

**Extending National Grid Electricity
Transmission plc's Transmission Owner
Price Control for 2006/07**

Final proposals

November 2005

Summary

The current transmission owner price control for National Grid Electricity Transmission plc (NGET), formerly known as the National Grid Company (NGC), is due to run until 31 March 2006. In May 2004, Ofgem published an initial consultation on extending NGET's transmission owner price control ("the current price control") by one year to 31 March 2007. This extension will align the review date of NGET's forthcoming transmission owner price control review (TPCR) with those of other transmission asset owners in both electricity and gas, enabling all transmission issues to be considered together in a single review, which will come into effect from 1 April 2007.

This document sets out Ofgem's¹ final proposals for the extension of the current price control for 2006/07, taking account of comments received in earlier consultations, including Ofgem's initial proposals ("the initial proposals") published in September 2005². Ofgem has adopted a simplified approach in developing these final proposals, which it considers to be proportionate for the purposes of determining NGET's allowed revenues for a single year until the TPCR is put in place.

Final proposals

Ofgem's final proposals have focused on four key areas:

- ◆ **operating expenditure** - Ofgem proposes a controllable operating cost allowance of £174 million and an allowance for non-controllable operating costs of £103 million³. This continues the assumption, adopted in the current price control, of 2.5 per cent annual improvements in operating costs. Further consideration of operating cost savings, including those derived from the merger of National Grid Company with Lattice, will be undertaken as part of the main price control review.
- ◆ **increase in future investment** – For 2006/07 NGET has requested an increase of around 140 per cent in capital expenditure over the current allowance for 2005/06. These proposals allow for £467 million of investment in 2006/07, an increase of £214 million, or about 86 per cent, from NGET's current allowance

¹ Ofgem is the administrative office for the Gas and Electricity Markets Authority

² Extending National Grid Electricity Transmission Ltd's Transmission Owner Price Control for 2006/07: Initial Proposals, Ofgem, September 2005, ref 206/05

³ All costs and revenues are given in 2004/05 prices and rounded to the nearest £ million unless otherwise stated.

for 2005/06. This increase in allowance recognises a significant increase in NGET's asset replacement expenditure, as well as the importance of load related expenditure including the need to ensure that connections to the distribution networks are adequate to meet the applicable planning standards.

- ◆ **historical overspend of capital expenditure** – Including an estimate for the current year, NGET's capital expenditure for the current price control period (2001/02 to 2005/06) is projected to exceed the allowance by some £440 million. These proposals allow for around £295 million of the projected overspend for the period 2001/02 to 2005/06 to be included in the Regulated Asset Value (RAV) at this time. The RAV has been established on an interim basis and will be further reviewed in the TPCR.
- ◆ **cost of capital and tax** – The current price control provides an allowed real pre-tax rate of return of 6.25 per cent (equivalent to a real post-tax rate of 4.4 per cent at the current statutory tax rate). For the purposes of extending the current price control by one year, Ofgem considers that it would not be proportionate to undertake a detailed review of the cost of capital. Ofgem has considered high level market evidence specific to NGET, which suggests that maintaining the current cost of capital allowance would be reasonable. Ofgem therefore considers its proposal of a real post-tax rate of return of 4.4 per cent (equivalent to rolling forward the current allowed rate but with a separate allowance for tax) is appropriate for extending the current price control.

Ofgem has concluded on the basis of the evidence provided by NGET that an allowance for tax of £104 million would be reasonable in respect of 2006/07. However, Ofgem proposes to undertake a full review of NGET's tax position in the TPCR and make ex-post adjustments to the allowance to reflect the impact of any changes identified in the main review to the assumptions used in deriving this figure.

Together, these allowances are equivalent to a real pre-tax return of approximately 7 per cent.

Ofgem has concluded that, taken together, the proposed package of measures will protect the interests of consumers whilst providing sufficient revenue to allow NGET to continue to finance its activities and comply with its statutory and licence obligations.

Further capital expenditure and RAV adjustments

In the initial proposals, Ofgem raised some concerns regarding the evidence provided by NGET in support of its historic and future capital expenditure plans. Since publication of the initial proposals, NGET has provided further detailed information and clarification to help inform Ofgem's final proposals. Where practicable and appropriate, Ofgem has recognised the further arguments and evidence provided by NGET in determining the cost allowances that have been established for the one year extension.

It has not been possible to consider all of the further evidence provided by NGET in sufficient detail in the time available since the initial proposals. The recent information provided by NGET has raised a number of detailed technical issues. Ofgem considers that extensive additional analysis would be required to evaluate the arguments put forward and would not be completed in time for NGET to set transmission charges for 2006/07.

Ofgem intends to undertake further detailed analysis of NGET's historic and planned capital expenditure as part of the TPCR. Where a full review of past capital expenditure demonstrates that expenditure has been efficiently incurred, this expenditure will be included in the opening RAV for 2007/8 and the additional funding for depreciation and return that would otherwise have been allowed in 2006/07 (if the additional expenditure had been included within the interim RAV) will be included as part of the revenue allowances for 2007/08 onwards.

Implication for transmission charges

These final proposals provide for a maximum allowed revenue of £943.2 million for 2006/7, representing a 6 per cent increase in real terms over 2005/06. The actual movement in transmission revenues will depend upon the outturn position for 2005/06 and NGET's performance against its reliability incentive scheme.

Transmission charges account for around 3 per cent, on average, of consumers' final bills. Ofgem therefore expects the impact of these proposals upon final prices to consumers to be small. Nevertheless, the impact upon individual consumers will depend upon how transmission network costs are reflected within charges. Some consumer groups may experience greater than average increases in transmission charges.

Next steps

Ofgem is presently developing the legal drafting to implement these final proposals. Ofgem intends to issue these draft licence modifications for consultation in December 2005.

Ofgem has asked NGET to confirm, on or by the 9 January 2006, whether it accepts these final proposals in principle. If NGET accepts the final proposals in principle, Ofgem will publish a statutory consultation on the licence modification by early February 2006. If NGET rejects the proposals, Ofgem would expect to make a reference to the Competition Commission.

