Transmission price control review

Initial consultation

July 2005

Summary

This document is the first consultation paper in the fourth transmission price control review (TPCR4), which will take effect in April 2007. The paper sets out and invites views on the objectives for the review, the key issues to be addressed, the approaches to be used in resolving these issues, and the forward work plan for the review.

The review will build on Ofgem's work over the past three years to develop its framework for regulating network monopolies, including through the recent electricity Distribution Price Control Review (DPCR4). The review applies to the three electricity transmission licensees, National Grid Company (NGC) plc, Scottish Power Transmission (SP Transmission) Limited, and Scottish Hydro-Electric Transmission Limited (SHETL), and to the licensed gas transporter responsible for the gas transmission system, Transco NTS.

This is the first time that Ofgem has been in a position to review the price controls of all four transmission businesses at the same time, providing for a consistency of overall approach between gas and electricity. There are a number of areas in which the current arrangements in gas and electricity are different, and the review will need to consider whether these differences remain appropriate.

There are a number of significant challenges for this review; not least, the uncertainty about the levels of investment that may be required to allow the networks to continue to develop over the next decade in response to changing demands from the customers of the network businesses. There are large shifts taking place in the flows of electricity and gas across the networks. These shifts are being driven by unprecedented levels of investment by the market in new electricity generation stations, gas storage facilities, interconnectors and Liquefied Natural Gas (LNG) terminals. This investment is in response to the Government's policies to reduce carbon emissions and to promote renewable generation and the need to import more gas as the UK's own gas reserves decline. These shifts can have a significant impact on whether, when, and to what extent, investment in the network is required, and the extent to which some existing assets might be left underutilised.

The current gas transmission price control was designed to be flexible in the face of these uncertainties and challenges. Users can buy long term rights to use the system and Transco has financial incentives to invest in response to the signals of the need for additional capacity created by rights that have been sold. The electricity transmission

price controls are not as flexible and the transmission companies have a fixed capital expenditure allowance to fund investment for the duration of the control. Over the last five years, there have been issues with both approaches. In gas, there have been concerns about the complexity of the new arrangements and how well they work for new entry terminals. In electricity, special arrangements had to be put in place during the current control to allow the transmission companies to invest in response to increased connections from renewable generators. An additional incentive scheme was also introduced following the blackouts in London and Birmingham during the control.

This review will therefore need to assess the success of the different approaches and consider what improvements can be made and whether there should be consistency of approach in gas and electricity.

The reliability of the GB gas and electricity transmission networks is very high, compared to many other countries. Customers have benefited significantly from this high reliability by enjoying secure, reliable energy supplies. The price review will need to balance the need for continuing investment to expand the networks and maintain reliability and the need to protect customers, including the fuel poor, against unnecessary or inefficient investment in the networks or inefficient operating costs. The revenue allowances to be set by Ofgem will be at a level consistent with maintaining the standards of network reliability required by consumers.

Ofgem will need to collect and analyse a wide range of information about the past behaviour and future likely performance of the transmission businesses in order to set the new price controls. Accessing and analysing the necessary information will be a significant challenge, even relative to the recent electricity distribution price control review, because of the more limited scope to compare and contrast between a smaller group of companies, that also differ widely in scale. Ofgem will therefore consider a range of methods to determine appropriate levels of revenues for the next price control period.

Further consultation documents are planned for December 2005, May/June 2006 and September 2006 before final proposals are published in November/December 2006. Ofgem also anticipate publishing a consultation document in March 2006, depending on progress. In addition, Ofgem will hold workshops and might wish to augment the consultation process through additional 'mini-consultations' on specific areas or issues. The first workshop, on incentives arrangements in gas, is scheduled for 20 October 2005.

Ofgem encourages all interested parties to consider the issues raised in this document and to submit responses. Views are invited by 9 September 2005, and can be submitted electronically to TPCRresponses@ofgem.gov.uk, clearly marked as 'response to initial consultation'.

Parties wishing to attend the workshop on gas incentives on 20 October can book a place by sending an email clearly marked as 'October gas incentives workshop' to TPCRresponses@ofgem.gov.uk no later than 9 September 2005.

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1. Introduction

1.1. Ofgem's principal duty is to undertake its functions in a manner which is best calculated to protect the interests of gas and electricity consumers (current and future), where appropriate through the promotion of effective competition. Ofgem also has other duties under UK and European law, including having regard to certain social and environmental objectives.

1.2. One of the particular functions performed by Ofgem periodically is to set a limit on the revenue that can be recovered by transmission and distribution companies. Revenue restrictions or 'price controls' are needed because these companies retain an effective monopoly on their licensed activities. Competition cannot be relied upon to protect the interests of consumers where there is an effective monopoly.

1.3. In Great Britain there are three electricity transmission businesses (National Grid Company (NGC) plc, Scottish Power Transmission Limited (SPTL) and Scottish Hydro-Electric Transmission Limited (SHETL)) and one gas transmission business (Transco NTS). NGC plc and Transco plc are wholly owned subsidiaries of National Grid Transco (NGT) plc. Transco plc holds two gas transporter licenses. One of these licenses applies to its gas distribution activities and one applies to its gas transmission activities.

1.4. Ofgem has rolled forward the existing price controls of SPTL and SHETL by two years, and will roll forward the existing price control of NGC by one year, to ensure that all four price controls lapse on 31 March 2007. The intention is to allow all four licensees to be reviewed at the same time This provides for consistency, where appropriate, in approach across electricity and gas, and is practicable given that NGC and Transco NTS have since 2002 been part of the same company. It also increases the scope for undertaking comparative analysis.

1.5. A key element of the price control review will be consultation with transmission users and other interested parties. This document is the first step in that process.

Purpose and structure of this document

1.6. This document is the first of five planned Ofgem consultation documents to be published as part of the transmission price control review, with options for additional documents to be published if required. The process of consultation will culminate in the publication towards the end of 2006 of a final set of proposals for each transmission licensee.

1.7. The purpose of this document is to start the debate and to set out the process Ofgem will adopt in taking the process forward over the next 18 months or so. The document sets out how the current price controls operate, highlights key issues for this review, and invites views on how Ofgem might best tackle these issues.

1.8. The document is organised in six chapters following this one:

- **Scope of the price control review** (Chapter 2): sets out the scope of issues and activities being covered by this price review;
- **Background** (Chapter 3): sets out the roles of transmission licensees and provides a high level description of current price controls;
- **Framework, context and objectives** (Chapter 4): sets the scene for the review in the context of Ofgem's ongoing work to develop the framework for regulating monopoly networks. It outlines Ofgem's views on the broad approach and key issues for this review;
- **Assessing costs** (Chapter 5): describes the nature of expenditure by transmission licensees, and discusses the issues raised in seeking to assess the efficiency of past and future capital expenditure and operating costs to inform the setting of new price controls;
- **Incentives** (Chapter 6): reviews some of the more detailed issues involved in seeking to create appropriate incentives for transmission licensees to meet the needs of customers, and to respond efficiently and economically to changing circumstances.;

- **Financial issues** (Chapter 7): sets out how Ofgem proposes to consider the issues relating to how the transmission businesses finance their activities during the course of this review, and highlights some key issues to be considered; and

- **Next steps and timetable** (Chapter 8): describes how Ofgem plans to manage the review, and sets out a timetable and key milestones.

1.9. Views are invited on all the issues raised in this document. Specific issues where views would be particularly welcomed are highlighted in each of chapters 4 to 7.

1.10. The transmission price control review will impact on a wide range of stakeholders. The development of Ofgem's proposals will be informed by an impact assessment. The impact assessment will be updated periodically during the review, and at each stage views will be invited. The first elements of Ofgem's impact assessment will be published with the second consultation document in December 2005.

Responding to this document

1.11. If you wish to respond to this document, then please submit your response no later than 9 September 2005 to:

Robert Hull
Director, Transmission
Office of Gas and Electricity Markets (Ofgem)
9 Millbank
London
SW1P 3GE
Tel: 020 7901 7050

1.12. Responses can also be sent by email to TPCR.responses@ofgem.gov.uk and should be clearly marked as 'Response to Initial Consultation'.

1.13. All responses, except those marked confidential, will be published on the Ofgem website[1] and held electronically in the Ofgem Research and Information Centre. Ofgem would encourage respondents to confine any confidential material in their responses to appendices. It would be helpful if responses were submitted electronically.

1.14. If you wish to discuss any aspect of this document, please contact Jennifer Swan (jennifer.swan@ofgem.gov.uk, 020 7901 7369).

[1] www.ofgem.gov.uk

2. Scope of the price control review

2.1. This chapter sets out the scope of the transmission price control review and highlights related policy areas.

Scope of the review

2.2. This price control review encompasses Transco NTS (as the licensed gas transporter with responsibility for maintaining and operating the GB gas transmission network) and the three electricity transmission licensees (SHETL, SPTL and NGC).

2.3. The review will culminate in a licence condition (or set of conditions) for each licensee to take effect on 1 April 2007. The licence conditions will establish how the allowed revenues for each licensee in respect of their provision of transmission assets ('Transmission Owner (TO) controls') will be determined for the next price control period. For the avoidance of doubt, the price controls for Transco NTS and NGC are being assessed, and will be set, independently from each other, even though Transco NTS and NGC are both wholly owned subsidiaries of NGT plc.

2.4. Additionally, under the umbrella of the price control review Ofgem will progress proposals to set the allowed revenues for NGC and for Transco NTS in relation to the costs incurred in relation to their roles as system operator for the electricity and gas networks respectively across GB ('system operator (SO) incentives'), with effect from 1 April 2007.

