Transmission price controls and BETTA

Draft proposals

July 2004 182/04

Summary

Currently, the National Grid Company plc (NGC) operates the electricity transmission system in England & Wales, and SP Transmission Ltd (SP Transmission) and Scottish Hydro-Electric Transmission Ltd (SHETL) operate their respective transmission systems in the South and North of Scotland. All these systems are connected, with an interconnector connecting the transmission systems of SP Transmission and NGC (the England-Scotland interconnector).

Following Royal Assent on 22 July 2004, the Energy Act provides the Secretary of State with powers to introduce the British Electricity Trading and Transmission Arrangements (BETTA). Under BETTA the assets comprising the England-Scotland interconnector will be incorporated into the respective transmission systems of SP Transmission and NGC, and NGC will operate all three transmission systems in GB (the GB transmission system), with existing licensees continuing to own their transmission system assets. The planned go-live date for BETTA is 1 April 2005.

The current transmission price controls for SHETL and SP Transmission are intended to last until 31 March 2005. It is proposed to roll forward these price controls for two years to 31 March 2007 to align the price control review dates with those for other transmission licensees in both electricity and gas, enabling all transmission issues to be considered together at the next review.

From BETTA go-live, the price controls of all three transmission licensees will need to be adjusted to provide remuneration according to the licensees' changed roles and responsibilities under BETTA.

This consultation document sets out:

- Ofgem's draft proposals for the roll forward price controls that would apply to SP Transmission and SHETL if BETTA go-live were delayed beyond 1 April 2005

- Ofgem's draft proposals for the value at which it is appropriate to include the England-Scotland interconnector assets into the Regulatory Asset Values (RAVs) of the respective transmission licensees under BETTA

- The proposed detailed form of the revenue restrictions that will apply to transmission licensees under BETTA

- Ofgem's draft proposals for the price controls to apply to SP Transmission, SHETL and NGC under BETTA.

The development of proposals for NGC's SO external cost incentive scheme to apply from 1 April 2005 are being undertaken through a separate consultation process.

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1. Introduction

1.1. This document sets out Ofgem's draft proposals for the roll forward price controls for SHETL and SP Transmission, and for the adjustments to the price controls of all three transmission licensees, SHETL, SP Transmission and NGC to apply under BETTA. The document presents further information provided by the licensees and conclusions arising from responses received to previous consultations.

Background

1.2. Under BETTA, NGC as GB system operator will have responsibility for operating the transmission system across the whole of Great Britain, while SP Transmission and SHETL will remain responsible for developing and maintaining the transmission system in their respective areas. NGC will also be responsible for agreements with users of the GB transmission system for connection to and use of the transmission system, and consequently will have obligations to users under the proposed user-facing codes (the GB CUSC, GB BSC and the GB Grid Code). To provide these services to users, the NGC will provide some transmission services itself and will procure other services from SP Transmission and SHETL. This means that a number of interactions between transmission licensees will be required. These interactions include:

- ♦ the transmission owners providing transmission services to the GB system operator (including making their transmission systems available to it for its use in providing transmission services to users)
- ♦ directions by the GB system operator to transmission owners to configure the GB transmission system
- ♦ transmission outages planning, and
- ♦ joint transmission planning (including how the transmission sector progresses new connections to the GB transmission system).

1.3. Ofgem/DTI has concluded that under BETTA it is appropriate to establish a separate regulated code known as the System Operator –Transmission Owner Code or STC to make contractual provision for the interactions between transmission licensees. Also under BETTA the transmission licences will include an obligation to comply with the STC.

1.4. These arrangements will result in changes to the manner in which licensees recover their revenues. There will be two main types of regulated revenue flow:

- from users to the GB system operator - the GB system operator will obtain its allowable revenues from users in accordance with its revenue restriction licence condition and the charging arrangements set out in its charging methodology and the user codes, and

- from the GB system operator to non-affiliated transmission owners - the transmission owners will receive their allowed revenues from the GB system operator in accordance with the transmission owner revenue restriction licence conditions and the billing and payment provisions of the STC.

1.5. Following Royal Assent on 22 July 2004, the Energy Act provides the Secretary of State with powers to introduce the British Electricity Trading and Transmission Arrangements (BETTA). The planned go-live date for BETTA is 1 April 2005.

Price Controls

1.6. Adjustments to the price controls of the electricity transmission licensees are being developed to reflect the new roles and responsibilities to apply from BETTA go-live. The areas of adjustment were set out in Ofgem's October 2003 report[1]. In March 2004, Ofgem set out its proposals for the form of the revenue incentives to apply between the transmission owners and the GB system operator under BETTA[2].

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[1] Price controls and incentives under BETTA, An Ofgem/DTI consultation, October 2003, Ofgem 130/03
[2] The form of transmission owner revenue restrictions and consequential effects on NGC's revenue

1.7. The current transmission price controls for SHETL and SP Transmission are intended to last until 31 March 2005. Ofgem's March report[3] set out the background and process for developing the roll forward price control proposals for the two year period (2005/6 and 2006/7) which would apply if BETTA were deferred for any reason, and which will form the base against which adjustments to the price controls and incentives for BETTA will be made.

1.8. The intended duration for the proposed price controls for SP Transmission and SHETL price controls presented in draft form in this document is therefore as follows:

- if BETTA go-live occurs on 1 April 2005 as scheduled, the rolled forward price controls, adjusted to reflect the changed roles of the licensees under BETTA, will apply from 1 April 2005 for the two year period until 31 March 2007, and

- if BETTA go-live occurs after 1 April 2005, the rolled forward Scottish price controls (based on the existing roles of licensees), will apply from 1 April 2005 until BETTA go-live, at which point the adjustments to reflect the changed roles of the licensees under BETTA will be applied, and the adjusted controls will apply for the remainder of the two year period until 31 March 2007.

1.9. In NGC's case, its existing TO and SO internal cost controls[4] are intended to last until 31 March 2006. Therefore NGC's price controls to apply under BETTA will be derived by making adjustments to the revenue restrictions that would otherwise apply in 2005/6.

1.10. Ofgem's objectives for the price control review are driven by three main factors:

- the Gas and Electricity Markets Authority's statutory objectives and duties

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restrictions, An Ofgem consultation document, March 2004, Ofgem 48/04

[3] Review of transmission price controls from 2005: SP Transmission Ltd, Scottish Hydro-Electric Transmission Ltd, Initial thoughts, March 2004, Ofgem 52/04

[4] The terms TO and SO used in the context of NGC's price controls are different from the terms SO and TO used the context of the STC under BETTA.

- the transmission licensees' statutory duties and licence obligations (noting that under BETTA, the electricity transmission licensees will have revised statutory duties and new licence obligations), and

- other influences – including the views of consumers, licensees and other interested parties and guidance received from the Secretary of State on social and environmental issues.

1.11. Ofgem's May report[5] set out:

- projections of operating expenditure and capital expenditure provided by the licensees in relation to the roll-forward price controls to apply to SP Transmission and SHETL from 1 April 2005 (absent BETTA). It also made proposals in relation to financial issues

- information provided by the licensees on BETTA implementation costs and the adjustments to enduring costs as a result of BETTA. It also discussed the overall changes in cost allowances implied by these projections for the price controls of SP Transmission, SHETL, and for NGC's TO and SO internal controls

- information provided by licensees on the regulatory value to be applied to the England-Scotland interconnector assets when incorporated into the relevant licensees' price controls under BETTA. It discussed the associated issues, and

- proposals for transmission owner incentives under BETTA.

1.12. The respondents to Ofgem's May report are listed in Appendix 1.

1.13. Ofgem has now made further enquiries and this consultation presents Ofgem's draft price control proposals for:

- the roll forward price controls for SP Transmission and SHETL for 2005/6 and 2006/7 (absent BETTA)

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[5] Transmission price controls and BETTA: Update, May 2004, Ofgem 107/04

- the adjustments to the roll forward price controls for SP Transmission and SHETL as a result of BETTA, and

- the adjustments to NGC's existing price controls for 2005/6 as a result of BETTA.

1.14. As indicated in Ofgem's October 2003 report[6], if a licensee accepts Ofgem's final price control proposals in respect of that licensee, then the necessary modifications to the revenue restriction licence conditions will be put in place using the powers under section 11A of the Electricity Act 1989 (as amended). If a licensee indicates that they are not prepared to agree to Ofgem's proposed licence modifications[7] then Ofgem would expect to refer the matter to the Competition Commission under section 12 of the Electricity Act 1989.

Structure of document

1.15. Separate chapters in this paper cover the following areas:

- Chapter 2: The roll-forward price controls to apply to SP Transmission and SHETL from 1 April 2005 until BETTA go-live, should BETTA be deferred for any reason

- Chapter 3: The England-Scotland interconnector regulatory assets values under BETTA

- Chapter 4: The form of the revenue restrictions under BETTA, and

- Chapter 5: The adjustments to the price controls for BETTA. These will apply to SP Transmission and SHETL for the years 2005/6 and 2006/7, and to NGC's TO and SO internal controls for 2005/6.

1.16. Chapter 6 sets out the timetable Ofgem intends to follow in making final proposals for the price controls.

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[6] Price controls and incentives under BETTA, An Ofgem/DTI consultation, October 2003, Ofgem 130/03
[7] and subject to consideration of any responses to the section 11A notice and any direction of the Secretary of State

Related consultations

1.17. In parallel with this consultation, Ofgem is consulting separately on two areas of work which may lead to adjustments to the price controls set out in this document:

- the funding of additional investment in the transmission systems of the three transmission licensees to accommodate connection to the transmission system of renewable generation. A first consultation was published in October 2003[8], with a second consultation published in May 2004[9] and further proposals will be published shortly, and

- in 2003 there were blackouts following two separate incidents on NGC's transmission system, one affecting London and one affecting Birmingham. Following a thorough investigation by Ofgem into the causes of these incidents, the Authority[10] concluded that it would be beneficial to introduce a new regulatory mechanism (an incentive scheme) to complement (but not replace) the existing licence and legal obligations under which NGC operates. Ofgem will be consulting shortly on the introduction of a scheme involving rewarding/penalising NGC if it exceeds/falls below a set target of performance. These proposals will lead to an adjustment to NGC's form of control. Ofgem will also need to consider whether it is appropriate to introduce similar schemes to apply to SP Transmission and SHETL.

1.18. Ofgem is consulting separately on NGC's SO external cost incentives to apply for 2005/6. This is a separate part to NGC's revenue restrictions and will not lead to adjustments to the price controls set out in this document. Ofgem will be publishing its initial consultation on the external cost incentives shortly.

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[8] Transmission investment and renewable generation. Consultation document, October 2003, Ofgem 129/03.
[9] Transmission investment for renewable generation, Second Consultation, May 2004, Ofgem 98/04
[10] Statement by the Gas and Electricity Markets Authority, following an investigation into compliance by National Grid Company plc with its obligations under section 9(2)(a) of the Electricity Act 1989 and Special Licence Condition AA4.1 of its Electricity Transmission Licence in relation to a transmission failure in London and in relation to a transmission failure in Birmingham , Ofgem 144/04, June 2004

1.19. NGC's current price controls on internal costs are intended to last until 31 March 2006. Ofgem has recently published a paper setting out the process for extending NGC's TO price control and SO internal cost control to 2006/7[11].

Views invited

1.20. Parties are free to raise comments on any of the matters covered in this paper and in particular on the items requested. All responses will normally be published on the Ofgem website and held electronically in Ofgem's Research and Information Centre unless there are good reasons why they must remain confidential. Respondents should try to put any confidential material in appendices to their responses. Ofgem prefers to receive responses in an electronic form so they can easily be placed on the Ofgem website.

1.21. Please e-mail responses to BETTA.consultationresponse@ofgem.gov.uk by **10th September 2004,** marked 'Response to Transmission price controls and BETTA: Draft proposals'. Responses may also be sent by post or fax to:

David Halldearn
BETTA Project
Office of Gas and Electricity Markets (Ofgem)
9 Millbank
London SW1P 3GE

Fax: 020 7901 7479

1.22. If you wish to discuss any aspect of this document, please contact Graham Jones, e-mail graham.jones@ofgem.gov.uk, telephone 020 7901 7468.

[11] Extending the National Grid Company's Transmission Asset Price Control for 2006/07, Initial Consultation, May 2004, Ofgem 102/04

2. Roll forward price controls

2.1. The chapter sets out Ofgem's draft proposals for SP Transmission and SHETL for the roll forward price control for the two year period (2005/6 and 2006/7) which would apply if BETTA were deferred for any reason, and which will form the base against which adjustments to the price controls and incentives for BETTA will be made. It also describes the background to the present proposals, sets out the output assumptions against which the price control proposals will be developed, and summarises the responses to Ofgem's May report.

The building blocks of the price control

2.2. Price controls provide a company with a level of revenue that is sufficient to finance its business, and are formulated to provide incentives to operate and invest efficiently. The elements of cost used in setting the price controls are as follows:

- operating expenditure – this covers the day to day costs of running the network such as staff costs, repairs and maintenance, and overhead costs

- capital expenditure – including spending on assets, such as overhead line, underground cables and other plant, such as transformers. The benefits of capital expenditure are expected to last over several years so companies recover these costs over the assumed life of the asset, through an allowance for regulatory depreciation.

- financing costs – this covers the costs expected to be incurred in providing a reasonable return to the investors who provide the capital that the company requires – both debt and equity. The price control makes allowance for these costs by specifying a cost of capital that is used to estimate the required return on the capital employed in the business (the regulatory asset value – RAV).
  In addition the price control must provide sufficient cashflow for the company to finance its functions, including covering the tax liabilities

that an efficient company may be expected to incur (taking into account the prevailing rate of corporation tax and the level of gearing).

2.3. Allowances for each of the above cost elements are determined for each year in the price control period. These allowances are used in the calculation of an efficient level for the total revenue requirements, which can be formulated as an RPI- X form of control.

Approach to setting price controls

2.4. Ofgem's May report concluded that the roll forward price control should apply for the two year period from 1 April 2005 to 31 March 2007, and that the RPI-X form of control should be retained.

Views of licensees

2.5. Scottish and Southern Energy (SSE) said that a straightforward roll-forward price control can be delivered for a further two years. This should be based on a limited review of the business plans of the licensees with adjustments to reflect the socialisation of the interconnector and the introduction of BETTA, including any costs associated with revision of the connection boundary in line with the NGC methodology.

2.6. SP Transmission said it can see some merit in the proposals for the roll forward of SP Transmission's price control for a two year period. It is important, however, that treatment of both opex and capex take proper account of BETTA implementation costs, investment linked to renewables and other capital requirements over the period.

Ofgem's views

2.7. The following sections discuss the approach to each element of cost in the price controls. Then in a subsequent section, the respective cost elements for each company are used to derive the draft price control proposals.

Operating and capital expenditures in 2005/6 and 2006/7

Ofgem's May report

2.8. Ofgem's May paper proposed reviewing a path of controllable operating expenditure taking into account, where justified, significant factors that may increase or decrease the projected requirement.

2.9. Two items of operating expenditure were considered to be subject to significant potential increases:

- network rates: the extent to which network rates are under the control of the licensees and whether these should form a pass-through component of the price controls, and
- treatment of pension costs. Ofgem proposed that unless the potential materiality is particularly significant, this issue may best be addressed as part of the full review of transmission price controls to take place for 2007, and not as part of the roll forward considerations.

2.10. On capital expenditure, Ofgem's May paper proposed determining a level for 2005/6 and 2006/7, noting that any proposed investment in the transmission system to accommodate large new renewable generation will be the subject of a separate assessment, and that therefore there will be a need to ensure that the allocation of expenditure to the roll forward price controls and to the transmission investment for renewable generation is correct.

Respondents' views

2.11. SP Transmission made the following points:

- it is important that the extent of extra investment in renewables is recognised in the roll forward price controls

- ♦ it has been very active in the process of establishing revised rateable values to ensure that costs are minimised, and would therefore expect network rates to be treated as pass-through, and
- ♦ it would support addressing as part of the 2007 price review issues related to transmission pension costs arising out of the distribution price control review work, unless these are of particularly material significance in the interim period.

2.12. A respondent believed that pension adjustments should be calculated and included in the allowances for the roll-forward years.

2.13. Another respondent said that fundamental changes to the existing controls to allow them to be rolled forward should be avoided; a more comprehensive review of the arrangements can be performed as part of the next review allowing for experience of operating under the BETTA regime to feed in to the next transmission price control review.

2.14. A further respondent agreed with Ofgem's proposed limited review of capital expenditure as part of estimating the RAV at 1 April 2005.

Ofgem's views

2.15. Ofgem has considered the views of respondents and concludes that a high level review of expenditure is appropriate, noting that the transmission investment for new renewable generation is being considered separately. The reviews of capital and operating expenditure are considered separately below.

Operating expenditure

2.16. In a full price control review, Ofgem would investigate in depth the efficient level of operating costs in a base year and make projections for subsequent years. Ofgem has noted that the reported operating costs vary over the period 2001/ to 2004/5 and do not necessarily follow a trend. This can be because of periodic increases in activity in areas such as plant painting, and tree clearance. Both companies have indicated ongoing increases in costs due to higher than inflation increases in contractor charges. To confirm the factors determining specific operating cost levels would require detailed analyses which are not part of the high level review. Ofgem has therefore considered the appropriateness of the operating expenditure projections for 2005/6 and 2006/7 provided by the companies against the level of expenditure achieved in the existing price control period.

Network rates

2.17. Ofgem recognises the uncertainties in the level of network rates for 2005/6 and later years and that these cost are largely outside the control of licensees and concludes that network rates should be allowed as a pass-through item in the transmission price controls for SHETL and SP Transmission. For this reason, Ofgem has not included in its operating expenditure allowances the increases in rates projected by SHETL for 2005/6 and 2006/7.

Pensions

2.18. SHETL indicates that currently its contributions to its pension scheme are made at a rate of 20% of basic salary, and SP Transmission indicate that for its scheme, its normal pension costs are 15% of gross pay. Neither the SP Transmission nor the SHETL schemes currently have scheme deficits.

2.19. Consequently, Ofgem concludes that no adjustments for additional pension contributions are considered necessary as part of the roll forward price controls for 2005/6 and 2006/7. However if a deficit should emerge in this period, this will be considered as part of the main review in 2007. In determining the appropriate treatment of any deficit, Ofgem will apply the same principles as set out in the distribution price control review (DPCR4) proposals.

Operating expenditure allowances

2.20. The companies have proposed levels of operating expenditure for 2005/6 and 2006/7. Taking into account the proposed pass-through arrangement for network rates, Ofgem has reduced SHETL's network rates allowance from £5.1m to £3.4m (equal to the level in 2004/5). The following table shows the resulting controllable operating expenditure totals for the companies, together with the average annual expenditure each incurred in the present price control period for comparison.

2002/3 prices £m pa	Average annual expenditure 2000/1 to 2004/5	Projected expenditure 2005/6	Projected expenditure 2006/7
SP Transmission			
Operating expenditure	£35.0m	£33.2m	£33.9m
SHETL			
Operating expenditure	£18.6m	£18.6m	£18.9m

The table shows that the company projections do not differ significantly from the average level of operating expenditure achieved over the current price control period.

2.21. Taking the above factors into account, in its draft proposals set out in this paper Ofgem has not proposed any adjustment to the companies projections of operating expenditure for 2005/6 and 2006/7 (except for the network rates adjustment to SHETL's operating expenditure[12]).

Capital expenditure

2.22. The following table shows the companies' performance under the existing price controls.

5 year period 2000/1 to 2004/5 2002/3 prices	Price control allowance £m	Actual/expected expenditure £m	Difference £m
SP Transmission			
Load related	19	60	41
Non-load related	128	129	1
Gross	147	189	42
Less contributions	4	20	16
Net total	143	169	26
SHETL			
Load related	18	13 Note 1	-5
Non-load related	55	33	-22
Gross	73	46	-27
Less contributions	6	0 Note 1	-6
Net total	67	46	-21

[12] SHETL's opex projections set out in Appendix 3 to Ofgem's May report have also been adjusted to remove BETTA implementation costs for the roll forward price controls.

Note 1: Subsequent to the setting of the price controls, SSE provides connection services with both income and expenditure outside the price controls.

2.23. The companies have provided the following explanations for these differences:

- SP Transmission:
  Load related (net of contributions): Expenditure exceeds the allowance due to additional entry and exit connections not envisaged at the time of the last review.
  Non-load related: Expenditure has been in line with the allowance, with projects determined by their asset risk management policies and practices.

- SHETL
  Load related (net of contributions): Expenditure exceeds the allowance due to the introduction of a shallower connection policy (increasing the quantity of assets classified as infrastructure) together with an increased volume of new renewable connections.
  Non-load related: Expenditure has been reduced below the allowance through the introduction of novel and simplified designs, the use of load management to defer expenditure, improved procurement practices and asset management techniques including accelerated refurbishment and maintenance to defer replacement.

Capital expenditure allowances

2.24. The companies have proposed levels of capital expenditure for 2005/6 and 2006/7 as shown in the following table, together with the average annual expenditure each company incurred in the present price control period for comparison:

2002/3 prices £m pa	Average annual expenditure 2000/1 to 2004/5	Projected expenditure 2005/6	Projected expenditure 2006/7
SP Transmission			
Load related	12	22	23
Non-load related	26	45	55

Gross	38	67	79
Less contributions	4	11	11
Net total	34	56	67
SHETL			
Load related	2.5	9	4
Non-load related	6.5	11	11
Gross	9	20	15
Less contributions	0	0	0
Net total	9	20	15

2.25. The companies proposed load related expenditure increases for 2005/6 and 2006/7 reflect the projected continued growth in demand /generation (see Appendix 2). The projections for SP Transmission's exclude expenditure on distributed generation related works for transmission point connections.

2.26. The companies have provided the following explanations for their proposed increased levels of non-load related expenditure for 2005/6 and 2006/7:

- SP Transmission:
  Main items of additional expenditure are the replacement of bulk supply point equipment in Edinburgh (Dewar Place), replacement of gas compression cables, replacement of switchgear (Neilson, Eccles Cockenzie)

- SHETL:
  Significant items of additional expenditure arise because the age and condition of some 132kV overhead lines necessitate refurbishment, and because of the need to replace 275kV defective switchgear.

2.27. Ofgem is currently reviewing the capital projections for 2005/6 and 2006/7 for consistency with the reinforcements to provide the transmission capacity for new renewable generation (which are being considered through a separate process), and will be considering whether or not adjustments to the capital expenditure allowances are necessary to eliminate any double counting of projected expenditures.

2.28. In its draft proposals set out in this paper, Ofgem has taken the companies' projections in its price control calculations, but is concerned that the project investments should be made in a timely and efficient manner. It therefore proposes introducing reporting arrangements to monitor performance in both delivery and expenditure to inform the main price control review to be carried out for 2007.

Rolling expenditure incentives

Ofgem's May report

2.29. Ofgem's May report discussed the possible introduction of rolling expenditure incentives for operating and capital expenditure as an addition to the RPI-X incentives. The rolling incentives may be beneficial in removing a concern that a fixed price control period can give rise to periodicity in the delivery of efficiency improvements by companies, which may not be in the interests of consumers. The following approach was proposed:

- rolling operating expenditure incentives: Ofgem sought views on the applicability of a rolling incentive mechanism for operating expenditure, or whether such a mechanism should be considered as part of the review of transmission price controls for 2007, and
- rolling capital expenditure incentives: Ofgem proposed examining the role of specific capital expenditure incentive arrangements as part of the review of transmission price controls for 2007, subject to any further representations.

Respondents' views

2.30. SSE said that Ofgem's proposals for incentives should incorporate the new 5 year retention period for opex and capex savings, as per the distribution proposals.

2.31. SP Transmission said they support the principle of a 5 year rolling mechanism to apply to controllable cost savings made during the two year period 2005/06 and 2006/7, but, as with distribution, there is a case for applying a rolling mechanism for controllable opex savings achieved during the current price control period. SP Transmission said that investment required to support new renewables generation, that was not foreseen at the time of the last price review, will continue to rise over the next two years, and it is important that this is recognised in the process to roll forward price controls.

2.32. A respondent noted that if opex targets are not reset for the roll-forward years, such rolling mechanisms as set out in Ofgem's February 2003 document are not required in order to retain out-performance benefits. On this basis, it said that opex targets for the roll-forward years should be set on a basis consistent with the assumptions used in the previous price control review and a rolling incentive mechanism not actioned until the next full price control. On capex incentives, it agreed with the proposal that, in the light of the current consultation on the treatment of network investments for renewable generation, further development of capital investment incentives should be a topic for the next main price control review.

2.33. Another respondent agreed with Ofgem that a rolling operating incentive mechanism to remove periodicity from the incentives for efficiency improvements may have some merit, but would be inclined to favour consideration of this issue as part of the main review. The respondent agreed with Ofgem's proposed approach to considering specific capital expenditure incentive arrangements as part of the review of transmission price controls in 2007.

2.34. A further respondent concurred with Ofgem that it would be desirable to remove any unintentional incentive for periodicity, and agreed that a rolling incentive mechanism may be the most suitable methodology to ensure that efficiency improvements are not subject to periodicity. It said it would seem appropriate for rolling incentives to run from the commencement of the two year roll forward arrangements; delaying the implementation of such a mechanism is only likely to lead to a continuation of the perceived problem over an additional two years.

Ofgem's views

2.35. Ofgem has considered the views of respondents and notes the support for rolling incentives particularly on operating expenditure, but recognises that there are arguments for deferring such a scheme until the main review for 2007. The work on developing expenditure incentives as part of the DPRC4 has shown that such incentives need to be formulated with care. Important issues include:

- clearly defining boundaries between operating expenditure and capital expenditure
- consistent capitalisation policies that endure across the incentivised period, and
- that the measures are proportionate to the level of periodicity in operating expenditure.

2.36. These issues would suggest that rolling incentives require more detailed consideration than is possible in setting the roll forward price controls.

2.37. In the absence of rolling incentives, the companies are able to retain the full savings achieved in the roll forward period, an arrangement which does provide a strong incentive to efficiency. However, Ofgem recognises that there is a risk that the incentives may not be as strong in the roll forward period compared to those that would apply in a longer price control period. Also in setting the level of operating expenditure allowances in the roll forward period, the companies' projections have not been subject to the in-depth analysis that would be appropriate in a full review. Ofgem does not therefore propose introducing rolling operating expenditure incentives for the roll forward period but proposes introducing reporting arrangements on licensees to support consideration of stronger expenditure incentives as part of the full review to be carried out for 2007.

2.38. Given the work on the funding of the transmission investments for renewable generation, Ofgem does not consider that additional incentive arrangements are required on capital expenditure in the roll forward period. A reporting regime for capital expenditure has been discussed above and this will be constructed to inform the development of incentives as part of the main review for 2007.

Financing costs

Ofgem's May report

2.39. Ofgem proposed considering the applicability of the outcome of the DPCR4 work on cost of capital to the roll forward transmission price controls. Ofgem suggested retaining a pre-tax cost of capital for the roll forward price controls, noting that consideration of moving to a fully developed post-tax approach would form part of the full review of transmission price controls to take place for 2007.

Respondents' views

2.40. SP Transmission argued that its proposals for cost of capital, submitted as part of the DPCR4, should also be applied to Scottish transmission.

2.41. SSE said that the costs of capital should equal the figure to be agreed in DPCR4, to avoid perverse incentives between the regulated businesses. I said that depreciation should similarly use the same assumptions as in the DPCR4.

2.42. A respondent agreed that a change to the use of a post-tax cost of capital would not be appropriate for the roll forward price controls and should be considered as part of the full price control review in 2007.

2.43. Another respondent supported an approach which considers the outcome of DPCR4 work on cost of capital.

Ofgem's views

2.44. Ofgem has considered the views of respondents and proposes to review its price control proposals in the light of the outcome of the DPCR4 work on cost of capital. Ofgem will publish its proposals on the cost of capital for SP Transmission and SHETL and set out the associated final price control proposals in December 2004.

2.45. In this chapter a pre-tax cost of capital of 6.5% pa is used for SP Transmission and SHETL. These cost of capital figures are those applying under the existing price controls of the respective companies. As discussed above, further work is being carried out on the cost of capital to apply to the electricity distribution companies as part of the DPCR4 review and, when this work is completed, consideration will be give as to whether the cost of capital for SP Transmission and SHETL should be adjusted.

2.46. Ofgem proposes to retain the current depreciation profiles for transmission licensees. The potential for a step change in future cash flow patterns with this assumption will be considered as part of the main review of transmission price controls in 2007, and appropriate changes proposed, if necessary.

Price control calculations

2.47. The following tables set out operating and capital expenditures incurred by SP Transmission and SHETL over the current price control period (2000/1 to 2004/5), and Ofgem's projections for 2005/6 and 2006/7 based on the approach discussed above. The tables also show the allowed revenues under the existing controls and the draft allowed revenues proposed by Ofgem under the roll forward controls for 2005/6 and 2006/7. The draft allowed revenues include the financing costs.