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1. Introduction

- 1.1. The current transmission owner price control (“the current price control”) for National Grid Electricity Transmission plc (NGET), formerly National Grid Company (NGC), is due to run until 31 March 2006. In May 2004, Ofgem published its initial thoughts on extending the current price control by one year to 31 March 2007. This extension has the considerable benefit of aligning the date for the full review of NGET’s transmission owner price control (TPCR) with those of other transmission asset owners in both electricity and gas, enabling all transmission issues to be considered together in a single review.
- 1.2. The approach that Ofgem has adopted for this extension of the current price control has been driven by its statutory objectives and duties. Ofgem’s principal objective as set out in the Electricity Act 1989 (as amended by the Utilities Act 2000 and Energy Act 2004) is to protect the interests of consumers, both present and future, wherever appropriate by promoting effective competition. Ofgem also has other duties under UK and EU law, including having regard to social and environmental objectives.
- 1.3. Ofgem has adopted a simplified approach in developing these final proposals. Ofgem considers that this is a proportionate approach within the context of undertaking a one-off price control review for NGET for the purposes of determining allowed revenues for a single year.

Project update

- 1.4. Ofgem published initial proposals (the “initial proposals”) for the current price control extension in September 2005. Since then there have been further developments in the project including:
 - ◆ a meeting between members of the Authority and NGET to discuss the initial proposals;
 - ◆ working level meetings between Ofgem and NGET to discuss the detail of Ofgem’s capital expenditure proposals and Ofgem’s proposals on tax; and

- ◆ Ofgem has the final report of its technical consultants⁴ which has been published in conjunction with this document.

Purpose and structure of this document

- 1.5. This document sets out Ofgem's final assessment of the efficient costs that NGET should incur in providing and maintaining the electricity transmission network in England and Wales. This assessment has formed the basis for determining final proposals for NGET's allowed revenue for the period 1 April 2006 to 31 March 2007.
- 1.6. This document is structured as follows:
- ◆ **chapter two** describes the background against which final proposals for 2006/07 have been developed;
 - ◆ **chapter three** sets out Ofgem's final proposals for NGET's extended price control for 2006/07; and
 - ◆ **chapter four** sets out the calculations of 2006/07 allowed revenue.

Related policy areas

- 1.7. In light of the simplified approach which Ofgem has adopted in extending the current price control, the application of the general principles and conclusions of this review to other price control reviews and extensions is likely to be less appropriate than is usually the case when setting price controls substantively, where each component may be considered in detail. Ofgem is nevertheless mindful of the relationship of this project with other related policy areas and decisions, including:
- ◆ **Transmission investment for renewable generation (TIRG):** where Ofgem has set out proposals for a supplementary mechanism to allow funding for capital expenditure related to renewable generation. For the purposes of determining allowed revenues for 2006/07, capital

⁴ Technical evaluation of proposed capital expenditure program for NGC's 2006/07 price control extension: Final report, PB Power, November 2005
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expenditure relating to the TIRG funding mechanism has been kept separate;

- ◆ **BETTA and the extension of the Scottish TO price controls from 1 April 2005:** In December 2004, Ofgem set out final proposals for the two-year extension of the Scottish TO price controls to 31 March 2007. These included proposals for a revised treatment of the assets which then comprised the Anglo-Scottish interconnector;
- ◆ **NGET's SO incentives for 2006/07:** The incentive scheme in place for NGET's system operator role is due to lapse on 31 March 2006. Ofgem intends to publish initial proposals on the extended arrangements that will apply from 1 April 2006 to 31 March 2007 in December 2005 and final proposals in February 2006;
- ◆ **Reliability incentives for transmission licensees:** On 1 January 2005 Ofgem introduced a new form of incentive for NGET linked to the reliability of its network. This followed the loss of supply incidents in London in August 2003 and in Birmingham in September 2003, where Ofgem's subsequent analysis raised concerns about whether NGET faced appropriate incentives to minimise such disruptions. The incentive mechanism sets a target level of reliability for NGET, and rewards or penalises NGET for outperforming or underperforming against this level; and
- ◆ **The full transmission price control review:** In July 2005, Ofgem published an initial consultation document in relation to its combined review of the price controls for the four electricity and gas transmission licensees⁵. Ofgem intends to publish a further consultation document on the combined price control reviews in early December 2005.

⁵ Transmission price control review: initial consultation document, Ofgem, July 2005, ref 172/05
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Requirement for an impact assessment

1.8. Section 5A of the Utilities Act 2000 requires that where:

- ◆ the Authority is proposing to do anything for the purposes of, or in connection with, the carrying out of any function exercisable by it under or by virtue of Part 1 of the Electricity Act 1989 (as amended); and
- ◆ it appears to it that the proposal is important;

the Authority must either carry out and publish an assessment of the likely impact of implementing the proposal or publish a statement setting out its reasons for thinking that it is unnecessary for it to carry out an assessment.

1.9. Section 5A(2) of the Utilities Act provides that a proposal, in the context of the electricity industry, is important for the purposes of section 5A if its implementation would be likely to do one or more of the following:

- ◆ involve a major change in the activities carried on by the Authority;
- ◆ have a significant impact on persons engaged in the generation, transmission, distribution or supply of electricity;
- ◆ have a significant impact on persons engaged in commercial activities connected with the generation, transmission, distribution or supply of electricity;
- ◆ have a significant impact on the general public in Great Britain or in a part of Great Britain; or
- ◆ have significant effects on the environment.

1.10. The Authority proposes to implement its conclusions on the extension of the current price control by exercising its powers under Part 1 of the Electricity Act 1989 (as amended). The Authority considers this proposal to be important for the purposes of section 5A. However, the Authority considers that it is unnecessary for it to undertake an impact assessment concerning the proposal and, in accordance with section 5(3)(b), sets out below the reasons which, collectively, have led it to this conclusion:

- ◆ The proposal to align the price control reviews of all electricity and gas transmission companies was set out in June 2003⁶, and confirmed in an open letter in November 2003⁷. Both documents set out the impact of aligning the price control review dates across both gas and electricity transmission companies upon industry members and consumers. The proposals in this document relating to the extension of NGET's revenue allowance to 2006/07 are a necessary part of implementing those proposals to align the price control reviews. The Authority considers that the implementation of the extension of the current price control is consistent with this policy which was established following appropriate consultation.
- ◆ In developing the final proposals for the extension of the Scottish TO price controls⁸, Ofgem set a detailed assessment of the impacts of implementing revised price controls to both align the price control reviews and deliver those price control amendments necessary to implement the BETTA project. The Authority considers that within the context of the Scottish TO price controls the requirement for an impact assessment was driven primarily by the implementation of the BETTA policy proposals and not the alignment of the price control reviews. In the light of this, the Authority considers that it would not be proportionate to adopt the same approach in respect of the extension of NGET's price control.