Related policy areas

2.5. The transmission price control review is being undertaken in the context of a number of related Ofgem policy initiatives to refine the price regulation of transmission licensees prior to 1 April 2007, and to develop the framework of price regulation for gas distribution. These are outside the scope of the transmission price control review and include:

- **Extending NGC's existing price control**: NGC's existing price control is due to lapse on 31 March 2006. Ofgem will bring forward proposals later this year to extend the existing price control for one year. This will enable the transmission price control review to consider all four transmission licensees together, with resultant benefits of consistency of approach and scope for more effective comparative analysis;

- **Setting NGC's SO incentives for 2006/07**: The incentive scheme in place for NGC's balancing costs is due to lapse on 31 March 2006. Ofgem will bring forward proposals later this year to extend the existing arrangements until 31 March 2007. As noted above, the incentives scheme to apply from 1 April 2007 will be developed under the umbrella of the transmission price control review.

- **Reliability incentives for transmission licensees**: On 1 January 2005 Ofgem introduced a new form of incentive for NGC linked to the reliability of its network This was in response to loss of supply incidents in London in August 2004 and in Birmingham in September 2004, where Ofgem's subsequent analysis raised concerns about whether NGC faced appropriate incentives to minimise such disruptions. The incentive mechanism sets a target level of reliability for NGC, and rewards or penalises NGC for outperforming or underperforming against this level. Ofgem will bring forward proposals later this year to introduce an appropriate reliability incentive for SPTL and SHETL.

- **Gas distribution price control review**: The price controls for gas distribution licensees will be re-set with effect from 1 April 2008. The gas distribution price control review will start later this year, and will culminate in final proposals at the end of 2007. The gas distribution price control review and the transmission price control review will be co-ordinated to ensure the consistent treatment of joint costs, e.g. the attribution of shared Transco plc (and NGT) costs between the distribution and transmission businesses, and consistency of approach, where appropriate.

- **Consultation on gas entry UCAs**: The existing price control for Transco NTS provides for additional revenues to be made available to Transco NTS if it releases additional entry capacity in response to demand from gas shippers. The amount of additional revenue depends on the value of bids in auctions of entry capacity rights and the assumed cost of providing additional entry capacity at that point on the network (the Unit Cost Allowance, "UCA"). When new entry points are created, new UCA's need to be set. Ofgem recently consulted on issues raised in respect of setting new UCAs, and how they compare to existing UCAs[2].

- **Transitional NTS exit arrangements**: On 24 June Ofgem announced its decision[3], to link the timetable for the introduction of the enduring NTS offtake arrangements (and how Transco NTS is remunerated for the provision of NTS offtake rights) to the timetable for the transmission price control review. It had originally been planned to introduce the enduring offtake arrangements from September 2005 for the allocation of offtake rights from October 2008. However, following Ofgem's decision, the introduction of the enduring offtake arrangements has been delayed until September 2007 (for the allocation of rights from October 2010). As a consequence of this decision steps will need to be taken to put in place transitional arrangements for the intervening period from 1 October 2008 to 30 September 2010. In order to implement these transitional arrangements, Transco NTS is expected to raise a Uniform Network Code modification proposal and, potentially, pricing consultation proposals. In addition Ofgem will need to consider the SO incentives that should accompany these arrangements.

- **NGC's transmission charges**: NGC in its capacity as GB electricity system operator is required to establish a methodology approved by the Authority for charging network users for connection to and use of the GB electricity transmission system. NGC's methodology was approved by the Authority in March 2005 subject to a number of conditions relating to specific areas where further developments of the methodology should

[2] *Gas Transmission – new NTS entry points, reserve prices in auctions and unit cost allowances (UCAs)*. Ofgem consultation document, May 2005.
[3] *Enduring Offtake Arrangements*. Ofgem open letter, 24th June 2005.

be considered. NGC is currently taking forward this work in consultation with the industry.

2.6. The transmission price control review is also being undertaken in the context of the general framework of review and potential modification of transmission arrangements provided for under the Uniform Network Code and the Connection and Use of System Code.

3. Background

3.1. This chapter provides a description of each of the four transmission licensees, and their respective parent companies. It also sets out background material on the relevant legal and regulatory framework for the transmission price control reviews. The figures in this chapter are all expressed in 2004/05 prices.

The transmission licensees

3.2. This section describes the four transmission businesses, and the businesses that own them.

3.3. This description of the licensees will be placed on the TPCR section of the Ofgem website[4] as a separate document for future reference during the review, and will be updated periodically as required to ensure continuing accuracy. The full text will not therefore be replicated in future consultation documents.

Transco NTS

3.4. This price control review relates to Transco NTS's activities as the owner of the high pressure National Transmission System (NTS) gas pipeline network in GB. Transco plc also holds a gas distribution licence, and in this capacity it owns and operates four gas distribution networks. Transco plc's activities as a gas distributor are not in the scope of this review.

3.5. Transco NTS is responsible under its licence for the development and maintenance of the NTS, and is responsible for managing day-to-day flows across the NTS to ensure that the network operates safely and securely.

3.6. The NTS is the high pressure (up to 85 bar) tier of the GB gas network, moving gas from beach terminals to very large industrial customers and power stations and to exit points to gas distribution networks. The NTS also takes gas to and from storage facilitates, and to other interconnected high pressure networks in Northern Ireland and Eire and mainland Europe. It comprises around 7,000 kilometres of steel pipes and 24 compressor stations. It provides gas to 40 gas-

[4] www.ofgem.gov.uk

fired power stations, a small number of large industrial users, and to the eight local gas distribution networks.

3.7. Transco NTS's current price control has two parts. The Transmission Owner (TO) price control relates to the cost of providing a baseline level of network capacity. Allowed revenues under the TO price control were £2.38 billion over the period 2002/03 to 2006/07, based on a regulatory value in 2002 of £2.35 billion, and assumed capital expenditure of £889 million and assumed operating expenditure of £1,110 million over the price control period.

3.8. The System Operator (SO) price control relates to the management of the network in real time and the costs of providing capacity over and above the baseline level of capacity. Allowed revenues under the SO price control depend on the level of demand for incremental capacity as bid for in the long term auctions of entry capacity, and the nature of the costs incurred by Transco NTS in balancing the network. As part of the SO price control there are incentive schemes for entry capacity buy-back, system balancing, residual gas balancing, and in relation to Transco NTS's internal SO costs. Collectively, these arrangements seek to provide incentives for Transco NTS to undertake its SO functions (including provision of incremental entry capacity on the NTS) efficiently and in a manner which recognises trade-offs between operating and capital expenditures.

3.9. The revenues allowed under Transco NTS's price control are recovered via charges levied on transmission users. The charges are required to be consistent with a charging methodology establish by Transco NTS and approved by Ofgem. The charging methodology is required to meet specified objectives. Where auction arrangements exist, such as for entry capacity, charges to users are determined by bidding in the auctions. The reserve prices in the auctions are based on UCAs, which in turn determine Transco NTS's allowed revenues under its SO price control, are specified as part of the price control.

NGC

3.10. NGC owns and maintains the electricity transmission network in England and Wales, and is responsible for planning and developing this network. It is also the GB electricity system operator. In the role of GB system operator it is

responsible for balancing the electricity transmission network in real time and for contracting with users of the transmission system across GB.

3.11. The transmission network in England and Wales comprises around 8,000 kilometres of overhead line and underground cable operating at voltages at or above 275 kilovolts. NGC's electricity transmission network currently services peak demand of some 53 Gigawatts (GW) and has 68 GW of generation capacity connected to the transmission network in England and Wales.

3.12. There are two parts to NGC's price control. The first part of the price control relates to the provision and maintenance of the transmission assets that comprise the network in England and Wales. This is termed the Transmission Owner (TO) price control. Allowed revenues under the TO price control are £4.39 billion over the period 2001/02 to 2005/06, based on a regulatory value in 2001 of £5.19 billion, and assumed capital expenditure of £1.49 billion and assumed operating expenditure of £1.71 billion over the price control period

3.13. The second part of the price control relates to NGC's role in balancing the GB transmission network in real time, and the costs it incurs in procuring balancing services from network users. This is termed the System Operator (SO) incentive scheme.

3.14. The revenues allowed under NGC's price control are recovered via charges levied on transmission users. The charges are required to be consistent with charging methodologies for connection and use of system approved by the Authority. The methodologies are required to be cost-reflective and to facilitate competition. The charges faced by users of NGC's network are an important determinant of how demands for network use develop over time, since they can influence decisions on where new generators locate and where existing generators close. In turn, these decisions affect how much transmission is needed at different points on the system. The charging methodologies provide relevant context for the price control review, but are not within the scope of the review itself.

National Grid Transco plc

3.15. Transco plc and NGC plc are wholly owned subsidiaries of National Grid Transco (NGT) plc. It owns and operates the gas transmission network and four gas distribution networks. Transco plc owns two gas transporter licenses. One licence relates to its gas transmission activities, and one licence relates to its gas distribution activities.

3.16. NGT also owns a number of unlicensed businesses in the UK and worldwide. These include electricity transmission and distribution interests (National Grid USA) in the United States. It also includes Crown Castle UK, a mobile telephony infrastructure business, and interests in metering, connections and property management.

SHETL

3.17. SHETL is a wholly owned subsidiary of Scottish and Southern Energy plc. SHETL owns and maintains the electricity transmission network in the north of Scotland. It is responsible for planning the development of its network, and for providing transmission services to the GB System Operator (NGC).

3.18. The network comprises around 3,000 miles of overhead line and underground cable operating at voltages at or above 132 kilovolts. There is 3.4 GW of generation capacity connected to the electricity transmission network in northern Scotland, around half of which is accounted for by the gas-fired power station at Peterhead. There are also significant hydro plant connected to the network in northern Scotland and an increasing amount of wind-powered generation affecting the design and operation of the network.

3.19. The price control of SHETL was set in 2000, for the period until 31 March 2005. Allowed revenues under this price control were £268 million over the period, based on a regulatory value in 2000 of £264 million, and assumed capital expenditure of £71 million and assumed operating expenditure of £115 million over the price control period.