TABLE 1: SP Transmission	2002/3 prices					DRAFT PROPOSALS	
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Actual/forecast Opex £m Capex £m	35.0 22.9	36.8 15.2	32.2 38.8	35.5 48.7	35.7 43.8	33.2 56.4	33.9 67.3
Allowed revenues £m	116.7	116.7	116.7	116.7	116.7	114.5	114.5

TABLE 2: SHETL	2002/3 prices					DRAFT PROPOSALS	
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Actual/forecast Opex £m Capex £m	17.2 9.4	19.5 6.9	19.7 7.9	18.3 6.8	18.2 14.7	18.6 20.4	18.9 15.0
Allowed revenues £m	50.6	50.6	50.6	50.6	50.6	47.3	47.3

2.48. The proposed allowed revenues for the two year roll forward period have been calculated to retain an "X" of zero, as is the case in the existing price controls, where "X" is the percentage reduction in allowed revenues (at constant prices) from year to year in the price control period.

2.49. The reduction in allowed revenues between the last year of the existing price control, 2004/5, and the first year of the roll forward price controls, 2005/6, is the proposed "P0" cut. For SP Transmission it is 1.9% and for SHETL it is 6.4%. In part, the P0 cuts reflect the extent to which, over the period 2000/1 to 2004/5, the existing price controls have incentivised the companies to improve their performance resulting in lower costs to be remunerated over the new price control period.

2.50. The calculations of the draft price controls and the supporting operating and capital expenditure assumptions are set out in Appendix 3 for SP Transmission and Appendix 4 for SHETL. These proposals are the subject of ongoing analysis and review as part of the process of setting the final proposals.

2.51. In addition further analysis is proposed in developing the final price control proposals in the following areas:

- capital expenditure: carry out work to confirm that there is no double counting with the funding proposals for renewable generation related transmission expenditure, and proposals for monitoring of capital expenditure, particularly of the delivery of non-load expenditure projects, and

- cost of capital: align the cost of capital with the outcome of the distribution price control review.

Financial indicators

2.52. In setting the price controls, Ofgem needs to have regard to its principle objective and general duties and in particular to have regard to the need for ensuring that companies can finance their activities. In this regard, it is appropriate for Ofgem to propose price controls that are consistent with companies maintaining credit ratings that are within the investment grade range.

Ofgem considers "financeability" by calculating and assessing certain financial ratios;

- funds flow from operation (FFO) / Interest not less than 3x
  This is a measure of the number of times a company could make its interest payments after meeting its payment obligations to other parties; the lower the ratio, the lower its ability to make dividend payments to shareholders

- retained cashflow to debt not less than 9%
  This is a measure of the cash profits available to repay debt, and

- Debt/RAV not higher that 65%
  This is a measure of gearing, constrained to an efficient level.

2.53. The targets for these ratios have been taken to equal those used in the DPCR4 initial proposals, and are assumed to apply to SP Transmission and SHETL as to the distribution companies.

2.54. Initial calculations of the above financial ratios for SHETL and SP Transmission, indicate that with Ofgem's proposed allowed revenues for the roll forward period both companies are within the targets. The values for the indicators will be reviewed as part of developing Ofgem's final proposals.

Output projections

2.55. Ofgem's May report discussed the main assumptions or outputs used in forming the allowed revenues, particularly those underpinning the capital and operating expenditure projections, whilst recognising that the price control proposals allow for uncertainty in the projections. The outputs provided by SP Transmission and SHETL are set out in Appendix 2. These do not include the additional flows related to the transmission investment for renewable generation. In the main, these additional flows do not arise until 2007/8 and later years, that is beyond the price control period being considered here.

2.56. Ofgem considers that the outputs in Appendix 2 will provide one set of assumptions against which to monitor actual expenditure patterns and the reasons for any changes from the price control allowances.

Reporting

2.57. Reporting arrangements are proposed to inform the development of possible capital and operating expenditure incentive mechanisms as part of the main review for 2007 and to monitor the programme of proposed capital expenditure projects. For consistency of incentives, capitalisation policy and activity based costing could form important components of the framework for reporting. The detailed arrangements could cover outputs achieved linked to expenditure incurred, projected and actual project costs, and projected and actual project completion schedules. Ofgem will be discussing the details of these arrangements with companies in Autumn 2004.

Excluded services

2.58. The following table shows the projected excluded services revenues for SP Transmission and SHETL for 2005/6 and 2006/7.

Excluded services 2002/3 prices £m	2005/6	2006/7
Price control related		
SP Transmission		
Telecoms	0	0
Other	0.6	0.6
Corridor charge (SHETL) *	4.2	4.2
Capacity charge (SHETL) *	1.2	1.2
Total	6.0	6.0
SHETL		
Telecoms	0.1	0.1
Total	0.1	0.1
Non price control related		
SP Transmission		
Connection charge to SP distribution	2.1	2.4
Use of interconnector charge *	21.6	21.6
Total	23.7	24.0
SHETL		
Connection charge to distribution (SSE-Hydro)	0	0
NGC/SP interconnector contract	9.0	9.0

charges *		
Interconnector upgrade charge *	2.2	2.2
Total	11.2	11.2

Note: All items marked "*" are revenues associated with the England-Scotland interconnector.

2.59. In the last price control, the excluded revenues attributable to connections were considered separately from the price control calculations. In some cases, particularly for grid supply point connections to the distribution companies, the connectee makes annual payments with the funding of the initial investment in the assets raised outside the price controls. It should be noted that connection offers are made pursuant to the transmission licences and the charges to connectees for connections are subject to the relevant transmission licence conditions. Further consideration of the regulatory treatment of these revenues may be appropriate.

2.60. Ofgem has proposed[13] incentive arrangements in relation to telecoms revenues[14]. These are designed to encourage the optimisation of telecoms assets through the introduction of a revenue sharing arrangement between licensees and users based on the actual telecoms revenues received. The incentive payments in a particular year are calculated by reference to the actual telecoms revenues received two years earlier (this gives time for proper reporting of revenues). In order to give licensees appropriate notice to respond to the incentives, Ofgem intends to activate this arrangement in the price controls applying to the year 2007/8.

Views invited

2.61. Views are invited on Ofgem's draft proposals the roll forward price controls (in the absence of BETTA) for SP Transmission and SHETL for 2005/6 and 2006/7.

[13] Ofgem open letter, 30 October 2001, Energy networks providing telecommunications services – a consultation document.
[14] Currently, only SHETL has revenues that fall into this category.

3. England-Scotland interconnector regulatory asset values

3.1. Ofgem's May report explained that under BETTA the England-Scotland interconnector assets are to be incorporated into the transmission systems and therefore into the price controls of the respective transmission licensees. The price control adjustments involve adding appropriate values to the respective licensees RAVs. The May report discussed possible approaches to valuing the interconnector assets and indicated Ofgem's preference for using market-based valuations where such valuations are available and robust, recognising the regulatory framework prescribed in view of the service providers monopoly positions.

3.2. This chapter summarises respondents' views on the interconnector issues raised in the May report and presents Ofgem's further thinking on these matters. The operating expenditure and capital replacement expenditure allowances for the interconnector assets are considered in Chapter 5.

Background

3.3. Ofgem's March[15] and May reports set out in detail the contractual and regulatory arrangements related to charges for use of the England-Scotland interconnector.

3.4. At Vesting, the interconnector capacity was 850MW. This is the pre-Vesting interconnector capacity. Since Vesting there have been two upgrades. The first, completed in 1993, increased the nominal capacity to 1600MW, and the second, completed in 2003, increased the nominal capacity to 2200MW. The upgrades comprise the post-Vesting capacity.

3.5. As discussed in the March report, the England-Scotland interconnector comprises sections located in England & Wales (the NGC interconnector) and sections

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[15] Review of transmission price controls from 2005: SP Transmission Ltd, Scottish Hydro-Electric Transmission Ltd, Initial thoughts, March 2004, Ofgem 52/04

located in Scotland (the Scottish interconnection). The NGC interconnector is owned by NGC's interconnectors business, but operated and maintained on its behalf by NGC's transmission business. The Scottish interconnection is owned, maintained and operated by SP Transmission, separately from its transmission system. SHETL has certain rights in recognition of the contributions made by SHETL to capital and operating costs.

3.6. The May report explained that pre-Vesting interconnector assets are currently funded through the price controls of SP Transmission and SHETL and that the post-Vesting interconnector assets provided to upgrade the capacity of the interconnector are funded by charges paid by Interconnector Users, and which are treated as excluded services revenues by the licensees.

3.7. From the perspective of the individual transmission licensees who funded the interconnector, the assets remunerated outside their respective price controls are:

- NGC: both the pre-Vesting capacity and the post-Vesting upgrade capacity located in England, and
- SP Transmission and SHETL: the post-Vesting upgrade capacity located in Scotland.

3.8. Under BETTA, these interconnector assets will become part of the respective licensees' transmission systems, with the assets financed through adjustments to the price controlled revenues of the relevant companies, thus bringing the treatment of the interconnector assets into line with the treatment of other transmission assets of the GB transmission system.

3.9. To give effect to this, an opening regulatory asset value has to be set as at BETTA go-live for the relevant interconnector assets of each licensee[16]. Applying the depreciation and rate of return assumptions to these opening regulatory asset

[16] All assets remunerated through price controls are given an asset value, called the Regulatory Asset Value (RAV). The regulatory rate of return (a real rate of return) is applied to the RAV. The RAV is updated from year to year by RPI and new capital expenditure is added in the year in which it is incurred. Depreciation is calculated on an agreed basis and is deducted from the RAV each year

values will yield the appropriate financing costs to be included in the price controlled revenues.

Valuation approach

3.10. In coming to a decision on the appropriate value for the relevant interconnector assets, Ofgem will need to satisfy itself that the financial arrangements to take effect when the interconnector contracts cease to have effect are consistent with its statutory duties and that the proposed arrangements are consistent with, among other things, Article 1 of the First Protocol of the European Convention on Human Rights[17]. Ofgem will need to be satisfied that the arrangements are reasonable in all the circumstances; this will include identifying the extent to which each licensee will be affected, the interests they will retain under BETTA and, in its proposals, balancing these against the public interest.

3.11. With this in mind, Ofgem's May report sought views on two possible options for valuing the interconnector as set out in more detail below.

Methodology

Ofgem's May report

3.12. Ofgem's May report suggested two valuation methods:

- RAV-based method
  This is the written down (depreciated) value (at constant prices this is the RAV-based value) at 1 April 2005, and

- Market-based method
  This calculated from the present value of the net cashflows, taking into account the full range of assumptions that market participants should use in estimating a value for the assets, and reflecting assumptions about the

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[17] Article 1, Protocol 1 of the European Convention on Human Rights as given effect by the Human Rights Act 1998, broadly speaking provides that a person is entitled to the peaceful enjoyment of his possessions and that no one shall be deprived of his possessions except, among other things in the public interest and subject to the conditions provided for by law.

ongoing costs incurred in owning and operating the assets and about future events and uncertainties.

3.13. Ofgem said that it would look (over the project life times) at the returns expected to have been received prior to 1 April 2005 (BETTA go-live) and the projected returns after 1 April 2005.

3.14. Ofgem also suggested that any decision on the valuation would need to be considered in the context:

- the perceptions of shareholders
- the MEA[18] gross asset values for replacing the relevant assets.
- the change in the commercial risks is on incorporation of the interconnector into the price controls
- the availability incentive payments under the contracts, and
- the contract termination values.

Views of licensees

3.15. SSE said that the interconnector should be socialised at a market related valuation, and should reflect the NPV of the revenue stream which would otherwise have been obtained through the contractual arrangements. SSE said this implies a RAV addition of £25m.

3.16. SP Transmission said that a key underlying principle in the treatment of the interconnector is that the transmission licensees must be no worse off under BETTA and accordingly the present cash flows for the interconnector should be preserved. It said a market-derived valuation approach is a standard approach that has been used by the Authority for setting network price controls and should be used for setting the licensees' price controls to cover socialisation of the interconnector upgrades.

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[18] MEA: Modern Equivalent Asset value

3.17. SP Transmission welcomed Ofgem's statement that its preference is to use market based valuations as the basis for setting opening RAV values. It said that commercial arrangements surrounding the upgrades represent a market-derived valuation of the network assets in question as the returns and terms were set on a commercial basis in a market context; accordingly the revenue streams under the commercial arrangements represent a market value.

3.18. SP Transmission said that the current commercial arrangements for the upgrades represent a market-related commercial valuation designed to secure a reasonable return on the transmission licensees' significant long- term investments. SP Transmission said that these arrangements were determined and agreed in a commercial environment and were subject to significant commercial scrutiny and negotiation; any adjustment to the price controls of the transmission licensees must take full account of those commercial arrangements which were created with full regard to the regulatory environment and were subject to regulatory oversight. SP Transmission believes that auctions, and/or a payment mechanism based on constraints would yield more than the current revenue streams and that those revenue streams can be viewed as sitting at the lower end of a market valuation.

3.19. SP Transmission said that depreciated RAV value is not an appropriate measure. SP Transmission agree with the statement that Ofgem has used market based valuations in setting RAV values, and would note that this has been an approach which has been used in price controls apart from NGC's. SP Transmission agreed that where market values are available these should be used as the basis of transferring assets from non-price control to price control regimes.

3.20. SP Transmission said that the terms of the transmission licence were of critical importance in setting the commercial arrangements surrounding SP Transmission's significant investment in the interconnector. SP Transmission’s charges and charging statements are subject to regulatory scrutiny; the transmission licence requires the publication of a statement of interconnector charges that is subject to approval by the Authority. SP Transmission said that shareholders investing in SP Transmission will also have full regard to the regulatory background and would be aware that licensees are entitled to obtain a reasonable rate of return on their investments.

3.21. NGC said that Ofgem should recognise the desirability of preserving the value of rights established under the current regulatory/commercial regime in transition to those that will apply under BETTA.

3.22. National Grid Transco said that Ofgem's preference to use market-based valuations of the interconnector as a basis for determining the RAV opening value is appropriate because such methods offer the only basis by which value created under the current regulatory/commercial arrangements can be recognised and not sequestrated through the application of a more arbitrary treatment. In its view, a market-based valuation approach is also consistent with the focused valuation of NGC's transmission assets and interconnector business in 1995 which has formed the basis of subsequent price controls.

3.23. NGC agreed that the adjustments required to the price controls are in respect of:

- remunerating future operating expenditure associated with maintaining the interconnector assets (maintenance, business rates, etc)
- remunerating future capital investment, either for asset replacement or reinforcement (recognising that the latter is associated with a separate consultation and may supersede current plans for asset replacement), and
- financing of earlier investment in the interconnector assets (through a depreciation allowance and return on a suitable RAV opening value for 1 April 2005).

Market Valuation Based on Contract Cash Flows

3.24. SP Transmission said that investors have a legitimate expectation that once commercial arrangements are concluded the extent to which they can be reopened is limited and clearly defined irrespective of whether the assumptions used in entering into the arrangements prove to be favourable or not. It said that if a review were to be carried out, the basis of such a review would have to be considered carefully - a review could not only consider downward factors - it would have to consider factors that would ascribe a higher valuation as well. SP Transmission could have advocated a valuation approach based on the full economic benefits brought by the interconnector based on constraints; this approach supports a value higher than the current valuation.

3.25. Referring to Ofgem's statement that they will need to look (over the project life times) at the returns that are expected to be achieved up to 1 April 2005 (BETTA go-live) and the projected returns beyond that date, NGC said that its interconnector investments and costs will exceed contract revenues in the period prior to 1 April 2005 so that the overall return achieved for the period up to this date will be negative. Acceptable project returns depend on the receipt of future revenues (beyond 1 April 2005), in accordance with the terms of the existing contracts and for the remaining life of the contracts. NGC said that it believed the present value calculations presented to Ofgem are robust.

3.26. NGC said that whereas Ofgem has reported a range of values calculated by NGC, NGC believed that the value of £108m for NGC's assets (which is based on a discount factor/cost of capital of 10%) represents the correct market-based valuation of the expected future cash flows from its existing contracts, given the risks of such investments.

MEA Approach

3.27. SP Transmission said that the gross MEA values do not reflects the true "business value" of the licensees' investments in the interconnector. In its view such an approach risks creating inconsistencies with the approach of UK regulators in dealing with similar matters in the past, and the application of an MEA approach in this type of context could lead to some perverse results. SP Transmission said there are sound regulatory reasons for the application of a market / revenue based approach; in properly applying a new procurement test, based on the cost of acquiring a new asset for BETTA there would be costs above the MEA of the assets in question which would be significant. All such costs would have to be considered in any economic assessment.

3.28. NGC agreed with Ofgem that, in theory, the gross replacement value of the assets could be used to establish an upper-bound to the market value of the existing contract because it would represent the value of an alternative to using the existing assets. NGC noted a number of reasons why it would exceed the £108m present value of cash flows calculated by NGC.

Risks Associated with the Interconnector

3.29. Noting Ofgem's comment that SP Transmission and SHETL may not be exposed to the full market risks, SP Transmisison said that this implied that use of interconnector capacity may be higher than if the charges for all interconnector capacity were levied on full commercial terms, SP Transmission said that it did not believe that this argument is valid. Pre-vesting costs are funded through infrastructure charges payable by all users including interconnector Users.

3.30. SP Transmission said that Ofgem does not refer to the risk profile faced by SP's transmission business when constructing the two upgrades. It said these risks involved accepting contractual obligations to NGC, and the risks associated with the contract were high in its early stages and particularly during the construction phases. It said that the upgrade charges are based on a 40-year contract for the first upgrade and 31 years for the second, and it was agreed to streamline payments by annuitising all of the costs and revenues at a 10% discount rate over a 40-year period for the first upgrade and a 31-year period for the second upgrade (in line with the 40-year contract); accordingly, the risks referred to above are recovered over the lifetime of the contract on an annuitised basis. As only 11 years have elapsed, SP Transmission said it had not therefore yet been fully compensated for the risk already taken in respect of its investment; in effect, the risk profile is different from the reward profile and considerable sums are still outstanding to SP Transmission.

3.31. NGC said that its approach reflects the reduction in revenue risk that companies would experience once the assets were incorporated under the main price controls The approach it advocated is:

- assess the value of the contracts by calculating the present value of remaining contract cash flows with a 10% discount rate to reflect the risk of these assets outside a price control (giving £108m in 2002/3 prices). This reflects the price that any party would need to pay to purchase the assets commercially if there was no change in the interconnector commercial regime.

- use this market valuation to set the opening value for the interconnector assets in the RAV, such that subsequent remuneration of the assets under the price control would be subject to the lower regulatory returns consistent with other transmission assets funded by the price control. This reflects the costs that will be incurred by the price controlled transmission activity in financing the investment necessary to "purchase" these assets from the commercial regime.

3.32. Noting that Ofgem argued that the interconnector contracts do not expose companies providing the services to full market risks because some pre-vesting interconnector capacity is funded by transmission users under a price control, NGC said that its interconnector assets are remunerated from a contract negotiated post-vesting, we do not believe that this consideration is relevant to NGC's interconnector assets.

3.33. NGC said that if the value under existing arrangements is to be preserved, then the RAV opening value for the interconnector assets should represent the value that the market would ascribe to the expected future cash flows discounted in a manner that reflects the risk arising under the current regulatory/commercial arrangements.

Availability Incentive

3.34. SP Transmission did not consider that the availability incentives affect the position that to date SP Transmission has not been compensated for its upgrade investments, and reiterated that its requirement is to preserve the value of its revenue stream from the current interconnector arrangements.

3.35. Referring to an Ofgem statement that, in the future, NGC will be subject to incentives arising from the SO incentive scheme, NGC said that, in terms of producing a market valuation of the interconnector under current arrangements, consideration should be contained to deciding whether the market would expect future availability performance to match that currently achieved if current arrangements were to continue.

3.36. Referring to Ofgem's statement that it may not be appropriate to burden transmission users with payments relating to out-performance of targets that have been at the low end of the performance expected of transmission assets, NGC said that it does not believe this is relevant to NGC's interconnector contract (which it said does not have low performance targets).

Contract termination amounts

3.37. NGC noted a statement by Ofgem that the termination amounts payable by the Scottish companies if they terminated the Anglo-Scottish Interconnector Agreement at 1 April 2005 would be in the order of £60m (in 2003/4 prices). NGC said that the termination amounts sought to ensure that, on an ex ante basis, if the Scottish companies defaulted NGC would receive a sum derived from a formula that considers elements related to the historic capital costs incurred and the future non-capital costs, but said that as such amounts do not reflect the revenues that will be achieved by outperforming the assumptions on which the contract was agreed or even the foregone revenue in the absence of out-performance, they are considerably less than the market value of the contract.

Constraint Cost Valuation Approach

3.38. SP Transmission said that use of constraint costs as a yardstick for the economic viability of transmission projects is a standard approach; such an approach would represent a proxy for market / economic value as the interconnector upgrade capacity has facilitated the England &Wales and Scottish markets since Vesting and, crucially, now allows a GB market to take place. It said that without the upgrades the GBSO would face significant constraint costs leading to a concern that this approach has been rejected because it results in a high valuation for the interconnector. It said that if a full review of value is to take place all relevant factors must be considered.

Other respondents' views

3.39. Commenting on the two methodologies described, the RAV-based valuation which values the additional assets that would come under the price controls and the market-based approach with the revenue streams for future years, a respondent said that the correct valuation methodology should be based on the RAV-based model. It said this is because once this valuation is incorporated into the BETTA model the risk profile of the transmission owners is altered in relation to these assets. In its view, a 'risk free' income return of 6.25% is appropriate to be earned on the assets via the transmission price control - this would allow them to be treated consistently with all other transmission assets under BETTA. It said any market-based valuation would be entirely speculative, as demonstrated by the wide range of estimates provided by the transmission companies. The respondent believed that this methodology may well place a greater value on the assets than is appropriate.

3.40. Another respondent was uncomfortable with the use of market based valuations in setting Regulatory Asset Base values for the interconnector assets when they become part of the GB transmission asset base, as this is not consistent with the valuation of other transmission assets and could lead to a higher effective rate of return for these assets than for other transmission assets. As the interconnector is to be treated as part of the GB transmission system under BETTA, the respondent believed that it is appropriate for the former interconnector assets to be valued on the same modern equivalent asset value basis as other transmission assets.

3.41. A further respondent said that incorporation of the England-Scotland interconnector assets into the transmission price controls is a major step requiring proper and effective regulatory scrutiny, and saw no compelling reason for the valuation of such assets to exceed RAV-based figures. It said that there is a fundamental difference between the existing interconnector arrangements under which the asset owners invested in the assets in the full knowledge of their exposure to significant risks (e.g. of availability and utilisation) and incorporation of these assets into the price controls, whereby cost recovery will essentially be guaranteed, socialised and independent of the utilisation of the assets. it said that any valuation in excess of RAV risks imposing stranded costs on transmission users; accordingly, any valuation in excess of RAV should be ring-fenced within the price controls and recovered from the demand side.

3.42. A further respondent noted the discussion regarding the most appropriate method for determining the opening value for the England-Scotland interconnector assets and agreed that a market based methodology is appropriate provided that these valuations are available and robust.

3.43. Another respondent supported the proposal to amend the regulatory asset values for NGC, SP Transmission and SHETL at 1 April 2005 and believed that such arrangements should follow a principle of allowing each licensee to continue to receive the same overall revenue streams as they do under the pre-BETTA contractual arrangements.

Ofgem's views

3.44. Under BETTA, the interconnector contracts are assumed to cease to have effect and the financing of the interconector effected through the price controls instead. As part of the price controls the funding will include:

- operating expenditure associated with maintaining the interconnector assets
- capital investment, either for asset replacement or reinforcement, post BETTA go-live, and
- financing of investments in the interconnector assets made prior BETTA go-live, with the assets valued using an appropriate method and the rate of return and depreciation assumptions no different to those for similar price controlled assets.

3.45. Ofgem has considered the views of respondents, and presents its views under a number of subsections:

a) the valuation approach

All three licensees supported the market-based approach. Factors mentioned in support of this approach included - recognising the commercial arrangements, the interests of shareholders and the rights established under contracts. Of the other respondents, two supported market-based methods and three supported the RAV-based methodology. Factors mentioned in support of this approach included - the assets should be treated on the same basis as other transmission assets in the price controls, any market based value would be entirely speculative, and any valuation in excess of RAV risks imposing stranded assets on transmission users.

Ofgem believes that to apply the RAV-based approach would be unreasonable in that it does not recognise the contractual rights in place and the expectations of shareholders who funded the project. Also, evidence of past and expected future usage[19] suggests that the interconnector contracts do have enduring commercial value which may exceed the RAV-based value. Ofgem therefore proposes to adopt the market-based approach. Ofgem recognises that there can be difficulties in coming to a precise market-based value, but believes the analysis presented in this chapter and the proposed further work will minimise this.

The companies said that the market-based value could be represented by the present value of the revenue streams under the existing commercial arrangements. Ofgem agrees that the present value of the revenue streams (net of cost streams) is the approach that should form the basis of the interconnector valuation, although other factors may need to be considered as discussed later in this chapter.

b) the MEA[20] gross asset values for replacing the relevant assets

Ofgem agrees that the MEA value does not represent a market value but considers that it could have a role in assessing a range of possible market derived values. Ofgem recognises that the calculation of an MEA value, particularly where equipment is located in difficult terrain can be subject to much uncertainty without carrying out detailed engineering analysis. Currently, Ofgem does not propose taking this work further forward as it does not consider this would provide significant added benefit in the calculation of a market-based value.

c) the change in the commercial risks is on incorporation of the interconnector into the price controls

SP Transmission referred to the risks that were borne during the construction phase of the project and that these risks were factored into the contract

[19] including expected future usage for the transmission of new renewable generation
For past usage see for example, Electricity industry Review, Electricity Association, March 2003.

lifetime charges using a 10% rate of return. NGC proposed that using a 10% discount rate to present value the contract revenues would reflect the risk of the assets outside a price control. SSE proposed a present value which implied using a 6.5% discount rate rather than a10% discount rate. This effectively assumed that the revenues to be received by SSE post BETTA would be the same as in the absence of BETTA.

Ofgem recognises that the interconnector charges have been annuitised over the expected contract lifetimes including a risk component and that the revenues received before 1 April 2005 must be considered alongside the revenues projected after 1 April 2005. Ofgem considers that the financial risks borne by the licensees after incorporation of the assets into the price controls are less than under the current arrangements, since as discussed in Ofgem's May report:

- as part of the price controls, the cost risks would be similar to those associated with other transmission assets in price controls
- SP Transmission/SHETL's volume risks are removed by incorporating the interconnector into the price controls.

Ofgem believes that these lower risks should be factored into the calculation of the market-based value. Ofgem's May report discussed and sought views on the treatment of risk, including on the choice of discount rate. A specific proposal to emerge from this consultation is to use a 10% discount rate. Ofgem considers this to be a reasonable approach since, among other things, this discount rate corresponds with that used to deal with risk in setting interconnector user charges. Therefore, having considered the responses to the May report, Ofgem considers the appropriate method for accounting for the change in risks described above is to use a 10%discount rate in present valuing cost and revenue flows.

d) the availability incentive payments under the contracts

Ofgem notes comments that the valuation should include the value of the availability incentive payments under the existing arrangements. NGC state

[20] MEA: Modern Equivalent Asset value

that its performance targets under interconnector contracts are not low. Ofgem will wish to consider whether for both SP Transmission and NGC the availability targets are reasonable. As regards the benefits that might accrue to NGC from the interconnector assets through its SO incentive scheme under BETTA, NGC implies that these should not be considered in the valuation. However, in any valuation Ofgem will need to consider the total worth that licensees will obtain under the post-BETTA arrangements as a result of its proposals.

e) the contract termination values
Ofgem notes NGC's comment that the termination amounts sought to ensure that, on an ex ante basis, if the Scottish companies defaulted NGC would receive a sum derived from a formula that considers elements related to the historic capital costs incurred and the future non-capital costs. Ofgem considers that whilst such a contract termination is different to the proposed change in arrangements under BETTA, the termination value nevertheless indicates a commercial willingness to accept such a value should the commercial arrangements cease, and therefore should be taken into account in any valuation proposals.

f) the constraint cost approach
SP Transmission have proposed a valuation approach based on the constraint costs avoided. Ofgem considers that such an approach is only appropriate for consideration of incremental/marginal investments. Ofgem considers that for large increments of capacity (such as provided by the interconnector) transmission investments would be made prior to agreeing to provide transmission capacity, and it would be unreasonable in the circumstances for a system operator to enter into an arrangement involving the level of constraint costs suggested.

3.46. Taking into account these considerations, Ofgem proposes to develop the methodology for valuing the interconnector on its incorporation into the price controls based on the price a party might pay to purchase the assets commercially under the current arrangements – that is a market-based value. Ofgem considers that this approach is reasonable taking into account the current contractual arrangements and the proposed arrangements under BETTA.

3.47. The proposed approach for deriving the market-based value is to calculate the present value (at a 10% discount rate) of the net revenue streams expected to be received over the period from 1 April 2005 for the planned life of the assets.