⁶ Developing network monopoly price controls: Initial Consultation, Ofgem, June 2003, ref 54/03

⁷ Open letter – timetable for price control reviews, Ofgem, November 2003, ref 143/03

⁸ Transmission price controls and BETTA – Final proposals and impact assessment, December 2004 279/04
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- ◆ Price controls are a long established and integral part of the regulatory framework that provides both protection of consumers' interests and appropriate incentives for companies to meet the requirements placed upon them in an efficient and co-ordinated manner. The wider costs and benefits of the price controls and other established aspects of the regulatory framework have been established as part of several government studies.⁹ The Authority considers that the extension of NGET's price control for 2006/07 is a continuation of the existing regime, the general impacts of which have been considered and consulted upon previously.

- ◆ As indicated earlier in this document, the Authority considered it appropriate to adopt a simplified approach to the extension of the current price control. Given this, and in view of the fact given that the extension to the price control is for a one year period only, the Authority considers that the three separate consultation exercises concerning the proposed extension of the current price control which Ofgem has undertaken have generated sufficient information to inform the conclusions set out in this document. It further considers that to undertake an impact assessment at this stage in respect of this matter would not be a proportionate measure as such an exercise would be unlikely to give rise to new information which would lead the Authority to reach different conclusions.

1.11. In the second consultation document for the TPCR, Ofgem intends to consult upon the use of impact assessments as part of the process.

Next steps

1.12. Ofgem has written to NGET asking them to confirm on or before 9 January 2006 whether they accept these proposals in principle. If the proposals are accepted, Ofgem will develop and publish a statutory consultation on appropriate licence modifications by early February 2006. If NGET rejects the proposals, Ofgem would expect to make a reference to the Competition Commission.

⁹ See National Audit Office, Pipes and Wires, April 2002.
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1.13. No comments are specifically sought on this document. Any questions in relation to this document should, in the first instance, be directed to:

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2. Background

Introduction

- 2.1. This chapter describes the background against which these final proposals for the extension of the current price control for 2006/07 have been developed.
- 2.2. As a transmission licence holder, NGET has two roles:
 - ◆ Transmission Asset Owner and Operator (TO); and
 - ◆ Great Britain System Operator (GBSO).
- 2.3. In its role as TO, NGET has responsibility to construct, maintain and operate the high-voltage transmission lines and associated equipment in England and Wales in an economic, efficient and co-ordinated manner. There are two further companies licensed to carry out TO activities in Scotland – SP Transmission Ltd and Scottish Hydro-Electric Transmission Ltd.
- 2.4. In Great Britain suppliers and generators contract with each other in a competitive wholesale electricity market. In its role as GBSO, NGET has responsibility to balance the electricity system between supply and demand in real time. This involves ensuring that the system remains within safe operating limits and that the pattern of generation and demand is consistent with any transmission-related constraints. NGET is also responsible for the residual purchasing and selling of electricity to keep the system in balance.
- 2.5. This document is concerned with extending the current price control for NGET's TO responsibilities. NGET's TO functions are regulated by means of periodic reviews of its relevant activities and the setting of a price control. Under this approach, Ofgem sets the maximum allowed revenue of the TO business at a level which is sufficient to ensure that the company is able to finance the expenditures it is expected to make in that period (provided these are efficiently incurred) and to earn an appropriate return on its RAV. Allowed revenues are normally set for period of five years but on this occasion have been set for one year.

General approach to setting price controls

- 2.6. In setting a price control, Ofgem assesses the following elements of costs to identify the level of costs that an efficient company might be expected to incur over the period of the price control:
- ◆ **Operating expenditure** – the costs of the day to day operation of the network such as staff costs, repairs and maintenance expenditures, and overhead;
 - ◆ **Capital expenditure** – the expenditure on assets such as overhead lines, underground cables, transformers and switchgear. These assets last for a number of years; and
 - ◆ **Financing costs** – the costs of providing a reasonable return to the debt and equity investors who provide the capital that the company requires and the costs of meeting the tax liabilities of an efficient company.
- 2.7. The allowances determined for each of these cost elements are used to determine the core revenue requirement for the company over the duration of the price control, which is usually formulated as a “retail price index minus X” (RPI-X) form of control. The core revenue requirement may also be supplemented by various adjustment mechanisms, including output based incentives, cost pass-through adjustments and error correction terms. Together, these determine the maximum amount of revenue that the company may earn in each year.
- 2.8. This approach to regulation has proved to be an effective means of providing incentives for monopoly operators to meet their licence obligations in an efficient way while allowing an appropriate share of the subsequent benefits to be passed on to consumers.

Overview of NGET’s performance

- 2.9. An important consideration in developing these final proposals has been NGET’s performance against the various assumptions that were made in setting the current price control.

2.10. Table 2.1 summarises the price control calculations that determined the current price control¹⁰ at the time of the last price control review. It shows Ofgem's final proposals for the efficient capital and operating expenditure, together with an appropriate cost of capital, for the period 1 April 2001 to 31 March 2006. These proposals were published in September 2000.

Table 2.1 NGET's TO price controlled revenues determined by Ofgem in September 2000 (2004/05 prices)

£ million	2001/02	2002/3	2003/4	2004/5	2005/6	Total
RAV analysis						
Opening values	5112	5118	5103	5058	4977	
Depreciation	-323	-331	-339	-346	-353	-1690
Capex	328	316	294	264	251	1453
Closing values	5118	5103	5058	4977	4876	
Revenue analysis						
Opex incl. non-controllable costs	328	312	297	287	294	1519
Depreciation allowance	323	331	339	346	353	1690
Return	320	319	318	314	308	1578
Total	970	962	953	947	955	4787
Path of allowed revenues						
Price control revenues	858	845	833	819	808	4163
Excluded service revenues	113	119	123	131	137	624
Total revenues	971	964	956	951	945	4787

2.11. Capital expenditure requirements are sensitive to the assumptions that are made regarding the expected level of demand and generation on the system. In determining the capital expenditure allowances Ofgem assumed that 5GW of new generation would connect to NGET's system over the period of the price control. In order to reduce the sensitivity of this assumption, Ofgem put in place in the current price control a revenue driver designed to flex allowed expenditure in response to deviations, from this central assumption, in the actual level of generation capacity connecting.

2.12. Since implementation of the current price control proposals on 1 April 2001, there have been a number of developments. These include:

¹⁰ Based on the values set out in 'the transmission price control review of the National Grid Company from 2001: transmission asset owner – final proposals' Ofgem, September 2000, adjusted for inflation.