3.20. The price control was subsequently extended by Ofgem for a further two years, from April 2005 until March 2007. The allowed revenues for this period (net of one-off adjustments for the implementation of BETTA) were £110 million in

total, based on assumed capital expenditure of £37m and assumed operating expenditure of £40 million over the two year period.

3.21. SHETL recovers its allowed revenue through charges levied on the GB system operator in accordance with SHETL's Transmission Owner (TO) charging statement.

Scottish and Southern Energy plc

3.22. SHETL is a part of Scottish and Southern Energy (SSE) plc. SSE has interests in electricity and gas supply (under the Southern Electric, SWALEC, and Scottish Hydro-Electric brands), and in electricity generation, and owns and operates two electricity distribution networks in GB. Earlier this year in conjunction with Ontario Teachers Pension Fund and Borealis it completed the purchase of two of Transco plc's local gas distribution networks.

3.23. SSE also has interests in gas storage, network asset management, contracting services, telecoms, and retailing of electrical consumer goods.

SPTL

3.24. SPTL is a wholly owned subsidiary of ScottishPower plc and owns and maintains the electricity transmission network in the south of Scotland. It is responsible for planning the development of its network, and for providing transmission services to the GB System Operator (NGC).

3.25. The network comprises around 2,500 miles of overhead line and underground cable operating at voltages at or above 132 kilovolts. There is 7.2 GW of generation capacity connected to the transmission network in southern Scotland, including nuclear power stations at Hunterston and Torness.

3.26. The price control of SPTL was set in 2000, for the period until 31 March 2005. Allowed revenues under this price control were £619 million over the period, based on a regulatory value in 2000 of £663 million, and assumed capital expenditure of £152 million and assumed operating expenditure of £198 million over the price control period.

3.27. The price control was subsequently extended by Ofgem for a further two years, from April 2005 until March 2007. The allowed revenues for this period (net of

one-off adjustments for the implementation of BETTA) were £239 million in total, based on assumed capital expenditure of £131m and assumed operating expenditure of £71 million over the two year period.

3.28. SPTL recovers its allowed revenue through charges levied on the GB system operator in accordance with SHETL's Transmission Owner (TO) charging statement.

ScottishPower plc

3.29. SPTL is a part of ScottishPower (SP) plc. SP has interests in electricity and gas supply, and in electricity generation (in the US and GB), and owns and operates two electricity distribution networks in GB.

Summary of current price controls

3.30. Table 1 below summarises some key characteristics of each of the four licensees under their current price controls (as extended, in the case of SPTL and SHETL):

Table 1: Summary of current price controls (£million, all in 2004/05 prices)

			Based on:		
	Period	**Total Allowed revenues**	**Opening Regulatory Value**	**Capital expenditure**	**Operating costs**
Transco NTS TO	2002/03 to 2006/07	**2,380**	2,350	889	1,110
NGC TO	2001/02 to 2005/06	**4,390**	5,190	1,490	1,710
SPTL					
Original	2000/01 to 2004/05	**619**	663	152	198
Extension	2005/06 to 2006/07	**239**	569	132	71
SHETL					
Original	2000/01 to 2004/05	**268**	263	71	115
Extension	2005/06 to 2006/07	**110**	234	37	40

Transmission Investment for Renewable Generation (TIRG)

3.31. The price controls of all three electricity transmission licensees were re-opened in 2004 to augment the existing arrangements by including additional allowances to fund investment in the network required to accommodate new renewable generators. At the time the price controls were originally set the government's policy to encourage renewable generation had not been formulated and therefore no allowance had been made for such investment. The Authority therefore concluded that the price controls should be re-opened in order to accommodate such investment, where justified, on a timely basis. The Transmission Investment for Renewable Generation (TIRG) final proposals were published in December 2004.

3.32. The proposals provided funding for four network reinforcement projects, affecting all three transmission licensees, with total forecast costs of £560 million (in 2004 prices). The largest project is the upgrading of the transmission line between Beauly and Denny and in the north of Scotland, at an estimated cost of £332 million (in 2004 prices).

Legal framework

The Authority

3.33. In developing its proposals for new transmission price controls Ofgem must be guided by its statutory and other legal duties. This section summarises those duties and highlights aspects which have particular relevance to setting price controls.

3.34. The Authority's principal objective in carrying out its functions is to protect the interests of current and future gas and electricity consumers, wherever appropriate by promoting effective competition. Modifying licenses to set new price controls is one such function of the Authority.

3.35. The Authority must carry out its functions in the manner which it considers is best calculated to further the principal objective, having regard to:

- the need to secure that all reasonable demands for gas and electricity are met; and

- the need to secure that licence holders are able to finance the activities

3.36. Additionally, the Authority must have regard to the interests of consumers who are disabled or chronically sick; of pensionable age; with low incomes; or residing in rural areas;

3.37. The Authority is required to carry out its functions in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of licensees;

- protect the public from dangers arising from the generation, transmission, distribution or supply of electricity or from the dangers arising from the conveyance of gas through pipes or the use of such gas;

- contribute to the achievement of sustainable development; and

- secure a diverse and viable long-term energy supply,

3.38. The Authority is required (to the extent not covered above) to have regard to the effect on the environment of activities connected with generation, transmission, distribution or supply of electricity.

3.39. In carrying out its statutory functions the Authority must have regard to:

- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and

- any other principles appearing to it to represent the best regulatory practice.

3.40. The relevant statute also sets out duties on the Secretary of State and the Authority relating to social and environmental matters, including a duty on the Authority to have regard to guidance issued by the Secretary of State – which in turn reflects the Government's energy policy objectives, including the promotion

of a low carbon economy. The Authority also has duties relating to health and safety issues relevant to the electricity industry.

3.41. The Electricity and Gas Acts set out certain exemptions, one of which states that the duties imposed by the Acts do not affect the obligation of the Authority to perform or comply with any other duty or requirement (whether arising under this Act or another enactment, by virtue of any Community obligation or otherwise).

3.42. The duties which the Electricity and Gas Acts impose upon the Authority do not, therefore, override any contradictory duties or obligations under European law. The Authority, therefore, needs to take due account of relevant European law. This includes the general principles of Community law and the specific requirements of any Directives.

3.43. The Authority also has duties under other UK statute, including the Competition Act 1998, the Environment Act 1995 and the Countryside and Rights of Way Act 2000.

The electricity transmission and gas transporter licensees

3.44. The licensees also have statutory duties, and are required to comply with the conditions of their respective licenses.

3.45. These include a duty for licensed gas transporters to:

- develop and maintain an economic and efficient pipeline system;
- facilitate competition in the supply of gas;
- avoid any undue preference or discrimination in the terms on which it undertakes to convey gas;
- ensure that it undertakes its business in a manner best calculated to secure that neither it nor its affiliates and related undertakings obtain any unfair commercial advantage, including in particular any advantage from a preferential or discriminatory arrangements; and

3.46. In addition, Transco NTS has an obligation under its licence to operate the NTS in an efficient, economic and co-ordinated manner.

3.47. The electricity transmission licensees have a duty under the Electricity Act to:

- develop and maintain an efficient, co-ordinated and economical system of electricity transmission, and
- to facilitate competition in the supply and generation of electricity.

Regulatory framework

3.48. The Electricity Act and the Gas Act prohibits individuals from participating in the transmission of electricity, or from transporting gas, without a licence (or an exemption from the requirement to hold a licence). NGC, SHETL and SPTL are the only parties to be granted electricity transmission licences to date. Transco NTS is the only party to be granted a gas transporter licence in respect of the operation of the NTS.

3.49. There is, however, scope within this framework for the Authority to grant new licenses, and for the Secretary of State to grant exemptions from the requirement to hold a licence.

3.50. The granting of new transmission licenses is particularly relevant to developments in respect of offshore electricity transmission. The Energy Act 2004 provided for the Secretary of State to introduce a regulatory framework for the licensing of offshore transmission. This framework is currently being developed.

Electricity

3.51. The regulatory framework as it applies to electricity transmission was restructured significantly with effect from 1 April 2005 as a result of the BETTA reforms, enacted by the Energy Act 2004. These reforms, among other matters, created the role of electricity GB system operator, and the separate role of Transmission Owner.

3.52. NGC was appointed as GB system operator, and consequently has responsibility for operating the electricity transmission network across GB. It also owns and develops the transmission network in England and Wales. SPTL and SHETL are Transmission Owners, who have responsibilities for planning and developing the transmission network in the south of Scotland and the north of Scotland

respectively, and who provide transmission services to the GB system operator. All users of the electricity transmission network in GB contract with the GB system operator.

3.53. The interactions between the GB system operator and Transmission Owners are governed by each licensee's statutory and licence obligations, and include an obligation to establish and comply with a new industry Code, the System Operator – Transmission Owner Code ("STC"). NGC, SPTL and SHETL are parties to the STC. There are provisions within the STC for new Transmission Owners to become parties to the Code.

Gas

3.54. The regulatory framework in respect of gas transmission and distribution has also been reformed significantly in 2005, as a result of the sale by NGT of four of its gas distribution networks ("DN sales"). The sale took place on 1 June 2005 following the grant of consent by the Gas and Electricity Markets Authority. Transco plc has retained ownership of four distribution networks.

3.55. As part of the reforms associated with DN sales, the licence arrangements for Transco plc's gas transportation activities were significantly restructured so that its gas transmission business and its retained distribution businesses (RDNs) became separately licensed. In addition four GT licences were created for the now independently owned DNs. Transco plc's licences for its transmission and distribution businesses are held within the same legal entity and a series of licence conditions in the RDN and NTS licences have been introduced to ensure the separation of Transco's gas transmission business from its gas distribution business ("Transco NTS" and "Transco DN" respectively). These licence conditions are in place to ensure a level playing field in the comparative regulation of distribution networks and a robust approach to corporate governance. It is important to note that Transco NTS and Transco DN are still part of the same legal entity.