3.48. As set out in the May report, the companies have provided information on the interconnector values. The following table shows the RAV-based values, as a reference point, and a market based value calculated as present value of net future cashflows.

England – Scotland interconnector valuation £m 2002/3 prices	RAV-based valuation	PV cashflows post BETTA go-live
NGC (Pre & Post Vesting assets)	£36m	£108 m
SPTL (post-Vesting assets)	£47m	£140 m
SHETL (post-Vesting assets)	£18m	£19 m

Subject to review by Ofgem. PV carried out at 10%pa discount rate

3.49. However, whilst starting from the values in the above table for the PV cashflows post BETTA go-live, Ofgem considers that there are a number of areas where further work is required. These are as follows:

- the contract termination arrangements[21]
- the incentive payments under the contracts, and
- the revenues in the period up to 2005 and any shortfall in this period to the delivery a 10% return, and any conclusion regarding projected future revenues including an element of monopoly profit.

3.50. These areas are discussed in turn below. Ofgem is still reviewing these areas and seeks views on how they might affect the valuation of the intereconnector. This work may lead to a conclusion that an adjustment to the net present value

[21] The interconnector contract between SP Transmission / SHETL and NGC specifies early termination payments of around £60m in 2005, payable by SP Transmission / SHETL. The interconnector contracts between SP Transmission / SHETL and users can be terminated at 1 year's notice without termination payments then arising.

of the future cashflows is appropriate to reflect how these factors would affect an investment decision by a party purchasing the assets.

Contract termination values

3.51. Ofgem recognised that termination values may have been set on the basis of recovering historic costs expended rather than future value to be received. Also, the termination values may have anticipated that in the event of termination alternative contracts for use of the assets could be readily struck with other users. It is not clear the extent to which these risks were factored into the setting of the10% rate of return. Nevertheless in a commercial agreement, termination values do have contractual force and an investor would take this into account in making an investment. It should be noted that the introduction of BETTA removes this risk.

Availability incentives

3.52. In determining the net present values in both periods, consideration will need to be given to the treatment of the revenues received from the availability incentive mechanisms in the contracts. Ofgem intends to assess whether the availability incentive arrangements are a separate risk/reward element within the commercial framework, the extent to which the ex-ante estimates of availability were reasonable and the extent to which the associated revenues should be considered in assessing the returns achieved or projected.

Revenues in the period up to 2005

3.53. Ofgem's May report makes the point that the interconnector contract values should be considered in two parts:

- the returns prior to 1 April 2005, and
- the returns post 1 April 2005.

3.54. The reason for looking at the two periods separately is that under the accounting treatment applied by the companies in setting interconnector charges, the actual rate of return received by the companies varies from year to year. In coming to a view on whether a particular valuation is reasonable, the level of returns already earned will need to be considered alongside the prospective future returns, because in making the original investments, investors will have looked at the expected returns over the full life of the project, and such analysis may provide evidence as to whether or not the projected revenue streams might include a possible element of monopoly profits.

Timetable

3.55. Ofgem will make proposals on the appropriate interconnector valuations in its final proposals to take into account the factors discussed above.

Treatment of SHETL's capital contribution

Ofgem's May paper

3.56. Ofgem's May paper discussed two ways in which SHETL could be compensated for its loss of rights in the upgrade capacity:

- calculating the value for the upgrade assets and add to SHETL's RAV in its price control, or
- calculate a value for the assets and require SP Transmission to make a one off or ongoing annual payment to SHETL outside SHETL's price control. SP Transmission's allowed revenues would then be increased to compensate it for the amount of these payments. As SP Transmission own the assets, this approach would align the value of the assets with ownership.

3.57. Ofgem indicated its preference for the first approach since it is less complex, while the second approach provides no added benefit to users.

Respondents' views

3.58. SP Transmission noted that Ofgem's preferred approach for dealing with SHETL's capital contribution for the upgrade would be to add this contribution to SHETL's RAV. SP Transmission is still considering this matter and accepted that this proposal is a pragmatic solution; however any settlement must include the preservation of revenues presently received from SHETL under the SIA[22].

Ofgem's views

3.59. Ofgem notes SP Transmission's views including that Ofgem's proposed approach is pragmatic. Ofgem confirms its current preference for calculating the value of the upgrade assets attributable to SHETL and adding this to SHETL's RAV for the reasons out in the May report, subject to any further views. The BETTA price controls set out in Chapter 5 are calculated on the basis of Ofgem's current preferred approach.

Views invited

3.60. Views are invited on Ofgem's proposals in relation to the valuation of the relevant England-Scotland interconnector assets, and in particular on:

- the proposed method for determining a market-based valuation for the interconnector.
- how the following factors may affect the calculation of a market based value
    - the contract termination arrangements
    - the incentive payments under the contracts, and
    - the revenues in the period up to 2005.

[22] SIA: Scottish Interconnector Agreement

4. Form of revenue restrictions under BETTA

4.1. In developing the BETTA proposals, NGC[23] is assumed to be the GB system operator, in addition to owning transmission assets in England and Wales. SP Transmission and SHETL are assumed to be transmission owners. Under BETTA, licensees will have an obligation to comply with the STC. In April 2004, Ofgem/DTI issued 'near final' legal text for electricity transmission licences under BETTA[24], and further consultation on the content of the STC[25].

4.2. This chapter sets out the proposed changes to the detailed revenue restriction licence conditions as a result of BETTA. Changes are necessary for all three transmission licensees. Ofgem does not propose making changes to the basic form of the revenue restrictions. It is proposed that the adjustments necessary as a result of BETTA will be made by adding additional terms to the basic price control formula for each licensee.

4.3. The proposals in this chapter are Ofgem's initial thoughts on the details of the revenue restriction conditions appropriate for each transmission licensee. Over the coming months, Ofgem will be discussing these proposals with the companies as part of the process of developing draft licence modifications to accompany its final price control proposals.

4.4. As discussed in Chapter 1, additional changes to the form of the revenue restriction discussed in this chapter may follow from the outcome of the consultation on the introduction of an incentive scheme involving rewards/penalties for transmission licensees exceeding/falling below supply

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[23] See Hansard 17 December 2002, Official Report Column 45WS

[24] Publication of 'near final' electricity transmission licenses under BETTA, Ofgem/DTI, April 2004, Ofgem 82/04
Further proposed changes to the electricity transmission licences to apply under BETTA, Ofgem 164/04, July 2004

[25] The SO-TO Code under BETTA: Ofgem/DTI summary of responses and conclusions on the June 2003 document and subsequent mini consultations, and further consultation on the draft legal text; proposals for CUSC changes in relation to limitation of liability; and matters relating to the timescales for processing new connection applications, Ofgem/DTI, April 2004, Ofgem 90/04.
The SO-TO Code under BETTA: Draft text in progress and CUSC provisions relating to disputes and limitation of liability - An Ofgem/DTI mini consultation document, Ofgem 148/04, July 2004

availability performance targets. These changes are not addressed in this chapter.

Revenue restriction components

Ofgem's May report

4.5. Ofgem's May report proposed adjustments to SP Transmission and SHETL's price controls to reflect:

- BETTA implementation costs
- enduring cost changes[26] (including operating cost changes, costs associated with the England-Scotland interconnector, and impact of TO incentives), and
- connection costs resulting from any change to the boundary between connections and infrastructure assets.

4.6. Adjustments were also proposed to NGC's price controls to reflect:

- to provide for the revenues due to transmission owners under their price controls.
- BETTA implementation costs
- enduring cost changes (including operating cost changes, costs associated with the England-Scotland interconnector, and impact of TO incentives), and

4.7. The May report proposed that BETTA implementation costs should be recovered under NGC' s Part 2 revenue restriction (ie through BSUoS charges).

Views of respondents

[26] The enduring cost changes cover changes to the price control cost elements (described in chapter 2) resulting from the revised roles and responsibilities under BETTA.

4.8. SSE agreed that the implementation and operational costs of BETTA should be recovered as an additional charge on GB customers through BSUOS.

4.9. NGC agreed with the proposal that BETTA implementation costs are recovered via GB BSUoS charges following BETTA go-live.

4.10. Referring to how its revenue restriction will be adjusted to allow recovery from users of transmission owner allowed revenues, NGC said that its interpretation is that the GBSO will recover from Users the sum total of the allowed price control revenues of each transmission licensee. NGC said this is a different revenue model to the notion that the GBSO recovers revenues for the GB network and apportions revenues to SP and SSE based on their separate revenue restrictions leaving only a residual for NGC's own costs.

4.11. NGC believed it is appropriate to recover interconnector related costs from GB transmission users through transmission network use of system charges because these users will receive the benefits arising from improved competition in energy markets that BETTA is intended to deliver.

4.12. A respondent agreed that BETTA implementation costs should be recovered through BSUoS charges, similarly any TO costs in undertaking SO-related activities. It also believed BSUoS to be the most appropriate mechanism for recoverable costs in relation to transmission activities carried out by the GBSO only as this would ensure that the GBSO revenue restriction on which TNUoS charges are based would cover the aggregate GB costs of equivalent TO-related activities carried out by the three transmission licensees over their respective networks.

Ofgem's views

4.13. Ofgem notes the support for its proposal that BETTA implementation costs are recovered via GB BSUoS charges following BETTA go-live, and respondents view that interconnector costs and transmission owner-related costs should be recovered through TNUoS charges. Ofgem has taken these views into account in forming the adjustments to the price control formulae.

4.14. Regarding the additional cost elements identified in the May report, that arise as a result of BETTA, it is proposed that each of these items will have a separate adjustment term in the revenue restriction formulae to reflect the different drivers of these costs.

4.15. Ofgem's May report discussed the allocation of transmission owner allowed revenues to NGC's Part 1 and Part 2 revenue restrictions. Specifically, Ofgem's May report[27] identified activities that potentially could be carried out by transmission owners and which if carried out by NGC would be reimbursed under its Part 2 revenue restriction. SP Transmission have indicated that it does not distinguish these costs separately and SHETL have indicated that the costs it will incur in carrying out such activities are around £50,000 pa. In the context of cost allocation by transmission owners, Ofgem does not consider that the costs are material and, subject to further information from licensees, proposes in this price control review to set the component of the transmission owners allowed revenues that should be allocated to NGC's Part 2 revenue restriction to zero.

4.16. NGC's response discussed how its revenue restriction might be adjusted to allow recovery from users of transmission owner allowed revenues. As discussed in chapter 1, transmission owners under BETTA will receive their allowed revenues from the GB system operator in accordance with the billing and payment provisions of the STC. To take this issue forward, Ofgem has set down in the table below specific proposals for the model of the revenue flows between NGC and transmission owners for further review. The table shows the revenues that NGC is allowed under its price controls to fund its own activities and the payments it makes under the STC to fund transmission owner activities.

<table>
<tr><td rowspan="2">NGC (as GB system operator) receives all monies from user charges</td><td colspan="2">NGC makes payments to transmission owners under the STC (billing and payment provisions) to:</td></tr>
<tr><td>SP Transmission</td><td>SHETL</td></tr>
<tr><td>NGC retains the following revenues from users:
▪ its allowed revenues under its TO price controls</td><td></td><td></td></tr>
</table>

[27] Appendix 8 of Ofgem's May report

▪ its revenues for GB wide activities (SO internal & external cost incentive schemes)		
NGC payments under STC **TO General system charges**	▪ TO allowed revenues recovered under BSUoS ▪ Other TO allowed revenues (**Note 1**)	▪ TO allowed revenues recovered under BSUoS ▪ Other TO allowed revenues (**Note 1**)
NGC payments under STC **TO Site-specific charges**	TO excluded service revenues (**Note 2**)	TO excluded service revenues (**Note 2**)
NGC payments under STC TO incentives (outage reshuffling at short notice)	TO excluded service revenues (Note 3)	TO excluded service revenues (Note 3)

Note 1: These include revenues to be recovered by NGC through TNUoS charges and as connection revenues from users in relation to pre-BETTA connections.
Note 2: Revenues from users in relation to post-BETTA connections.
Note 3: As discussed in the May report, the treatment of these payments as excluded service revenues for transmission owners is subject to further consideration by Ofgem and discussion with licensees.

4.17. This model is the basis of the proposed changes to the price control formulae discussed later in this chapter.

Income adjusting events

4.18. In June 2003, Ofgem/DTI proposed that a provision should be included in the revenue restrictions for remunerating costs arising from STC amendments post BETTA go-live (to the extent that the costs are material and have not already been allowed for in an allowable revenue). The provision would be in the form of an income adjusting event arrangement.

4.19. An income adjusting event is a within-price-control allowable revenue adjustment mechanism for a specific class of events, in this case STC amendments. As an example, STC amendments could change the detailed allocation of activities between the transmission owners and the GB system operator, and this could result in changes to operating or capital expenditures and have revenue implications for one or more licensees. The income adjusting event approach is similar to the transmission price control revenue adjustments included in NGC's licence in relation to the Balancing and Settlement Code (BSC) and Connection and Use of System Code (CUSC).

Views of respondents

4.20. The five respondents to Ofgem's October 2003 consultation on this matter supported the introduction of an income adjusting event provision. The following specific points were made.

4.21. A respondent suggested that more information must be provided to the industry to allow income adjusting events to be raised in both positive and negative directions.

4.22. Another respondent said it saw three possible reasons for adjusting TO revenues under BETTA:

a) A re-allocation of activities under the STC;

b) As a result of a TO's performance under its incentive scheme; and

c) As result of an action carried out to meet the request of another STC party, the need for which is not addressed by the incentive scheme.

It saw no reason why a) and b) should not be addressed by the revenue restriction licence condition.

Ofgem's views

4.23. Ofgem notes that there was general support for the introduction of an income adjusting event provision. Since October 2003 the STC has been further developed and in the light of this additional information it is appropriate to seek further views on this issue.

4.24. To take this matter forward, Ofgem has developed proposals for income adjusting event provisions applicable into all transmission licensees' revenue restrictions, and proposes that the provisions should address both cost increases and cost savings. It believes that the scope of the provisions should be broad enough to cover cost/savings in relation to all STC obligations in order not to give rise to perverse incentives in the STC amendment process.

4.25. The proposed detailed arrangements for an income adjusting event to apply, are set out in Appendix 9. Ofgem is considering the appropriate threshold for an income adjusting event[28].

SP Transmission and SHETL

4.26. This section describes the additional terms to be included in SP Transmission and SHETL's revenue restriction conditions under BETTA. The current revenue restriction licence conditions for SP Transmission and SHETL are set out in Appendices 5 and 6 respectively.

4.27. The maximum allowed revenues are the sum of a number of terms. The basic formula is given in Appendices 5 and 6 respectively for SP Transmission SHETL. In summary it has the following form:

$$TR_t = R_t - KK_{Tt} + LF_t$$

where:

TR_t	means the maximum regulated transmission revenue in relevant year t
R_t	in relation to the relevant year t means the price control allowed revenue
KK_{Tt}	means the correction factor to be applied to the regulated transmission revenue in relevant year t
LF_t	in relation to the relevant year t means the Ofgem licence fee correction factor.

4.28. Under BETTA it is proposed to include four further terms in the sum for calculating the maximum allowed revenues. These terms are as follows:

- ♦ BI_t , the allowance for BETTA implementation costs

[28] Appendix 9 proposes that the threshold be set on the basis that relevant costs/savings should exceed £1 million

- EC_t, the adjustment for allowed revenues consequent on the change in role to that of transmission owner (including incorporation of the England-Scotland interconnector into the price control)

- CC_t , the adjustment for any change in the boundary between connection and infrastructure assets for pre-BETTA connections (excluding pre-Vesting connections), and

- IAT_t, the amount of any allowed income adjustment given by paragraph [.][29] in respect of the relevant period t.

The basic formula then becomes:

$$TR_t = R_t - KK_{Tt} + LF_t + BI_t + EC_t + CC_t + IAT_t$$

4.29. Ofgem's December 2003 document[30] concluded that Ofgem licence fees would be levied on the GB system operator, and not on the transmission owners, and that consequential changes to the licence fee principles will be necessary. These changes will be consulted upon separately. In anticipation of these changes, the appropriate adjustments will be made to licence fee values in drafting the revenue restriction licence conditions.

4.30. As discussed in Chapter 2, it is proposed to allow network rates as a pass-through item for SP Transmission and SHETL in line with other electricity price controls. It is proposed to incorporate the necessary network rates adjustment term as part of the LF_t term. The necessary changes are included in the proposals set out in this chapter.

4.31. Given that all Ofgem licence fees in respect of electricity transmission are to be paid by the GB system operator under BETTA[31], the assumed licence fee amounts for transmission owners will be set to zero, in the relevant table related

[29] Initial drafting for this paragraph is given in Appendix 9
[30] Regulatory framework for Transmission Licences under BETTA: Third consultation on Electricity Transmission Licences under BETTA - Volume 1, Ofgem 178a/03, December 2003
[31] rather than by the individual licensees a at present.

to the LF_t term. It should be noted that NGC's licence includes an adjustment mechanism for the recovery of variances in the actual level of licence fees from the assumed level of fees.

4.32. The funding of transmission investment for renewables which is being taken forward separately will add a further term $TIRG_t$ to the basic formula for each licensee. The structure and value of the $TIRG_t$ factor will be set out in the associated consultations.

4.33. The transmission owner licences will need to include a schedule which allocates the allowed revenues, TR_t , to the relevant components of NGC's revenue restriction. The proposed allocation at BETTA go-live is set out in Schedule [.], a draft of which is set out in Appendix 7.

NGC

4.34. This section describes the additional terms to be included in NGC's revenue restriction conditions under BETTA. These terms are to provide for the additional costs incurred by NGC as a result of BETTA and for the collection from users of the allowed revenues of SP Transmission and SHETL which are payable by NGC under the STC. The current revenue restriction licence conditions for NGC are set out in Appendix 8.

4.35. The structure of NGC's revenue restriction was set out in Ofgem's May report. In summary, it has two parts as follows:

- Part 1: the transmission network revenue restriction, which applies to the provision of transmission network services
- Part 2: the balancing services activity revenue restriction, which in turn has two components
    - (i): the balancing services activity revenue restriction on external costs which applies to the external costs of the balancing services activity
    - (ii): the balancing services activity revenue restriction on internal costs.

4.36. The Part 1 revenue restrictions is often referred to as the "TO price control" and the Parts 2(i) and 2(ii) together are often referred to as the "SO incentive scheme".

Part 1 adjustment

4.37. In summary the basic form of the Part 1 revenue restriction is as follows:

$$M_t = \left[1 + \frac{RPI_t - X_g}{100}\right] P_{t-1} - D_t - K_t + G_t + U_t + CCC_t + LPC_t + LPR_t$$

where:

M_t	means the maximum revenue in relevant year t.
RPI_t	means the percentage change in the retail price index
X_g	has the value one and a half (1.5).
P_{t-1}	is the allowed revenue under the price control
D_t	means a correction factor to be applied to transmission network revenue and is equal to the value of user maintenance in relevant year t.
K_t	means the correction factor to be applied to the regulated transmission revenue in relevant year t
G_t	means a revenue adjustment factor related to reinforcement for new connections
U_t	means a revenue adjustment factor reflecting changes in non-domestic rates and the Ofgem licence fee
CCC_t	means a revenue adjustment factor reflecting the difference between the reference level of excluded services and the actual

level of excluded services (this relates to the introduction of the PLUGS connection methodology)

LPC_t means a revenue adjustment factor in relation to users who have paid capital contributions or termination payments. It covers the associated depreciation and rate of return on the assets.

LPR_t means a revenue adjustment factor for accelerated depreciation and land charges where applicable.

4.38. Under BETTA it is proposed to include a further term in the sum for calculating the maximum allowed revenues. This terms are as follows:

- IES_t, the adjustment for allowed revenues consequent on the incorporation of the England-Scotland interconnector into the price control

The basic formula then becomes:

$$M_t = \left[1 + \frac{RPI_t - X_g}{100}\right] P_{t-1} - D_t - K_t + G_t + U_t + CCC_t + LPC_t + LPR_t + IES_t$$

4.39. It is proposed that this formula is further modified to provide for the recovery of the revenues attributable to transmission owners by adding the terms TSP_t and TSH_t, so that the basic formula becomes:

$$M_t = \left[1 + \frac{RPI_t - X_g}{100}\right] P_{t-1} - D_t - K_t + G_t + U_t + CCC_t + LPC_t + LPR_t + IES_t + TSP_t + TSH_t$$

and where TSP_t and TSH_t are defined in a Schedule [.] to NGC's licence (a draft is attached at Appendix 9).

4.40. The funding of transmission investment for renewables which is being taken forward separately will add a further term $TIRG_t$ to the basic formula for NGC. The structure and value of the $TIRG_t$ factor will be set out in the associated consultations.

Part 2 adjustment

4.41. The Part 2 revenue restriction covers both NGC's internal costs and its external costs associated with operating and balancing the transmission system. This document addresses the internal cost controls; it does not cover the external cost incentive scheme which is being taken forward by Ofgem separately.

4.42. The internal cost controls have two components:

- an incentivised component which specifies a target for each year of the period 2001/2 to 2005/6 ($CSOC_t$ + $IncPayInt_t$, see below), and

- a non-incentivised component which mainly relates to the financing of SO related assets ($NSOC_t$ + $SOBR_t$ + PSC_t, see below).

4.43. NGC's incentive scheme as it applies to incentivised internal costs (and to external costs) takes the form of a sliding scale (profit sharing) scheme.

4.44. In summary the basic form of internal cost control is as follows:

$$SO\mathrm{int}_t = CSOC_t + IncPayInt_t + NSOC_t + SOBR_t + PSC_t$$

where:

$CSOC_t$	means the aggregate of the incentivised internal costs associated with the balancing services activity in respect of relevant year t.
$IncPayInt_t$	means the incentive payment associated with the internal costs of undertaking the balancing services activity in respect of relevant year t.

$NSOC_t$ represents the allowed revenue in respect of the non-incentivised internal costs of the licensee in operating the licensee's transmission system during relevant year t

$SOBR_t$ represents the costs of non-domestic rates incurred by the licensee in operating the licensee's transmission system during relevant year t.

PSC_t represents the costs incurred by the licensee in preparing participants' systems for the introduction of the New Electricity Trading Arrangements.

4.45. Under BETTA it is proposed to include a further term in the sum for calculating the maximum allowed revenues. These terms are as follows:

- IAT_t, the amount of any allowed income adjustment given by paragraph [.][32] in respect of the relevant period t

The basic formula then becomes:

$$SO\mathrm{int}_t = CSOC_t + IncPayInt_t + NSOC_t + SOBR_t + PSC_t + IAT_t$$

4.46. Further it is proposed that:

- the term $CSOC_t$ will include an additional component EC_t for the adjustment to ongoing costs incurred by NGC as a result of BETTA[33], and
- the term $NSOC_t$ will include an additional component BI_t for the implementation costs incurred by NGC as a result of BETTA.

4.47. Furthermore, it is proposed that:

[32] Initial drafting for this paragraph is given in Appendix 9
[33] In addition an adjustment to the target value IMTt may be appropriate

- the term $CSOC_t$ will include an additional components $TSPC_t$ and $TSHC_t$ for the costs incurred by SP Transmission and SHETL respectively which it is appropriate to recover under NGC's SO incentivised internal cost scheme, and

- the term $NSOC_t$ will include an additional components $TSPN_t$ and $TSHN_t$ for the costs incurred by SP Transmission and SHETL respectively which it is appropriate to recover under NGC's SO non-incentivised internal cost scheme.

  The terms $TSPC_t$, $TSHC_t$, $TSPN_t$ and $TSHN_t$ will be defined in Schedules [.] to NGC's licence (see draft schedule in Appendix 10).

Transmission owner formula components

4.48. This section describes how the values for each additional term in the price control formulae for SP Transmission and SHETL will be determined.

BI_t and EC_t

4.49. These components will be set by value and the draft values are set out in Chapter 5.

CC_t

4.50. The CC_t term relates to the value of the pre-BETTA connection assets, which under BETTA will be reclassified as infrastructure assets.

4.51. This section sets out the financial arrangements for remunerating transmission owners for new connections (post BETTA) and for existing connections (pre BETTA) and the approach for determination of the CC_t term.

New connections

4.52. In December 2003, Ofgem concluded that the development of BETTA would be based on extending the existing England & Wales charging arrangements to GB. Ofgem does not believe that the form of the GB System Operator charging statement should constrain the methodology used by transmission owners in charging the GB system operator for connections, but proposed that at BETTA go-live the two methodologies will align. Applying the England & Wales arrangements to Scotland will require the transmission owners to change the boundary for charging for both existing connections (pre-BETTA) and new connections (post-BETTA).

4.53. To clarify the basis on which transmission owners should charge NGC as GB system operator for connection assets, Ofgem proposes drawing up a Connection Schedule to the transmission owners licences. A draft schedule is set out in Appendix 11.

Pre-BETTA connections and the CC_t term

4.54. In Scotland, the majority of customers have chosen to pay for connection assets via a lump sum payment rather than over the life of the assets. Under the proposed GB methodology, the majority of these assets currently classified as connections would be reclassified as infrastructure assets[34]. Any proposal by Ofgem to change price controls will depend on NGC proposing a GB charging methodology that changes the current boundary between connection and infrastructure and whether Ofgem approves the methodology.

4.55. With any change to the connection boundary, the transmission owners will effectively need to repurchase the assets from pre-BETTA customers at an appropriate written down value as part of the change to GB arrangements. It is proposed that the transmission owners come to a solution on the repayment arrangements on a bilateral basis with the affected parties, recognising that for BETTA go-live connectees will need to have entered into a new connection agreement with NGC. Special consideration may need to be given to any customers who have paid termination charges or who have changed their payment arrangements to reflect the sharing of assets with another customer.

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[34] National Grid is undertaking a consultation in its role as initial GB system operator. It published a document GB Transmission Charging: Initial Methodologies Consultation 8 April 2004

4.56. To ensure the implementation of these arrangements, the transition to BETTA will require obligations to be placed on transmission owners to engage with connectees to repay the appropriate amounts. Ofgem's initial proposals are that:

- 60 days prior to the expected BETTA go-live date, transmission owners should advise all pre-BETTA connectees of the amount of the repayments due, and
- by 60 days after BETTA go-live, transmission owners to have completed payments to connectees.

4.57. The transition process may need to give consideration to the consequential short-term cashflows incurred by both connectees and licensees.

4.58. It is proposed that Ofgem will need powers to determine the financial arrangements where there is a dispute between the parties.

4.59. Since these payments are additional to the costs allowed in setting the roll forward price controls, Ofgem proposes allowing transmission owners to recover their additional financing costs[35] through a Connection Charges Correction Factor (the CC_t term) based on the transmission owners normal depreciation policies for infrastructure assets (ie to treat the assets as if they were in the RAV). The CCt term will be added to the maximum allowed revenue formula for transmission owners.

4.60. It is expected that this correction factor will be absorbed into the main price control as part of the main review in 2007. The reason to have a separate adjustment factor in the roll forward price controls is that the bilateral arrangements between transmission owners and users will not be finalised until after BETTA go-live and therefore the magnitude of the correction factor will not be known when the price controls are set.

4.61. As with other price control variables, Ofgem would expect transmission owners to estimate the value of the Connection Charge Correction Factor before the start

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[35] depreciation and rate of return associated with the capital expenditure refunded

of the year so that it can be included in the revenues they receive from the GB system operator[36]. At the end of the year, if actual connection repayments made by transmission owners are different from those originally estimated then a correction will need to be applied to the next years transmission owners revenues as part of the overall end of year adjustments.

4.62. It is proposed that in respect of each pre-BETTA connection, transmission owners will be required to provide an audited statement to Ofgem showing the estimated and actual repayment values, and the accounting basis for the repayment amounts.

IAT_t

4.63. The IAT_t term will be set to zero at BETTA go-live, as no income adjusting events under the STC are expected at that date.

Network rates and licence fees

4.64. Under BETTA, network rates will form a pass through item and licence fess will be reset to zero. The level of network rates in the BETTA price controls is that assumed in the roll forward controls (see chapter 2) plus the level of rates appropriate to the interconnector assets. These values will need to be set in the relevant transmission owners licence condition as follows.

SP Transmission £m money of the day *	2005/6	2006/7
Network rates		
Roll forward proposals	12.6	12.9
Interconnector	0.5	0.5
Total	13.1	13.4
Licence fees	0	0

A 2.5% pa inflation assumption has been used in calculating money of the day from 2002/3 prices

SHETL £m money of the day *	2005/6	2006/7
Network rates		
Roll forward proposals	3.7	3.8

[36] the information proposed to be provided to connectees 60 days prior to BETTA go-live may in aggregate form a suitable estimate.

Interconnector Total	0 3.7	0 3.8
Licence fees	0	0

A 2.5% pa inflation assumption has been used in calculating money of the day from 2002/3 prices

NGC formula components

4.65. This section describes how the values for each additional term in the price control formulae for NGC will be determined.

IES_t , BI_t and EC_t

4.66. These components will be set by value and the draft values are set out in Chapter 5.

TSP_t , TSH_t , $TSPC_t$, $TSHC_t$, $TSPN_t$ and $TSHN_t$

4.67. These components will be set by reference to the relevant special conditions in the transmission owner licences (see Appendix 10).