- ◆ less generation capacity connecting to the transmission system than assumed in determining the capital expenditure allowances;
- ◆ greater demand-related capital expenditure than anticipated when setting the current price control;
- ◆ the implementation of the “plugs” connection charging methodology, which altered the definition of connection assets. As a consequence, several transmission assets which previously formed part of transmission connections now form part of the general transmission system. While this has reduced annual transmission connection charges paid by generators, distributors and large customers, it has increased the value of assets to be funded by users of the transmission system through transmission use of system charges; and
- ◆ the introduction of British Electricity Trading and Transmission Arrangements (BETTA).

2.13. Table 2.2 provides summary financial information for the costs incurred by NGET over the five year period in comparison to allowances made at the time the current price control was set. This information has been provided by NGET.

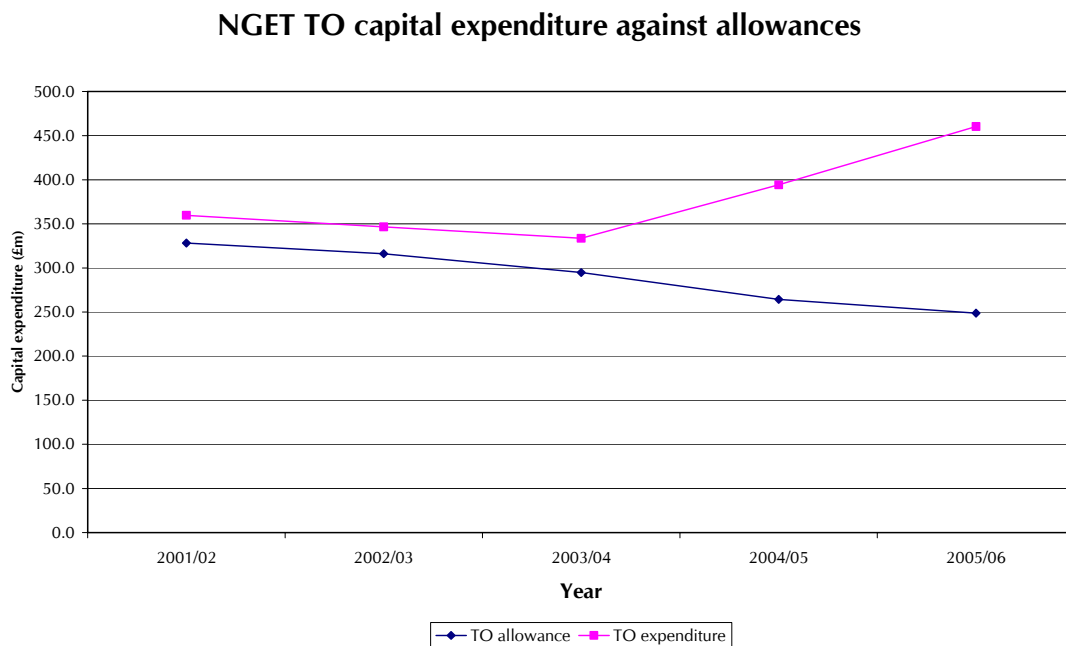
Table 2.2 NGET’s performance against the price control 2001/02 to 2005/06 (2004/05 prices)

£ million	September 2000 TPCR proposals (£m)	Actual performance (£m)	Difference (£m)
RAV analysis			
Opening value – 1 April 2001	5112	5045	-68
Depreciation	-1690	-1692	-2
Capex	1453 ¹	1895	441
Closing value – 31 March 2006	4876	5248	372
Revenue analysis			
Opex incl. non-controllable costs	1519	1538	19
Depreciation allowance	1690	1692	2
Return	1578	1556	-22
Total	4787	4787	0

1) This is before any adjustment for the impact of the generation revenue driver. Applying the generation revenue driver reduces the capital expenditure allowance by £60 million over the period since the actual amount of generation connecting to NGET’s system is less than the 5GW assumed in the allowance.

Capital expenditure

2.14. Over the five-year period to March 2006, NGET has reported that it will have overspent against its allowances by around £440 million (£1895 million projected expenditure against the allowance of £1454 million) as shown in the chart below. The capital expenditure allowance has not been adjusted to reflect the impact of the revenue driver referred to above.



Note:

1) 2005/06 is projected capital expenditure.

Load related expenditure

2.15. The current price control allowed for around £660 million of load related expenditure over the five year price control period. NGET has indicated that it will have incurred around £934 million of load related expenditure up to 31 March 2006 (before taking account of customer contributions and Transmission Service Schemes (TSS) expenditure). NGET has commented that the differences between actual expenditure and the allowances are largely associated with movements in the generation and demand background from the assumptions made in determining the initial allowance.

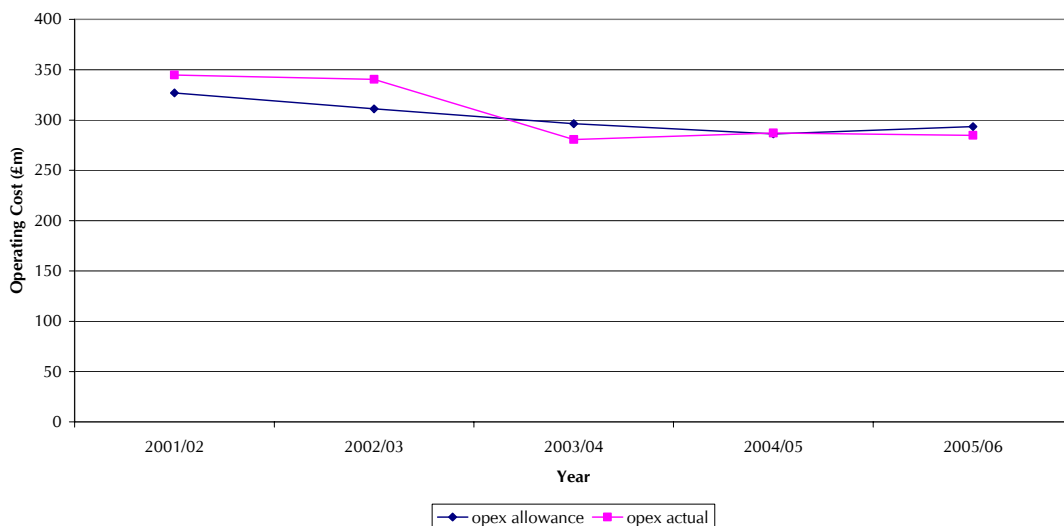
Non load related expenditure

2.16. The current price controls allowed for around £791 million of non load related expenditure over the current price control period. NGET has indicated that it will have incurred more than £937 million of non load related expenditure up to 31 March 2006. NGET has commented that the differences between actual expenditure and the allowances are largely associated with the increasing requirement for asset replacement in its aging network during the later years of the current price control.

