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26 July 2006

Robert Hull  
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LONDON  
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By e-mail: [tpcr.responses@ofgem.gov.uk](mailto:tpcr.responses@ofgem.gov.uk)

Dear Mr Hull

**CONSULTATION ON TRANSMISSION PRICE CONTROL REVIEW 2007-12 (TPCR): INITIAL PROPOSALS**

Thank you for providing the Scottish Environment Protection Agency (SEPA) with the opportunity to comment on the above consultation document. Our general comments are set out below, with some more specific comments in Annex 1 to this letter.

Ofgem's recognition of the involvement of SEPA (and the Environment Agency) with National Grid Gas plc (NGG) in developing a pragmatic and efficient Capex programme in order to address environmental obligations under the Integrated Pollution Prevention & Control (PPC) Regime is welcomed. Similarly, Ofgem's recognition of the dialogue necessary between SEPA and NGG (and Ofgem) to achieve the required environmental improvements is supported.

A recent report<sup>1</sup> stated that methane leakage from the gas distribution system increased substantially between 1970 and 1990 reflecting the growth in gas sales for domestic use, and currently accounts for 13% of UK methane emissions. SEPA would encourage continued investment and action (including research and development) to reverse this trend.

As a public body committed to openness and transparency, SEPA feels it is appropriate that this response be placed on the public record. If you require further clarification on any aspect of this correspondence, please do not hesitate to contact Andy Witty, Principal Policy Officer (Air), at the address shown below.

Yours sincerely



**Calum MacDonald**  
**Director of Environmental and Organisational Strategy**

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<sup>1</sup> UK Emissions of Air Pollutants 1970 to 2003  
C J Dore, J D Watterson, T P Murrells, N R Passant, M M Hobson, S L Baggott, G Thistlethwaite, et al

## Annex 1 - Specific Comments

1. Please refer to our letter dated 28 April 2006 (copy attached in Annex 2) for the details on the background to SEPA's involvement with NGG and the basis for the required non-load related Capex relating to environmental improvements.
2. SEPA notes Ofgem's proposals for a small reduction in the Capex allowance for environmental improvements put forward by NGG as discussed in paragraph 6.11 of Chapter 6. This is quantified in Appendix 7, Table 7.4 footnote 9 at £72 million.

The provision of the required Capex identified by NGG for non-load related environmental improvements will represent a statutory environmental obligation under the PPC regime and will be articulated via legally enforceable PPC Permit conditions. SEPA maintains that the Capex identified by NGG remains consistent with the predicted environmental gains.

NGG inform us that the overall conclusions of the Network Review, in terms of the precise location of investment, are not sensitive to the uncertainties in gas demand/supply forecasts. Consequently, it is understood that the required investment proposals identified for environmental improvements remain valid for a wide range of forecasted supply/demand scenarios as well as for the predicted changes to gas supply infrastructures.

It is anticipated that the uncertainty in proposals for investment at the one or two sites affected by load forecasting issues has been addressed by NGG appropriately and is necessarily included in the non load-related Capex identified. Even though such sites may ultimately operate at low load factors in the future, this is subject to uncertainty in the medium term. Similarly, any load displacement from such sites will ultimately impact on other (currently low utilisation sites) and as such the required investment for environmental improvement may need to be directed to other locations. As such, SEPA recommends that the Capex for improvements to such low utilisation sites is retained, along with flexibility in the planned location and ultimate scheduling of this expenditure.

3. The potential for automatic revenue adjustment discussed in paragraph 2.6 in order to address uncertainty in the level and timing of Capex is welcomed. In light of the comments made above these mechanisms could include (or could be extended to include) the small amount of disallowed Capex for statutory environmental improvements discussed above. SEPA notes that Ofgem explicitly recognises such uncertainties in Chapter 2 (paragraph 2.7), and that the uncertainty in Capex for environmental improvements represents less than 10% of the £750 million additional Capex identified as being potentially required.
4. SEPA notes from paragraph 6.7 that Ofgem will update and review the NGG Capex allowances in the September TPCR consultation in light of further analysis of the 2005/6 historical data supplied by NGG. However, SEPA would like to advise Ofgem that only minimal upgrades driven by environmental considerations will be included in the historical 2005/6 data. Using the 2005/6 information as an input into baseline Capex requirement forecasts may be inappropriate in light of the substantial investment required under the PPC regime in the future.
5. The consultation raises a question (question 7.4) in relation to the reopening of a price control review given certain circumstances. However, SEPA notes that such actions would be undertaken only for exceptional cases or for extremely large changes in the financial situation. We accept that this is sensible; however SEPA would consider it not to be sensible to reopen a price control review to address a small variation in forecasted Capex requirements for NGG (such as that disallowed for environmental improvements). This would support the need for flexibility in the location and timing of the provision of this Capex as discussed in point 4 above.