IAT_t

4.68. The IAT_t term will be set to zero at BETTA go-live, as no income adjusting events under the STC are expected at that date.

Network rates and licence fees

4.69. Under BETTA, NGC will collect licence fees for the transmission sector as a whole. Also, the assumed level of network rates in NGC's existing price controls was set excluding the England-Scotland interconnector and therefore needs to be adjusted for BETTA. The proposed values for these items under BETTA is as follows:

NGC £m money of the day *	2005/6
Network rates existing proposals Interconnector Total	 102.7 3.3 106.0
Licence fees NGC existing	 8.3

SP Transmission (Chapter 2)	1.1
SHETL (Chapter 2)	0.3
Total	9.7

A 2.5% pa inflation assumption has been used in calculating money of the day from 2002/3 prices

Excluded services

4.70. Ofgem has reviewed the excluded services schedules of all transmission licensees, since the revenue flows are different as a result of BETTA, particularly for transmission owners. It believes that NGC's current schedule is still appropriate under BETTA, but that the transmission owners schedule needs to be changed to reflect the incorporation of the England-Scotland interconnector into the price controls and the fact that transmission owners provide services to the GB system operator, and not directly to users.

4.71. Appendix 12 sets out Ofgem's draft schedule for excluded services for transmission owners.

4.72. As set out in Ofgem May paper, where transmission owners request recompense from the GB system operator as a result of changes to outage plans made by the GB system operator at short notice, transmission owners will be under an obligation to make declarations that accurately reflect the costs which are reasonable and efficiently-declared. These obligations have not been addressed in the drafting of Appendix 12. Ofgem is considering the appropriate regulatory treatment of the payments received by the transmission owners and whether they should form excluded service revenues. If a decision is made that they should be excluded service revenues then Appendix 12 will need to include the necessary obligations discussed above.

Views invited

4.73. Views are invited on

- the proposed modifications to the revenue restriction licence conditions for BETTA for SP Transmission, SHETL, and NGC

- the financial arrangements consequent on the introduction of a new boundary between connections and infrastructure under BETTA

- the proposed arrangements for income adjusting events in relation to the STC, and

- proposals for defining excluded services for transmission owners under BETTA.

5. BETTA price controls

5.1. As discussed in chapter 4, to form the price controls to apply under BETTA, adjustments for the following factors are proposed to each transmission licensees revenue restrictions:

- BETTA implementation costs, and
- enduring cost changes (including operating cost changes, costs associated with the England-Scotland interconnector, and impact of TO incentives), and

5.2. Changes to SP Transmission and SHETL's revenue restrictions are also proposed to allow for revised connection costs resulting from any change to the boundary between connections and infrastructure assets.

5.3. This chapter makes proposals for the values for these adjustments in the price controls for SP Transmission and SHETL for the years 2005/6 and 2006/7, and in NGC's TO and SO internal controls for 2005/6[37].

5.4. Chapter 4 identified in the price control formulae for the different companies the additional terms related to the adjustments for BETTA. Therefore, where adjustments are discussed in this chapter, a reference has been included to the appropriate term used in chapter 4.

5.5. Under BETTA, the England-Scotland interconnector is to be incorporated into the price controls of the relevant licensees. As discussed in chapter 3, Ofgem is still reviewing the appropriate opening RAVs values to use for the relevant interconnector assets in the price controls. This chapter assumes the market-based valuation proposed by the companies. This assumption has been made in order to provide indicative information on the level of the allowed revenues under BETTA. This assumption is made without prejudice to any decision by

[37] NGC's current internal cost price controls are intended to last until 31 March 2006, and the price controls to apply to NGC for 2006/7 are being reviewed separately.

Ofgem in its final proposals on the value at which to include the relevant assets into the price controls.

Price control adjustments for BETTA

5.6. To adjust the price controls for BETTA, the changes to operating expenditure, capital expenditure and the Regulatory Asset Values (RAV) as a result of BETTA need to be considered. The combined impact of these changes on the allowed revenues for each year is then calculated for each company. The base levels against which these changes have been developed are:

- for SP Transmission and SHETL, the roll forward price controls for 2005/6 and 2006/7 set out in Chapter 3, and
- for NGC, the existing price controls applying to 2005/6.

5.7. In this chapter a pre-tax cost of capital of 6.5% for SP Transmission and SHETL is used. These cost of capital figures are those applying under the existing price controls of the respective companies. Further work is being carried out on the cost of capital to apply to the electricity distribution companies and when this work is completed, consideration will be give as to whether the cost of capital for transmission licensees should be adjusted. For NGC a 6.25% cost of capital is assumed, in line with their current price control assumption.

Ofgem's Approach

5.8. The adjustment to operating expenditures are for:

- the change in operating costs as a result of new roles and responsibilities under BETTA
- the additional operating costs incurred by licensees associated with relevant parts of the England-Scotland interconnector currently outside the price controls, and
- the additional operating costs incurred to implement BETTA.

5.9. The adjustments to capital expenditures are for:

- the additional capital costs[38] incurred by licensees associated with relevant parts of the England-Scotland interconnector currently outside the price controls

- the additional capital costs incurred to implement BETTA (post 1 April 2005), and

- the additional capital expenditures resulting from any change to the connection charge boundary under BETTA (post BETTA go-live connections)

5.10. The adjustments to the opening RAV at 1 April 2005 relate to:

- the inclusion of the relevant parts of the England-Scotland interconnector into the price controls

- the capital repayments made by transmission owners in relation to pre-BETTA connections, and

- the additional capital costs incurred to implement BETTA (pre 1 April 2005).

BETTA implementation costs.

5.11. Ofgem's May report discussed the regulatory treatment of BETTA implementation costs and proposed the following approach to cost recovery of appropriately incurred costs:

- capital expenditure should be added to the companies RAV and depreciated in line with similar asset types[39], and

- operating expenditure incurred prior to BETTA go-live should be recovered over the two year period, 2005/6 and 2006/7.

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[38] Non-load capital expenditure in 2005/6 and later years

[39] Depreciation: 40 years for transmission assets. Depreciation life of 7 years assumed here for IT assets.

5.12. Ofgem's May report also made proposals in relation to TO incentives and the associated payments between the GB system operator and transmission owners. These are discussed separately below.

Responses to Ofgem's May report

Enduring operating cost changes

5.13. SP Transmission said they are continuing to carry out work to identify the changes to operating costs as a result of BETTA. It said that the detailed operational arrangements between transmission licensees will be primarily detailed in the STC and the STCPs[40], amongst other documents; significant work still remains to be undertaken on the STCPs and until this work is further advanced, it is difficult to accurately forecast the changes in operational expenditure under BETTA. It said that at this stage, for the purpose of the two year roll-over price control, it is reasonable to assume that there will be little overall change in net operating costs as a result of BETTA.

BETTA implementation costs

5.14. SP Transmission said they agreed with Ofgem that some implementation costs may not have been finalised at BETTA go live, but that as more detail on BETTA becomes available as the STC and STCPs are advanced, and the transitional framework becomes clearer, implementation cost estimates will be refined. SP Transmission said they believed that it is appropriate to allow transmission licensees to recover BETTA implementation costs, both capital and operating expenditure, and including financing costs, over the two year period 2005/06 and 2006/07.

5.15. NGC said that IT assets should be depreciated over 5 years but accept that 7 years is consistent with the treatment of such assets developed for NETA. NGC agreed to the proposal to recover operating expenditure for BETTA implementation over the first two years of BETTA implementation; however, in a similar manner to the treatment of NETA implementation costs, the allowed

[40] System Operator Transmission Owner Code Procedures

revenues should be calculated such that the present value of such revenues equals the present value of the implementation costs that companies have incurred and financed. NGC said that the allowed revenues will also need to be adjusted into money of the day by a suitable adjustment using the relevant RPI.

5.16. A respondent agreed with the proposed approach to the treatment of the one-off operating and capital costs associated with BETTA implementation, provided that these costs have been assessed as being appropriately and efficiently incurred. It agreed that these costs should be recovered through BSUoS from all GB participants.

5.17. Another respondent said that, in the interest of efficiency, care must be taken to ensure that any pre-emptive consideration given to the funding of BETTA related processes at the time of the last price control are not re-counted.

Treatment of connections

5.18. SSE said detailed work was needed in setting the ongoing price control for the change in connection boundary under BETTA. It said that some monies will have to be refunded to parties already connected, and some planned investment which would be recovered through the connection charge will have to be added to infrastructure investment.

5.19. SP Transmission said that the re-classification of assets consequent on redefining the boundary between connection and system assets in Scotland could require significant changes to regulatory asset bases and therefore allowed revenues. It said that careful consideration is needed to ensure that disproportionate and unanticipated cash outflows do not take place which could impact on its ability to invest in its network.

5.20. NGC noted that as well as reallocation of assets between connection and infrastructure, the introduction of a shallower connection boundary under BETTA will also require revised connection agreements with customers, and that the agreed treatment of Scottish transmission user capital contributions will need to be resolved by Ofgem and the Scottish companies.

5.21. A respondent said that with the PLUGS model, there should be consequential changes to the regulatory asset bases and adjustments to the revenue restriction where necessary in order to ensure that each transmission licensee is no better or worse off in terms of overall revenue as a result of the change in connection boundary. It said that these revenue restriction adjustments should also provide the Scottish transmission licensees with any additional funding necessary to address legacy issues as appropriate.

Ofgem's views

5.22. Respondents who commented generally supported Ofgem's proposed treatment of BETTA implementation costs. One proposed that capital expenditure should be recovered over 2 years instead of 7, and another preferred a 5 year period. Ofgem considers its proposals are still appropriate and that a 7 year depreciation period is appropriate for the capital expenditure, consistent with the previous treatment of such expenditures. Ofgem recognises that the companies may be able to provide more precise information on implementation costs in due course and that the costs will need to be reviewed for its final proposals.

5.23. As regards enduring costs, NGC has provided evidence for their incremental operating cost estimates. The transmission owners have indicated that there are not expected to be net reductions in enduring operating costs as a result of BETTA. Ofgem recognises that the companies may be able to provide more precise information on enduring costs in due course and that the costs will need to be reviewed for its final proposals. Outturn performance will be investigated in depth as part of the main review of transmission controls for 2007.

5.24. Ofgem recognises the detailed work necessary in relation to connections. It has made proposals in chapter 4 and seeks views on these proposals.

TO incentives

5.25. Ofgems' May report considered interactions between the licensees in a number of areas:

- investment planning
- outage planning

- transmission switching
- providing transmission services
- new connections

5.26. No specific incentives were proposed except in the area of outage planning where it was proposed that for outage planning, transmission owners should be recompensed by the GB system operator for additional costs incurred as declared by the transmission owners resulting from changes to outage plans made by the GB system operator at short notice. Transmission owners will be under an obligation to make declarations that accurately reflect the costs which are reasonable and efficiently-declared. It is proposed that should a change requested by a transmission owner result in other consequential changes to outage plans, the requesting transmission owner would not be liable

Respondents' views

General

5.27. NGC noted Ofgem's views that it should be fully exposed to the cost of rescheduling Scottish TO outages at short-notice. NGC said it is preparing an assessment of the potential magnitude of these costs by extrapolating the costs incurred in England & Wales; however, there is considerable uncertainty concerning whether such extrapolation will be valid for determining the magnitude of such costs in Scotland for the following reasons:

- network topology in Scotland (particularly at 132kV) is different from that in England and Wales
- the year-ahead outage plan for the first year of BETTA (which forms the outage baseline about which modifications may be required) will not have been developed in conjunction with the GBSO in the manner that is envisaged under the enduring BETTA process, and
- whereas we expect the majority of outage modifications to be instigated by the Scottish TOs as a result of asset health developments, and such changes (together with consequential plan changes) will not be paid by

the GBSO, it is likely that a full analysis and agreement to all consequential changes will not be possible in the timescales available so that some additional liability will arise for the GBSO.

5.28. NGC said an allowance to reflect the cost of rescheduling Scottish TO outages at short notice should be added to NGC's price control, but it is not necessarily the case that such costs are currently being incurred by the vertically integrated Scottish companies and so it may not be appropriate to subtract this sum from their price controls as a BETTA adjustment.

5.29. SSE agreed that the only area where there is scope for incentives on the TOs is in outage planning, but since the TOs are required to ensure that any charges reflect the cost of moving outages, it said that the TOs are neutral to such incentives. In particular, SSE said it had assumed that there will be no loss of efficiency in outage planning as a result of BETTA; this means that no costs have been assumed in the business plan for moving outages at short notice, nor has any income from the GBSO been assumed.

5.30. SSE said that would also seem to be consistent for the rearrangement of outages not to be treated as an incentivised balancing cost, since this is how NGC currently deal with these costs.

5.31. A respondent agreed with Ofgem's proposed approach to transmission owner incentives.

5.32. Another respondent agreed that the compensation payments to TOs in relation to outage planning should not be included in incentivised balancing costs, but request clarification on how such payments would be funded; to the extent that NGC is required to report on the compensation payments to the Scottish TOs, it should similarly report on the costs incurred by its TO function in deviating from the agreed week 49 outage plan over the England & Wales network.

5.33. A further respondent said that in the event that the GBSO makes changes to outage plans at short notice, which results in additional costs for a TO, it is reasonable to suggest that the GBSO should provide a suitable level of cost reflective recompense, and agreed with Ofgem that it would be appropriate to deduct the present level of such payments when adjusting the revenue restrictions for BETTA.

Investment planning

5.34. SP Transmission agreed that there is no need for a special investment incentive mechanism under BETTA.

5.35. NGC agreed with the proposed extent that one transmission licensee should comment on the decisions of another and agreed with Ofgem's conclusion for the proposed price control framework, noting that the resulting incentives on Scottish TO's will not include an internalisation of the external balancing cost consequences of their investment actions (unlike the incentives on NGC). However, NGC welcomed Ofgem's willingness to consider adjustments to Scottish revenues if Scottish companies wish to respond to information provided by the GBSO.

Outage planning

5.36. SP Transmission supported the proposal that the Scottish TOs should receive additional revenue if they incur additional costs as a result of the GBSO changing the agreed Week 49 plan, and accepted that TOs should be placed under an obligation to make declarations that reflect reasonable costs that are efficiently incurred.

5.37. NGC agreed with Ofgem's views on the need for payments by the GBSO to TOs for rescheduling outages at short-notice, noting it may not be possible to fully identify consequential outages arising from a TO instigated change, and so the GBSO may bear some additional liability for resolving consequential changes.

5.38. NGC also agreed that inter TO payments for consequential outage changes would be unduly complex but noted that, in the absence of such a mechanism, the GBSO may need to make a payment to one Scottish TO as a result of changes requested by another.

Transmission switching and Transmission services

5.39. SP Transmission agreed that there is no need to introduce incentive arrangements for transmission switching, in view of the ease with which compliance with the GBSO's directions can be monitored, and that in the case of transmission services, it will be sufficient to rely on licence obligations and the STC.

5.40. NGC referred to the argument that because the GBSO is liable for constraints as a result of the unavailability of TO transmission, then it follows that the GBSO should also be liable for CAP048 disconnection compensation as a result of TO transmission failure. Noting the argument for consistency, NGC said that the resulting treatment would not recognise the different scope between these cases for the GBSO or TO to take action to improve customer service and reduce costs. NGC said that many constraints can be anticipated and so the GBSO may choose between alternative operational and commercial actions to mitigate their effect; this is not true of a sudden transmission failure that disconnects a customer - these can only be mitigated by suitable investment, maintenance and switching by the TO.

5.41. NGC said that, while it believed that the treatment of CAP048 costs is less than ideal in terms of economic and efficient incentives, it accepted that the materiality of this issue may not warrant additional commercial complexity given pressing timescales for BETTA implementation. NGC said it would accept that the GBSO should accept this liability subject to suitable SO incentive scheme allowance and on-going regulatory scrutiny of resulting TO performance.

New connections

5.42. SP Transmission accepted that the liquidated damages terms between the GBSO and users should be reflected in the terms between the GBSO and TOs.

5.43. A respondent agreed that specific TO incentives may not be appropriate in this area, but believed that further consideration should be given to the need for a specific obligation or incentive on the GBSO to ensure efficiency and equitability in the applications process for connection and use of system, so that no applicant is disadvantaged by the complexity of the industry contractual framework.

Gt term

5.44. SP Transmission did not believe that a Gt term is necessarily appropriate for a Scottish TO, and, in any case, consideration of whether an adjustment mechanism is appropriate should be considered as part of the main transmission price control reviews, as it would be impractical to undertake the necessary analysis prior to the April 2005.

5.45. SSE agreed that the Gt term should continue to apply only to generation connecting in NGC's area pending a full review of such incentives for implementation in the 2007 price control.

Allocation of costs and revenue restriction re-openers

5.46. Concerning NGC's exposure to the cost of rescheduling outages at short-notice in Scotland, NGC said it believed that the proposed treatment results in commercial incentives that will mean some opportunities to reduce end-customer costs will not be taken, but accepted that the expected materiality of this issue is low.

5.47. NGC agreed with Ofgem's suggested treatment of any additional revenues that Ofgem allows Scottish TOs for investments/actions not anticipated at the previous price review (other than the costs of outage rescheduling at short notice). NGC said that as these additional investments/actions are most likely to be in response to new user requirements, suitable total revenues will not already have been allowed to the GBSO; on this basis the GBSO should be permitted to recover additional revenues to fund the additional payments to Scottish TOs (leaving NGC's own revenues unchanged as a default).

Ofgem's views

5.48. None of the respondents proposed introducing TO incentives except in the area of short term outage planning. Ofgem therefore confirms that at BETTA go-live it is proposed to introduce TO incentives only in relation to outage reshuffling at short notice. It is not proposed to introduce a G_t term for SP Transmission or for SHETL.

5.49. Ofgem notes in particular the following comments of respondents on outage reshuffling:

- any allowance for outage reshuffling should be added to NGC price controls
- any allowance for outage reshuffling should not to be treated as an incentivised balancing cost
- the present level of such payments should be deducted when adjusting the transmission owner revenue restrictions for BETTA
- the GB system operator may need to make a payment to one transmission owner as a result of changes requested by another, and
- the GB system operator should provide a suitable level of cost reflective recompense to transmission owners and that transmission owners should be placed under an obligation to make declarations that reflect reasonable costs that are efficiently incurred.

5.50. In this chapter Ofgem has set out detailed proposals for the treatment of the costs associated with outage reshuffling, taking into account the points made by respondents. As regards the obligations on transmission owner declarations, these have been discussed in chapter 4. As noted in chapter 4, the regulatory treatment of the payments received by transmission owners for outage reshuffling is subject to further consideration.

5.51. In this chapter an initial allowance for outage reshuffling is added to NGC price controls. The allowance is added to the non-incentivised component of NGC's SO incentive. An initial allowance has also been deducted from each TO price control through the excluded services adjustment. Consideration will need to be given when developing the GB system operator allowance as to whether it is appropriate to take into account any costs expected to be incurred as a result of changes requested by another transmission owner.

Draft price control proposals

5.52. The draft price control proposals discussed in this section are expressed as adjustments to the main price controls. The proposals are for the years 2005/6 and 2006/7 for SP Transmission and SHETL, and for the year 2005/6 for NGC[41]. These proposals are the subject of ongoing analysis and review as part of the process of setting the final proposals.

5.53. To develop the price control proposals, operating expenditure and capital expenditure projections are made and financing costs calculated[42].

5.54. It should be noted that work is still in hand to establish the level of payments associated with the TO incentives for reshuffling of outages at short notice. Ofgem has therefore used its own notional estimates at this stage, and will refine these with licensees prior to Ofgem's October document.

SP Transmission and SHETL

5.55. Under BETTA, the significant changes in operating expenditure costs are:

- ♦ a reduction because interconnector contract costs and Ofgem licence fees are no longer incurred, and
- ♦ an increase to fund BETTA implementation costs and interconnector operating costs

5.56. The significant changes in capital expenditure are:

- ♦ England-Scotland interconnector non-load capex
  It should be noted that the capital expenditure related to the England-Scotland interconnector has been retained in the BETTA price controls pending resolution of the work on the funding of the transmission investment for renewable generation. Ofgem will be reviewing the level of interconnector related capex in developing its October proposals.
- ♦ Repayments to connectees of capital contributions in relation to assets no longer classified as connection assets as a result of the introduction of the

[41] The price controls to apply to NGC for the year 2006/7 will be developed as a separate review exercise.

PLUGS charging methodology. The assets concerned are to be reclassified as infrastructure assets, and for price control purposes are assumed to be included in the RAV at BETTA go-live.

5.57. Other significant changes in opening RAV are:

- inclusion of the England-Scotland interconnector assets into the RAV, and
- inclusion of the capital expenditure component of BETTA implementation costs into the RAV.

5.58. Details of the price control adjustments for BETTA and the capital and operating expenditure assumptions are set out in Appendices 3 and 4 for SP Transmission and SHETL respectively.

5.59. The following tables summarises the incremental changes to the price controls for SP Transmission:

SP Transmission £m 2002/3 prices	DRAFT PROPOSALS	
	2005/6	2006/7
Incremental opex £m	-3.1	-4.0
Incremental capex £m	14.2	18.1
Incremental allowed revenues £m	19.8	19.8

Incremental allowed revenues levelised over the 2 years
Allowed revenues include impact of addition of interconnector, pre-BETTA connection amounts and BETTA implementation cost to the RAV

Breakdown of allowed revenues by additional terms in price control formula

SP Transmission £m 2002/3 prices	DRAFT PROPOSALS	
	2005/6	2006/7
BI_t	3.6	3.6
EC_t	11.4	11.4
CC_t	4.8	4.8
IAT_t	0	0
Incremental allowed revenues £m	19.8	19.8

[42] The same process as used for the development of the roll forward price controls (see chapter 2)

5.60. The breakdown by the proposed additional terms in price control formula reflects the different nature of the revenue items:

- BI_t is a pass through of appropriately incurred costs and is to be allocated to the non-incentivised component of NGC SO internal cost control
- EC_t is the adjustment to the price controlled allowed revenues
- CC_t cover the repayments of related to pre-BETTA connections and its final value will not be known until after BETTA go-live. The value shown is an Ofgem estimate, and
- IAT_t revenues will only arise, if at all, after BETTA go-live.

5.61. The following tables summarises the incremental changes to the price controls for SHETL:

SHETL £m 2002/3 prices	DRAFT PROPOSALS	
	2005/6	2006/7
Incremental opex £m	-9.6	-9.8
Incremental capex £m	3.9	1.4
Incremental allowed revenues £m	- 7.6	-7.6

Incremental allowed revenues levelised over the 2 years
Allowed revenues include impact of addition of interconnector, pre-BETTA connection amounts and BETTA implementation cost to the RAV

Breakdown of allowed revenues by additional terms in price control formula

SHETL £m 2002/3 prices	DRAFT PROPOSALS	
	2005/6	2006/7
BI_t	0.6	0.6
EC_t	-9.2	-9.2
CC_t	1.0	1.0
IAT_t	0	0
Incremental allowed revenues £m	-7.6	-7.6

5.62. The financing costs have been calculated assuming a 6.5% cost of capital. If a decision is made following the outcome of the DPCR4 work to make an adjustment to the cost of capital for SP Transmission and SHETL, the above allowed revenue calculations will need to be adjusted accordingly.

NGC

5.63. Under BETTA, the significant changes in operating expenditure costs are:

- ♦ an increase in enduring operating costs related to its GB system operator role, and
- ♦ an increase to fund BETTA implementation costs, and
- ♦ and increase to fund interconnector operating costs.

5.64. The significant changes in capital expenditure are:

- ♦ England-Scotland interconnector non-load capex
  It should be noted that the capital expenditure related to the England-Scotland interconnector has been retained in the BETTA price controls pending resolution of the work on the funding of the transmission investment for renewable generation. It should be noted that NGC have indicated that its England-Scotland non-load investment would form part of the renewable investment. Ofgem will be reviewing the level of interconnector related capex in developing its October proposals.

5.65. The significant changes in opening RAV are:

- ♦ Inclusion of the England-Scotland interconnector assets into the RAV, and
- ♦ Inclusion of the capital expenditure component of BETTA implementation costs into the RAV.

5.66. For NGC, the cost changes apply to different parts of its price controls to reflect the activities for which NGC is remunerated under each of its controls as shown in the following table:

NGC control	**Additional BETTA activities to be remunerated**
TO control	England-Scotland interconnector opex, capex and financing costs

	Ofgem licence fees previously charged to SP Transmission and SHETL
SO internal cost controls (non-incentivised)	BETTA implementation costs Payments to SP Transmission and SHETL for reshuffling outages
SO internal cost controls (incentivised)	Enduring operating cost changes related to GBSO role

5.67. The allowed revenues for each control have been calculated by estimating the operating and capital expenditures for the activities detailed in the above table and calculating the financing costs assuming a 6.25% cost of capital in line with the assumptions used in setting NGC's existing controls.

5.68. Details of the price control adjustments for BETTA and the capital and operating expenditure assumptions for NGC are set out in Appendices 13.

5.69. The following table summarises the proposed price control adjustments for NGC:

NGC controls £m 2002/3 prices	DRAFT PROPOSALS 2005/6			
	TO control	SO internal control (non-incentivised)	SO internal control (incentivised)	Total
Incremental opex £m	5.6	10.4	5.7	21.7
Incremental capex £m	1.5	0	0	1.5
Incremental allowed revenues £m	16.0	14.1	5.7	35.8

Allowed revenues include impact of addition of interconnector, and BETTA implementation cost to the RAV

Breakdown of allowed revenues by additional terms in price control formula

NGC £m 2002/3 prices	DRAFT PROPOSALS 2005/6
IES_t	15.3
EC_t	17.3
BI_t	3.2
IAT_t	0
Incremental allowed revenues £m	35.8

Overall impact of BETTA

5.70. Based on the draft proposals set out in this document, the following table shows the increase in aggregate transmission sector price controlled revenues resulting from the price control adjustments described above.

Year 2005/6 2002/3 prices	Allowed revenues absent BETTA	Allowed revenues with BETTA	% change
SPTL	£ 115m	£ 135m	17%
SHETL	£ 47m	£ 39m	-16%
NGC TO	£ 763m	£ 779m	2%
NGC SO internal costs*	£ 85m	£ 105m	23%
Total	£1010m	£1058m	5%

* Includes incentivised and non-incentivised costs

5.71. It should be noted that approximately half of the increase in the aggregate price controlled revenues is attributable to the inclusion of the England-Scotland interconnector into the price controls, the charges for which are currently borne by interconnector users outside the price controls, and to the introduction of a new connection charging methodology.

Financial indicators

5.72. As regards SP Transmission and SHETL, Ofgem has reviewed the financial indicators discussed in chapter 2 to take into account the proposed price control adjustments under BETTA discussed in this chapter. Initial calculations indicate that for both companies the financial ratios remain within the target values. The values for the indicators will be reviewed as part of developing Ofgem's final proposals.

5.73. Ofgem does not consider that the changes to NGC's price controls proposed in this chapter are of sufficient magnitude to warrant a formal review of the financial indicators appropriate to NGC.

Output projections

5.74. The outputs provided by SP Transmission and SHETL for the roll forward period are set out in Appendix 2. Ofgem's May report discussed the applicability of these outputs under BETTA.

Views of respondents

5.75. A respondent said that the GBSO should be allowed a significant input in to the planning process of the TO. It said that to maximise the efficiency gains of BETTA, it seems reasonable to suggest that investment planning decisions must be considered within a GB context; the GBSO should have the ability to challenge the investment plans of TO's in cases where the proposed investment may not be economically justifiable.

5.76. NGC said that in terms of the projections concerning new generation and load in Scotland, the information is consistent with projections that the three transmission licensees have been using to formulate reinforcement proposals (i.e. RETS) and the more detailed information being used to estimate the potential constraint costs that could arise under BETTA.

Ofgem's views

TO incentives

5.77. Ofgem considers there needs to be clarity over the interactions between the GB system operator and transmission owners where this has revenue implications. Ofgem therefore proposes that NGC should prepare a report each year covering any changes requested of the transmission owners following conclusion of the

- ♦ investment planning process, and
- ♦ week 49 outage plan.

5.78. The report should, for example, include the reasons for the change request, the costs/savings to NGC resulting from the request and of the cost/benefits to transmission users from the request.

Losses

5.79. Ofgem has raised the treatment of losses under BETTA with licensees. They have made the following points:

- ♦ losses can be fixed and/or vary with load

- low loss equipment solutions can require significant added investment

- new equipment is selected to optimise the whole life costs of the assets including an estimate of the cost of lifetime losses, and

- there is a broad correlation between the percentage losses and units transmitted (with fixed network assets).

5.80. Under BETTA, the continued development of economical and efficient solutions will require the licensees to cooperate and exchange information, for example on losses. Detailed procedures under the STC are being developed by the licensees to support this general requirement.