Operating expenditure

2.17. Over the current price control period to March 2006, NGET estimates that it will have overspent over the five year period against the operating cost allowance by around £19 million as shown in the chart below. This is largely driven by an overspend against controllable operating costs allowance of around £40 million in relation to 2001/02 and 2002/03.

NGET TO performance against the price control operating cost allowance



2.18. Ofgem has undertaken only a high level assessment of the information provided by NGET in relation to operating expenditure, recognising that NGET's current reported performance has been broadly in line with the assumptions made in setting the current price control. However, Ofgem's analysis has identified areas

of divergence between the basis upon which the allowances were established and the accounting policies that underpin costs reported by NGET. Ofgem considers that adjustments would therefore be required to ensure that reported costs are set out on a comparable basis for the purposes of undertaking a more detailed assessment.

- 2.19. With regard to non-controllable operating costs, business rates and licence fees have been £24 million lower over the five year period than assumed in setting the current price controls. Around £18 million of this reduction has already been passed on to customers via the automatic revenue adjustment mechanism within the price control formula. A further £6 million will be passed back to consumers in 2006/07.

3. Final proposals for the 2006/07 price control

Introduction

- 3.1. In determining the revenue allowance for NGET's TO price control for 2006/07, Ofgem must take a view on the level of costs that an efficient company may be expected to incur.
- 3.2. In a full price control review, Ofgem would examine in depth the costs incurred by a company over the then prevailing price control period and make projections for the efficient level of costs that are expected to be incurred in each subsequent year. Ofgem recognises that a full detailed assessment of costs for the purposes of determining allowed revenues would not be a proportionate response to the task of setting a one-year price control extension.
- 3.3. For the purposes of extending the current price control, Ofgem has adopted a simplified approach in considering each component of costs, wherever possible. Where the evidence has suggested that the assumptions underpinning the current price control remain valid, those assumptions have generally been carried forward for the purposes of setting NGET's price control for 2006/07. However, there are a number of areas where the assumptions underpinning the current price control are no longer valid and more detailed work has been undertaken.
- 3.4. In September 2005, Ofgem published the initial proposals for the extension of the current price control. These initial proposals identified three key themes of the price control extension, specifically:
 - ◆ **NGET's capital expenditure allowance** – For 2006/07, NGET had requested an allowance of £614 million¹¹. This represented an increase of around 145 per cent, or £360 million, from the allowance provided under the current price controls for 2005/06;

¹¹ NGET had requested £600 million of expenditure for 2006/07, and £14 million of expenditure to be funded by the SO incentive arrangements.

- ◆ **Valuing the regulatory asset base** – A key issue for the price control extension would be the treatment of NGET’s large projected capital expenditure overspend, which was projected to exceed the allowed level by £440 million for the period 2001/02 – 2005/06¹²; and
- ◆ **the cost of capital** – The current price control provides an allowed real pre-tax rate of return of 6.25 per cent (equivalent to 4.4 per cent on a post-tax basis), compared to an allowed pre-tax real rate of return of 6.9 per cent assumed in the recent electricity distribution price control review (equivalent to 4.8 per cent on a post-tax basis).

3.5. The initial proposals set out Ofgem’s initial conclusions on each of these areas and invited views from interested parties. This chapter sets out Ofgem’s final proposals on each of these aspects, together with conclusions on the appropriate operating cost allowance. These have been developed in light of the responses received to the initial proposals and earlier consultations.

3.6. The initial proposals also expressed Ofgem’s concerns as to the robustness of the information provided by NGET in support of its historic and future capital expenditure plans. NGET has provided further detailed information and clarification in a number of areas. This has helped to inform Ofgem’s final proposals, but, in view of the limited time which has been available to assess this new information, it will be taken into account more fully in the TPCR.

Capital expenditure

3.7. In April 2005, NGET set out its latest capital expenditure projections for 2005/06 and its projected capital expenditure requirements for 2006/07. NGET estimated that it would incur £464 million of capital expenditure in 2005/06 and suggested that it would require a further £614 million for 2006/07. NGET has indicated that the rising trend in capital expenditure was driven by two factors:

- ◆ increasing load related expenditure driven mostly by exit-related transmission schemes; and

¹² Before taking account of the generation revenue driver.
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- ◆ the need to replace aging transmission system assets, in particular overhead lines and switchgear.
- 3.8. Ofgem engaged technical consultants, PB Power, to evaluate NGET's capital expenditure programme over the period of the current price control and the extension year 2006/07.

The initial proposals

- 3.9. In the initial proposals, Ofgem noted that it did not consider that NGET had provided sufficient justification to support its projected levels of capital expenditure. Ofgem's consultants raised a number of concerns regarding the quality of the information provided by NGET. These included:
- ◆ the robustness of the demand and generation scenarios used to determine the required level of infrastructure investment; and
 - ◆ the justification for increased asset replacement expenditure.
- 3.10. In light of our consultants' findings, Ofgem considered that it would not be appropriate to establish a capital expenditure allowance based upon NGET's current projections.
- 3.11. Ofgem's initial proposals indicated that an appropriate capital expenditure allowance for NGET would be £470 million. This was based upon PB Power's central view of load related expenditure (£229 million), less expected capital contributions of £14 million, and PB Power's low case estimate of non-load related spend (£255 million).
- 3.12. Respondents to the initial proposals were split on the merits of Ofgem's proposed allowance; NGET and its potential contractors all considered that NGET's request reflects a necessary ramping up of investment to the levels required during the forthcoming price control period, while two others supported Ofgem's approach. One respondent considered that Ofgem should have maintained its proposed level of £420 million set out in the July open

letter¹³, since it appeared that NGET had been unable to produce evidence that justified any further increase.

- 3.13. In response to the initial proposals, NGET commented that all the proposed exit schemes indicated to Ofgem had been discussed with distributors, and no delays were anticipated in delivering these. Further, its proposed infrastructure costs are required to comply with security standards for anticipated generation projects. For non-load related capital expenditure, NGET considered that the Ofgem/PB Power analysis failed to recognise overhead line “fittings only” replacement work and that Ofgem had scaled back NGET’s proposals of asset replacement expenditure by an arbitrary 20 per cent without considering the validity of individual schemes.