3.56. The commercial arrangements, including the Network Code arrangements, were restructured in order to support the revised industry structure. This included the introduction of a Uniform Network Code (UNC) which sets out the terms of the transportation arrangements and modification procedures to the extent that such

terms are common between the NTS and the distribution networks. The industry restructuring also involved the establishment of a transporter agency ('xoserve') which discharges collectively a number of DN and NTS activities and provides a single, uniform interface between transporters and shippers for a range of services. These activities include the management of the Supply Point Administration (SPA) system, the production of transportation invoices for shippers for their use of the NTS and DN networks and the operation of the central nomination and settlement systems.

3.57. Finally, as part of DN sales, a series of incentive schemes were introduced in order to support the arrangements for the offtake of capacity for the period until September 2008. In particular, as regards the NTS, a combined buyback and "interruption greater than 15 days" incentive was introduced and the constrained LNG incentive, the charges foregone incentive and the exit incentive were maintained, with additional parameters specified until 2008.

4. Framework, context and objectives

4.1. This chapter sets out Ofgem's framework for undertaking the transmission price control review, and describes the context within which the review will be undertaken. It sets out the nature of the costs being reviewed, and how the current price controls create incentives for the companies.

4.2. The chapter concludes by setting out Ofgem's objectives for the transmission price control review.

Framework

Developing network monopoly price controls

4.3. The current round of price control reviews includes electricity distribution, electricity and gas transmission and gas distribution. The electricity distribution price controls were re-set with effect from 1 April 2005. The transmission price controls will be re-set with effect from 1 April 2007. The gas distribution price controls will be re-set from 1 April 2008.

4.4. Ofgem started preparatory work for this series of price control reviews in 2002 with the 'Developing network monopoly price controls' project. This project reviewed how network monopoly price controls work and sought to identify potential improvements.

4.5. Ofgem's initial conclusions were published in June 2003. These included the following points that have relevance to the transmission price control review:

- **General principles**: incentive regulation is the most appropriate means of protecting the interest of customers where competition is not feasible. Effective incentive regulation requires a framework which is transparent, predictable, consistent and flexible to changing circumstances;

- **Consistency**: the framework in place across transmission and distribution should be consistent – recognising that this does not necessarily mean that they will be identical.

- **Assessing costs**: Ofgem will continue to use a range of techniques and methods for assessing efficiency and projecting future costs, to ensure an appropriate balance is struck between protecting consumers from high costs and ensuring that licensees can meet their obligations, including to maintain and develop efficient, economic and co-ordinated networks.

- **Incentives to invest**: Ofgem will seek to use rolling 5-year retention periods for efficiency savings in both operating and capital expenditures as a means of ensuring a consistent strength of incentive. It will also consider how to use investment drivers (or output measures) as a means of dealing with uncertainty over forecast costs.

- **Cost of capital**: Ofgem will calculate the cost of capital in a transparent way, using forward looking market data where appropriate – and having regard to a range of methods, including the Capital Asset Pricing Model (CAPM).

- **Pension costs**: recognising that pension costs were likely to rise significantly Ofgem set out guidelines in relation to the treatment of such costs in subsequent price control reviews.

- **Other financial issues**: Regulatory Asset Values (RAVs) should be set using Ofgem's established approach. Changes to the approach to depreciation will be considered in specific circumstances, but will only change the profile (and not the present value) of revenues.

4.6. These conclusions from the preparatory work undertaken by Ofgem in consultation with the industry will be reflected in how Ofgem undertakes the transmission price control review.

Distribution price control review

4.7. Additionally, the framework reviewed in the developing network monopoly price controls project was applied in the fourth distribution price control review (DPRC4) during 2003 and 2004.

4.8. Ofgem will seek to build on the lessons learned through DPCR4 in its approach to the transmission price control review. It will seek to ensure consistent

treatment of common issues, and seek to apply consistent principles where issues are different.

4.9. Procedurally, Ofgem will also seek to apply best practice, as informed by DPCR4, in seeking to ensure that Ofgem's policy development and subsequent proposals under the transmission price control review are well understood and transparent to all interested parties.

Context

4.10. This section reviews the context for the transmission price control review, highlighting key factors and influences that are expected to impact on the development of the review and the proposals Ofgem subsequently brings forward.

External factors

4.11. The GB gas and electricity sectors have undergone significant developments since the price controls for the transmission businesses were last set. A key development has been the merger in 2002 between National Grid Holdings plc and Lattice plc, the owners, respectively, of NGC and Transco. More recent and forthcoming developments include:

- the closer linkage between gas and electricity networks resulting from increased proportions of electricity demand being met by gas fired power stations supplied by the gas transmission network;
- the significant increase in distributed and renewable generation and expected future increases as a result of government targets and associated government policy initiatives, with its particular location, connection level and delivery characteristics;
- the impact of carbon emissions trading and other environmental legislation on operational and investment decisions of electricity generators and large industrial users;
- the introduction of the New Electricity Trading Arrangements (NETA) in 2001 and the British Electricity Transmission and Trading Arrangements

(BETTA) reforms in 2005. The BETTA reforms created a new role for NGC as GB system operator and new roles for SPTL and SHETL as Transmission Owners;

- Changes to the structure of the gas distribution sector, and Transco NTS itself, resulting from the sale of four of Transco's gas distribution networks; and

- the prospect of major changes in gas flows on the network resulting from Great Britain moving from being a net exporter of gas, with production sourced almost entirely from the UK Continental Shelf, to a net importer of gas.

4.12. These developments have had and will continue to have a major impact on the way in which transmission licensees plan and operate their networks. The future regulatory regime must continue to be able to cope with future uncertainties while maintaining the levels of service required by customers. It must also strike a balance between ensuring the networks are fit for purpose and protecting customers from unnecessary investments and costs of operation.

The nature of transmission licensees' costs

4.13. This section reviews the nature of the costs that will be analysed during the transmission price control review, and how some of the factors highlighted above might impact on these costs.

Capital expenditure

4.14. Electricity and gas transmission are capital intensive activities. The regulatory asset value of these businesses was around £8.5 billion at the start of the current price controls. During the course of the current (extended) price controls, allowances for capital expenditure have totalled some £2.8 billion.

4.15. The transmission price control review will inevitably need to focus in some detail on the capital expenditure plans of the four licensees. Ofgem will also need to deal with the challenges presented by analysing capital investment plans in the context of significant uncertainty over the future shape of the networks.

4.16. This price control review will need to take account of the developments cited above and in particular of how uncertainty over the various external factors cited above should be reflected in the proposals. The price control proposals will need to be robust against a range of scenarios. The proposals will also need to consider how risk should be shared between licensees and customers in the context of these uncertainties. Information revealed through market signals for the need for capacity on the network is an important part of addressing these uncertainties, and ensuring that the risk of stranded assets is minimised.

4.17. A particular issue will be how allowances should be set in the context of changing patterns of network usage, e.g. as patterns of gas flows shift with the development of new LNG entry terminals, and as renewable generation (onshore and offshore) and distributed generation impacts on the electricity transmission networks, and as patterns of gas and electricity use change as a result of EU emissions trading. A further issue is how allowances for gas transmission investment should be set in the light of DN sales, and the change in the nature of the trade offs for Transco NTS between investment on the transmission system as opposed to the distribution networks.

4.18. The review will also need to assess how allowances should be set for capital expenditure to replace assets which are reaching the end of their operational lives, or require to be replaced on safety or environmental grounds, during the period of the controls. NGC, in particular, has contended that the need for such replacement capital expenditure is increasing and will be substantially higher over the next 5-10 years than it has been in the past. The review will also need to consider the appropriate relationship between operating costs and capital expenditure in respect of the efficient management of the existing stock of assets.

Operating costs

4.19. While gas and electricity transmission are capital intensive activities, operational costs are also important. During the current price control period allowances of around £3.25 billion were provided for operating costs.

4.20. The challenge in assessing operating costs is the extent to which costs, and the scope for cost efficiencies can be compared across the four licensees, and with other relevant external benchmarks. This is a more difficult than in distribution

because there are fewer licensees and fewer management teams to compare. This is particularly significant given that NGC and Transco NTS are part of the same company, and given the large size differences between NGC, SPTL and SHETL.

4.21. Another challenge for the assessment of operating costs is the question of how shared costs are assessed and attributed to each licensed business. All four licensees are parts of larger groups, and therefore not all of their costs will be observable in the context of stand-alone businesses. Ofgem will need to consider how shared costs are attributed. This is particularly important in relation to the allocation of shared NGT costs between Transco NTS and its gas distribution businesses, in the context of this review and the forthcoming review of gas distribution price control review. The attribution of shared costs will also be relevant to SPTL and SHETL.

Depreciation, return and tax

4.22. The capital intensive nature of transmission businesses means that revenue allowances are set to ensure that costs are recovered over the assumed regulatory life of the assets, rather than when the assets are first installed. This recognises the fact that transmission assets are long-lived assets which will deliver services to customers over many years.

4.23. The treatment of capital assets in this way means that the price controls need to provide allowances for depreciation (the extent to which the assets are assumed to be used in any given year) and for a return on the capital being used.

4.24. The method used by Ofgem in DPCR4 for converting the depreciation and return elements of a price control into a revenue allowance was to aggregate the allowances for the cash items, add the opening value of the RAV at the start of the price control period, deduct the closing value of the RAV at the end of the price control and discount back to the starting time period. Ofgem will consider the appropriateness of using this method for calculating price control revenues under the transmission price controls also.