5.81. Nevertheless, there may be a need to develop incentives in relation to losses, that recognise that the level of transmission losses is influenced by both investment decisions and operating decisions. Ofgem therefore proposes to require licensees to make reports on progress with loss reduction measures in order to inform the main review for 2007. Ofgem will be discussing the details of these reporting arrangements with the companies in autumn 2004.

Reporting

5.82. In order to provide accounting clarity, Ofgem considers that NGC should report each year the amounts paid by NGC to each transmission owner in the preceding year:

- under the STC, and

- under any other contractual arrangement, if any (each such payment to be specified).

Excluded services

5.83. Chapter 2 described the present excluded service revenue arrangements for SP Transmission and SHETL.

5.84. Under BETTA the excluded service revenues associated with the England-Scotland interconnector will not apply as the interconnector will be fully included in the price controls.

5.85. Under BETTA, certain components of the connection income received by NGC in respect of connections in Scotland will be payable by NGC to SP Transmission or SHETL as appropriate. As regards the transmission owners, the revenues related to post-BETTA connections are proposed to be treated as excluded service revenues. Where funding for these investments is made by the transmission owners outside the price controls, further consideration is to be given to the regulatory treatment of these revenues.

5.86. The work on TO incentives under BETTA has concluded that payments from NGC to transmission owners may be necessary in relation to outage reshuffling at short notice. Ofgem's May report discussed the regulatory treatment of such payments to the transmission owners. For the purpose of calculating its draft proposals Ofgem has treated such payments received as excluded service revenues for the transmission owners. The appropriate regulatory treatment of these payments to transmission owners is the subject to further consideration by Ofgem and discussion with licensees.

Views invited

5.87. Views are invited on Ofgem's draft proposals for the price controls to apply under BETTA for SP Transmission and SHETL for 2005/6 and 2006/7 and for NGC for 2005/6.

6. Next steps

6.1. This consultation document has set out Ofgem's draft proposals for:

- the roll forward price controls for SP Transmission and SHETL for 2005/6 and 2006/7 (absent BETTA)
- the adjustments to the roll forward price controls for SP Transmission and SHETL as a result of BETTA, and
- the adjustments to NGC's existing price controls for 2005/6 as a result of BETTA.

6.2. Work is now in hand to develop Ofgem's final proposals.

6.3. The overall timetable for the price control work, including proposed future consultations, is shown below:

Transmission price controls		
Price controls and incentives under BETTA	**Published**	October 2003
Initial thoughts SP Transmission and SHETL	**Published**	March 2004
Update (Note 1)	**Published**	May 2004
Draft proposals (Note 1)	**Published**	July 2004
Proposals (Note 1)		October 2004
Final proposals (Note 1)		December 2004
Implementation of price controls		From 1 April 2005

Note 1. These papers will cover the following issues:

- The roll-forward price controls to apply to SP Transmission and SHETL from 1 April 2005 until BETTA go-live, should BETTA be deferred for any reason.
- The adjustments to the price controls for BETTA (SP Transmission, SHETL, and NGC's TO and SO internal controls)

6.4. The timetable set out in the May report indicated that final price control proposals would be made in October 2004. In the May report, Ofgem consulted on taking into account work being carried out in the distribution price control review. The timetable for publishing final proposals for SP Transmission and SHETL has been revised to allow for possible adjustments following the outcome of the DPCR4 work on cost of capital in November 2004. The Proposals document in October 2004, will present firm proposals for the price controls for SP Transmission and SHETL, recognising that these proposals may need to be adjusted if a decision is made that the cost of capital assumed in the Proposals document is not appropriate. The October Proposals document will include final proposals for NGC price controls, since the cost of capital issue does not affect the adjustments to NGC's price controls for 2005/6.

6.5. NGC's SO external cost incentive (as GB system operator) is being developed to a different timetable. An initial consultation paper will be published shortly, with initial proposals in October/November 2004, and final proposals in January 2005. These papers will need to include separate proposals for England & Wales in case BETTA go-live is deferred from 1 April 2005 for any reason.

Views invited

6.6. Views are invited on the proposed processes and timetable for developing the price controls to apply under BETTA.

Appendix 1 Respondents to Ofgem's May consultation paper

Transmission price controls and BETTA: Update, May 2004, Ofgem 107/04

Respondents

British Energy

EDF Energy plc

Edison Mission Energy

National Grid Transco

Powergen

ScottishPower Energy Management

Scottish and Southern Energy plc

SP Transmission Ltd

Appendix 2 Price control outputs

The following table shows the output projections provided by SP Transmission and SHETL, in the absence of BETTA and excluding the transmission investment for renewable generation proposals.

Table 1. SP Transmission

		2005/6	2006/7
Overall transmission system flows			
Maximum physical generation available	MW	7527	8177
Maximum demand (Note 1)	MW	4253	4277
Interconnections (indicative winter flows) SHETL (imports to SP Transmission) Moyle (exports from SP Transmission) NGC (exports from SP Transmission)	 MW MW MW	 930 450 2200	 930 450 2200
System performance			
System length	km	3981	4013
System availability (Note 2)	%	97	97
System throughput			
Units transmitted to connected grid supply points	GWh	23310	23450
Units imported/exported to SP Transmission (Note 3)	GWh	17300	17300
Losses	GWh	828	831

Note 1: ACS demand
Note 2: Annual average availability including planned/unplanned maintenance
Note 3: Units imported (-)/exported (+) are net amounts

Table 2. SHETL

		2005/06	2006/07
Overall transmission system flows:			
Maximum physical generation available	MW	3686	3891
Maximum demand (Note 1)	MW	1708	1723
Interconnections (indicative winter flows)			
SP Transmission (exports from SHETL)	MW	1200	1300
System performance:			
System length	km	4848	4848
System availability (Note 2)	%	98%	98%
System throughput:			
Units transmitted to connected grid supply points	GWh	8612	8698
Units imported/exported to SP Transmission	GWh	3945	4573
Losses	GWh	317	320
Total units	GWh	10584	10690

Note 1: actual demand
Note 2: Annual average availability including planned & unplanned outages
Units imported (-)/exported (+) are net amounts

Appendix 3 Price control calculations – SP Transmission

2002/3 prices	DRAFT ROLL FORWARD (£m)	
	2005/6	**2006/7**
CAPITAL EXPENDITURE		
Load related	22.3	23.3
Non Load related	44.8	55.3
Gross base capex	67.1	78.6
Capital contributions	-10.7	-11.3
Total capex	56.4	67.3
RAV		
Opening asset value	536.8	542.4
Depreciation	50.8	52.3
Net network capex	56.4	67.3
Closing asset values	542.4	557.4
ALLOWED ITEMS		
Operating costs	33.2	33.9
Depreciation	50.8	52.3
Return	35.1	35.7
Total costs	**119.1**	**121.9**
PV of Total costs	115.4	111.0
TOTAL PRESENT VALUE OVER 2 YRS		**226.3**
REVENUE		
Price control revenue	114.5	114.5
Excluded revenue	6.0	6.0
Total revenue	**120.5**	**120.5**
PV of Total revenue	116.7	109.6
TOTAL PRESENT VALUE OVER 2 YRS		**226.3**
P0		1.9%
X		0%

DRAFT BETTA INCREMENTAL (£m Incremental)	
2005/6	**2006/7**
11.4	18.1
2.8	0.0
14.2	18.1
0.0	0.0
14.2	18.1
192.0	199.4
6.8	7.1
14.2	18.1
199.4	210.4
-3.1	-4.0
6.8	7.1
12.7	13.4
16.4	**16.5**
15.8	15.0
	30.8
19.8	19.8
-3.4	-3.4
16.4	**16.4**
15.9	14.9
	30.8

Cost of capital assumption:
6.5% pa

SP Transmission: Ofgem's ROLL FORWARD ASSUMPTIONS (Draft)

OPEX (2002/03 prices)

£m	2005/6	2006/7
Transmission (including grid control)	12.2	12.8
Interconnector contract costs (NGC)	6.8	6.8
Pre-Vesting interconnector	0.8	0.8
Pre-Vesting interconnector rates	0.7	0.7
Network rates	11.7	11.7
Licence fees	1.0	1.1
Total	**33.2**	**33.9**

EXCLUDED REVENUES (2002/03 prices) - price control basis

£m	2005/6	2006/7
Telecoms	0	0
Connection Charges		
~Demand (SP Distribution existing) Note 1	0	0
~Demand additional Note 1	0	0
~Generation Note 1	0	0
Interconnector related revenues from SHETL		
~Corridor charge	4.2	4.2
~Capacity charge	1.2	1.2
Other	0.6	0.6
Total	**6.0**	**6.0**

Note 1: Subject to review

PATH OF RAV (2002/03 prices)

£m	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Opening asset value	606.7	583.1	551.2	542.5	542.7	536.8	542.4
Depreciation	46.5	47.1	47.5	48.5	49.7	50.8	52.3
Net network capex	22.9	15.2	38.8	48.7	43.8	56.4	67.3
Closing asset values	583.1	551.2	542.5	542.7	536.8	542.4	557.4

SP Transmission: Ofgem's BETTA INCREMENTAL ASSUMPTIONS (Draft)

OPEX – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
Net change in grid control costs	0	0
Post-Vesting England- Scotland interconnector		
~Maintenance & overhead	0.6	0.6
~Rates	0.5	0.5
Changes in interconnector arrangements		
~NGC contract costs	-6.8	-6.8
Licence fee changes	-1.0	-1.1
BETTA implementation costs incurred prior to 1 April 2005	2.8	2.8
BETTA implementation costs incurred after 1 April 2005	0.8	0
Total adjustments	**-3.1**	**-4.0**

CAPEX – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
Non-load related capital expenditure		
~Post Vesting England-Scotland interconnector	2.8	0.0
~New IT systems post BETTA implementation	0.0	0.0
Load related capital expenditure		
~Post BETTA connections (PLUGS)	11.4	18.1
Total adjustments	**14.2**	**18.1**

EXCLUDED REVENUES – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
Interconnector related revenues from SHETL		
~Corridor charge	-4.2	-4.2
~Capacity charge	-1.2	-1.2
TO incentives (outage reshuffling) Note 1	2.0	2.0
Total	**-3.4**	**-3.4**

Note 1: Ofgem estimate, subject to further analysis with companies

DEPRECIATION – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7	Dep'n Yrs
Interconnector	4.8	4.8	29
Post Vesting England-Scotland interconnector		0	40
BETTA implementation capex	0.3	0.3	7
Pre BETTA connections (PLUGS)	1.7	1.7	30
Post BETTA connections (PLUGS)	0	0.3	40
Total	**6.8**	**7.1**	

PATH OF RAV (2002/03 prices)

£m	2005/6	2006/7
Opening asset value	192.0	199.4
Depreciation	6.8	7.1
Net network capex	14.2	18.1
Closing asset values	199.4	210.4

Note : Opening asset value includes:

1. England Scotland Interconnector Asset Value: £140m (value subject to further investigation, see Chapter 3)
2. BETTA Implementation capex incurred prior to 1 April 2005: £2m
3. Pre BETTA connections (PLUGS): £50m (Ofgem estimate, subject to further analysis with companies)

Appendix 4 Price control calculations - SHETL

2002/3 prices	DRAFT ROLL FORWARD (£m)		DRAFT BETTA INCREMENTAL (£m Incremental)	
	2005/6	**2006/7**	**2005/6**	**2006/7**
CAPITAL EXPENDITURE				
Load related	9.2	4.2	2.8	1.4
Non Load related	11.1	10.9	1.1	0.0
Gross base capex	20.4	15.0	3.9	1.4
Capital contributions	0.0	0.0	0.0	0.0
Total capex	20.4	15.0	3.9	1.4
RAV				
Opening asset value	221.1	227.8	29.0	31.9
Depreciation	13.7	14.2	1.0	1.1
Net network capex	20.4	15.0	3.9	1.4
Closing asset values	227.8	228.7	31.9	32.2
ALLOWED ITEMS				
Operating costs	18.6	18.9	-9.6	-9.8
Depreciation	13.7	14.2	1.0	1.1
Return	14.6	14.8	2.0	2.1
Total costs	**46.9**	**47.9**	**-6.7**	**-6.6**
PV of Total costs	45.4	43.6	-6.5	-6.0
TOTAL PRESENT VALUE OVER 2 YRS		**89.0**		**-12.5**
REVENUE				
Price control revenue	47.3	47.3	-7.6	-7.6
Excluded revenue	0.1	0.1	1.0	1.0
Total revenue	47.4	47.4	**-6.6**	**-6.6**
PV of Total revenue	45.9	43.1	-6.4	-6.0
TOTAL PRESENT VALUE OVER 2 YRS		**89.0**		**-12.5**
P0		6.4%		
X		0%		

Cost of capital assumption:
6.5% pa

SHETL: Ofgem's ROLL FORWARD ASSUMPTIONS (Draft)

OPEX (2002/03 prices)

£m	2005/6	2006/7
Transmission (including grid control) Note 1	4.9	5.2
Interconnector contract costs (NGC & SIA)	10.0	10.0
Pre-Vesting interconnector	0	0
Pre-Vesting interconnector rates	0	0
Network rates	3.4	3.4
Licence fees	0.3	0.3
Total	**18.6**	**18.9**

Note 1: SHETL's expenditure projections have been adjusted to remove BETTA related costs

EXCLUDED REVENUES (2002/03 prices) - price control basis

£m	2005/6	2006/7
Telecoms	0.1	0.1
Connection Charges		
~Demand (SP Distribution existing) Note 1	0	0
~Demand additional Note 1	0	0
~Generation Note 1	0	0
Total	**0.1**	**0.1**

Note 1: Subject to review

PATH OF RAV (2002/03 prices)

£m	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Opening asset value	240.0	236.8	231.0	226.0	219.7	221.1	227.8
Depreciation	12.5	12.8	12.9	13.1	13.3	13.7	14.2
Net network capex	9.4	6.9	7.9	6.8	14.8	20.4	15.0
Closing asset values	236.8	231.0	226.0	219.7	221.1	227.8	228.7

SHETL: Ofgem's BETTA INCREMENTAL ASSUMPTIONS (Draft)

OPEX – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
Net change in grid control costs	0.0	0.0
Post-Vesting England- Scotland interconnector		
~Maintenance & overhead	0	0
~Rates	0	0
Changes in interconnector arrangements		
~NGC contract costs	-5.9	-5.9
~SIA contract costs	-4.1	-4.1
Licence fees	-0.3	-0.3
BETTA implementation costs incurred prior to 1 April 2005	0.4	0.4
BETTA implementation costs incurred after 1 April 2005	0.3	0.1
Total	**-9.6**	**-9.8**

CAPEX – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
Non-load related capital expenditure		
~Post Vesting England-Scotland interconnector	0.6	0.0
~New IT systems for BETTA implementation	0.5	0.0
Load related capital expenditure		
~Post BETTA connections (PLUGS)	2.8	1.4
Total adjustments	**3.9**	**1.4**

EXCLUDED REVENUES – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7
TO incentives (outage reshuffling) Note 1	1.0	1.0
Total	**1.0**	**1.0**

Note 1: Ofgem estimate, subject to further analysis with companies

DEPRECIATION – BETTA ADJUSTMENTS (2002/03 prices)

£m	2005/6	2006/7	Dep'n Yrs
Interconnector	0.7	0.7	29
Post Vesting England-Scotland interconnector		0	40
BETTA implementation capex	0	0.1	7
Pre BETTA connections (PLUGS)	0.3	0.3	30
Post BETTA connections (PLUGS)	0	0.1	40
Total	**1.0**	**1.1**	

PATH OF RAV (2002/03 prices)

£m	**2005/6**	**2006/7**
Opening asset value	29.0	31.9
Depreciation	1.0	1.1
Net network capex	3.9	1.4
Closing asset values	31.9	32.2

Note : Opening asset value includes:

1. England Scotland Interconnector Asset Value: £19m(value subject to further investigation, see Chapter 3)
2. BETTA Implementation capex incurred prior to 1 April 2005: £0m
3. Pre BETTA connections (PLUGS): £10m (Ofgem estimate, subject to further analysis with companies)

Appendix 5 SP Transmission: revenue restriction licence condition

5.1 The following is a consolidated version of the revenue restriction Special Conditions (as amended from time to time) from SP Transmission's current transmission licence. These conditions need to be read in the context of the full transmission licence.

Special Condition I: Definitions

In this condition and in Special Conditions J to N and Schedule A:

"average charge per regulated unit transmitted"	means the regulated transmission revenue in the relevant year divided by the regulated quantity transmitted in that year.
"average specified rate"	means the average of the daily base rates of Governor and Company of the Bank of Scotland (or such other bank as the Authority shall specify from time to time) current from time to time during the period in respect of which the calculation falls to be made.
" charge restriction conditions"	means Special Conditions I to N inclusive together with Schedule A to this licence, as from time to time modified or replaced in accordance with the provisions of the Act.
"excluded services"	means those services provided as part of the transmission business which in accordance with the principles set out in Part A of Schedule A fall to be treated as excluded services.
"maximum average charge per regulated unit transmitted"	means the maximum average charge per regulated unit transmitted by the licensee for relevant year commencing on 1 April 1999 calculated in accordance with the formula in

	paragraph 2.1 of the Schedule 5 of the version of the licence in force (or deemed to be in force) as at 31 March 2000.
"maximum regulated transmission revenue"	means the regulated transmission revenue of the licensee calculated in accordance with the formula contained in Special Condition J (Restriction of Transmission Charges).
"metered"	means in relation to any quantity of units of electricity transmitted, as measured by a meter installed for such purpose or (where no such meter is installed) as otherwise reasonably calculated.
"notified value"	means, in relation to any term, such value as the Secretary of State shall ascribe to that term in a written notice given to the licensee as soon as practicable after the date of grant of this licence.
"regulated quantity transmitted"	means the aggregate quantity of units transmitted through the licensee's transmission system in that relevant year metered at exit points on leaving the licensee's transmission system.
"regulated transmission revenue"	means the revenue (measured on an accruals basis) derived from the provision of transmission services (including to any separate business, other than the transmission business) in the relevant year, after deduction of value added tax (if any) and any other taxes based directly on the amounts so
"regulated unit transmitted"	means any unit within the regulated quantity transmitted.
"relevant year"	means a financial year commencing on or

	after 1 April 1990.
"relevant year t"	means that relevant year for the purposes of which any calculation falls to be made.
"relevant year t-1"	means the relevant year preceding relevant year t or, in respect of the period prior to 1 April 1990, the period of 12 calendar months commencing on 1 April 1989; and similar expressions shall be construed accordingly.
"transmission services"	means all services provided as part of the transmission business other than excluded services.
"unit"	means a kilowatt hour.

Special Condition J: Restriction of transmission charges

Basic Formula

1 Without prejudice to Special Condition M (Allowance in respect of Security costs), the licensee shall in setting its charges for the provision of transmission services use its best endeavours to secure that in any relevant year the regulated transmission revenue shall not exceed the maximum regulated transmission revenue calculated in accordance with the following formula:

$$TR_t = R_t - KK_{Tt} + LF_t$$

where:

TR_t means the maximum regulated transmission revenue in relevant year t; and

R_t in relation to the relevant year commencing 1 April 2000, shall have a value equal to £114.36 million and in relation to any subsequent relevant year the value of it shall be derived from the following formula:

$$R_t = R_{t-1} \left[1+ \frac{RPIt - X_T}{100} \right]$$

where

RPI_t means the percentage change (whether of a positive or a negative value) in the arithmetic average of the Retail Price Index figures published or determined with respect to each of the six months July to December (inclusive) in relevant year t-1 and the arithmetic average of the Retail

Price Index figures published or determined with respect to the same months in relevant year t-2.

X_T means 0.

KK_{Tt} means the correction factor (whether of a positive or negative value) to be applied to the regulated transmission revenue in relevant year t (subject to paragraph 3 of Special Condition K (Restriction of transmission charges: adjustments)) which factor is to be derived as follows:

(a) in the relevant year commencing 1 April 2000:

$$KK_{Tt} = \frac{Q_{t-1}}{100} \times (C_{t-1} - T_{t-1}) \times \left(1 + \frac{IR_t}{100}\right)$$

where

C_{t-1} means the average charge per regulated unit transmitted in relevant year commencing 1 April 1999.

IR_t means that interest rate which is equal to, where KK_{Tt} in relevant year commencing 1 April 2000 (taking no account of IR for this purpose) has a positive value and C_{t-1} exceeds T_{t-1} by more than 2 per cent, the average specified rate plus 4 or, where KK_{Tt} in that relevant year commencing 1 April 2000 (taking no account of IR for this purpose) has a negative value and C_{t-1} does not exceed T_{t-1} by more than 2 per cent, the average specified rate.

Q_{t-1} has the value 30,399 (which represents the regulated quantity transmitted (expressed in GWh) by the licensee in relevant year commencing 1 April 1999).

T_{t-1} means the maximum average charge per regulated unit transmitted in relevant year commencing 1 April 1999; as determined in accordance with Schedule 5 of the form of ScottishPower's transmission licence in force as at 31 March 2000; and

(b) in subsequent relevant years KKdt is to be derived from the following formula:

$$KK_{Tt} = (CR_{t-1} - TR_{t-1})(1+\frac{I_t}{100})$$

where:

CR_{t-1} means the regulated transmission revenue in relevant year t-1.

TR_{t-1} means the maximum regulated transmission revenue in relevant year t-1.

I_t means that interest rate in relevant year t which is equal to, where KK_{Tt} (taking no account of I for this purpose) has a positive value and CR_{t-1} exceeds TR_{t-1} by more than 2 per cent, the average specified rate plus 4 or, where KK_{Tt} (taking no account of I for this purpose) has a negative value and CR_{t-1} does not exceed TR_{t-1} by more than 2 per cent, the average specified rate.

LF_t for the tenth and preceding years shall be zero and in the eleventh and for any subsequent relevant year, is derived from the following formula:

$LF_t = LP_t - LA_t$

where:

LP_t means an amount equal to the payments made by the licensee, in the relevant year t, in accordance with its obligations set out in Standard Licence Condition 4 or, in respect of the eleventh relevant year, payments attributed to the transmission business of the predecessor company of the licence holder in respect of payments made to the Director General of Electricity Supply under the licence condition entitled 'Payment of fees' in the Generation, Transmission and Public Electricity Supply Licence of the predecessor company.

LA_t is derived from the following formula:

$LA_t = PF_t.PIF_t$

PF_t means, in respect of each relevant year, the amount given in the table appearing under that term in the part of Annex A to this Condition that applies to the licensee.

PIF_t is derived from the following formula:

$$\mathrm{PIF}_t = \left(1 + \frac{RPI_t}{100}\right) PIF_{t-1}$$

where for the ninth relevant year PIF_{t-1} equals 1.

ANNEX A TO SPECIAL CONDITION J (RESTRICTION OF TRANSMISSION CHARGES)

<u>SP TRANSMISSION LIMITED</u>

PF_t

2000/01	£0.290 millions
2001/02	£0.284 millions
2002/03	£0.276 millions
2003/04	£0.270 millions
2004/05	£0.262 millions
subsequent relevant years	£0.262 millions

<u>SCOTTISH HYDRO-ELECTRIC TRANSMISSION LIMITED</u>

PF_t

2000/01	£0.093 millions
2001/02	£0.091 millions
2002/03	£0.087 millions
2003/04	£0.085 millions
2004/05	£0.084 millions
subsequent relevant years	£0.084 millions

Special Condition K: Restriction of transmission charges: adjustments

1. If, in respect of any relevant year, the regulated transmission revenue exceeds the maximum regulated transmission revenue by more than 3 per cent of the latter, the licensee shall furnish an explanation to the Authority and in the next following relevant year the licensee shall not effect any increase in charges for the provision of transmission services, the revenue from which is regulated under Special Conditions I to N , unless it has demonstrated to the reasonable satisfaction of the Authority that the regulated transmission revenue in that next following relevant year would not be likely to exceed the maximum regulated transmission revenue in that same relevant year.

2. If, in respect of any two successive relevant years, the sum of the amounts by which the regulated transmission revenue has exceeded the maximum regulated transmission revenue is more than 4 per cent of the maximum regulated transmission revenue for the second of these relevant years, then in the next following relevant year the licensee shall, if required by the Authority , adjust its charges for the provision of transmission services, the revenue from which is regulated under the Special Conditions I to N , such that the regulated transmission revenue would not be likely, in the judgment of the Authority , to exceed the maximum regulated transmission revenue in that next following relevant year.

2. If, in respect of any two successive relevant years, the regulated transmission revenue is less than 90 per cent of the maximum regulated transmission revenue, the Authority, after consultation with the licensee, may direct that in calculating KK_{Tt} in respect of the next following relevant year, there shall be substituted for CR_{t-1} in the formula set out in paragraph 1 of Special Condition J (Restriction of transmission charges) such figure as the Authority may specify being not less than CR_{t-1} and not more than 0.90 (TR_{t-1}).

Special Condition L: Information to be provided to the Authority in connection with the charge restriction conditions

1. Where the licensee is intending to make any change in charges for the provision of transmission services regulated under Special Condition J (Restriction of transmission charges) , the licensee shall not later than the time of publication of such changes provide the Authority with:

   (i) a written forecast of the maximum regulated transmission revenue, together with its components, in respect of the relevant year t in which such a change is to take effect and in respect of the next following relevant year t+1; and

   (ii) a written estimate of the maximum regulated transmission revenue, together with its components, in respect of the relevant year t-1 immediately preceding the relevant year in which the change is to take effect unless a statement complying with paragraph 5 in respect of relevant year t-l has been furnished to the Authority before the publication of the proposed change.

2 If within three months of the commencement of any relevant year t the licensee has not made any such change in charges as is referred to in paragraph 1, the licensee shall provide the Authority with a written forecast of the maximum regulated transmission revenue together with its components, in respect of relevant year t.

3 Any forecast or estimate provided in accordance with paragraph 1 or 2 shall be accompanied by such information as regards the assumptions underlying the forecast or estimate as may be necessary to enable the Authority to be satisfied that the forecast or estimate has been properly prepared on a consistent basis.

4 Not later than six weeks after the commencement of each relevant year t, the licensee shall send to the Authority a statement as to:

(a) whether or not the provisions of Special Condition K (Restriction of transmission charges: adjustments) are likely to be applicable in consequence of the regulated transmission revenue in the preceding relevant year t-1 or the two preceding relevant years t-1 and t-2; and

(b) its best estimate as to the relevant correction factor KK_{Tt} calculated in accordance with the formula set out in Special Condition J (Restriction of Transmission Charges) to be applied in calculating the maximum regulated transmission revenue in respect of relevant year t.

5. Not later than three months after the end of each relevant year the licensee shall send to the Authority a statement, in respect of that relevant year, showing the specified items referred to in paragraph 7.

6. The statement referred to in the preceding paragraph shall be:

(a) accompanied by a report from the Auditors that in their opinion such statement fairly presents each of the specified items referred to in paragraph 7 in accordance with the requirements of the charge restriction conditions and that the amounts shown in respect of each of the specified items are in accordance with the licensee's accounting records which have been maintained in respect of the transmission business in accordance with standard condition 5 (Regulatory Accounts); and

(b) certified by a director of the licensee on behalf of the licensee that to the best of his knowledge, information and belief after having made all reasonable inquiries:

(i) there is no amount included in its calculations under Special Condition J (Restriction of transmission charges) and Schedule A which represents other than bona fide consideration for the provision of transmission services the revenue from which is regulated under Special Conditions I to N and Schedule A;

(ii) no service has been treated as an excluded service other than a service permitted to be so treated in accordance with Schedule A; and

(iii) no amount included in the revenues stated in respect of excluded services represents other than bona fide consideration for the provision of the excluded service to which it relates.

7. The specified items to be shown in the statement referred to in paragraph 5 shall be the following:

(a) the regulated quantity transmitted;

(b) [no longer used]

(c) the regulated transmission revenue;

(d) the nature of all services provided as part of the transmission business and treated as excluded services, together with a statement of the revenues derived from each service so treated;

(e) [no longer used]

(f) [no longer used]

(g) the details referred to in paragraph 5 of Special Condition M (Allowances in respect of security costs);

(h) the value of the term LF_t together with the value of each of its component parts, as detailed in paragraph 1 of special condition J (Restriction of transmission charges); and

(i) such other items as shall be specified in directions issued by the Authority for the purposes of Special Conditions I to N .

8. Where the Authority issues directions in accordance with paragraph 6 of Special Condition M (Allowances in respect of Security costs) or paragraph 7 of Schedule A (Supplementary provisions of the charge restriction conditions), the licensee shall, if so required by the Authority and within such period as the Authority shall specify, send to the Authority a revised statement in substitution for the licensee's statement under paragraph 5 in respect of the relevant year in question and such revised statement shall give effect to such directions.

Special Condition M. Allowances in respect of security costs

1. At any time during a security period, the licensee may give notice in writing to the Authority suspending, with effect from the date of receipt of the notice by the Authority , application of such of the charge restriction conditions as may be specified in the notice, for the unexpired term of the security period.