Final proposals on capital expenditure

- 3.14. Ofgem has considered the responses to the initial proposals and, to the extent relevant, earlier consultations, the further analysis that has been undertaken by its technical consultants and further discussion with NGET. This has been used to inform the final proposals set out below.
- 3.15. In developing these proposals, Ofgem has been particularly mindful that the capital expenditure allowance should provide for sufficient expenditure to ensure that connections to distribution networks are adequate to meet the applicable planning standards. Ofgem also recognises there is an increasing trend in NGET’s asset replacement expenditure and this will be examined in more detail in the main price control review.
- 3.16. Since publication of the initial proposals, NGET has clarified that its capital expenditure projection of £614 million included £14 million of expenditure remunerated under the system operator (SO) incentive regime. As a consequence, Ofgem’s initial proposals for the capital expenditure allowance incorrectly incorporated this expenditure. Excluding this item NGET’s projection would have been £600 million and the proposed allowance should have been £456 million.

¹³ Open letter on extending National Grid Company’s Transmission Owner price control for 2006/07, Ofgem, July 2005
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- 3.17. NGET has also provided further detailed information and clarification in a number of other areas in support of its capital expenditure projections. This supporting evidence has allowed Ofgem and its consultants to reconsider some of their analysis. Consequently, Ofgem's consultants have recommended an additional £10 million allowance in relation to 'fittings only' schemes for overhead lines relative to the initial proposals.
- 3.18. Ofgem has considered the other technical arguments provided by NGET, but has concluded that further analysis of the information provided in recent weeks would be required to demonstrate that a more significant movement in the capital expenditure allowance would be appropriate. In light of this, Ofgem's final proposals are for a capital expenditure allowance of £467 million.
- 3.19. Since the actual expenditure for 2006/07 will not be known when resetting the current price control from 1 April 2007, an appropriate forecast of expenditure will be used for determining the opening value of the RAV for 2007/08. Ofgem will seek to use NGET's own projections of capital expenditure in 2006/07 where NGET can demonstrate that the projected amount is reasonable and would be efficient.

Valuing the asset base

- 3.20. In establishing NGET's allowed revenues for 2006/07, it is necessary to take a view on the Regulatory Asset Value (RAV) upon which NGET will be allowed to recover depreciation and earn a regulated return. In a full price control review, this would require a detailed assessment of capital expenditure incurred during the price control period to establish whether it had been efficiently incurred and to update the RAV accordingly.
- 3.21. For the extension review, Ofgem has undertaken only a limited review of capital expenditure for the period up to 2004/05 in line with the simplified approach adopted for this review, as discussed earlier in this document. This analysis has been used, where appropriate, to derive an interim valuation for the RAV (the "interim RAV") for the purposes of determining NGET's revenue allowance for 2006/07.

3.22. Ofgem intends to undertake a full review of historical capital expenditure as part of the main price control review. Where a full review of past capital expenditure demonstrates that expenditure has been efficiently incurred, this expenditure will be included in the opening RAV for 2007/8 and additional funding for depreciation and return that would have otherwise been allowed in 2006/07 had the expenditure been included in the interim RAV, will be included as part of the revenue allowances for 2007/08 onwards.

The initial proposals

- 3.23. In the initial proposals, Ofgem noted its consultants' concerns regarding the quality of information provided by NGET in support of the historic capital expenditure. Ofgem considered that NGET had not provided sufficient information to support all of their reported expenditure for the current price control.
- 3.24. In establishing the interim RAV, Ofgem recognised that load related expenditure is driven by customer requirements and therefore NGET had limited scope to exercise discretion over the level and timing of any such expenditure. In the light of this, Ofgem proposed that NGET's reported and projected load-related expenditure for the period 2001/02 to 2005/06 be included within the calculation of the interim RAV with a view to undertaking further analysis during the TPCR.
- 3.25. Ofgem also noted that the arguments for accepting NGET's non-load related expenditure projections were less clear. Ofgem's consultants expressed concerns regarding NGET's approach to asset replacement modelling and commented that NGET had not provided sufficient evidence to demonstrate that its policies and processes were being implemented effectively. In light of this, Ofgem proposed to use the allowances for non-load related expenditure determined for the current price control for the purposes of calculating the interim RAV. Ofgem indicated that the interim RAV would be revised in light of further analysis during the main price control review.
- 3.26. In its response to the initial proposals, NGET commented that since Ofgem's consultants (PB Power) did not find evidence that the expenditure was inefficiently incurred, all of the projected overspend should be included within

the interim RAV. Three other respondents were generally supportive of Ofgem's approach.

Final proposals on RAV

- 3.27. This section sets out Ofgem's final proposals regarding the interim RAV. The proposals have been informed by the responses to the initial proposals and further discussions with NGET.
- 3.28. Ofgem recognises, as noted by NGET in its response, that its consultant's report indicated that they did not find evidence that expenditure incurred in the current price control period was inefficiently incurred. However, the full statement by the consultants also made clear that this statement was made in the context of a high level assessment of NGET's capital expenditure. The consultants went on to recommend a further detailed review of historic expenditure to assess the efficiency of that spend. Ofgem intends to undertake this further assessment of both load and non load related expenditure as part of the TPCR.
- 3.29. Ofgem therefore proposes to retain the approach set out in the initial proposals document. NGET's reported and projected load-related expenditure for the period 2001/02 to 2005/06 has therefore been fully included within the interim RAV for the purposes of extending NGET's price control for 2006/07. However, Ofgem has used the allowances for non load related expenditure determined for the current price control review for the purposes of calculating the interim RAV, excluding approximately £146 million of non-load related expenditure at this time.
- 3.30. Ofgem considers that greater evidence is required to demonstrate the business case for including some or all of the anticipated overspend within the RAV. In relation to non load related expenditure, NGET needs to provide more evidence of asset condition data and how work is prioritised; and demonstrate the business case for the expenditure that Ofgem has not included in the interim RAV. NGET will also need to provide further evidence to support its historic load related expenditure.
- 3.31. Since publication of the initial proposals, NGET has provided further information in respect of RAV adjustments and disposals made during the period of the current price control. Specifically, NGET has noted that several of the

adjustments and disposals relate to pre-Vesting assets with shorter asset lives than post-Vesting assets. Ofgem's approach in developing initial proposals was to treat these adjustments as relating to post-Vesting assets and therefore was overstating the amount of regulatory depreciation. This small adjustment has been taken into account in developing final proposals.

3.32. Taking these considerations into account, Ofgem's proposed opening balance for the interim RAV is therefore £5159 million (2004/05 prices) as set out in the table below.