Incentives for performance

4.25. Consumers value outputs, such as a reliable power supply at reasonable cost, rather than inputs, such as the length of electricity cable and gas pipelines or the number of transformers. It would therefore be preferable if the regulatory regime could align the interests of the regulated firm (and its financiers) with the interests of consumers by focusing on the regulated firm's outputs.

4.26. The main vehicle used by Ofgem in the past to seek to deliver incentive regulation has been the RPI-X form of revenue control. The simple model of RPI-X has been refined and augmented in a number of ways over time. The following section reviews the RPI-X framework and the various refinements that have been adopted.

The RPI-X model

4.27. The simple RPI-X model sets a revenue allowance for a period of time and linked to inflation (as measured by the Retail Price Index), and requires the licensee to deliver a set of outputs. The total revenue allowance for the period is set to have a present value equal to the aggregate level of efficient costs (operating expenditure, depreciation and a return on capital) which the regulator expects the company to incur in delivering the required outputs.

4.28. If the firm can deliver the required outputs at lower costs than forecast by the regulator, the firm is allowed to keep this difference until the end of the price control period. Under the basic RPI-X model, the firm has significant exposure to out-performance or under-performance of the forecast level of costs during the price control period. For example, every £1 by which the firm beats the forecast of its operating costs results in a £1 increase in the firm's profits for that year.

4.29. The majority of the costs of all four transmission licensees are covered by an RPI-X form of control. The transmission price controls have in the past been set with an intention to last five years. The five year duration, with indexation based on the Retail Price Index, was also used in setting the recent distribution price controls.

Refinements to the RPI-X model

4.30. Over time a number of refinements have been made to the simple RPI-X model. These refinements are discussed in generic terms below.

(i) Cost pass through items

4.31. A number of cost items are not fully within the control of the licensee. Most RPI-X price controls allow for some degree of cost pass through. The cost pass through items in the current transmission price controls include business rates, licences fees and BETTA implementation costs. In addition, for NGC following the introduction of BETTA, the allowed revenues of SPTL and SHETL (as notified by SPTL and SHETL) are cost pass through items.

(ii) Excluded services

4.32. The current price controls provide for certain transmission activities undertaken by the transmission licensees to be excluded from the scope of the revenue restriction, e.g. the provision by electricity transmission licensees of new connections, to which separate arrangements apply.

4.33. These activities are generally relatively small scale in revenue terms compared to the regulated transmission services business. The licensees are limited to earn no more than a reasonable rate of return on the associated assets, but there is no explicit revenue cap.

(iii) Simple revenue drivers

4.34. A simple refinement to the basic RPI-X framework is for allowed revenues to be determined in part in any given year by the actual value of a specified observable variable. The previous TO price control for Transco set revenues as a function of the volume of gas flowing through the network. The current price control for NGC sets allowed revenues as a function of the actual amount of new generation capacity connecting to the network, relative to a forecast amount (the "Gt" term). The variables are generally chosen because they are anticipated to be significant cost drivers for the licensee.

(iv) Sliding scale incentives

4.35. Transco NTS and NGC, in their capacity as system operators, incur costs in some circumstances by meeting contractual obligations to network users through means other than the provision of physical capacity on the network, e.g. Transco NTS buys back capacity rights it has sold but is unable to accommodate physically on the network. Similarly, NGC in its capacity as GB system operator incurs costs in managing constraints on the network.

4.36. The costs associated with these activities can, to an extent, be traded off by the licensee against the costs of providing physical capacity, which potentially enhances overall efficiency.

4.37. Under the current price control arrangements target levels of these types of costs are subject to a separate type of incentive scheme, called a sliding scale incentive. The scheme sets target costs and, within a specified range either side of that target cost, provides for a proportion of any out-performance or under-performance to be passed through to consumer rather than borne by the licensee. Outside of the specified range, the entire out-performance benefit or under-performance cost is passed through to the consumer.

4.38. A sliding scale incentive therefore has some of the characteristics of a cost pass through and some of the characteristics of incentive regulation. One of the main difficulties for the regulator is to determine the appropriate target level and to determine how the risks associated with any upside or downside should be shared between the licensee on the one hand, and consumers and other stakeholders on the other hand.

4.39. The sliding scale incentive format is used in respect of a number of cost areas under the current System Operator (SO) incentives for NGC and Transco NTS. External balancing costs are subject to sliding scale incentives. These incentive mechanisms have delivered significant benefits to consumers by rewarding greater efficiency in these areas by NGC and Transco NTS.

(v) Information quality incentives

4.40. One of the underlying challenges for Ofgem in setting price controls is a lack of information. It is inevitably the case that the companies will hold better quality information than Ofgem.

4.41. The recent DPCR4 final proposals adopted a new approach to dealing with this issue in the context of capital expenditure forecasts. This was termed a sliding scale incentive. It structured the proposals such that a company would have less scope to retain efficiency savings if it accepted less demanding capital expenditure allowances (relative to Ofgem's own forecasts of efficient costs).

(vi) 'Rolling' incentives

4.42. As noted above, one of the conclusions of the 'developing network monopoly price controls' project was for Ofgem to seek to implement 'rolling incentives'. The objective of rolling incentives is to reduce the extent to which the incentives for efficiency vary across the duration of the price control period, e.g. with reduced incentives to cut costs when the next price review is imminent.

4.43. The June 2003 conclusions stated that the forthcoming price controls for distribution and transmission would be set on the basis that efficiency savings delivered under the then current price controls would be retained for five years, irrespective of when in the price control period the efficiency savings were realised.

4.44. The issue of how such a rolling incentive could be implemented on an enduring basis was considered as part of DPCR4. The final proposals under DPCR4 incorporated a rolling incentive mechanism for capital expenditure with the potential for it to be re-opened in exceptional circumstances.

4.45. In the light of informational concerns and the potential scope for gaming, Ofgem did not however implement a roller mechanism for efficiency savings against operating cost forecasts. One concern was the scope for licensees to capitalise certain types of operating costs, and thereby create 'artificial' efficiency savings. This concern might be addressed through stricter cost classification rules for regulatory purposes. Moreover, if incentives for operating and capital expenditure have differing strengths, this may also create perverse incentives which could inhibit efficiency overall. Ofgem will need to consider this aspect in the context of the transmission reviews.

4.46. Transco NTS's incremental entry capacity investment incentive is a form of rolling incentive. The trigger for the release of entry capacity above specified baseline volumes at each entry point is the aggregate value of bids by gas

shippers in long-term entry capacity auctions relative to the assumed investment cost of providing the capacity. There is no limit on the volume of capacity that can be sold through these mechanisms. If an appropriate proportion of the total assumed cost is covered by bids, then Transco NTS is obliged to release the volume of capacity that shippers are willing to pay for.

4.47. Transco NTS is entitled to earn a return on the assumed value of the investment to provide the additional capacity for five years from the point at which the capacity is made available to shippers (i.e. three years after the first long-term auction of the capacity rights). The actual return is dependent on bids in the auctions, subject to a maximum pre-tax return of 12.25% and a minimum return of 5.25%. After 5 years, actual expenditure, if efficiently, incurred, is included in the regulatory asset value.

4.48. Transco NTS's actual investment decision in the light of the increased capacity sold to shippers will depend in part on the cost of investment relative to the cost of buying back rights if capacity is unavailable at some times. The costs to Transco NTS of buying back rights is, in turn, influenced by its entry capacity sliding scale incentive.

Objectives for the PCR

4.49. The preceding two sections highlight the framework for the review, and the context within which the review will be undertaken. Collectively, and in the light of the legal framework described in chapter 2, these inform Ofgem's objectives for the review.

4.50. The objectives for the review are to:

- **Protect the interests of consumers**: To develop a set of proposals which protect the interests of gas and electricity consumers, recognising that current and future consumers have interests in high quality transmission networks supporting high standard of security of supply, delivered at efficient cost;

- **Promote social and environmental objectives**: To develop a set of proposal consistent with Ofgem's wider statutory duties, reflecting the direct impacts that the transmission systems have on the environment, as

well as the role the transmission systems play in facilitating broader social and environmental objectives.

- **Reward focused and timely investment**: To reward transmission licensees for responding dynamically to changing circumstances to develop their networks in an economic, efficient and co-ordinated manner (having regard to best practice in respect of asset stewardship and safety), and thereby facilitate effective competition between electricity generators and suppliers, and between gas shippers;

- **Allocate risk appropriately**: To ensure that risk is shared appropriately between licensees, customers and other users of the system; for instance to ensure that licensees bear an appropriate share of the risk of under-performance under the price controls in relation to, for example, the costs of buying back capacity rights if investment by a licensee is not focused and timely.

4.51. Additionally, Ofgem itself will seek to ensure during this price control that its actions are consistent with:

- **Transparency**: The objective and transparent assessment of issues, seeking where possible to ensure Ofgem's approach to particular policy issues is clarified at an early stage (and is not subsequently revisited);

- **Inclusiveness**: Providing information to all stakeholders in a focused and easy to understand form, such that all parties can play a full and active role in the price control review; and

- **Accessibility**: Making Ofgem's project team for the price control review visible and accessible to all stakeholders.

4.52. Ofgem will keep these objectives under review and in the light of responses to this initial consultation will seek to augment this set of objectives with more detailed objectives, deliverables and milestones.

Views invited

4.53. Ofgem welcomes views on any of the issues raised in this chapter, and in particular in respect of the following questions:

- How should Ofgem seek to address the external factors cited in paragraph 4.11 above in setting new price controls? Are there any other external factors that Ofgem should take into account?
- Is the standard model of a five year control and RPI indexation still appropriate for the next transmission price controls? Are there any areas of activity which should be price-regulated differently, including any scope for de-regulation?
- What particular areas of the licensees' activities should Ofgem focus on in this price control review?
- Should incentives to reduce costs be strengthened or weakened?
- How should the range of refinements to the basic RPI-X form of control be deployed by Ofgem in setting the next transmission price controls? Are there any refinements that should be used more or less than is currently the case?
- Are rolling incentives appropriate for transmission, and if so how long should the retention periods be for efficiency savings? Should the rolling incentive approach adopted in gas for incremental entry capacity also be adopted in electricity?
- Should Ofgem seek to ensure that the strength of incentives for efficiency in operating costs and capital expenditure is equalised?
- Are Ofgem's objectives for the price control review appropriate and comprehensive? If not, how should the objectives be re-stated?