2. At any time during a security period, the Authority may (having regard to its duties under the Act) by means of directions:

   (a) suspend or modify for the unexpired term of the security period the charge restriction conditions or any part or parts thereof; or

   (b) introduce for the unexpired term of the security period new charge restriction conditions;

   in either case, so as to make such provision as in the opinion or estimation of the Authority is requisite or appropriate to enable the licensee to recover by means of a uniform percentage increase on all charges made in the course of the licence an amount estimated as being equal to the licensee's allowed security costs during such period, and the licensee shall comply with the terms of any directions so issued.

3. Subject to paragraphs 4 and 6, the licensee shall in any relevant year be entitled to recover an aggregate amount equal to the licensee's allowed security costs in that year or (in so far as not previously recovered) any previous year, by means of appropriate equitable increases in the charges made by the licensee in the course of the transmission business..

4. Paragraph 3 shall not apply in so far as such licensee's allowed transmission related security costs

(a) were otherwise recovered by the licensee; or

(b) were taken into account by the Authority in setting the charge restriction conditions by means of directions issued under paragraph 2.

5. The licensee shall following the end of each relevant year provide to the Authority details in respect of that relevant year of:

(a) the aggregate amounts charged under paragraph 3 on account of the licensee's allowed security costs; and

(b) the basis and calculation underlying the increases in charges made by the licensee in the course of the transmission business.

6. Where the Authority is satisfied that the licensee has recovered amounts in excess of the licensee's allowed security costs, the Authority may issue directions requiring the licensee to take such steps as may be specified to reimburse customers of the licensee for the excess amounts charged to them, and the licensee shall comply with any directions so issued.

7. No amounts charged by the licensee under this Condition (whether or not subsequently required to be reimbursed) shall be taken into account for the purpose of applying the charge restriction provisions of Special Condition J (Restriction of transmission charges).

8. In this Condition:

"allowed security cost"

means any cost allowed by the Authority (upon receipt of such information, including a certificate from the auditors, as the Authority may request) as being a cost which is directly attributable to any action taken or omitted to be taken by the licensee in its capacity as holder of the license for the purpose of complying with directions issued by the Secretary of State under Section 34(4) of the Act.

"security period"	means a period commencing on the date on which any direction issued by the Secretary of State under Section 34(4)(b) of the Act enters effect and terminating on the date (being not earlier than the date such direction, as varied, is revoked or expires) as the Authority, after consultation with such persons (including without limitation, licence holders liable to be principally affected) as it shall consider appropriate, may with the consent of the Secretary of State by notice to all licence holders determine after having regard to the views of such persons.

Special Condition N: Duration of charge restriction conditions

1. The charge restriction conditions shall apply so long as this licence continues in force but shall cease to have effect (in whole or in part, as the case may be) if the licensee delivers to the Authority a disapplication request made in accordance with paragraph 2 and:

   (a) the Authority agrees in writing to the disapplication request; or

   (b) their application (in whole or in part) is terminated by notice given by the licensee in accordance with either paragraph 4 or paragraph 5.

2. A disapplication request pursuant to this Condition shall

   (a) be in writing addressed to the Authority;

   (b) specify the charge restriction conditions (or any part or parts thereof) to which the request relates; and

   (c) state the date from which the licensee wishes the Authority to agree that the specified charge restriction conditions shall cease to have effect.

3. Save where the Authority otherwise agrees, no disapplication following delivery of a disapplication request pursuant to this Condition shall have effect earlier than the date which is the later of:

   (a) the date being not less than 18 months after delivery of the disapplication request; and,

   (b) 31 March 2005.

4. If the Authority has not made a reference to the Competition Commission under Section 12 of the Act relating to the modification of the charge

restriction conditions before the beginning of the period of 12 months which will end with the disapplication date, the licensee may deliver written notice to the Authority terminating the application of such of the charge restriction conditions (or any part or parts thereof) as are specified in the disapplication request with effect from the disapplication date or a later date.

5. If the Competition Commission makes a report on a reference made by the Authority relating to the modification of the charge restriction conditions (or any part or parts thereof) specified in the disapplication request and such report does not include a conclusion that the cessation of such transmission charge restriction conditions, in whole or in part, operates or may be expected to operate against the public interest, the licensee may within 30 days after the publication of the report by the Authority in accordance with Section 13 of the Act deliver to it written notice terminating the application of such charge restriction conditions (or any part or parts thereof) with effect from the disapplication date or a later date.

Schedule A: Supplementary Provisions of the Charge Restriction Conditions

Part A: Excluded services

1. There may be treated as excluded services provided by the transmission business such services in respect of which charges are made:

   (a) which fall within paragraph 6; or

   (b) which:

      (i) do not fall within paragraph 2; and

      (ii) may be determined by the licensee as falling under one of the principles set out in paragraphs 3 to 5.

2. No service provided as part of the transmission business shall be treated as an excluded service in so far as it relates to the provision of services remunerated under use of system charges in accordance with Condition D8 of Part II (Basis of Charges for Use of System and Connection to System: Requirement for transparency) including (without prejudice to the foregoing):

      (i) the transport of electricity;

      (ii) the carrying out of works for the installation of electric lines or electrical plant (not otherwise payable in the form of connection charges) for the purpose of maintaining or upgrading the licensee's transmission system;

      (iii) the carrying out of works or the provision of maintenance or repair or other services for the purpose of enabling the licensee to comply with standard condition 7 (Licensee's Grid Code) and Special Condition H (Transmission System Security Standard and Quality of Service (Scotland)), the Electricity Supply Regulations 1988 or any regulations made under Section 29 of the Act or any other enactment relating to safety or standards applicable in respect of the transmission business ; and

(iv) the provision, installation and maintenance of any meters, switchgear or other electrical plant ancillary to the grant of use of system.

3. The whole or an appropriate proportion (as the case may be) of the charges of the type described in Condition D8 of Part II (Basis of Charges for Use of System and Connection to System) and borne by any person as connection charges in respect of connections made after the grant of this licence may be treated as excluded services.

4. There may be treated as an excluded service charges for the relocation of electric lines or electrical plant and the carrying out of works associated therewith pursuant to a statutory obligation (other than under Section 9(2) of the Act) imposed on the licensee.

5. There may with the approval of the Authority be treated as an excluded service any service of a type not above referred to which:

(a) consists in the provision of services for the specific benefit of a third party requesting the same; and

(b) is not made available as a normal part of the transmission business remunerated by use of system charges.

6. Services may be regarded as excluded services where the charges are:

(a) the rental for transmission business assets hosting fibre-optic telecommunications systems and used by third parties;

(b) made for the provision of capacity for transferring electricity across any part of any Upgrade;

(c) to Scottish Hydro-Electric Transmission Limited for the provision of capacity for transferring electricity from its authorised transmission area to the Scottish interconnection;

(d) to the Scottish Hydro-Electric Transmission Limited for the provision of capacity for transferring electricity across any part of the Scottish interconnection apart from any Upgrade;

(e) made for the provision of capacity for transferring electricity across any interconnection between Scotland and Northern Ireland.

7. Where the Authority is satisfied that, in light of the principles set out in paragraphs 3 to 6 inclusive, any service treated as being or not being an excluded service should not be so treated, the Authority shall issue directions to that effect, and such service shall cease to be treated as an excluded service with effect from the date of issue of such directions or (subject to paragraph 8 of Special Condition L (Information to be provided to the Authority in connection with the charge restriction conditions)) such other date as may be specified in the directions.

8. For the purpose of this Schedule “Scottish interconnection” shall have the meaning given in standard condition D1 (Interpretation of Section D (Supplementary Standard Conditions for Scotland)) and "Upgrade" shall have the meaning given in Special Condition B (Basis of Charges for Use of Scottish Interconnection).

Appendix 6 SHETL: revenue restriction licence condition

6.1 The following is a consolidated version of the revenue restriction Special Conditions (as amended from time to time) from SHETL's current transmission licence. These conditions need to be read in the context of the full transmission licence.

Special Condition I: Definitions

In this condition and in Special Conditions J to N and Schedule A:

"average charge per regulated unit transmitted"	means the regulated transmission revenue in the relevant year divided by the regulated quantity transmitted in that year.
"average specified rate"	means the average of the daily base rates of Governor and Company of the Bank of Scotland (or such other bank as the Authority shall specify from time to time) current from time to time during the period in respect of which the calculation falls to be made.
" charge restriction conditions"	means Special Conditions I to N inclusive together with Schedule A to this licence, as from time to time modified or replaced in accordance with the provisions of the Act.
"excluded services"	means those services provided as part of the transmission business which in accordance with the principles set out in Part A of Schedule A fall to be treated as excluded services.
"maximum average charge per regulated unit transmitted"	means the maximum average charge per regulated unit transmitted by the licensee for relevant year commencing on 1 April 1999

	calculated with the formula in paragraph 2.1 of the Schedule 5 of the version of the licence in force (or deemed to be in force) as at 31 March 2000.
“maximum regulated transmission revenue”	means the regulated transmission revenue of the licensee calculated in accordance with the formula contained in Special Condition J (Restriction of Transmission Charges).
"metered"	means in relation to any quantity transmitted, as measured by a meter installed for such purpose or (where no such meter is installed) as otherwise reasonably calculated.
"notified value"	means, in relation to any term, such value as the Secretary of State shall ascribe to that term in a written notice given to the licensee as soon as practicable after the date of grant of this licence.
"regulated quantity transmitted"	means the aggregate quantity of units transmitted through the licensee's transmission system in that relevant year metered at exit points on leaving the licensee's transmission system.
"regulated transmission revenue"	means the revenue (measured on an accruals basis) derived from the provision of transmission services (including to any separate business, other than the transmission business) in the relevant year, after deduction of value added tax (if any) and any other taxes based directly on the amounts so
"regulated unit transmitted"	means any unit within the regulated quantity transmitted.
"relevant year"	means a financial year commencing on or

	after 1 April 1990.
"relevant year t"	means that relevant year for the purposes of which any calculation falls to be made.
"relevant year t-1"	means the relevant year preceding relevant year t or, in respect of the period prior to 1 April 1990, the period of 12 calendar months commencing on 1 April 1989; and similar expressions shall be construed accordingly.
"transmission services"	means all services provided as part of the transmission business other than excluded services.
"unit"	means a kilowatt hour.

Special Condition J: Restriction of transmission charges

Basic Formula

1. Without prejudice to Special Condition M (Allowance in respect of security costs), the licensee shall in setting its charges for the provision of transmission services use its best endeavours to secure that in any relevant year the regulated transmission revenue shall not exceed the maximum regulated transmission revenue calculated in accordance with the following formula:

$$TR_t = R_t - KK_{Tt} + LF_t$$

where:

TR_t means the maximum regulated transmission revenue in relevant year t; and

R_t in relation to the relevant year commencing 1 April 2000, shall have a value equal to £49.15 million and in relation to any subsequent relevant year the value of it shall be derived from the following formula:

$$R_t = R_{t-1}\left[1 + \frac{RPIt - X_T}{100}\right]$$

where

RPI_t means the percentage change (whether of a positive or a negative value) in the arithmetic average of the Retail Price Index figures published or determined with respect to each of the six months July to December (inclusive) in relevant year t-1 and the arithmetic average of the Retail Price Index figures published or determined with respect to the same months in relevant year t-2.

X_T means 0.

KK_{Tt} means the correction factor (whether of a positive or negative value) to be applied to the regulated transmission revenue in relevant year t (subject to Special Condition K (Restriction of transmission charges: adjustments), paragraph 3) which factor is to be derived as follows:

(a) in the relevant year commencing 1 April 2000:

$$KK_{Tt} = \frac{Q_{t-1}}{100} \times (C_{t-1} - T_{t-1}) \times \left(1 + \frac{IR_t}{100}\right)$$

where

C_{t-1} means the average charge per regulated unit transmitted in relevant year commencing 1 April 1999.

IR_t means that interest rate which is equal to, where KK_{Tt} in relevant year commencing 1 April 2000 (taking no account of IR for this purpose) has a positive value and C_{t-1} exceeds T_{t-1} by more than 2 per cent, the average specified rate plus 4 or, where KK_{Tt} in that relevant year commencing 1 April 2000 (taking no account of IR for this purpose) has a negative value and C_{t-1} does not exceed T_{t-1} by more than 2 per cent, the average specified rate.

Q_{t-1} has the value 12,066 (which represents the regulated quantity transmitted (expressed in GWh) by the licensee in relevant year commencing 1 April 1999).

T_{t-1} means the maximum average charge per regulated unit transmitted in relevant year commencing 1 April 1999; as determined in accordance with Schedule 5 of the form of SSE's transmission licence in force as at 31 March 2000; and

(b) in subsequent relevant years KKdt is to be derived from the following formula:

$$KK_{Tt} = (CR_{t-1} - TR_{t-1})\left(1 + \frac{I_t}{100}\right)$$

where:

CR_{t-1} means the regulated transmission revenue in relevant year t-1.

TR_{t-1} means the maximum regulated transmission revenue in relevant year t-1.

I_t means that interest rate in relevant year t which is equal to, where KK_{Tt} (taking no account of I for this purpose) has a positive value and CR_{t-1} exceeds TR_{t-1} by more than 2 per cent, the average specified rate plus 4 or, where KK_{Tt} (taking no account of I for this purpose) has a negative value and CR_{t-1} does not exceed TR_{t-1} by more than 2 per cent, the average specified rate.

LF_t for the tenth and preceding years shall be zero and in the eleventh and for any subsequent relevant year, is derived from the following formula:

$$LF_t = LP_t - LA_t$$

where:

LP_t means an amount equal to the payments made by the licensee, in the relevant year t, in accordance with its obligations set out in Standard Licence Condition 4 or, in respect of the eleventh relevant year, payments attributed to the transmission business of the predecessor company of the licence holder in respect of payments made to the Director General of Electricity Supply under the licence condition entitled 'Payment of fees' in the Generation, Transmission and Public Electricity Supply Licence of the predecessor company.

LA_t is derived from the following formula:

$$LA_t = PF_t.PIF_t$$

PF_t means, in respect of each relevant year, the amount given in the table appearing under that term in the part of Annex A to this Condition that applies to the licensee.

PIF_t is derived from the following formula:

$$\mathrm{PIF}_t = \left(1 + \frac{RPI_t}{100}\right) PIF_{t-1}$$

where for the ninth relevant year PIF_{t-1} equals 1.

ANNEX A TO SPECIAL CONDITION J (RESTRICTION OF TRANSMISSION CHARGES)

SP TRANSMISSION LIMITED

PF_t

2000/01	£0.290 millions
2001/02	£0.284 millions
2002/03	£0.276 millions
2003/04	£0.270 millions
2004/05	£0.262 millions
subsequent relevant years	£0.262 millions

SCOTTISH HYDRO-ELECTRIC TRANSMISSION LIMITED

PF_t

2000/01	£0.093 millions
2001/02	£0.091 millions
2002/03	£0.087 millions
2003/04	£0.085 millions
2004/05	£0.084 millions
subsequent relevant years	£0.084 millions

Special Condition K: Restriction of transmission charges: adjustments

1. If, in respect of any relevant year, the regulated transmission revenue exceeds the maximum regulated transmission revenue by more than 3 per cent of the latter, the licensee shall furnish an explanation to the Authority and in the next following relevant year the licensee shall not effect any increase in charges for the provision of transmission services, the revenue from which is regulated under Special Conditions I to N, unless it has demonstrated to the reasonable satisfaction of the Authority that the regulated transmission revenue in that next following relevant year would not be likely to exceed the maximum regulated transmission revenue in that same relevant year.

2. If, in respect of any two successive relevant years, the sum of the amounts by which the regulated transmission revenue has exceeded the maximum regulated transmission revenue is more than 4 per cent of the maximum regulated transmission revenue for the second of these relevant years, then in the next following relevant year the licensee shall, if required by the Authority, adjust its charges for the provision of transmission services, the revenue from which it is regulated under Special Conditions I to N, such that the regulated transmission revenue would not be likely, in the judgment of the Authority , to exceed the maximum regulated transmission revenue in that next following relevant year.

3. If, in respect of any two successive relevant years, the regulated transmission revenue is less than 90 per cent of the maximum regulated transmission revenue, the Authority, after consultation with the licensee, may direct that in calculating KK_{Tt} in respect of the next following relevant year, there shall be substituted for CR_{t-1} in the formula set out in paragraph 1 of Special Condition J (Restriction of transmission charges) such figure as the Authority may specify being not less than CR_{t-1} and not more than 0.90 (TR_{t-1}).

Special Condition L: Information to be provided to the Authority in connection with the charge restriction conditions

1. Where the licensee is intending to make any change in charges for the provision of transmission services regulated under Special Condition J (Restriction of transmission charges) , the licensee shall not later than the time of publication of such changes provide the Authority with:

   (i) a written forecast of the maximum regulated transmission revenue, together with its components, in respect of the relevant year t in which such a change is to take effect and in respect of the next following relevant year t+1; and

   (ii) a written estimate of the maximum regulated transmission revenue, together with its components, in respect of the relevant year t-1 immediately preceding the relevant year in which the change is to take effect unless a statement complying with paragraph 5 in respect of relevant year t-l has been furnished to the Authority before the publication of the proposed change.

2 If within three months of the commencement of any relevant year t the licensee has not made any such change in charges as is referred to in paragraph 1, the licensee shall provide the Authority with a written forecast of the maximum regulated transmission revenue together with its components, in respect of relevant year t.

3 Any forecast or estimate provided in accordance with paragraph 1 or 2 shall be accompanied by such information as regards the assumptions underlying the forecast or estimate as may be necessary to enable the Authority to be satisfied that the forecast or estimate has been properly prepared on a consistent basis.

4 Not later than six weeks after the commencement of each relevant year t, the licensee shall send to the Authority a statement as to:

(a) whether or not the provisions of Special Condition K (Restriction of transmission charges: adjustments) are likely to be applicable in consequence of the regulated transmission revenue in the preceding relevant year t-1 or the two preceding relevant years t-1 and t-2; and

(b) its best estimate as to the relevant correction factor KK_{Tt} calculated in accordance with the formula set out in Special Condition J (Restriction of transmission charges) to be applied in calculating the maximum regulated transmission revenue in respect of relevant year t.

5. Not later than three months after the end of each relevant year the licensee shall send to the Authority a statement, in respect of that relevant year, showing the specified items referred to in paragraph 7.

6. The statement referred to in the preceding paragraph shall be:

(a) accompanied by a report from the Auditors that in their opinion such statement fairly presents each of the specified items referred to in paragraph 7 in accordance with the requirements of the charge restriction conditions and that the amounts shown in respect of each of the specified items are in accordance with the licensee's accounting records which have been maintained in respect of the transmission business in accordance with standard condition 5 (Regulatory Accounts); and

(b) certified by a director of the licensee on behalf of the licensee that to the best of his knowledge, information and belief, after having made all reasonable inquiries,

(i) there is no amount included in its calculations under Special Condition J (Restriction of transmission charges) and Schedule A which represents other than bona fide consideration for the provision of transmission services the revenue from which is regulated under Special Conditions I to N and Schedule A;

(ii) no service has been treated as an excluded service other than a service permitted to be so treated in accordance with Schedule A; and

(iii) no amount included in the revenues stated in respect of excluded services represents other than bona fide consideration for the provision of the excluded service to which it relates.

7. The specified items to be shown in the statement referred to in paragraph 5 shall be the following:

(a) the regulated quantity transmitted;

(b) [no longer used]

(c) the regulated transmission revenue;

(d) the nature of all services provided as part of the transmission business and treated as excluded services, together with a statement of the revenues derived from each service so treated;

(e) [no longer used]

(f) [no longer used]

(g) the details referred to in paragraph 5 of Special Condition M (Allowances in respect of security costs);

(h) the value of the term LF_t together with the value of each of its component parts, as detailed in paragraph 1 of special condition J (Restriction of transmission charges); and

(i) such other items as shall be specified in directions issued by the Authority for the purposes of Special Conditions I to N .

8. Where the Authority issues directions in accordance with paragraph 6 of Special Condition M (Allowances in respect of security costs) or paragraph 7 of Schedule A (Supplementary Provisions of the Charge Restriction Conditions), the licensee shall, if so required by the Authority and within such a period as the Authority shall specify, send to the Authority a revised statement in substitution for the licensee's statement under paragraph 5 in respect of the relevant year in question and such revised statement shall give effect to such directions.

Special Condition M. Allowances in respect of security costs

1. At any time during a security period, the licensee may give notice in writing to the Authority suspending, with effect from the date of receipt of the notice by the Authority, application of such of the charge restriction conditions as may be specified in the notice, for the unexpired term of the security period.

2. At any time during a security period, the Authority may (having regard to its duties under the Act) by means of directions:

   (a) suspend or modify for the unexpired term of the security period the charge restriction conditions or any part or parts thereof; or

   (b) introduce for the unexpired term of the security period new charge restriction conditions;

   in either case, so as to make such provision as in the opinion or estimation of the Authority is requisite or appropriate to enable the licensee to recover by means of a uniform percentage increase on all charges made in the course of the licence an amount estimated as being equal to the licensee's allowed security costs during such period and the licensee shall comply with the terms of any directions so issued.

3. Subject to paragraphs 4 and 6 the licensee shall in any relevant year be entitled to recover an aggregate amount equal to the licensee's allowed security costs in that year or (in so far as not previously recovered) any previous year, by means of appropriate equitable increases in the charges made by the licensee in the course of the transmission business.

4. Paragraph 3 shall not apply in so far as such licensee's allowed security costs:

   (a) were otherwise recovered by the licensee; or

   (b) were taken into account in setting the charge restriction conditions by means of directions issued under paragraph 2.

5. The licensee shall following the end of the each relevant year provide to the Authority details in respect of that relevant year of:

(a) the aggregate amounts charged under paragraph 3 on account of the licensee's allowed security costs; and

(b) the basis and calculation underlying the increase in charges made by the licensee in the course of the transmission business.

6. Where the Authority is satisfied that the licensee has recovered amounts in excess of the licensee's allowed security costs, the Authority may issue directions requiring the licensee to take such steps as may be specified to reimburse customers of the licence for the excess amounts charged to them and the licensee shall comply with any directions so issued.

7. No amounts charged by the licensee under this Condition (whether or not subsequently required to be reimbursed) shall be taken into account for the purposes of applying the charge restriction provision of Special Condition J (Restriction of transmission charges).

8. In this Condition:

"allowed security cost"	means any cost allowed by the Authority (upon receipt of such information including a certificate from the auditors, as the Authority may request) as being a cost which is directly attributable to any action taken or omitted to be taken by the licensee in its capacity as holder of the licence for the purposes of complying with directions issued by the Secretary of State under Section 34(4) of the Act;
"security period"	means a period commencing on the date on which any direction issued by the Secretary of State under Section 34(4)(b) of the Act enters

effect and terminating on the date (being not earlier than the date such direction, as varied, is revoked or expires) as the Authority, after consultation with such persons (including without limitation, licence holders liable to be principally affected) as it shall consider appropriate, may with the consent of the Secretary of State by notice to all licence holders determine after having regard to the views of such persons.

Special Condition N: Duration of charge restriction conditions

1. The charge restriction conditions shall apply so long as this licence continues in force but shall cease to have effect (in whole or in part, as the case may be) if the licensee delivers to the Authority a disapplication request made in accordance with paragraph 2 and:

   (a) the Authority agrees in writing to the disapplication request; or

   (b) their application (in whole or in part) is terminated by notice given by the licensee in accordance with either paragraph 4 or paragraph 5.

2. A disapplication request pursuant to this Condition shall

   (a) be in writing addressed to the Authority;

   (b) specify the charge restriction conditions (or any part or parts thereof) to which the request relates; and

   (c) state the date from which the licensee wishes the Authority to agree that the specified charge restriction conditions shall cease to have effect.

3. Save where the Authority otherwise agrees, no disapplication following delivery of a disapplication request pursuant to this Condition shall have effect earlier than the date which is the later of:

   (a) the date being not less than 18 months after delivery of the disapplication request; and,

   (b) 31 March 2005.

4. If the Authority has not made a reference to the Competition Commission under Section 12 of the Act relating to the modification of the charge restriction conditions before the beginning of the period of 12 months which will end with the disapplication date, the licensee may deliver written notice to the Authority terminating the application of such of the charge restriction conditions (or any part or parts thereof) as are specified in the disapplication request with effect from the disapplication date or a later date.

5. If the Competition Commission makes a report on a reference made by the Authority relating to the modification of the charge restriction conditions (or any part or parts thereof) specified in the disapplication request and such report does not include a conclusion that the cessation of such transmission charge restriction conditions, in whole or in part, operates or may be expected to operate against the public interest, the licensee may within 30 days after the publication of the report by the Authority in accordance with Section 13 of the Act deliver to it written notice terminating the application of such charge restriction conditions (or any part or parts thereof) with effect from the disapplication date or a later date.

SCHEDULE A. Supplementary Provisions of the Charge Restriction Conditions

Part A: Excluded services

1 There may be treated as excluded services provided by the transmission business such services in respect of which charges are made:

(a) which fall within paragraph 6; or

(b) which:

(i) do not fall within paragraph 2; and

(ii) may be determined by the licensee as falling under one of the principles set out in paragraphs 3 to 5.

2 No service provided as part of the transmission business shall be treated as an excluded service in so far as it relates to the provision of services remunerated under use of system charges in accordance with Condition D8 of Part II (Basis of Charges for Use of System and Connection to System: Requirement for Transparency) including (without prejudice to the foregoing):

(i) the transport of electricity;

(ii) the carrying out of works for the installation of electric lines or electrical plant (not otherwise payable in the form of connection charges) for the purpose of maintaining or upgrading the licensee's transmission system;

(iii) the carrying out of works or the provision of maintenance or repair or other services for the purpose of enabling the licensee to comply with standard condition 7 (Licensee's Grid Code) and Special Condition H (Transmission System Security Standard and Quality of Service(Scotland)), the Electricity Supply Regulations 1988 or any regulations made under Section 29 of the Act or any other enactment relating to safety or standards applicable in respect of the transmission business ; and

(iv) the provision, installation and maintenance of any meters, switchgear or other electrical plant ancillary to the grant of use of system.

3 The whole or an appropriate proportion (as the case may be) of the charges of the type described in Condition D8 of Part II (Basis of Charges for Use of System and Connection to System: Requirement for Transparency) and borne by any person as connection charges in respect of connections made after the grant of this licence may be treated as excluded services.

4 There may be treated as an excluded service charges for the relocation of electric lines or electrical plant and the carrying out of works associated therewith pursuant to a statutory obligation (other than under Section 9(2) of the Act) imposed on the licensee.

5 There may with the approval of the Authority be treated as an excluded service any service of a type not above referred to which:

(a) consists in the provision of services for the specific benefit of a third party requesting the same; and

(b) is not made available as a normal part of the transmission business remunerated by use of system charges.

6 Services may be regarded as excluded services where the charges are:

(a) the rental for transmission business assets hosting fibre-optic telecommunications systems and used by third parties;

(b) made for the provision of capacity for transferring electricity across any part of any Upgrade;

7 Where the Authority is satisfied that, in light of the principles set out in paragraphs 3 to 6 inclusive, any service treated as being or not being an excluded service should not be so treated, the Authority shall issue directions to that effect, and such service shall cease to be treated as an excluded service with effect from the date of issue of such directions (subject to paragraph 8 of Special Condition L (Information to be provided to the Authority in connection with the charge restriction conditions)) or such other date as may be specified in the direction.

8 For the purpose of this Schedule "Upgrade" shall have the meaning given in Special Condition B (Basis of Charges for Use of Scottish Interconnection).

Appendix 7 Allocation of transmission owner allowed revenues

Please note that this appendix is included for information purposes. This text is still under review and may change including as a result of consideration of consultation responses.

This appendix sets out the proposed allocation at BETTA go-live of the transmission owners allowed revenues to terms that have a meaning in NGC's transmission licence.

DRAFT SCHEDULE TO TRANSMISSION OWNER LICENCES

SP Transmission

TSP_t = an amount no more than $TR_t - BI_t$

$TSPC_t$ = an amount no more than 0

$TSPN_t$ = an amount no more than BI_t

[Note: TSP_t includes income received from NGC in relation to pre-BETTA connection charges]

SP Transmission is required to notify NGC of the value of the amounts TSP_t , $TSPC_t$, $TSPN_t$ in respect of year t by 1 November of year t-1.
If at any time, SP Transmission has reason to believe that the aggregate of the values TSP_t , $TSPC_t$, $TSPN_t$ notified to NGC are significantly different (to be defined) from the aggregate over the year t of the TO General System Charges under the STC, then SP Transmission is to notify NGC of updated values for TSP_t , $TSPC_t$, $TSPN_t$ as soon as practical.

Note: TO Site Specific Charges under the STC for post-BETTA connections are treated as excluded service revenues for the transmission owners (see Appendix 12).

SHETL

TSH_t = an amount no more than $TR_t - BI_t$

$TSHC_t$ = an amount no more than 0

$TSHN_t$ = an amount no more than BI_t

[Note: TSH_t includes income received from NGC in relation to pre-BETTA connection charges]

SHETL is required to notify NGC of the value of the amounts TSH_t , $TSHC_t$, $TSHN_t$ in respect of year t by 1 November of year t-1.