Table 3.1 NGET RAV calculation (2004/05 prices)

	2001/02 (£m)	2002/03 (£m)	2003/04 (£m)	2004/05 (£m)	2005/06 (£m)
Opening value bf	5,074.4	5,116.5	5,155.6	5,138.4	5,151.9
Depreciation	-321.6	-330.7	-340.0	-348.1	-357.1
Load-related capex	218.6	218.9	206.6	154.7	202.5
Non-load related capex	148.1	158.6	161.0	157.1	166.4
Customer contributions	-8.4	-8.4	-38.8	4.1	-11.8
Adjustments	5.5	0.7	-6.0	45.6	7.1
Net capex additions	363.8	369.8	322.8	361.5	364.2
Closing value cf	5,116.5	5,155.6	5,138.4	5,151.9	5,159.0

Notes:

- 1) Adjustments – include asset disposals, termination liability receipts and refunds, plugs refunds, and non-operational capex.
- 2) Net capex – includes TSS expenditure remunerated under the incentive schemes until 2005/06.
- 3) Opening balance adjusted to reflect the 2000/01 outturn capital expenditure values and adjustments which were only estimates when the proposals were published in Sept 2000.

The cost of capital

3.33. In setting NGET's allowed revenues for 2006/07, it is necessary to take a view on the appropriate allowed rate of return on capital employed. The current price control allows a real pre-tax rate of return of 6.25 per cent on the projected average RAV in each year of the price control period. The initial consultation indicated that it would be appropriate to review the suitability of the assumptions underlying this figure with respect to the cost of debt and equity finance and the level of gearing.

The initial proposals

3.34. For the purposes of extending the current price control by one year, Ofgem considered that it would not be proportionate to undertake a full detailed review of the cost of capital. Nevertheless, Ofgem considered, at a high level, a range

of market evidence specific to NGET that was available at the time of the recent electricity Distribution Price Control Review (DPCR4). This suggested that maintaining the current cost of capital allowance would not be unreasonable given the evidence on company specific risk premia relating to NGET other comparators (including the electricity distribution companies.).

- 3.35. In light of this, Ofgem's initial proposals concluded that a real post-tax return of 4.4 per cent would be appropriate for the purposes of extending the current price control for one year. Assuming a 30 per cent tax wedge, this would be equivalent to a real pre-tax rate of return of 6.25 per cent, the rate on which the present control is based.
- 3.36. Two respondents to the initial proposals supported Ofgem's proposal on the cost of capital. One other respondent considered that adopting this figure without a complete review of the components relating to the cost of capital could be prejudicial to the outcome of the TPCR.
- 3.37. In its response, NGET expressed concerns regarding the initial proposal set out by Ofgem, stating that it was both a significant deviation from the position set out in the initial consultation document and that it was based on flawed data.

Final proposals on the cost of capital

- 3.38. This section sets out Ofgem's final proposals regarding the cost of capital. The proposals have been informed by the responses to the initial proposals and further discussions with NGET.
- 3.39. Ofgem notes the comments made by NGET regarding the consistency of initial proposals relative to the position outlined in earlier consultation documents. However, Ofgem considers that the initial consultation indicated a range of possible outcomes including both the current cost of capital (6.25 per cent) and the DPCR4 outcome, possibly adjusted for NGET's specific risk.
- 3.40. Ofgem notes that NGET has raised a number of technical arguments relating to our high level assessment of the relative risk premia relating to NGET and the distribution network operators. Ofgem recognises that these arguments need to be considered fully as part of the main price control review, but considers that its proposal of a real post-tax rate of return of 4.4 per cent (equivalent, at the

standard 30 per cent rate of tax, to continuing with the current pre-tax real rate of return of 6.25 per cent) remains a reasonable approach for the extension period. A detailed study of the relevant theory and data for cost of capital estimation will be undertaken during 2006. This study will be used to inform Ofgem's consideration of the cost of capital allowed for transmission businesses during TPCR and the subsequent review of the gas distribution price controls in 2007.

Tax

- 3.41. Under the 'post-tax' approach to cost of capital, it is necessary to estimate the company's expected actual tax payments during the period of the relevant price control. For the one year extension, Ofgem does not believe that it would be appropriate to undertake a detailed review of NGET's tax liabilities, although this will need to be done in the TPCR.

The initial proposals

- 3.42. In the initial proposals, Ofgem therefore identified two options for the treatment of tax for the extension:

- ◆ adopt a simple tax wedge calculation based upon the statutory rate of corporation tax of 30 per cent; or
- ◆ provide an explicit allowance for expected tax payments as provided by NGET on the basis of the expenditure assumptions underlying the proposed control for the period of the extension and on the basis that NGET were a stand-alone tax-payer.

- 3.43. Ofgem noted that, in either case, subject to an assessment of implementation issues, it intended to make an ex-post adjustment (positive or negative) for any variance in outturn tax payments compared to the allowance, which would be taken into account in resetting the price control.

- 3.44. In response to the initial proposals, NGET has argued that an appropriate tax allowance would be £108 million. There were no other comments from interested parties regarding Ofgem's proposed approach on tax.

Final proposals on tax

- 3.45. This section sets out Ofgem's final proposals regarding the treatment of corporation tax. The proposals have been informed by further analysis and discussions with NGET.
- 3.46. NGET and its auditors have provided further information in relation to its anticipated tax liabilities for 2006/07. Based upon this information, Ofgem has concluded that an allowance for tax of £104 million would be reasonable in respect of 2006/07, representing an increase of around £36 million on the tax allowance implied by the initial proposals.
- 3.47. Ofgem intends to make ex-post adjustments to the allowance, in line with the methodology set in establishing the initial tax position, to reflect information that arises from Ofgem's assessment of tax during the main price control review in relation to movements in capital allowances or the impact of expenditure that receives a full allowance for tax immediately rather than over a period of years.

Overall position on cost of capital

- 3.48. For the purposes of determining the appropriate revenue allowance, Ofgem has adopted a post-tax approach similar to that adopted for DPCR4. Consequently, allowed revenues will reflect a 'vanilla' rate of return of 5.06 per cent in real terms, together with the proposed tax allowance of £104 million. Taken together, Ofgem's proposals for the cost of capital and tax represent an effective real pre-tax rate of return of approximately 7 per cent on the projected RAV for 2006/07.

Operating expenditure

- 3.49. In establishing NGET's allowed revenues for 2006/07, it is necessary to take a view on the appropriate allowance for operating costs. The current price control for NGET assumed an annual efficiency improvement in controllable costs of 2.5 per cent.