5. Assessing costs

5.1. This chapter discusses in more detail the issues and challenges for Ofgem to address in the transmission price control review in assessing the efficient level of costs to be incurred by licensees, as highlighted in the previous chapter.

5.2. The chapter is in two sections. The first section discusses capital expenditure. The second section discusses operating costs. Each section reviews the nature of the costs involved, and discusses the approaches to be adopted in assessing these costs.

Capital expenditure

Introduction

5.3. Capital expenditure relates to investment in long-lived assets such, as gas pipelines or electricity transmission circuits. Capital expenditure is a significant cost item for transmission licensees. As noted above, allowances for capital expenditure of the current (extended) price controls amounts to some £2.8 billion.

5.4. Capital expenditure is incurred for one of two distinct reasons:

- **Load related**: the installation of new assets to accommodate changes in the level or pattern of electricity or gas supply and demand; and
- **Non-load related**: the replacement or refurbishment assets which are either at the end of their useful life due to their age or condition, or need to be replaced on safety or environmental grounds.

5.5. Licensees incur capital expenditure because they are required to meet certain explicit or implicit outputs, e.g. to ensure that the electricity transmission network provides adequate capacity and meets planning and operating standards.

Specific issues for this review

5.6. A key issue for any price control review is the extent to which future capital expenditure requirements can be forecast accurately. There are a number of specific factors to which Ofgem will need to give particular attention in forecasting capital expenditure requirements under this review. These include:

- **Changing gas flow patterns**: Since the last price control it has become clear that there will be significant changes in the pattern of gas flows over the NTS, reflecting changes in the locations at which gas is introduced into and taken from the NTS. These shifts influence capital expenditure requirements significantly and there are likely to be further significant shifts during the course of the next price control.

- **Renewable electricity generation growth**: The potentially significant growth in renewable generation, particularly wind generation, has potentially substantial implications for capital expenditure on the electricity transmission system. There are significant uncertainties over the volume, timing and location of such generation capacity – which in turn introduce uncertainty over the nature and timing of the related network investment.

- **Distributed generation growth**: The extent to which the demand for electricity is met through local, smaller scale generation may influence the need for electricity transmission (which facilitates bulk transfer from large generators to where the electricity is consumed). This factor will need to be recognised in forecasting requirement for future investments in the transmission system.

- **Replacement capital expenditure in electricity**: NGC has indicated a need for a substantial increase in the level of replacement capital expenditure on its network, reflecting the age profile and condition of its existing assets. Assessing and forecasting the need for this type of investment in the context of transmission raises new challenges, and might require new approaches, informed by the treatment of comparable issues in distribution

Assessment approaches

5.7. Ofgem will collect information from each of the transmission licensees on historical and forecast costs and performances. Analysis will be carried out on the information collected from the licensees, supplemented where necessary with information from other sources (including market data from the long term auctions of gas entry capacity), to assess the actual transmission costs and efficiency and to establish future investment need.

5.8. The estimates of required capital expenditure are anticipated to be built up using the following broad steps:

- **Review past capital expenditure**: The objective here is to establish expenditure that has been efficiently incurred, and to identify what this has delivered in terms of outputs. An important element of this work will be to compare outturn capital expenditure and outputs with the projections made when the price control was last set, and analyse the reasons for these differences;

- **Project forward base case capital expenditure**: This step seeks to identify the profile of capital expenditure required to continue to meet required outputs under a base case set of assumptions about future demands on the network. This will involve detailed analysis of individual projects proposed by the licensees as being necessary, analysis of underlying unit costs, and more aggregated comparative analysis of costs and outputs.

- **Quantify impact of variations from base case**: This step seeks to quantify how capital expenditure requirements might vary with changes to the base case assumptions. This work will inform Ofgem's proposals for how incentives might be set to encourage licensees to respond economically and efficiently to changing circumstances. This issue is discussed in more detail in the following chapter.

Operating costs

Introduction

5.9. Operating costs relate to the day-to-day activities of running the transmission businesses. These include payments to contractors, staff costs (including pensions), property (including business rates), IT, transport and consumables. The primary focus of the review will be on costs which can be controlled by the licensee.

5.10. Controllable operating costs can be broken down into two categories;

- **direct or field activities**: these include inspection, maintenance and repair of network assets. These activities are driven by asset replacement policies, technical standards, faults on the network, climatic and environmental factors; and

- **indirect activities**: including services which support field activities e.g. asset management, network design etc, and also more general support services and overheads e.g. finance. HR, IT and corporate costs. The costs are in part allocated to types of capital expenditure.

Specific issues for this review

5.11. In seeking to derive a forecast of efficient levels of operating costs Ofgem will need to assess the efficiency of existing costs, and project these costs forward allowing for (a) the scope for further efficiency savings, and (b) any underlying trends or pressures in respect of particular cost items.

5.12. There are a number of specific factors which will influence how Ofgem undertakes its review of operating costs, and challenges which Ofgem will need to address:

- **Understanding past performance**: there have been a number of structural changes affecting the transmission licensees over the duration of the current price control, e.g. the merger of National Grid Holdings plc and Lattice plc, the parent companies of NGC and Transco NTS, and the change in the roles of all three electricity transmission licensees

under the BETTA reforms, which mean that it may be difficult to establish a base level of operating cost performance (net of external factors) during the current price control;

- **Scope for comparative analysis**: while there are benefits in terms of comparative analysis from reviewing all four transmission licensees at the same time, there are limits to the insights that this can provide. There are only three management teams to compare (as compared to seven managements teams under the DPCR), and the licensees are very different in scale and scope of activities. This means that comparative analysis between licensees may be more challenging and of more limited value than in DPCR4;

- **Treatment of shared costs**: All four licensees are parts of larger groups, and therefore do not have directly observable costs as stand-alone businesses. Ofgem will need to consider how shared costs are allocated to the regulated businesses. This will be particularly important in the case of allocation of shared NGT costs between Transco NTS and its gas distribution businesses and between Transco NTS and NGC.

- **Understanding capitalisation policies**: In building a picture of past operating cost performance, and projecting this performance forward, it is important to recognise the potential interactions between operating costs and capital expenditure. It is possible that past performance may be distorted by changes to how costs are capitalised. Any such changes need to be well understood and quantified, and the effects netted out.

- **Pensions**: The funding of pensions contributions raises a number of issues in setting price controls. These issues have been considered in Developing Monopoly Network Price Controls and developed in more detail in the course of DPCR4. Ofgem will seek to apply the principles established under DPCR4 to the treatment of these costs in the transmission price control review. This approach recognises that customers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, and sets out guidelines to assist in establishing the appropriate

level of costs to be allowed. The guidelines are set out in full in Appendix 1.

Assessment approaches

5.13. The issues and challenges highlighted above will inform how Ofgem gathers information and undertakes analysis. There are a number of approaches which Ofgem will investigate through this review, including:

- **Activity-based analysis**: while licensees may not be directly comparable at the aggregate level, valid comparisons between the licensees might be more relevant and insightful at a more disaggregated level (in terms of assessing efficient cost levels, and in terms of identifying cost drivers to project efficient cost levels forward). This can be tested by collecting and analysing cost data for particular activities or types of activities. It does, however, require information to be collected and collated in a consistent manner across licensees.

- **External benchmarking**: the information and insights gathered by comparing the licensees with each other will be supplemented where possible with external benchmarking, e.g. with transmission businesses in other countries, or with DNOs, or other relevant comparators. Activity-level analysis will potentially increase the scope for this type of analysis to provide insights.

Cost reporting

5.14. One of the challenges in setting price control is the quality of the information available on historical performance and expenditure by the companies. Ofgem has taken work forward as part of the DPCR to improve to quality of the information gathered on an ongoing basis from the electricity distribution companies. This requires more frequent submissions of data on costs and expenditure.

5.15. A similar approach would appear to Ofgem to be appropriate for the transmission companies. A cost reporting framework will be developed as part of this review, and will be a useful source of information for future price control reviews.

Views invited

5.16. Ofgem welcomes views on any of the issues raised in this chapter, and in particular in respect of the following questions:

Capital expenditure:

- What methods and models of capital expenditure cost assessment should Ofgem seek to use in the transmission price control review?
- What might an increasing importance of non-load related capital expenditure (as opposed to load related capital expenditure) mean for how Ofgem undertakes the price control review?
- How, if at all, should Ofgem adapt its approach to assessing capital expenditure requirements related to growth in renewable and distributed generation and future plant closure?
- Does the model of assessment adopted for TIRG provide a useful model for the price control review?

Operating costs:

- What particular areas of operating costs should Ofgem focus on in its assessment of the current and future efficiency of the transmission licensees?
- What approaches, other than those identified in this chapter, might be available to Ofgem in assessing the efficiency of each transmission licensee's operating costs?

Cost reporting

- What form of cost reporting framework should Ofgem develop for each of the transmission licensees as a means of monitoring performance under the new price controls over time?

6. Incentives

6.1. This chapter discusses in more detail some of the issues raised in chapter 3 in relation to how Ofgem should seek to put in place appropriate incentives for each transmission licensee as part of this price control review. In particular it focuses on what the licensees should be obliged to provide in return for their revenue allowances.

