limited hours derogation by 2030. In 2030, the newest of the existing units on the site will be 52 years old and in accordance with our Planning Code, replacement is required at some point to maintain resilience to the loss of the largest unit on site. We therefore undertook a cost benefit analysis to determine the optimum time to replace one of the remaining three units. Due to construction efficiencies the optimum time to replace the third unit, as shown in the table overleaf, is at the same time as undertaking the IPPC3 and IPPC4 works. This provided a financial benefit of £18.2m over the next best option, which was to overhaul the newest existing unit and then replace in 2030.

	Consistent with the approach we have taken now, as part of any re-opener in 2018: □ We will require NGGT to demonstrate that they have considered the future network requirements and a full range of options; □ These should be supported by comprehensive cost benefit assessment (CBA) as required in RIIO-T1 final proposals; □ CBAs should include clear and robust assumptions; and □ Any decision we make during the 2018 reopener will consider the information (eg current or any known future changes to legislation and/or policy) available to NGGT at the time of committing to any investment and will not rely on hindsight. We will work with NGGT over the coming months to provide any additional clarification necessary on our approach.	
Potential for MPR consultation November 2015 - January 2016	<u>Consultation on a potential RIIO-T1 and GD1 mid-period review</u> 3.19. Since the RIIO-T1 price control was set NGGT informed us in its RIGs reporting that it will be delivering projects at the three sites that are significantly different to the outputs specified in IP and FP. More specifically, for Peterborough and Huntingdon, NGGT has opted to install smaller gas turbine units instead of the larger VSD units that were specified in IP and FP and to which funding was tied. For Aylesbury, NGGT was funded for building two new compressor units specified as outputs in IP and FP but instead delivered a cheaper catalyst solution. 3.20. We consider that the projects delivered are not aligned with the outputs set in RIIO-T1. As mentioned the ex ante allowances reflect projects of different scope and size. In light of the above and current cost information, NGGT are	<u>NGGT response to consultation</u> Question 16: We are considering reviewing how NGGT is meeting its output to deliver specific compressor projects. Do you agree with this? In response to the Industrial Emissions directive (IED) baseline funding has been provided for Integrated Pollution and Prevention Control (IPPC) works at Peterborough and Huntingdon and Large Combustion Plant (LCP) works at Aylesbury. The actual and specified output in Final Proposals at Peterborough and Huntingdon is to deliver emissions reduction at these sites, in agreement with the environmental agencies that complies with the requirements under IPPC. Ofgem specified a particular unit size and drive type to create an allowance. However the actual drive and engine size is determined by a Best Available Technology (BAT) assessment, as obligated by the environmental agencies, and the overall network capability requirements for the station as a whole. It is also dependent on the products available from the market.

	expected to underspend by 30-50% on the allowances, ie by £50-75m. 3.21. In light of NGGT's reporting on the non-load related projects set as outputs, and as explained in Chapter 5 we think there may be benefits in clarifying our policy around non-delivery of outputs, where it is not currently clear, and assess whether the current policy is working in consumers' interests. We also consider that it may be in consumers' interests to review how NGGT is meeting the output to deliver the compressor projects.	In the case of Peterborough and Huntingdon the application of BAT resulted in a decision to install smaller, gas units, compared to the allowance for 24MW electric units. However, as part of Final Proposals in the unit cost allowances provided by Ofgem, funding was not provided for exceptional costs e.g. land purchase, relocation of vent stack and replacement of control building. Therefore the actual difference between the baseline allowance provided and the current forecast costs is not material. It should also be noted that Final Proposals did not state that the allowance would be adjusted by the size and type of unit installed. This would be a new arrangement more akin to an uncertainty mechanism, such as a revenue driver, rather than baseline funding. This approach could be worth considering for the future, assuming it is symmetrical, but risks incentivising the wrong behaviour and discouraging innovation and therefore would require detailed evaluation.
MPR Parallel works consultation February 2017 – April 2017	<u>Consultation on mid-period review parallel work</u> <u>Our proposed approach</u> 2.22. Our proposed approach is to focus on the output purpose: compliance with the IED. 2.23. We will consider the output delivered if NGGT can justify that it complied with the IED in a manner which has delivered the greatest value to consumers. We expect NGGT to justify its approach, which would need to consider wider implications such as network capability. 2.24. We think this approach promotes innovation and finding new efficient ways of delivering. We think these benefits outweigh our previous concerns regarding project delays and high allowances. 2.25. NGGT will share with consumers the benefit of any cost savings (and cost increases) through the total expenditure sharing mechanism. NGGT's latest forecast estimates that it will underspend by approximately £25 million against its allowance of £143 million. This is mainly due to the savings	

	forecast at Aylesbury. Based on this projection NGGT and consumers will retain about £11 million each. 2.26. We have considered the alternative of focusing on the asset specifics, rather than the output purpose. In this case we would focus on whether the original solution (compressor replacement) was deployed as envisaged. 2.27. Under this alternative we would adjust allowances to reflect the change in circumstances. This option could claw back savings from lower costs. 2.28. However, we would also have to consider whether we would apply this approach symmetrically. This could mean providing higher allowances when costs increase and transfer the risk of higher costs from companies to consumers. It would also remove the incentive for NGGT to identify alternative more efficient solutions. We are concerned that this would undermine incentives for network companies to identify and realise efficiencies. 2.29. We think that focusing on what consumers value, rather than the detailed output specification, will provide the greatest value for consumers in the long term. We propose taking no action if NGGT deviates from the approach envisaged as long as the new approach can be demonstrated to be in consumers' interests.	
MPR Parallel works decision July 2017	MPR parallel work decision 2.26. In our February consultation, we proposed to focus on the output purpose: compliance with the IED. We would consider the output delivered if NGGT can justify that it complied with the IED in a way that has delivered the greatest value to consumers. 2.27. We thought this approach would promote innovation and finding new efficient ways of delivering. NGGT will share with consumers the benefit of any cost savings (and cost increases) through the totex incentive mechanism.	NG response to MPR Parallel Works Consultation: "In the accepted Final Proposals, the outputs in relation to the compressor projects at Peterborough, Huntingdon and Aylesbury were defined as outcomes i.e. compliance with specific emission legislation. NGGT did not commit to an output to deliver a particular solution. Therefore we believe that to adopt a different approach to that proposed by Ofgem, within this consultation, would be inconsistent with the basis of the RIIO-T1 deal."

	2.28. We proposed taking no action if NGGT deviated from the approach envisaged as long as the new approach could be demonstrated to be in consumers' interests. 2.29. We asked stakeholders if they agreed with our proposed approach to hold NGGT to account if it complies with the IED requirements, in a way that delivers the most consumer value. 2.30. Nine respondents agreed with our approach, British Gas, NGGT, SP Transmission, Wales & West Utilities, Northern Gas Networks, SGN, Western Power Distribution, Northern Powergrid and the Energy Networks Association. The remainder did not comment specifically on this issue. **Our Decision** 2.31. Having considered the responses to this issue, we have decided to maintain our approach. We will consider the output delivered if NGGT complies with the IED, in a way that delivers the greatest value to consumers.	