The initial proposals

- 3.50. NGET's cumulative performance in managing operating expenditure, as reported to Ofgem, has been broadly in line with the assumptions made in setting the current price control. In light of this, Ofgem proposed a controllable operating cost allowance of £174 million for 2006/07, representing a further 2.5 per cent reduction in controllable costs in real terms from 2005/06 levels.
- 3.51. In addition to the controllable element of operating costs, Ofgem accepted NGET's estimate that it would incur £103 million (in 2004/05 prices) of non-controllable operating costs in 2006/07 relating to business rates and licence fees.
- 3.52. One respondent to the initial proposals disagreed with this approach indicating that Ofgem was being too lenient, given that NGET had made public claims of significant savings in operating costs as a result of the NGC/Lattice merger during the current price control period.

Final proposals on operating expenditure

- 3.53. This section sets out Ofgem's final proposals regarding the appropriate operating cost allowance.
- 3.54. Ofgem considers that the position set out in the initial proposals remains reasonable and therefore proposes a controllable operating cost allowance of £174 million and an allowance for non-controllable operating costs of £103 million. Ofgem will consider the potential operating costs savings, due to the merger of National Grid and Lattice (the holding company for National Grid Gas, formerly Transco) in 2003, and examine the scope of continuing efficiency improvements as part of the TPCR.

Pensions

- 3.55. For the current price control pension costs were included within the controllable operating cost allowance determined by Ofgem.
- 3.56. In the July open letter¹³, Ofgem indicated that it would defer consideration of the pensions issue until the TPCR, when the appropriate detailed analysis could be

undertaken. In the TPCR Ofgem will, in assessing the appropriate level of allowance for pension costs, apply the principles set out in “Developing Network Monopoly Price Controls”¹⁴ and used in setting the allowances for the electricity distribution companies. It will be necessary to consider further the methods to be used in applying these principles to the particular circumstances of the transmission businesses.

- 3.57. Consequently, in this extension of the current price control, Ofgem does not propose to provide an additional allowance for pension costs in 2006/07. Information provided by NGET suggests that the current allowance for controllable operating costs incorporates some £6 million for ongoing pension funding. Under Ofgem’s proposed operating cost allowance this funding broadly at this level will continue.
- 3.58. Ofgem will await the outcome of its analysis during the TPCR. Where appropriate, Ofgem proposes to make relevant adjustments in establishing the allowed revenue for 2007/08 onwards to provide funding for any shortfall/surplus for 2006/07 indicated by our detailed analysis, in addition to any other adjustments that may be appropriate under Ofgem’s principles.

¹⁴ “Developing network monopoly price controls – Initial conclusions”, Ofgem, June 2003, ref 54/03
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4. Price control calculations

- 4.1. This chapter explains the way that the revenue allowance for NGET's price control for 2006/07 has been set, including the key assumptions that have been adopted in order to derive price control revenue.

Components of the price control

- 4.2. Price controls provide a company with a level of revenue that is sufficient to finance an efficient business. This is based on an estimate of operating expenditure; capital expenditure; financing costs; and corporation tax.

Price control calculations

- 4.3. The following table sets out how the price control has been calculated for NGET based on the approach outlined in chapter three of this document. For the avoidance of doubt, the costs associated with excluded services that are included in opex are excluded from price control revenue.

Calculating the movement in the RAV

- 4.4. The calculation of the movement in the RAV is shown in lines 1 to 7. In each year total capital expenditure (line 2) is added to the opening RAV (line 1) and the allowed level of depreciation (line 3) is subtracted from it to give a closing asset value (line 4). The closing value in any year (line 4) then becomes the next year's opening value (line 1). The difference between the present values of the opening RAV in 2006/07 (shown in line 5) and the closing RAV in 2006/07 (shown in line 6) is then shown in line 7 and line 13.

Calculating allowed items

- 4.5. The allowed levels of costs and associated items are shown in lines 8 to 14. Line 8 shows the allowed level of operating expenditure. Capital expenditure is shown in line 9. The tax allowance is shown in line 10.
- 4.6. The total level of allowed items is given by line 11. The present value of these items in each year is then given by line 12. This is calculated by discounting the

total allowed items figure by the vanilla WACC of 5.06%. The total of the present value of allowed items and the movement in closing RAV is shown in line 14.

Calculating allowed revenue

- 4.7. To ensure that the price controls provide a company with a level of revenue that is sufficient to finance an efficient business, the present value of revenue (line 15) must equate to the present value of allowed costs (line 14). The present value of the revenue line is then divided by the discount factor to derive the total revenue allowance (line 16).
- 4.8. The projected level of excluded service revenue (line 17 - which has been provided by NGET) is then deducted the total revenue allowance to determine base price control revenue allowance (line 18). This is the underlying amount of revenue that NGET is able to earn.
- 4.9. The actual revenue that NGET will be able to earn in each year also depends on several revenue adjustments (line 19). Adding these adjustments to the base price control revenue allowance derives the expected allowed revenue (line 20).

PRICE CONTROL CALCULATIONS
2004/05 prices

		2005/06 £m	2006/07 £m
	REGULATORY ASSET VALUE (RAV)		
1	Opening asset value	5151.9	5159.0
2	Total capital expenditure	364.2	466.7
3	Depreciation	-357.1	-366.2
4	Closing asset value	5159.0	5259.5
5	Present value of opening value		5159.0
6	Present value of closing value		5006.1
7	Movement in the RAV		152.8
	ALLOWED ITEMS		
8	Operating costs		276.3
9	Capital expenditure		466.7
10	Tax allowance		103.8
11	Total allowed items		846.8
12	Present value of allowed items		826.2
13	Movement in the RAV		152.8
14	Present value of costs		979.0
	REVENUE		
15	Present value of total revenue		979.0
16	Total revenue		1003.4
17	Excluded service revenue		60.2
18	Base price control revenue	890.2	943.2
19	Revenue adjustments	-13.1	-10.2
20	Price control revenue	877.1	933.0
21	P0 based upon line 18	6.0%	
22	P0 based upon line 20	6.4%	

Implication for transmission charges

- 4.10. These proposals provide for an increase in underlying allowed revenue of 6 per cent in real terms in 2006/07. Nevertheless, the actual movement in transmission revenues will depend upon movements in the other elements of allowed revenues, including the outturn position for 2005/06 against the assumptions used in setting the price controls, NGET's performance against the reliability incentive scheme and the revenue requirement of the Scottish transmission asset owners.
- 4.11. Transmission charges account for around 3 per cent of consumers' final bills. Ofgem anticipates that the impact of these proposals upon final prices to consumers will be small. Nevertheless, the impact upon individual consumers will depend upon how transmission network costs are reflected within charges. Some consumer groups may experience greater than average increases in transmission charges.