6.2. Some of the required outputs are implicit, and relate to the licensee meeting its statutory and licence obligations. For example, Transco NTS has an obligation to develop and maintain an efficient and economic pipeline network in accordance with the Gas Act and to act in accordance with pipeline system security standards as set out in its NTS licence. The electricity transmission licensees have similar obligations in relation to their networks.

6.3. Other outputs can be defined more explicitly. The increased use of explicit output measures has been a feature of the regulatory regime over recent years.

6.4. In general, consumers value outputs such as a reliable power supply at reasonable cost, rather than inputs such as the length of electricity cable and gas pipelines or the number of transformers. It is therefore preferable if the regulatory regime can align the interests of the regulated firm (and its financiers) by setting explicit output measures which relate to the requirements of customers.

6.5. In the case of electricity distribution, incentives have been developed under the framework of the Information and Incentives Programme (IIP) to encourage DNOs to reduce the number and duration of interruptions to supply and to improve various other aspects of customer services.

6.6. In the case of electricity transmission Ofgem has recently introduced a reliability incentive for NGC and intends to introduce a similar incentive for the Scottish licensees. However, transmission businesses have a much more limited direct interface with individual customers and previous price control reviews have therefore taken the approach that the main output required of transmission licensees is the provision of the required level of transmission capacity at efficient cost.

6.7. A feature of previous transmission reviews has been the potentially substantial amount of load-related capital expenditure. Since the scale of such expenditure depends largely on the actions of users of the system load-related capital expenditure is inherently difficult for either Ofgem or the licensees to predict. The consequences of error in the assessment of such expenditure can include either network capacity not being available to meet the demands of users, or capacity being provided which turns out not to be required, leaving "stranded assets" to be paid for by all customers.

In considering the required outputs Ofgem has therefore moved towards making a distinction between baseline outputs, reflecting the needs of current users of the system, and incremental outputs, reflecting changes in network capacity requirements caused by new demands on the network. Ofgem has also, in some cases, introduced mechanisms to allow users of the system to signal their demand through market-based mechanisms and to require a level of financial commitment from users before the licensee is obliged to provide incremental capacity. Incentives and revenue allowances are then set relating to the required baseline and incremental outputs. These concepts are discussed in more detail below.

Defining baseline outputs

6.8. In setting explicit output measures relating to network capacity it is necessary to consider:

- the level at which the targets should be set; and
- whether targets should be defined for the network as a whole, zones within the network, or specific points on the network.

Level of outputs

6.9. There are several potential approaches to setting the target level of the chosen outputs for baseline purposes. For example, in the case of entry and exit capacities, baselines could be set according to:

- the maximum physical capacity of an entry or exit point of the existing network, irrespective of the pattern of gas or electricity flows elsewhere on the network (i.e. on an 'unconstrained' basis);

- the maximum physical capacity of an entry or exit point of the existing network, given interactions with gas or electricity flows elsewhere on the network (i.e. on a 'constrained' basis);

- the capacity required to meet planning standards, given the likely pattern of gas or electricity flows on the network; and

- the capacity required to meet the existing demands on the network.

6.10. The merits of each of these approaches will be considered in more detail as Ofgem develops specific proposals for the price control.

6.11. The explicit baseline entry and exit capacities in the current gas transmission price control were set at 90% of the values derived on the basis of the first of these approaches. NGC's current transmission price control does not set explicit baseline capacities but does involve implicit entry baseline capacities which were set according to the second approach. The exit capacities in the same price control were set on the basis of 1 in 20 forecasts.

National, zonal or nodal outputs

6.12. Output measures can be set:

- for the network as a whole;

- for zones within the network; or

- for specific points (or 'nodes') on the network.

6.13. Each approach will have its own advantages and disadvantages. In gas, for example, the current price control defines baselines on a nodal basis for entry, i.e. a baseline is set for each entry point. This has the benefit of allowing a focused definition of outputs, and a correspondingly focused incremental incentive scheme. However, there are differing views on how baselines should be set, and the operation of the current arrangements (whereby baselines are set at relatively high levels and fixed for the duration of the price control) has raised

issues in circumstances where new entry points need to be created and the existing baselines at proximate existing entry points are significantly higher than actual demand.

6.14. In electricity, on the other hand, NGC's implicit output measure of exit capacity is on a national basis: that is, incremental incentives come into play only when the outputs of the network as a whole (measured as capacity of new generation connections) exceed a certain level. This is given effect through the Gt term in NGC's price control.

Incentives for delivering incremental outputs

6.15. In view of the potentially large shifts in patterns of electricity generation and in gas flows in the period 2007 to 2012 a major feature of this review will be the consideration of how incremental investment is rewarded. In addressing this question Ofgem will seek to meet the objective for the price control review of facilitating focused and timely investment. Ofgem will also seek to ensure that the incentives created are, where appropriate, consistent and coherent as between delivering incremental outputs for both entry and exit.

6.16. There are two principal approaches to dealing with incremental outputs (i.e. differences between baseline outputs and actual required outputs):

- re-setting the price controls more frequently in response to material changes in required outputs ("re-openers"); and
- setting the revenue allowed under the price control to be contingent on future changes in outputs, or on future changes in other parameters closely correlated to outputs ("revenue drivers").

6.17. The use of one approach does not preclude the use of the other. For example, a price control using revenue drivers might be supplemented in certain circumstances by re-openers. The developing monopoly network price controls project recognised that both approaches had a place in the overall regulatory framework.

(i) Re-openers

6.18. Re-openers allow a tailored response to the particular cost implications of specific changes. They are generally more appropriate when there is a significant revenue shortfall, e.g. such that there is a degree of financial strain for the business, and where the reasons for the shortfall are not driven by readily foreseeable or quantifiable factors.

6.19. The disadvantage of re-opening price controls in this way is that can be difficult to distinguish the cost implications of a specific unanticipated change from day to day cost variations, the management of which should fall under the basic RPI-X model, with the result that the re-opening mechanism may severely weaken the incentive properties of price control regulation.

6.20. Re-openers also tend to require detailed regulatory involvement, on an ongoing basis. There could be an element of 'perpetual review' if re-openers were used routinely. This could result in the delay of necessary investment and could undermine incentives for cost efficiency, and could be unduly burdensome for the licensees.

Examples

6.21. In some circumstances re-openers are appropriate. The current regime for electricity transmission, for example, was re-opened (for all three transmission licensees) to increase allowed revenues to fund investment in the network to accommodate growth in renewable generation. The scale of the increase in renewable generation was unanticipated when the last price controls were set either in the setting of baselines or in the design of revenue drivers.

(ii) Revenue Drivers

6.22. Under a revenue driver approach, the allowed revenue for delivery of baseline outputs is automatically adjusted for variations in outputs around the baseline, according to a pre-determined formula. The extra revenue from incremental outputs should be sufficient to fund the costs of delivering the incremental outputs.

6.23. The advantage of a revenue driver approach is that it retains the incentive properties of the RPI-X model while extending similar incentives to the delivery of incremental outputs.

6.24. The disadvantage of a revenue driver approach is that it can be difficult to predict the relationship between the provision of incremental outputs and the costs of delivering them, and to capture that relationship in a simple formula. If the correlation between incremental revenue provided by the revenue driver and the incremental costs faced by the company in delivering incremental outputs is poor, the incentives for delivering incremental outputs can be distorted.

6.25. There is a risk that in some cases the regulated firm may not receive enough incremental revenue, resulting in a possible failure to invest where warranted by demand, while in other cases the regulated firm may receive an allowance for investment it does not need to undertake, resulting in unnecessarily high prices for consumers.

Examples

6.26. Transco NTS is permitted to recover additional revenues through the entry capacity incentive scheme if it provides incremental capacity either at an existing entry point (i.e. capacity above baseline) or at a new entry point (i.e. capacity above an implicit baseline of zero). Transco NTS is only permitted to release obligated incremental entry capacity, however, when certain conditions have been met. Specifically, the market signals for demand for incremental capacity (as demonstrated in long term auctions of entry capacity) need to be sufficiently strong. If this test is met, then Transco NTS's initial return on the incremental capacity is subject to the actual outcomes of the auctions subject to a maximum return of 12.25% and a minimum return of 5.25% on UCA values.

6.27. NGC also has a revenue driver linked to demand for new entry capacity. Where the actual level of additional connected generation capacity differs from the baseline level for that year then the allowed revenue for NGC will be adjusted proportionate to the level of difference in additional connected capacity. As a result, NGC's revenue can go up or down, depending on the level of new connections.

6.28. The two Scottish transmission licensees do not have a revenue driver for incremental entry capacity. In part this reflected the expectation at that time of relatively low levels of new generation connections. It also reflected the treatment of new connections as an excluded service.

Views invited

6.29. Ofgem welcomes views on any of the issues raised in this chapter, and in particular in respect of the following questions:

- How should Ofgem encourage users and potential users of the system to signal their future requirements and how should the licensees be incentivised to meet these requirements?
- Is there a need for consistency between gas and electricity transmission and between arrangements for entry to and exit from the networks?
- To what extent should new users of the networks be required to make a firm financial commitment before the Transmission licensee is required to make capacity available to them?
- How should baseline outputs and incremental outputs be defined for (a) electricity transmission licensees, and (b) Transco NTS? Should the existing definitions be retained? If not, how should they change?
- How should the provision of incremental outputs be remunerated? Should NGC have a similar incentive to Transco NTS in respect of incremental capacity, i.e. that it is rewarded for providing future capacity based on firm commitments by network users to pay?
- Is there a need for greater use of explicit output measures and performance indicators as part of the next price controls? If so, what areas should such new output measures focus on?
- To what extent should Ofgem set price controls in the expectation that they will need to be re-opened in the light of future events, or should Ofgem as far as practicable seek to set price controls which adjust revenues automatically as circumstances change?

7. Financial issues

7.1. This chapter discusses the key issues for Ofgem to consider in the transmission price control review in respect of the financing of each of the transmission businesses.