6. Question 12.1 (relating to Appendix 14 paragraph 1.2) raises the issue of the correct identification of the main environmental impacts from operation of the national transmission system. The main environmental impacts appear to have been identified correctly. However, the statements on emissions of greenhouse gases could benefit from additional contextual information e.g. an emission of 1.8 million tonnes of greenhouse gases (CO<sub>2</sub> equivalent) is similar to that for a medium size power station operating within the electricity supply industry. Additionally, it should be noted that the comments regarding noise emissions from gas compressor sites made in Appendix 12 (paragraph 12.14) could be subject to some misinterpretation. Emissions of noise are actually subject to control by SEPA on a site specific basis under the PPC regime. Noise is attenuated by distance to a large degree, but may still cause environmental pollution at nearby sensitive receptors around a compressor site installation, and that the quoted noise levels do not take into account the potential for pollution from low frequency noise.
7. Paragraph 3.23 (footnote) identifies certain de-commissioning activities within Capex. SEPA notes that redundant buried pipe work is not mentioned, and is of the view that future liabilities with regard to redundant pipes should be fully considered.

## **Annex 2 – SEPA’s Reponse to Previous Consultation**

Our Ref: CG/CM/AW/JW/  
ORG13-A1846

Your Ref: -

28 April 2006

Robert Hull  
Director - Transmission  
The Office of Gas and Electricity Markets (ofgem)  
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SW1P 3GE

By email: [tpcr.responses@ofgem.gov.uk](mailto:tpcr.responses@ofgem.gov.uk)

Dear Mr Hull

### **TRANSMISSION PRICE CONTROL REVIEW 2007-2012: THIRD CONSULTATION**

Thank you for providing the Scottish Environment Protection Agency (SEPA) with the opportunity to comment on the above consultation document. Our general comments are set out below, with some more specific comments in Annex 1 to this letter.

In this instance, SEPA will limit its comments to the issue of the availability, via Ofgem, of the necessary capital within the Transmission Price Control Review (TPCR) required for investment by National Grid Gas plc (NGG) to upgrade their gas turbine fleet. SEPA wants to ensure that the appropriate capital allowances are included in NGG’s next five year operating programme from 2007-12. SEPA welcomes the highlighting of the required capital expenditure in this TPCR (Chapter 6, paragraph 6.9).

SEPA has already held discussions on this issue, but extending and maintaining the dialogue between SEPA and Ofgem is considered important and should aid in the delivery of Ofgem’s environment related duties highlighted in Chapter 2, paragraph 2.38.

From early 2006, the operators of compressor stations within the National Gas Transmission System are required to make an application for a permit under the Pollution Prevention and Control (PPC) Regulations. Such permit applications are determined by SEPA for Scottish sites or the Environment Agency for England & Wales (the Agencies). In order to obtain a PPC permit, an operator must demonstrate in their application that the Best Available Techniques (BAT) to prevent or minimise pollution will be adopted.

The environmental performance of the National Grid Gas plc (NGG) turbine fleet, with the older turbine technology currently installed at a number of sites, is significantly compromised. Fuel and performance efficiencies also lie well below that which can be achieved with newer techniques. Therefore, under the terms of BAT, significant investment is likely to be required at the compressor stations operating older gas fired turbines in order to reduce emissions of key pollutants, notably nitrogen oxides (NOx) and carbon dioxide, and to improve operating efficiencies.