If at any time, SHETL has reason to believe that the aggregate of the values TSH_t , $TSHC_t$, $TSHN_t$ notified to NGC are significantly different (to be defined) from the aggregate over the year t of the TO General System Charges under the STC, then SHETL is to notify NGC of updated values for TSH_t , $TSHC_t$, $TSHN_t$ as soon as practical.

Note: TO Site Specific Charges under the STC for post-BETTA connections are treated as excluded service revenues for the transmission owners (see Appendix 12).

Appendix 8 NGC: revenue restriction licence condition

8.1 The following is a consolidated version of the revenue restriction Special Conditions (as amended from time to time) from NGC's current transmission licence. These conditions need to be read in the context of the full transmission licence.

Special Condition AA5: Revenue Restriction Conditions: Definitions

1. In this special condition, in special conditions, AA5A to AA5E inclusive and in Schedule A:

"acceleration repayment"	means any payment from the licensee to a user representing repayment of part of that user's accelerated depreciation and land charges which has become payable to the user as a consequence of a change to the licensee's connection charging methodology made on 1 April 2004.
"annual legacy asset payment"	means the sum of all payments in a financial year associated with a legacy asset made by the licensee to a user.
"asset age"	means the difference between the relevant year t and the year in which the asset was provided.
"average specified rate"	Means the average of the daily base rates of Barclays Bank PLC current from time to time during the period in

	respect of which any calculation falls to be made.
"balancing services activity revenue"	means the total revenue derived by the licensee from the carrying on of the balancing services activity.
"balancing services activity revenue restriction"	means Parts 2(i) and (ii) of special condition AA5A, and Part B of Schedule A , together with such parts of special conditions AA5B, AA5C, AA5D and AA5E inclusive as are ancillary thereto, all as from time to time modified or replaced in accordance therewith or pursuant to sections 11, 14 or 15 of the Act.
"excluded services"	means those services provided by the licensee as part of its transmission business which in accordance with the principles set out in Part A of Schedule A fall to be treated as excluded services.
"legacy assets"	Means any asset or portion of asset for which a user has paid capital contributions or termination charges prior to 1 April 2004 where such assets are, following that date, charged for via use of system charges as a consequence of a change to the licensee's connection charging methodology made on 1 April

2004.

"maximum revenue"	means the revenue calculated in accordance with the formula in Part 1 of special condition AA5A.
"New Electricity Trading Arrangements" or "(NETA)"	Means the wholesale electricity trading arrangements in England and Wales introduced by the Secretary of State under the Utilities Act 2000.
"non-domestic rates"	Means non-domestic rates payable by the licensee in respect of hereditaments (other than excepted hereditaments being a hereditament consisting of or comprising premises used wholly or mainly: (a) as a shop or other place for the sale, display or demonstration of apparatus or accessories for use by consumers of electricity (any use for receipts of payments for the use of electricity being disregarded); (b) as office premises of the licensee where those premises are not situated on operational land of the licensee; or (c) for both of the foregoing purposes (for the avoidance of doubt, office premises and operational land shall have the meaning ascribed to those

terms in SI 2000/525 Central Ratings List (England) Regulations))

wholly or mainly used for the purposes of the transformation or transmission of electrical power, or for ancillary purposes.

"relevant period t"	means that period for the purposes of which any calculation falls to be made commencing on the effective time and ending on 31 March 2002 and thereafter shall have the same meaning as "relevant year t".
"relevant year"	means a financial year commencing on or after 1 April 1990.
"relevant year t"	means that relevant year for the purposes of which any calculation falls to be made; "relevant year t-1" means the relevant year preceding relevant year t, and similar expressions shall be construed accordingly.
"remote transmission asset rentals"	means any rent or other periodic payment receivable by the licensee from an authorised electricity operator under an agreement relating to remote transmission assets.

“transmission network revenue”	means the aggregate of revenue in the relevant year derived by the licensee from the provision of transmission network services and from remote transmission asset rentals.
“transmission network revenue restriction”	means Part 1 of special condition AA5A, and Part A of Schedule A and such parts of special condition AA5 and special conditions AA5B to AA5E inclusive as are ancillary thereto, all as from time to time modified or replaced in accordance therewith or pursuant to sections 11, 14 or 15 of the Act.
“user maintenance”	means maintenance by a user of connections in operation before the grant of this licence

2. In this special condition and in special conditions AA5A to AA5E inclusive and Schedule A, all revenue shall be measured on an accruals basis, after deduction of value added tax (if any) and any other taxes based directly on the amounts so derived.

3. Any term used in a formula appearing in special conditions AA5A to AA5E inclusive and Schedule A and defined for the purpose of that formula shall have the same meaning if used in any other formula in those special conditions.

4. In this special condition and in special conditions AA5A to AA5E and Schedule A, any cost, charge, payment or amount may either be positive or negative.

Special Condition AA5A: Revised Restrictions on Revenue

Part 1

1. The Transmission Network Revenue Restriction

The licensee shall use its best endeavours to ensure that in any relevant year the revenue from its transmission network services shall not exceed the maximum revenue, which shall be calculated in accordance with the following formula:

$$M_t = \left[1 + \frac{RPI_t - X_g}{100}\right] P_{t-1} - D_t - K_t + G_t + U_t + CCC_t + LPC_t + LPR_t$$

where:

M_t means the maximum revenue in relevant year t.

RPI_t means the percentage change (whether of a positive or a negative value) in the arithmetic average of the Retail Price Index published or determined with respect to each of the six months from May to October (both inclusive) in relevant year t-1 and that are published or determined with respect to the same months in relevant year t-2.

X_g has the value one and a half (1.5).

P_{t-1} means the amount derived from the following formula:

$$P_{t-1} = P_{t-2}\left[1 + \frac{RPI_{t-1} - X_g}{100}\right]$$

save that:

(i) in relation to the relevant year commencing on 1 April 2001 P_{t-1} shall have a value equal to £785,400,000;

(ii) in relation to the relevant year commencing on 1 April 2002 P_{t-2} shall have that value; and

(iii) in relation to the relevant year commencing on 1 April 2003 P_{t-2} shall have the value derived from the following formula:

$$P_{t-2} = P_{t-3}\left[1 + \frac{RPI_{t-2} - X_g}{100}\right]$$

where:

P_{t-3} shall have the value derived from the following formula:

$$P_{t-3} = £785{,}400{,}000 \left[\frac{W}{Y}\right]$$

where:

W is the arithmetic average of the Retail Price Index published or determined with respect to each month of the relevant year commencing on 1 April 2001 on the assumption that the Retail Price Index for January 1987 equals 100.

Y is 175.17 (being the forecast of the Retail Price Index prepared by Business Strategies Limited in December 2000 in respect of the relevant year commencing on 1 April 2001 on the assumption that the Retail Price Index for January 1987 equals 100).

D_t ***means a correction factor to be applied to transmission network revenue and is equal to the value of user maintenance in relevant year t.***

K_t means the correction factor (whether of a positive or negative value) which is derived from the formula in paragraph 2.

G_t means a revenue adjustment factor derived from the formula in paragraph 3.

U_t means a revenue adjustment factor reflecting changes in non-domestic rates and the licence fee, and is derived from the formula given in paragraph 4.

CCC_t means a revenue adjustment factor reflecting the difference between the reference level of excluded services revenue income in relevant year t as forecast when the price control was initially set and actual excluded services income in relevant year t, and is derived from the formula given in paragraph 4A.

LPC_t means a revenue adjustment factor reflecting the depreciation allowance and rate of return on legacy assets in relevant year t, and is derived from the formula given in paragraph 4B.

LPR_t means a revenue adjustment factor which is equal to the sum of all acceleration repayments made to users in relevant year t, save that in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 LPR_t shall have a value equal to zero (0).

2. For the purpose of paragraph 1, the term K_t (being the correction factor to be applied to transmission network revenue for the relevant year t) shall be derived from the following formula:

$$K_t = \left(C_{t-1} - M_{t-1}\right)\left(1 + \frac{I_t}{100}\right)$$

where:

C_{t-1} means, subject to paragraph 3 of special condition AA5B, the transmission network revenue in relevant year t-1 provided that in calculating C_{t-1} for the purpose of K_t no account shall be taken of any positive or negative revenue in respect of the provision of transmission network services in any relevant year preceding t-1 other than such revenue as it is in the reasonable opinion of the Authority reasonable and appropriate to take into account.

M_{t-1} means the maximum revenue in relevant year t-1.

I_t means the interest rate in relevant year t which is equal to, where K_t (taking no account of I for this purpose) has a positive value and the transmission network revenue in relevant year t-1 exceeds the maximum revenue in relevant year t-1 by more than 2 percent, the average specified rate plus 4 or, where K_t (taking no account of I for this purpose) has a negative value or the transmission network revenue in relevant year t-1 does not exceed the maximum revenue in relevant year t-1 by more than 2 percent, the average specified rate.

3. For the purpose of paragraph 1, the term G_t (being the revenue adjustment associated with the commissioning of new generating plant to be applied to transmission network revenue for the relevant year t) shall be calculated according to the following formula:

$$G_t = A_t\left[GW_t\right]$$

where:

A_t is given by the following formula

$$A_t = ce_t\left[R_t + Dep_t\right]$$

where:

ce_t which represents the capital expenditure per gigawatt of capacity of new generation or interconnector(s) capacity using the licensee's transmission system, is given by the following formula:

$$ce_t = ce_{t-1}\left[1 + \frac{RPI_t}{100}\right]$$

Where for the relevant year commencing on 1 April 2001 ce_{t-1} shall have a value determined by the following formula:

$$ce_{t-1} = £23{,}000{,}000 \left[1 + \frac{RPI_{t-1}}{100}\right]$$

R_t has the value six point two five (6.25) percent and is the licensee's allowed rate of return.

Dep_t has the value two point five (2.5) percent and is the licensee's allowed cost of depreciation.

GW_t is given by the following formula:

$$GW_t = GWfor_t - GWref_t$$

where:

$$GWfor_t = GWout_t + GW\exp_t$$

$GWout_t$ is the sum of all capacities in gigawatts of those generation sets and interconnector(s)additional to those capacities under construction at 1 January 2000 which have commenced using the licensee's transmission system between 1 April 2001 and 31 December in the year t-1, save that in the case of the relevant year commencing on 1 April 2001 $GWout_t$ equals zero.

$GWexp_t$ is the sum of all capacities in gigawatts of those generation sets and interconnector(s) additional to those capacities under construction at 1 January 2000 which have not commenced but which are expected to commence using the licensee's transmission system between 1 January in the year t-1 and 31 March in the year t+1, save that in the case of the relevant year commencing 1 April 2001 $GWexp_t$ is the sum of all such capacities in gigawatts of those generation sets and interconnector(s) additional to those capacities under construction at 1 January 2000 which have not commenced but are expected to commence using the licensee's transmission system between 1 April 2001 and 31 March 2003.

$GWref_t$ represents the reference level of generation set and interconnector(s) capacity commissioning between 1 April 2001 and 31 March in year t+1, and has the value for relevant year t given against that year in the following table:

Relevant Year t commencing on 1 April	2001	2002	2003	2004	2005
$GWref_t$	0.6	1.7	3.4	4.5	5

4. For the purpose of paragraph 1, the term U_t (being the revenue adjustment for the relevant year t reflecting changes in non-domestic rates and the licence fee) shall be derived from the following formula:

$$U_t = \left[Rate_t + L_t\right]\left(1 + \frac{I_t}{100}\right)$$

where:

$Rate_t$ is the difference between the non-domestic rates payable by the licensee in respect of year t-1 (being for the avoidance of doubt, £Million, in money of the day) and the amount set against relevant year t-1 in the following table:

Relevant Year t commencing on 1 April	2001	2002	2003	2004	2005
$Rate_t$ £Million	100.2	99.4	96.5	98.3	102.7

Save that in the case of relevant year commencing on 1 April 2001 $Rate_t$ shall have a value equal to zero (0).

L_t is the difference between the licence fee payable by the licensee in year t-1 pursuant to standard condition 4 (being for the avoidance of doubt, £Million in money of the day) and the amount set against the relevant year t-1 in the following table:

Relevant Year t commencing on 1 April	**2001**	**2002**	**2003**	**2004**	**2005**
L_t £Million	7.6	7.8	8.0	8.1	8.3

Save that in the case of relevant year commencing on 1 April 2001 L_t shall have a value equal to zero (0).

4A. For the purpose of paragraph 1, the term CCCt (being the revenue adjustment factor reflecting the difference between the reference level of excluded services revenue income in year t as forecast when the price control was initially set and actual excluded services income in year t) shall be derived from the following formula:

$$CCC_t = \left[1 + \frac{RPI(ES)_t}{100}\right] ESref_t - ES_t$$

where:

$RPI(ES)_t$ means the percentage change (whether of a positive or a negative value) in the arithmetic average of the Retail Price Index published or determined with respect to each of the six months from May to October (both inclusive) in relevant year t-1 and that are published or determined with respect to the same months in relevant year commencing 1 April 1999.

ES_t is the actual excluded services revenue for the relevant year t.

$ESref_t$ represents the reference level of excluded service revenue and has the value for relevant year t given against that year in the following table:

Relevant Year t commencing on 1 April	2004	2005
$ESref_t$	116	121

Save that in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 CCC_t shall have a value equal to zero (0).

4B. For the purpose of paragraph 1, the term LPC_t (being the revenue adjustment factor reflecting the depreciation allowance and rate of return on legacy assets in relevant year t) shall be derived from the following formula:

$$LPC_t = \sum_{j=1}^{j=J} Lpc_{t,j,T}$$

where:

J is the total number of annual legacy asset payments which have been made in all years up to and including relevant year t.

Year T is the relevant year t of an annual legacy asset payment.

$Lpc_{t,j,T}$ means the revenue adjustment reflecting the depreciation allowance and rate of return in respect of annual legacy asset payment j in relevant year t for an annual legacy asset payment originally made in year T.

In year t = T $Lpc_{t,j,T}$ shall be calculated as:

$$Lpc_{t,j,T} = \left[\frac{2.5(B_{j,T})}{100} + \frac{6.25(N_{j,T})}{100} \right]$$

In all subsequent years where asset age is less than forty (40), $Lpc_{t,j,T}$ shall be calculated as:

$$Lpc_{t,j,T} = \left(\prod_{T+1}^{t} \left(1 + \frac{RPI_t}{100} \right) \right) \left[\frac{2.5(B_{j,T})}{100} - \left(\frac{1.5625(B_{j,T})}{1000} (n) \right) + \frac{6.25(N_{j,T})}{100} \right]$$

where:

$B_{j,T}$ shall be calculated as:

$$B_{j,T} = \left[\frac{40(\text{annual legacy asset payment j in year T})}{(40 - \text{asset age in year T for the asset related to annual legacy asset payment j})} \right]$$

$N_{j,T}$ shall be calculated as:

$$N_{j,T} = \left[\frac{2(\text{annual legacy asset payment j in year T}) - \frac{2.5B_{j,T}}{100}}{2} \right]$$

n is the difference in years between year t and year T.

RPI_t shall have the same meaning as in paragraph 1 of this condition.

Save that:

(a) in the case in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 LPC_t shall have a value equal to zero (0); and

(b) no assets may be included in the calculation of LPC_t that have an asset age greater than 40.

Part 2 (i): Balancing services activity revenue restriction on external costs

5. The licensee shall use its best endeavours to ensure that in the relevant period t the revenue derived from and associated with procuring and using balancing services (being the external costs of the balancing services activity) shall not exceed an amount calculated in accordance with the following formula:

$$BXext_t = CSOBM_t + BSCC_t + ET_t - OM_t + IncPayExt_t$$

where:

$BXext_t$ which represents the maximum allowed revenue derived in relevant period t from and associated with procuring and using balancing services, is the aggregate of the following components:

$CSOBM_t$	which represents the cost to the licensee of bids and offers in the balancing mechanism accepted by the licensee in relevant period t less the total non-delivery charge for that period, is the sum across relevant period t of the values of $CSOBM_j$ (being the daily system operator BM cashflow as defined in Table X-2 of Section X of the BSC in force immediately prior to 1 April 2001);
$BSCC_t$	means the costs to the licensee of contracts for the availability or use of balancing services during the relevant period t, excluding costs within $CSOBM_t$ but including charges made by the licensee for the provision of balancing services to itself in the relevant period t;
ET_t	means the amount of any adjustment to be made during the relevant period t in respect of a previous relevant year as provided in paragraph 6;
OM_t	means an amount representing the revenue from the provision of balancing services to others during relevant period t, calculated in accordance with paragraph 7;
$IncPayExt_t$	means an incentive payment for relevant period t calculated in accordance with paragraph 8.

6. Balancing services activity adjustments

For the purposes of paragraph 5, the term ET_t which relates to prior year adjustments in respect of the relevant period t shall mean:

(a) the costs, whether positive or negative, to the licensee of

- bids and offers in the balancing mechanism accepted by the licensee in any relevant year before relevant period t less the total non-delivery charge for the period; and

- contracts for the availability or use of balancing services during any relevant year before relevant period t, excluding costs within $CSOBM_t$ for any relevant year, but including charges made by the licensee for the provision of balancing services to itself in any relevant year before relevant period t

in each case after deducting such costs to the extent that they have been taken into account in any relevant year in computing the terms $CSOBM_t$ or $BSCC_t$; and

(b) any amount within the term ET_t as defined in this licence in the form it was in on 1 April 2000 whether as then defined or as now defined.

7. Provision of balancing services to others

For the purpose of paragraph 5, OM_t (the amount representing the revenue from the provision of balancing services to others) shall be the sum of:

(a) the total amount (exclusive of interest and value added tax attributable thereto) recovered by the licensee in respect of the relevant period t under any agreements entered into between an electricity supplier (being the holder of a supply licence granted or treated as granted under Section 6(1)(d) of the Act) or network operator (as defined in the grid code) and the licensee pursuant to which the costs of operation or non-operation of generation sets which are required to support the stability of a user system (as defined in the grid code) are charged to such electricity supplier (as defined above) or network operator (as defined in the grid code); and

(b) the total costs (exclusive of interest and value added tax attributable thereto) incurred by the licensee in respect of the relevant period t which arise by reason of the operation or non-operation of generation sets and which result directly or indirectly from works associated with the licensee's transmission system or works thereon being carried out, rescheduled or cancelled by reason of any agreement with, or request of, any third party other than an electricity supplier (as defined in paragraph 7(a) of this special condition) or network operator (as defined in the grid code).

8. Determination of incentive payments on external costs

For the purposes of paragraph 5, the term $IncPayExt_t$ shall be derived from the following formula:

$$IncPayExt_t = \left[SF_t\left(MT_t - IBC_t\right) + CB_t\right]$$

where:

SF_t which is a balancing services activity sharing factor in respect of relevant period t, has the value specified either against the value of IBC_t for the relevant period t in the column headed SF_t in the table in paragraph B1 (a) of Part B of Schedule A or in paragraph B1 (b) of Part B of Schedule A.

MT_t which is a target for balancing services activity incentivised external costs in respect of relevant period t, has the value specified either against the value IBC_t for relevant period t in the column headed MT_t in the table in paragraph B1 (a) of Part B of Schedule A or in paragraph B1 (b) of Part B of Schedule A.

IBC_t which is the cost of balancing services on which the licensee is incentivised during the relevant period t, is calculated in accordance with the formula given in paragraph 9.

CB_t which is a balancing services sharing factor offset in respect of the relevant period t, has the value either specified against the value of IBC_t for the relevant period t in the column headed CB_t in the table in paragraph B1 (a) of Part B of Schedule A or in paragraph B1 (b) of that Part.

9. For the purposes of paragraph 8, the term IBC_t in respect of relevant period t shall be calculated in accordance with the following formula:

$$IBC_t = CSOBM_t + BSCC_t + \Sigma_{jt}\left(TL_j\left[TLRP_j\right]\right) + \Sigma_{jt}\left(TQEI_j\left[NIRP_j\right]\right) - RT_t - OM_t$$

where:

j in all cases shall mean a settlement period (being a half an hour) as defined in the BSC.

$\sum_{jt}(TL_j[TLRP_j])$ is the volume of transmission losses (TL_j) multiplied by the transmission losses reference price ($TLRP_j$) for each settlement period, summed across all settlement periods in the relevant period t.

$\sum_{jt}(TQEI_j\,[NIRP_j])$ is the total net imbalance volume ($TQEI_j$) as defined in the BSC in force immediately prior to 1 April 2001 multiplied by the net imbalance volume reference price ($NIRP_j$) for each settlement period, summed across all settlement periods in the relevant period t.

TL_j which is the volume of transmission losses, is given by the sum of BM unit metered volumes (as from time to time defined in the BSC) during the settlement period j for all BM units (as from time to time defined in the BSC), being the difference between the quantities of electricity delivered to the licensee's transmission system and the quantity taken from the licensee's transmission system during that settlement period, but excluding all generator transformer losses.

$TLRP_j$ which is the transmission losses reference price, has the value specified for each settlement period set out in paragraph B3 of Part B of Schedule A.

$NIRP_j$ which is the net imbalance volume reference price for each settlement period j, has the values set out in paragraph B4 in Part B Schedule A.

RT_t means the amount of any allowed income adjustments given by paragraph 12 (b) in respect of relevant period t.

10. Income adjusting events under the balancing services activity

(a) An income adjusting event is any of the following:

(i) an event or circumstance constituting force majeure under the BSC;

(ii) an event or circumstance constituting force majeure under the CUSC made between the licensee and others and providing for connection to and use of the licensee's transmission system;

(iii) a security period as defined in special condition AA5D; and

(iv) an event or circumstance which is, in the opinion of the Authority, an income adjusting event and approved by it as such.

(b) For the purpose of relevant year t commencing on 1 April 2004 and ending on 31 March 2005, the following items listed in tables 1 and 2 below shall not qualify as an income adjusting event for the purpose of sub-paragraph (a) above:

Table 1:

Modification No.	Modification Title
P124	Revision of mandatory half-hour metering criteria
P131	Further provisions relating to Trading Disputes
P132	Redefinition of Credit Cover requirements for reconciliation charges
P136	Marginal Definition of the 'main' Energy Imbalance Price
P137	Revised Calculation of System Buy and System Sell Price
P139	Removal of Trading Unit Restriction on Interconnector Users
P140	Revised Credit Cover Methodology for Interconnector BM Units
P142	Allow Level 2 Default Cure Period in Defined Circumstances
P146	New Participation Category to the BSC - Clearing House
P147	Introduction of a Notified Contract Capacity
P150	Targeting costs of PNE appeals to unsuccessful appellants
P151	Housekeeping Modification
P152	Reduction of Credit Cover for a Trading Party in Default
P153	Support Competition in Distribution Networks
P154	Rectification of Inconsistencies in the Change Process
P156	Zonal Allocation of Transmission Losses
P157	Replacement of current Supplier Charges rules

Table 2:

Amendment No.	Amendment Title
CAP049	Alternative Amendments
CAP050	Review Process for implemented Urgent Amendment Proposals
CAP051	Initiation of the Amendment Procedures by the Amendments Panel
CAP052	Removal of Land Charges
CAP053	Revision of Site Specific Maintenance Charges
CAP054	Adoption of Year Round TNUoS Charges
CAP055	Users' Demand Forecasts
CAP056	Incorrect Reference to the Grid Code in Section 11 – Definitions
CAP057	Removal of References to TSUoS Charges
CAP058	Reinstatement of words lost form Legal Text following implementation of CAP043
CAP059	Addition of word "Paragraph" to Paragraph 2.17.9
CAP060	Incorrect spelling of "Judgment" in Paragraph 6.6.4
CAP061	Addition of "CUSC Panel Secretary" to Exhibit F, Note 10
CAP062	Amendment to National Grid address in various exhibits
CAP063	Amendment to National Grid address in various exhibits
CAP064	Minor Reference error in Paragraph 7.2, Schedule 2, Exhibit 3
CAP065	Removal of various paragraphs referring to NETA Go Live
CAP066	Removal of historic transitional provisions that no longer have any application
CAP067	Clarification of Contractual Relationship Required for Embedded Generation (CUSC 6.5.1)
CAP068	Competing Requests for TEC
CAP069	Users' Forecasts Used in the Calculation of TNUoS Charges
CAP070	Short Term Firm Access Service

(c) The Authority's approval of an income adjusting event shall be in writing, shall be copied to the licensee and shall be in the public domain; and the Authority may revoke this approval with the consent of the licensee.

11. (a) Where it appears to the licensee that there have been in respect of relevant period t costs and/or expenses which:

(i) have been caused or saved by an income adjusting event; and

(ii) have, for relevant period t, increased or decreased by more than £2,000,000 the value of IBC_t save that in the case of paragraph 10(a)(iii) only the threshold of £2,000,000 shall not apply

then the licensee shall give notice thereof to the Authority.

(b) Where it appears to any other Party (as defined in the BSC) that there have been in respect of relevant year t costs and/or expenses which:

(i) have been caused or saved by an income adjusting event; and

(ii) have, for the relevant period t, increased or decreased by more than £2,000,000 the value of IBC_t save that in the case of paragraph 10(a)(iii) only the threshold of £2,000,000 shall not apply

then that Party (as defined in the BSC) may give notice thereof to the Authority.

(c) The notice provided for in subparagraphs (a) and (b) shall give particulars of:

(i) the income adjusting event to which the notice relates;

(ii) the amount of any change in costs and/or expenses which appear to the person giving the notice to have been caused or saved by the event and the method of calculating such costs and/or expenses; and

(iii) the amount of any allowed income adjustment proposed as a consequence of that income adjusting event.

(d) A notice of an income adjusting event shall be given as soon as is reasonably practicable after the occurrence of the income adjusting event, and may not be given more than 3 months after the end of the relevant period in which it occurs.

12. (a) The Authority shall determine (after consultation with the licensee and such other persons as it considers desirable):

(i) whether any or all of the costs and/or expenses given in a notice pursuant to paragraph 11 are caused or saved by an income adjusting event;

(ii) whether the amount specified for the purpose of paragraph 11(c) (iii) has increased or decreased the value of IBC_t by more than £2,000,000 save that in the case of paragraph 10(a)(iii) only, the threshold of £2,000,000 shall not apply; and

(iii) if so, whether the amount of the proposed income adjustment ensures that the financial position and performance of the licensee are, insofar as is reasonably practicable, the same as if that income adjusting event had not taken place, and if not, what allowed income adjustment would secure that effect.

(b) In relation to the relevant period t, the allowed income adjustment RT_t shall be

(i) the value determined by the Authority under subparagraph (a);

(ii) if the Authority has not made a determination in accordance with subparagraph (a) within 3 months of the date of the notice under paragraph 11, the respective values given to them in that notice; or

(iii) in any other case, zero.

Part 2 (ii): Balancing services activity revenue restriction on internal costs

13. The licensee shall use its best endeavours to ensure that in the relevant year t the revenue derived by the licensee from the balancing services activity associated with internal costs (being all balancing services activity revenue in relevant year t with the exception of any revenue in relevant year t accounted for under special condition AA5A Part 2(i) paragraph 5) shall not exceed an amount calculated in accordance with the following formula:

$$BX\text{int}_t = (SO\text{int}_t[NPI]) + ASO_t$$

where:

$BX\text{int}_t$ means the balancing services activity revenue associated with internal costs in the relevant year other than any revenue in relevant year t accounted for under paragraph 5 of Part 2(i) special condition AA5A and is derived from the following components:

$SO\text{int}_t$ which is the aggregate of all internal costs associated with the balancing services activity in respect of relevant year t, calculated in accordance with paragraph 14 of this special condition;

NPI means the NETA Profiling Index in respect of relevant year t calculated in accordance with paragraph B11 of Part B of Schedule A; and

ASO_t Has the value calculated in accordance with paragraph B10 of Part B of Schedule A.

14. For the purpose of paragraph 13, the term $SOint_t$ shall be derived from the following formula:

$$SO\text{int}_t = CSOC_t + IncPayInt_t + NSOC_t + SOBR_t + PSC_t$$

where:

$CSOC_t$ means the aggregate of the incentivised internal costs associated with the balancing services activity in respect of relevant year t.

$IncPayInt_t$ means the incentive payment associated with the internal costs of undertaking the balancing services activity in respect of relevant year t, calculated in accordance with paragraph 15 of this special condition.

$NSOC_t$ has the value set against relevant year t in the table in paragraph B7 in Part B of Schedule A and represents the allowed revenue in respect of the non-incentivised internal costs of the licensee in operating the licensee's transmission system during relevant year t, including costs in preparing for the introduction of the New Electricity Trading Arrangements but excluding non-domestic rates incurred by the licensee in operating the licensee's transmission supply during relevant year t.

$SOBR_t$ represents the costs of non-domestic rates incurred by the licensee in operating the licensee's transmission system during relevant year t, has the value derived from the provisions of paragraph B8 in Part B of Schedule A.

PSC_t represents the costs incurred by the licensee in preparing participants' systems for the introduction of the New Electricity Trading Arrangements and has the value derived from the provisions in paragraph B9 of Part B of Schedule A.