7.2. The majority of the financial issues relevant to the transmission price control review are to an extent generic issues which have been considered in detail in previous reviews, and in Ofgem's 'developing network monopoly price controls' project – the conclusions of which were published in June 2003. This transmission price control review will build on this work.

The Authority's obligations in respect of financing

7.3. Ofgem and each of the four transmission licensees have legal duties and obligations relating to the financing of the licence holder's licensable activities. . Ofgem responds to these obligations by, among other things, seeking to ensure that each licensee:

- can, if managed efficiently, earn a return on the value of its regulatory asset base that is at least equal to an appropriate cost of capital; and
- can raise finance from the capital markets on reasonable terms.

7.4. Electricity and gas transmission are capital intensive activities. In assessing the financial impact of price control proposals on a licensee, Ofgem will need to consider whether it can finance the requisite level of investment. This will in turn require Ofgem to examine the scope for the licensee to raise new debt or equity finance.

7.5. In making these assessments Ofgem undertakes its own financial modelling, informed by the views of a range of analysts and credit rating agencies. The financial modelling looks primarily at how the financial position of each licensee (as characterised by a range of financial ratios) might be expected to evolve under Ofgem's proposed price control; e.g. it will include Ofgem's operating costs, capital expenditure and financing assumptions. A key test in assessing the financial position of each licensee is to ensure that there is appropriate access to

capital markets to fund necessary investment. Ofgem will set a price control consistent with each licensee being able to maintain a credit rating comfortably within investment grade if it achieves outturn expenditures consistent with Ofgem's assumptions on future efficiency. The financial model will also calculate the tax allowance.

The cost of capital and tax

7.6. The cost of capital is the return required by the financial markets – both debt and equity – to provide capital for a firm. It is a significant issue in a price control and it needs to be set at a level that is consistent with the licensee being able to earn an appropriate rate of return on capital employed in its licensed activities.

7.7. Table 2 below summarises the cost of capital assumed for each licensee under the current price controls (as extended, in the case of SPTL and SHETL, when the cost of capital was revisited):

Table 2: Cost of capital (real, pre-tax) under current price controls

	Original	Extension
Transco NTS	6.25%	-
NGC	6.25%	-
SPTL	6.50%	8.9%
SHETL	6.50%	8.7%

7.8. The cost of capital is calculated as a weighted average of the cost of equity and the cost of debt. In DPCR4 Ofgem amended its approach to calculating the weighted average cost of capital. The cost of capital was calculated on a post-tax basis as opposed to being calculated on a pre-tax basis in previous reviews. The drivers for this change were (i) that a pre-tax cost of capital does not reflect actual tax costs, (ii) a change in the Inland Revenue's treatment of network capital expenditure, and (iii) Ofgem's intention to reduce the incentive for the companies to increase gearing unduly.

7.9. In DPCR4 the allowance for tax was set with reference to each company's expected actual gearing, projected on the basis of its actual gearing at the start of the price control period or, if higher, the level of gearing assumed in estimating

the weighted average cost of capital. This was intended to capture for customers the tax benefits of gearing, and to encourage optimisation of capital structures without pushing companies to adopt structures that are inflexible. In order to mitigate the incentive to increase gearing unduly, if any DNO has gearing in excess of the gearing assumption and interest costs higher than those in the financial model, Ofgem intends to claw back the associated tax benefits for customers at the next review. The tax allowances was also set assuming that the companies would manage their tax positions efficiently and Ofgem did not provide allowances for certain items like additional revenue arising from incentive schemes.

7.10. The framework used in DPCR4 for setting the cost of capital and allowances for tax, would appear to Ofgem to be appropriate for the transmission price control review. The separate identification of tax has the benefit of greater transparency. Further, Ofgem is aware of the wider benefits in terms of regulatory certainty in the consistent treatment of common issues. Ofgem will also have regard to other aspects of the approach adopted in DPCR4, including the factors borne in mind by the Authority in identifying a single cost of capital for each licensee from the range of possible estimates derived from analysis of market data.

Establishing Regulatory Asset Values

7.11. The regulatory asset value (RAV) is a measure of the value of the capital employed in the regulated business, based on historical investment costs, on which the licensee earns a return and receives an allowance for depreciation. The RAV is widely used by the financial markets to assess value for both debt and equity investors and it is therefore important that it is calculated on a consistent basis between licensees and over time.

7.12. RAVs were set for each of the transmission licensees at the start of the current price controls and establishing an opening RAV for the next price control period will be an important part of this review.

7.13. There are two particular issues which Ofgem will need to consider in completing this task:

- **Capital expenditure in excess of allowances**: NGC, in particular, has indicated that it has incurred more capital expenditure during the current price control than was allowed at the time the price control was set. The treatment of this overspend will be informed by Ofgem's assessment of the efficiency of these costs;

- **Capitalisation policies**: Allowances for capital expenditure and operating costs during the current price controls were set assuming a particular definition (explicit or implicit) of the boundary between operating costs and capital expenditure. Ofgem will have regard to any changes in accounting policies by the licensees in rolling forward each RAV. Changes in capitalisation policies should not result in additional returns for the licensees, and the RAVs should be rolled forward in a manner consistent with the last price control.

Financial ring-fence

7.14. In DPCR4 and at the time Transco plc's sale of four of its DNs Ofgem amended the licences of the DNOs, the NTS and the DNs to include a 'cash lock-up' mechanism which, in certain circumstances, prohibits the company from entering into certain transactions and also made some other changes to the financial ring–fence conditions. Ofgem also intends to make the corresponding changes to the licences of the electricity transmission companies as part of this price control.

Views invited

7.15. Ofgem welcomes views on any of the issues raised in this chapter, and in particular in respect of the following questions:

- Should Ofgem's approach to cost of capital and tax under DPCR4 be adopted for the transmission price control review?

- What are the reasons why the cost of capital for a transmission business might be different to the cost of capital for a distribution business?

- What principles should Ofgem apply in rolling forward Regulatory Asset Values (RAVs), in particular in respect of capital expenditure in excess of past allowances, and in respect of changes to how costs are accounted?

- Are there any other factors which Ofgem should consider in assessing financial issues under this price control review?

8. Next steps and timetable

8.1. This chapter sets out the next steps for the transmission price control review, and outlines a timetable for the project as a whole for consultation and information gathering.

Next steps

8.2. Ofgem intends to publish a Second Consultation document in December 2005. This document will summarise the responses to the Initial Consultation, and set out and invite views on detailed options for the form of price controls. The Second Consultation will also provide an update on Ofgem's framework for analysing operating costs and capital expenditure plans, for setting incentives, and for considering financial issues.

8.3. In developing the options to be presented in the Second Consultation, Ofgem will use workshops where appropriate. The purpose of the workshops would be to for Ofgem and the transmission licensees to present preliminary thinking on different models for the form of the price controls, and to enable interested parties to discuss and debate at an early stage in the process. A workshop on incentive arrangements in gas in scheduled for 20 October 2005.

Document timetable

8.4. Ofgem plans to publish five documents as part of this price control review, culminating in final proposals in late 2006. The document plan is:

- **Initial consultation**: July 2005
- **Second consultation**: December 2005
- **Initial proposals**: May/June 2006
- **Draft proposals**: September 2006
- **Final proposals**: November/December 2006

8.5. Ofgem also anticipate publishing a consultation document in March 2006, depending on progress. Additionally, Ofgem will undertake consultations on specific issues if it is required, and in a form commensurate with the issue or issues. For example, through open letter 'mini-consultations', further workshops or (if necessary) additional consultation documents.

8.6. Ofgem will also publish an impact assessment for consultation as soon as the proposals are at a sufficiently developed stage. Ofgem would hope to include its initial draft IA as part of its December 2005 consultation document. Ofgem will revise its IA with material changes to the proposals.

8.7. The final proposals will be given effect through new licence conditions for each licensee. The legal drafting of these conditions will progress consistent with the licence conditions being finalised and in place by 1 April 2007. This will require preparatory work to start in the latter half of 2006.

8.8. If any of the licensees consider Ofgem's final proposals to be unacceptable, Ofgem will refer the matter to the Competition Commission.

Information gathering and analysis

8.9. A key task in developing the draft and final proposals will be the gathering and analysis of information from the companies. This process has already begun and will continue throughout the review.

8.10. Ofgem will gather other information from a range of sources and using a range of methods, as appropriate and necessary in order to meet the objectives of the price control review set out in Chapter 4.

8.11. The information gathering will be tailored to the issues raised and the challenges faced in this review. It will include a business plan questionnaire (BPQ) for each of the companies to complete.

Appendix 1 Guidelines in relation to the treatment of pension costs

1.1 The guidelines for the treatment of pensions costs by Ofgem as applied in DPCR4 are as follows:

- consumers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, to staff of the regulated business, in line with comparative benchmarks;
- in principle, each price control should make allowance for the ex ante cost of providing pension benefits accruing during the period of the control, and similarly for any increase or decrease in the cost of providing benefits accrued in earlier periods resulting from changes in the ex ante assumptions on which these have been estimated;
- pension costs should be assessed using actuarial methods, on the basis of reasonable assumptions in line with current best practice;
- increases or decreases in the future costs of providing accrued benefits resulting from under- or over-funding in prior periods will need to be considered on a case-by-case basis;
- increases or decreases in the future cost of providing accrued benefits resulting from differences between ex ante and ex post investment returns in prior periods will also need to be considered on a case-by-case basis;
- liabilities in respect of the provision of pension benefits that do not relate to the regulated business should not be taken into account in assessing the efficient level of costs for which allowance is made in the price control; and

- companies will also be expected to absorb any increase (and may retain the benefit of any decrease) in the cost of providing enhanced pension benefits granted under severance arrangements which have not been fully matched by increased contributions.