Given the large capital sums that such upgrades will require, the Agencies have been in consultation with NGG regarding the level of investment required to improve the overall environmental performance of the NGG gas-fired turbine fleet at acceptable cost. This work has been in development since 1999 and is referred to as the “Network Review”. The Network Review effectively looks holistically at all the

investments that may be required under PPC and defines BAT for each individual turbine/installation. NGG inform us that the overall conclusions of the Network Review, in terms of the precise location of investment, are not sensitive to the uncertainties in gas demand/supply forecasts. Consequently, it is understood that the required investment proposals identified for environmental improvements (for all but one or two sites) remain valid for a wide range of forecasted supply/demand scenarios as well as for the predicted changes to gas supply infrastructures.

The upgrading required to address environmental concerns at individual sites identified by the Network Review does not just address emissions of NO<sub>x</sub>; other important considerations such as local air quality, fuel efficiency and reliability and maintenance issues have also been addressed.

The Network Review concludes that in order to achieve the best environmental outcome, NGG should progress investment at a small number of compressor sites by the installation of new electric drive systems.

The investment identified by the Network Review would deliver a 90% reduction in the total mass emissions of NO<sub>x</sub> and significant energy efficiency improvements. This could be achieved with a capital investment of up to £200 million. Once the Network Review has been accepted and agreed by the Agencies, the requirement for site specific improvements will be placed on NGG via conditions in the PPC permits for each installation. Those individual turbines not identified for upgrading are likely to have other operating restrictions placed upon them via PPC permit conditions that reflect the Network Review conclusions on the extent of operation at such sites.

The requirement for investment at specific installations (and the associated capex requirement) will form a statutory obligation on NGG. The Agencies wish to ensure that the required upgrading for environmental improvements is agreed with NGG (and Ofgem) prior to permit issue. In view of this, the provision of the required capex identified by NGG in the Network Review could be viewed as an integral part of the environmental duties and obligations placed upon Ofgem as noted in Appendix 5, paragraph 1.13, and throughout the consultation. SEPA believes that the outcome of the NGG Network review articulated by permit condition will represent a statutory environmental obligation that can be efficiently conducted (as per the requirement highlighted in the summary of the Ofgem approach to Financial Issues noted in Chapter 8). Indeed, the issues addressed by Appendix 9 (Environmental Considerations) may benefit from further discussion of the NGG Network Review programme.

As a public body committed to openness and transparency, SEPA feels it is appropriate that this response be placed on the public record. If you require further clarification on any aspect of this correspondence, please do not hesitate to contact me or Andy Witty, Principal Policy Officer (Air), at the address shown on this letter.

Yours sincerely

Campbell Gemmell  
Chief Executive

## **Annex 1**

1. There does seem to be a degree of inconsistency in the way that capex is quantified. We note that different numerical data is presented in Chapter 1 Table 1.1, Chapter 6 Figure 6.1 and Appendix 14 paragraph 1.8. SEPA is also aware that providing further detail of proposed capex for environmental improvements (on a site specific basis) may prejudice the ability of NGG to deliver the identified environmental improvements within the capex budget specified. SEPA would therefore suggest that capex assessments are presented consistently but only at the higher aggregate levels presented in this TPCR consultation.
2. One of the key issues surrounding the timing and ultimate location of the required capex for environmental improvements relates to the extent of flexibility that NGG can accommodate in their capex plans. Ofgem's desire to accommodate such flexibility without direct intervention (except in exceptional circumstances), as noted in the summary Chapter, are therefore welcomed. The comments raised within the TPCR consultation regarding the over reward for inflated capex bids are also noted (Chapter 2, paragraph 2.16 to 2.20). In the case of the NGG Network Review, we maintain that the identified capex remains consistent with the predicted environmental gains.
3. It is noted that Ofgem propose a further consultation on system operator incentive schemes for NGG in due course (Chapter 2 paragraph 2.34). Deeper incentives for the NGG that target environmental benefits would be welcomed (noting the specific mention of compressor fuel use). It should be noted that, in certain situations, such incentives can compromise environmental performance (e.g. increasing fuel efficiencies by load control at individual sites can sometimes adversely effect emissions of NOx and carbon monoxide). Consequently, SEPA would welcome the opportunity to comment and liaise with Ofgem on the detail and extent of future incentives for NGG.

**END**