15. Determination of incentive payments on internal costs

For the purposes of paragraph 14, the term $IncPayInt_t$ shall be derived from the following formula:

$$IncPayInt_t = ISF_t\left(IMT_t - CSOC_t\right) + \frac{1}{NPI}\left[\sum_M \left(1 - CSF_{Mt}\right)\left(CP_{Mt} - OS_{Mt}\right)\right]$$

where:

ISF_t which is a balancing services activity sharing factor in respect of relevant year t, and has the value specified against the value of $CSOC_t$ for the relevant year t in the column headed ISF_t in the appropriate table in paragraph B5 of Part B of Schedule A; and

IMT_t which is a target for the incentivised internal costs associated with the balancing services activity in respect of relevant year t has the value specified for relevant year t in the table in paragraph B6 in Part B of Schedule A.

$CSOC_t$ has the meaning given in paragraph 14.

CSF_{Mt} is a Contingency Provisions (as defined in the BSC from time to time) sharing factor in respect of each month M of relevant period t and has the value determined in accordance with paragraph B13 in Part B of Schedule A .

CP_{Mt} is the sum of the Ad-Hoc Trading Charges (as defined in the BSC from time to time) payable by the licensee in respect of the Contingency Provisions (as defined in the BSC from time to time) in month M of the relevant period t.

OS_{Mt} which is the Contingency Provisions (as defined in the BSC from time to time) offset in respect of each month M of relevant period t, has the value determined in accordance with paragraph B14 in Part B of Schedule A .

$\sum_{M}$ means the summation over all months M in relevant period t.

NPI shall have the meaning given in paragraph 13 of Part 2(ii) of this special condition.

Part 2 (iii): Information on the balancing services activity revenue restriction

16. (a) Not later than 3 months after the end of each relevant year the licensee shall send to the Authority a statement giving the value for that relevant year of the terms specified in subparagraph (c);

(b) The statement referred to in subparagraph (a) shall:

(i) be certified by a director of the licensee on behalf of the licensee that to the best of his knowledge, information and belief having made all reasonable enquiries:

(A) there is no amount included in its calculations of the terms specified in subparagraph (c) which represents other than an amount permitted to be included by this special condition; and

(B) all amounts of which the licensee is aware and which should properly be taken into account for the purposes of this special condition have been taken into account; and

(ii) accompanied by a report from the Auditors that in their opinion:

(A) such statement fairly presents the value of each of the terms specified in subparagraph (c) in accordance with the requirements of this special condition; and

(B) the amounts shown in respect of each of those terms are in accordance with the licensee's accounting records which have been maintained in accordance with standard condition 5.

(c) The terms specified in this subparagraph are:

$BXext_t$, $CSOBM_t$, $BSCC_t$, ET_t, RT_t, $IncPayExt_t$, OM_t, $BXint_t$, $CSOC_t$, $IncPayInt_t$, PSC_t, ASO_t, $SOBR_t$ and CP_{Mt}

and

BCA_{jt}, SCA_{jt}, BVA_{jt}, SVA_{jt} and QAS_{ij}

where:

BCA_{jt} is the Buy Price Cost Adjustment as from time to time defined in the BSC for each Settlement Period, in relevant period t.

SCA_{jt} is the Sell Price Cost Adjustment as from time to time defined in the BSC for each Settlement Period, in relevant period t.

BVA_{jt} is the Buy Price Volume Adjustment as from time to time defined in the BSC for each Settlement Period, in relevant period t.

SVA_{jt} is the Sell Price Volume Adjustment as from time to time defined in the BSC for each Settlement Period, in relevant period t.

QAS_{ij} is the volume of applicable balancing service energy in respect of BM Unit i, in settlement period j, defined in the BSC for each Settlement Period.

(d) The statement referred to subparagraph (a) shall separately identify components of the terms specified in subparagraph (c) to the extent stipulated in this special condition.

Special Condition AA5B: Adjustments to Initial Transmission Network Revenue Formula

1. If, in respect of any relevant year, the transmission network revenue exceeds the maximum revenue by more than 3 percent of the latter, the licensee shall furnish an explanation to the Authority and in the next following relevant year the licensee shall not effect any increase in charges for the provision of transmission network services unless it has demonstrated to the reasonable satisfaction of the Authority that the transmission network revenue would not be likely to exceed the maximum revenue in that next following relevant year.

2. If, in respect of any two successive relevant years, the sum of the amounts by which the transmission network revenue has exceeded the maximum revenue is more than 4 percent of the maximum revenue for the second of those years, then in the next following relevant year the licensee shall, if required by the Authority, adjust its charges such that the transmission network revenue would not be likely, in the judgement of the Authority, to exceed the maximum revenue in that next following relevant year.

3. If, in respect of two successive relevant years, the transmission network revenue is less than 90 percent of the maximum revenue, the Authority, after consultation with the licensee, may direct that, in calculating K_t in respect of the next following relevant year, there shall be substituted for C_{t-1} in the formula set out in paragraph 2 of Part 1 of special condition AA5A above such figure as the Authority may specify being not less than C_{t-1} and not more than 0.90 (M_{t-1}).

Special Condition AA5C: Information to be Provided to the Authority in Connection with the Transmission Network Revenue Restriction

1. Where the licensee is intending to make any change in charges for the provision of Transmission network services, the licensee shall not later than the time of publication of such change provide the Authority with:

   (a) a written forecast of the maximum revenue, together with its components, in respect of the relevant year t in which such change is to take effect and in respect of the next following relevant year t + 1;

   (b) a written estimate of the maximum revenue, together with its components, in respect of the relevant year t - 1 immediately preceding the relevant year in which the change is to take effect, unless a statement complying with paragraph 5 in respect of relevant year t - 1 has been furnished to the Authority before the publication of the proposed change;

   (c) a written forecast of the value of D_t;

   (d) a written forecast of the value of CCC_t;

   (e) a written forecast of the value of LPC_t and $B_{j,T}$ and $N_{j,T}$ for assets where relevant year t = T; and

   (f) a written forecast of the value of LPR_t.

2. If within three months of the commencement of any relevant year t the licensee has not made any such change in charges as is referred to in paragraph 1, the licensee shall provide the Authority with a written forecast of the maximum revenue, together with its components, in respect of that relevant year t.

3. Any forecast or estimate provided in accordance with paragraph 1 or 2 shall be accompanied by such information as regards the assumptions underlying the forecast or estimate as may be necessary to enable the Authority to be satisfied that the forecast or estimate has been properly prepared on a consistent basis.

4. Not later than six weeks after the commencement of any relevant year t, the licensee shall send the Authority a statement as to:

   (a) Whether or not the provisions of special condition AA5B are likely to be applicable in consequence of the transmission network revenue in the preceding relevant year t -1 or the two preceding relevant years t -1 and t - 2; and

   (b) Its best estimate as to the relevant correction factor K_t to be applied in calculating the maximum revenue in respect of the relevant year t.

5. Not later than three months after the end of a relevant year the licensee shall send the Authority a statement, in respect of that relevant year:

   (a) Containing the information relating to the amount of the licensee's allowed security costs, the aggregate amounts charged on account of the licensee's allowed security costs and the bases and calculations underlying the increases in charges made by the licensee in respect of transmission network services together with an explanation of the basis of attribution of allowed security costs in respect of transmission network services referred to in paragraph 5 of special condition AA5D;

   (b) Specifying the nature of all services provided as part of its transmission business and treated as excluded services by the licensee, together with a statement of the revenues derived by the licensee from each service so treated

(c) Stating whether there were connections subject to user maintenance and quantifying the value of user maintenance;

(d) Stating the actual outcome of the value of CCC_t;

(e) Stating the actual outcome of the value of LPC_t and the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year t = T; and

(f) Stating the actual outcome of the value of the LPR_t.broken down into all its component parts.

6. The statement referred to in the preceding paragraph shall be:

(a) accompanied by a report from the Auditors that in their opinion (i) such statement fairly presents the amount of the allowed security costs, the aggregate amounts charged on account of such allowed security costs, the bases and calculations underlying the increases in charges together with the basis of attribution of such costs, the transmission network revenue, the nature of the services treated as excluded services and the revenues attributable thereto, and the value of user maintenance, and the value of CCC_t and the value of LPC_t, and the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year t = T, and the value of LPR_t, and (ii) the amounts of the allowed security costs, the aggregate amounts charged on account of the allowed security costs, the transmission network revenue, the revenue from excluded services, the value of user maintenance shown in such statement, the value of CCC_t, the value of LPC_t, the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year t = T and the value of LPR_t are in accordance with the licensee's accounting records which have been maintained in accordance with standard condition 5; and

(b) certified by a Authority of the licensee on behalf of the licensee that to the best of his knowledge, information and belief having made all reasonable enquiries:

(i) there is no amount included in its calculations of allowed security costs under special condition AA5D which represents other than an amount permitted under this Condition to be so included; and

(ii) no service has been treated as an excluded service other than a service permitted to be so treated in accordance with Part A of Schedule A ; and

(iii) no amount included in the revenues stated in respect of excluded services represents other than bona fide consideration for the provision of the excluded service to which it relates;

(iv) the value which the licensee has attributed to D_t takes into account all user maintenance in that relevant year, whether agreed or determined (or, where neither agreed nor determined, properly estimated); and

(v) amounts included in LPC_t are bona fide considerations and do not include considerations for assets which have been fully depreciated.

Special Condition AA5D: Allowances in Respect of Security Costs

1. At any time during a security period, the licensee may give notice in writing to the Authority suspending, with effect from the date of receipt of the notice by the Authority, application of such of the transmission network revenue restriction as may be specified in the notice for the unexpired term of the security period.

2. At any time during a security period, the Authority may (having regard to his duties under the Act) by means of directions:

   (a) suspend or modify for the unexpired term of the security period the transmission network revenue restriction or any part or parts thereof; or

   (b) introduce for the unexpired term of the security period a new transmission network revenue restriction,

   in either case so as to make such provision as in the opinion of the Authority is requisite or appropriate to enable the licensee to recover by means of an appropriate equitable increase on all charges made in the course of the provision of transmission network services an amount estimated as being equal to the licensee's allowed security costs attributable to the provision of transmission network services during such period, and the licensee shall comply with the terms of any directions so issued.

3. Subject to paragraphs 4 and 6, the licensee shall in any relevant year be entitled to recover an aggregate amount equal to its allowed security costs attributable to the provision of transmission network services in that year or (insofar as not previously recovered) any previous year, by means of appropriate equitable increases on the charges made by the licensee in the course of the provision of transmission network services.

4. Paragraph 3 shall not apply insofar as such allowed security costs:

   (a) were otherwise recovered by the licensee; or

(b) were taken into account by the Authority in setting a transmission network revenue restriction by means of directions issued under paragraph 2 above.

5. The licensee shall following the end of each relevant year provide to the Authority details in respect of that relevant year of:

(a) the amount of the licensee's allowed security costs;

(b) the aggregate amounts charged under paragraph 3 on account of the licensee's allowed security costs; and

(c) the bases and calculations underlying the increases in charges made by the licensee in its provision of transmission network services together with an explanation of the basis of attribution of allowed security costs to the provision of transmission network services.

6. Where the Authority is satisfied that the licensee has recovered amounts in excess of the allowed security costs attributable to the provision of transmission network services, the Authority may issue directions requiring the licensee to take such steps as may be specified to reimburse customers in receipt of transmission network services for the excess amounts charged to them, and the licensee shall comply with any directions so issued provided that if the excess amounts relate to allowed security costs paid to any authorised electricity operator, the licensee shall not be obliged to make any such reimbursement unless and until it has recovered such costs from the relevant authorised electricity operator.

7. No amounts charged by the licensee under this special condition (whether or not subsequently required to be reimbursed) shall be taken into account for the purpose of applying the provisions of Part 1 of special condition AA5A.

8. In this special condition:

"allowed security cost"	shall have the meaning ascribed to that term in the Fuel Security Code.

"security period"	means a period commencing on the date on which any direction issued by the Secretary of State under Section 34(4)(b) of the Act enters effect and terminating on the date (being not earlier than the date such direction, as varied, is revoked or expires) as the Authority, after consultation with such persons (including, without limitation, licence holders liable to be principally affected) as he shall consider appropriate, may with the consent of the Secretary of State by notice to all licence holders determine after having regard to the views of such persons.

Special Condition AA5E: Duration of the Transmission Network Revenue Restriction and the Balancing Services Activity Revenue Restriction

1. The balancing services activity revenue restriction and the transmission network revenue restriction shall apply so long as this licence continues in force but shall cease to have effect in such circumstances and at such times as are described in paragraphs 2 to 6 below.

2. The transmission network revenue restriction and the balancing services activity revenue restriction (or any of them) shall cease to have effect (in whole or in part, as the case may be) if the licensee delivers to the Authority a disapplication request made in accordance with paragraph 3 or notice is given to the Authority by the licensee in accordance with either paragraph 5 or paragraph 6.

3. A disapplication request shall

   (a) be in writing addressed to the Authority,

   (b) specify whether it relates to the balancing services activity revenue restriction and/or to the transmission network revenue restriction (or to both or any of them or to any part or parts thereof) and

   (c) state the date (being not earlier than the date referred to in paragraph 4) from which the licensee wishes the Authority to agree that those conditions shall cease to have effect.

4. No disapplication following delivery of a disapplication request shall have effect until a date being the earlier of not less than 18 months after delivery of the disapplication request or the following date:

   (i) in the case of a disapplication request which relates to the transmission network revenue restriction, 31 March 2006;

   (ii) in the case of a disapplication request which relates to the balancing services activity revenue restriction set out in Part 2(i) of special condition AA5A, 31 March 2005; and

(iii) in the case of a disapplication request which relates to the balancing services activity revenue restriction set out in Part 2(ii) special condition AA5A, 31 March 2006.

Provided that in the event of a disappplication request being served by the licensee in the absence of agreeing any or all of the transmission network revenue and the balancing services activity revenue restriction the following default position shall apply:-

(A) for the transmission network revenue restriction, the maximum allowable revenue for the relevant year commencing 1 April 2006 shall be defined in accordance with the formula in Part 1 of special condition AA5A where X_g equals zero and $GWref_t$, $Rate_t$ and L_t shall have the same values as those given in paragraphs 3 and 4 of Part 1 of special condition AA5A for the relevant year commencing on 1 April 2005;

(B) for the balancing services activity revenue restriction set out in Part 2(ii) of special condition AA5A, the values set out in Schedule A, Part B for the relevant year commencing on 1 April 2005 shall apply; and

(C) for the balancing services activity revenue restriction set out in Part 2(i) of special condition AA5A, the values set out in Schedule A , Part B shall apply.

5. If the Authority has not made a reference to the Competition Commission under section 12 of the Act relating to the modification of the Conditions or the part of parts thereof specified in the disapplication request before the beginning of the period of 12 months which will end with the disapplication

date, the licensee may deliver written notice to the Authority terminating the application of such Conditions (or any part or parts thereof) as are specified in the disapplication request with effect from the disapplication date or a later date.

6. If the Competition Commission makes a report on a reference made by the Authority relating to the modification of the Conditions (or any part or parts thereof) specified in the disapplication request and such report does not include a conclusion that the cessation of those Conditions, in whole or in part, operates or may be expected to operate against the public interest, the licensee may within 30 days after the publication of the report by the Authority in accordance with section 13 of the Act deliver to him written notice terminating the application of those Conditions or any part or parts thereof with effect from the disapplication date or later.

SCHEDULE A : SUPPLEMENTARY PROVISIONS OF THE CHARGE RESTRICTION CONDITIONS

PART A

Excluded services

A1. There may be treated as excluded services provided by the licensee in its transmission business such services in respect of which charges are made which:

(a) do not fall within paragraph A2 of this Schedule; and

(b) may (subject to paragraph 6) be determined by the licensee as falling under one of the principles set out in paragraphs A3 to A5 of this Schedule.

A2. No service provided by the licensee as part of its transmission business shall be treated as an excluded service in so far as it relates to the provision of services remunerated under use of system charges in accordance with paragraph 2 of supplementary standard condition C7 including (without prejudice to the foregoing):

(i) the transport of electricity;

(ii) the operation of the licensee's transmission system;

(iii) the carrying out of works for the installation of electric lines or electrical plant (not otherwise payable in the form of connection charges) for the purpose of maintaining or upgrading the licensee's transmission system;

(iv) the carrying out of works or the provision of maintenance or repair or other services for the purpose of enabling the licensee to comply with conditions 8 and 12, the Electricity Supply Regulations 1988 or any regulations made under section 29 of the Act or any other enactment relating to safety or standards applicable in respect of the transmission business; and

(v) the provision, installation and maintenance of any meters, switchgear or other electrical plant ancillary to the grant of use of system.

A3. The whole or an appropriate proportion (as the case may be) of the charges of the type described in paragraph 4 of supplementary standard condition C7B and borne by any person as connection charges in respect of connections made after the grant of this licence may be treated as excluded services.

A4. There may be treated as an excluded service charges for the relocation of electric lines or electrical plant and the carrying out of works associated therewith pursuant to a statutory obligation (other than under section 9(2) of the Act) imposed on the licensee.

A5. There may with the approval of the Authority be treated as an excluded service any service of a type not above referred to which:

(a) consists in the provision of services for the specific benefit of a third party requesting the same; and

(b) is not made available by the licensee as a normal part of the transmission business remunerated by use of system charges.

A6. Where the Authority is satisfied that in light of the principles set out in paragraphs A2 to A5 inclusive any service treated by the licensee as an excluded service should not be so treated, the Authority shall issue directions to that effect, and such service shall cease to be treated as an excluded service with effect from the date of issue of such directions or such earlier date (being not earlier than the commencement of the relevant year to which the statement last furnished to the Authority pursuant to paragraph 5(b) of special condition AA5C prior to issue of such directions related, unless such statement or the accompanying report or certificate referred to in paragraph 6 of such special condition or any earlier such statement, report or certificate was incorrect or misleading in any material respect) as may be specified in the directions.

PART B

Terms used in the balancing services activity revenue restriction

B1. For the purpose of paragraph 8 of Part 2(i) of special condition AA5A, the terms MT_t, SF_t and CB_t shall be selected against the appropriate value of IBC_t (which shall be determined in accordance with paragraph 9 of special condition AA5A):

(a) in respect of the relevant year t commencing on 1 April 2004, from the following table:

IBC_t (£)	**MT_t (£)**	**SF_t**	**CB_t (£)**
$< 315,000,000$	0	0	40,000,000
315,000,000 $< = IBC_t <$ 415,000,000	415,000,000	0.40	0
415,000,000 $< = IBC_t <$ 515,000,000	415,000,000	0.40	0
$> = 515,000,000$	0	0	—40,000,000

(b) in respect of the relevant year t commencing on 1 April 2005 and each relevant year thereafter, the terms MT_t, SF_t and CB_t shall be set to zero.

B2. Not used.

B3. For the purpose of paragraph 9 of Part 2(i) of special condition AA5A, the term $TLRP_j$ in respect of each settlement period during relevant period t shall have the value in £ per megawatt hour of 21.00.

B4. For the purpose of paragraph 9 of Part 2(i) of special condition AA5A, the term $NIRP_{j,}$ which is the net imbalance volume reference price for each settlement period j, during relevant period t, shall be derived as follows:

(a)(i) when $UKPX_j$ and APX_j data are published in respect of the relevant settlement period j then:

$$SPNIRP_j = (0.5 * UKPX_j) + (0.5 * APX_j)$$

(ii) when $UKPX_j$ data are published and APX_j data are not published in respect of the relevant settlement period j then:

$$SPNIRP_j = UKPX_j$$

(iii) where $UKPX_j$ data $_j$ are not published in respect of the relevant settlement period j and APX_j data are published in respect of the relevant settlement period j then:

$$SPNIRP_j = APX_j$$

(iv) where neither $UKPX_j$ data and APX_j data have been published in respect of the relevant settlement period j then:

$$SPNIRP_j = SPNIRP_{j-1}$$

where:

$SPNIRP_j$	means the single price net imbalance volume reference price for each settlement period j.
j	in all cases shall mean a settlement period (being a half an hour) as defined in the BSC.
j-1	the settlement period immediately preceding the relevant settlement period j.
$UKPX_j$	means the United Kingdom Power Exchange (UKPX) volume weighted reference price for each settlement period j based on the traded prices of half hourly spot contracts.
EFA block	means the means the six four hourly blocks within the EFA day (being 23.00 hours to 23.00 hours in the immediately following day) set out in the table below:

Block	Time
1	23:00 to 03:00
2	03:00 to 07:00
3	07:00 to 11:00
4	11:00 to 15:00
5	15:00 to 19:00
6	19:00 to 23:00

APX_j	means the Automated Power Exchange (UK APX) weighted average price in respect of all half hourly spot market and four (4) hour block market contracts delivered within the EFA block applying to those settlement periods j. In order to derive the

APX_j price in respect of each relevant settlement period j the EFA block containing the relevant j shall be used.

(b) The term $NIRP_j$ shall be derived as follows:

(i) when $TQEI_j < 0$

$$NIRP_j = SPNIRP_j + (SPNIRP_j * PA1)$$

(ii) when $TQEI_j > 0$

$$NIRP_j = SPNIRP_j - (SPNIRP_j * PA2)$$

(iii) when $TQEI_j = 0$

$$NIRP_j = 0$$

where in respect of the relevant period t, the terms PA1 and PA2 shall have the value ascribed to those terms in the following table:

PA1	1.5
PA2	0.5

B5. For the purposes of paragraph 15 of Part 2(ii) of special condition AA5A, the term ISF_t shall be selected against the value of $CSOC_t$ (which shall be determined in accordance with paragraph 14 of Part 2(ii) of special condition AA5A):

(a) in respect of the relevant period t commencing on the day on which the effective time occurs, from the following table:

$(CSOC_t)$ (£)	ISF_t
< 56,880,216 (RI_t / Z_t)	0.40
=> 56,880,216 (RI_t / Z_t)	0.12

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

(b) in respect of the relevant year t commencing on 1 April 2002, from the following table**:**

$(CSOC_t)$ (£)	ISF_t
< 55,869,013 (RI_t / Z_t)	0.60
=> 55,869,013 (RI_t / Z_t)	0.50

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

(c) in respect of the relevant year t commencing on 1 April 2003, from the following table**:**

$(CSOC_t)$ (£)	ISF_t
< 57,753,517 (RI_t / Z_t)	0.50
=> 57,753,517 (RI_t / Z_t)	0.50

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

(d) in respect of the relevant year t commencing on 1 April 2004, from the following table**:**

($CSOC_t$) (£)	**ISF_t**
< 57,567,216 (RI_t / Z_t)	0.40
=> 57,567,216 (RI_t / Z_t)	0.40

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

(e) and in respect of the relevant year t commencing on 1 April 2005, from the following table**:**

($CSOC_t$) (£)	**ISF_t**
< 60,656,843 (RI_t / Z_t)	0.40
=> 60,656,843 (RI_t / Z_t)	0.40

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

B6. For the purposes of paragraph 15 of Part 2(ii) of special condition AA5A, the term IMT_t in respect of the relevant year t shall be derived from the following table:

Relevant Year Commencing 1 April	IMT_t (£)
2001	56,880,216 (RI_t / Z_t)
2002	55,869,013 (RI_t / Z_t)
2003	57,753,517 (RI_t / Z_t)
2004	57,567,216 (RI_t / Z_t)
2005	60,656,843 (RI_t / Z_t)

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

B7. For the purposes of paragraph 14 of Part 2(ii) of special condition AA5A, the term $NSOC_t$ in respect of the relevant year t shall be derived from the following table:

Relevant Year Commencing 1 April	$NSOC_t$
2001	21,698,749 (RI_t / Z_t)
2002	21,165,761 (RI_t / Z_t)
2003	20,602,773 (RI_t / Z_t)
2004	20,120,580 (RI_t / Z_t)
2005	19,496,842 (RI_t / Z_t)

where RI_t and Z_t shall have the meaning ascribed to them in paragraph B12.

B8. For the purpose of paragraph 14 of Part 2(ii) of special condition AA5A, the term $SOBR_t$ (being an allowance for non-domestic rates incurred by the licensee in operating the licensee's transmission system during relevant year t) shall be given by the following formula:

$$SOBR_t = SORate_t + \left(SORateDiff_t \left(1 + \frac{I_t}{100} \right) \right)$$

where:

$SORate_t$ is given by the table below;

Relevant Year commencing 1 April	2000	2001	2002	2003	2004	2005
$SORate_t$	0	1,000,000	1,000,000	1,000,000	1,000,000	1,100,000

and:

$SORateDiff_t$ is the difference between the non-domestic rates payable by the licensee in operating the licensee's transmission system in respect of year t-1 and $SORate_{t-1}$:

B9. For the purpose of paragraph 14 of Part 2(ii) of special condition AA5A, the term PSC_t (being the costs incurred by the licensee in preparing participants' systems for the introduction of the New Electricity Trading Arrangements to be recovered under the balancing services activity) shall have the value given by the following formula:

$$PSC_t = PSAC_t + \left(PSACDiff_t \left(1 + \frac{I_t}{100} \right) \right)$$

where:

$PSAC_t$ is given by the table below:

Relevant Year commencing on 1 April	2000	2001	2002	2003	2004	2005
$PSAC_t$	0	4,200,000	0	0	0	0

and:

$PSACDiff_t$ is the difference between the participant support costs incurred by the licensee in year t in respect of preparing participants' systems for the introduction of the New Electricity Trading Arrangements and $PSAC_t$.

B10. For the purpose of paragraph 13 of Part 2(ii) of special condition AA5A, the term ASO_t shall have the value specified by the following formula:

$$ASO_t = £5,600,000 \left[\frac{NT}{365}\right]$$

where:

NT is given by the number of days, from and including the day on which the effective time occurred, to and including 31 March 2001, but otherwise have the value of zero.

B11. For the purpose of paragraphs 13 of Part 2(ii) of special condition AA5A, the value of the term NPI

(a) in respect of the relevant period t shall be given by the following formula:

$$NPI = \frac{ND}{365} \quad \text{if} \quad ND \langle = 365; \quad \text{or}$$

$$NPI = 1, \quad \text{if} \quad ND \rangle 365;$$

where:

ND is given by the number of days from and including the day on which the effective time occurs to and including 31 March 2002; and

(b) for each relevant year t thereafter shall be 1.

B12. For the purpose of paragraphs B5, B6, B7, B13 and B14 of this Schedule:

Z_t has the value against relevant year t in the following table:

Relevant year t Commencing 1 April	$\mathbf{Z_t}$
2001	175.17
2002	178.67
2003	182.25

2004	185.89
2005	189.61

and

RI_t shall have the value Z_t until such time as the Retail Price Index for the last month of each relevant year t is known when it shall be the arithmetic average of the Retail Price Indices in respect of each month of each relevant year t.

RM shall, until such time as the Retail Price Index for March 2001 is known, be 171.42 (being the forecast of the Retail Price Index prepared by Business Strategies Limited in December 2000 in respect of the relevant year commencing on 1 April 2000 on the assumption that the Retail Price Index for January 1987 equals 100) after which it shall become the arithmetic average of the Retail Price Indices in respect of each month of the relevant year commencing on 1 April 2000.

B13. For the purpose of paragraph 15 of Part 2(ii) of special condition AA5A, the term CSF_{Mt} shall have the value:

(a) in respect of each month M of the relevant period t commencing at the effective time

(i) $CSF_{Mt} = 0.4$ when $0 \leq 0.4 \ CP_{Mt} \ \langle \ £250{,}000$

(ii) $CSF_{Mt} = 0$ otherwise

(b) in respect of each month M of the relevant year t commencing on 1 April 2002 and of each relevant year thereafter

(i)

$$CSF_{Mt} = 0.4 \quad when \quad 0 \leq \left[0.4 \quad CP_{Mt} \right] \langle \left[£250{,}000 \ \left(\frac{Z_t}{RN} \right) \left(\frac{RI_t}{Z_t} \right) \right]$$

(ii) $CSF_{Mt} = 0$ otherwise

where:

RN	shall, until such time as the Retail Price Index for March 2002 is known, be 175.17 (being the forecast of the Retail Price Index prepared by Business Strategies Limited in December 2000 in respect of the relevant year commencing on 1 April 2001 on the assumption that the Retail Price Index for January 1987 equals 100) after which it shall become the arithmetic average of the Retail Price Index in respect of each month of the relevant year commencing on 1 April 2001.

and

RI_t and Z_t	shall have the meanings ascribed to them in paragraph B12.

B14. For the purposes of paragraph 15 of Part 2(ii) of special condition AA5A, the term OS_{Mt} shall have the value:

(a) in respect of each month M of the relevant period t commencing at the effective time

(i) $OS_{Mt} = 0$ when $CSF_{Mt} > 0$

(ii) $OS_{Mt} = £250{,}000$ when $CSF_{Mt} = 0$

(b) in respect of each month M of the relevant year t commencing on 1 April 2002 and of each relevant year thereafter

(i) $OS_{Mt} = 0$ when $CSF_{Mt} > 0$

(ii) $OS_{Mt} = £250{,}000\left(\frac{Z_t}{RN}\right)\left(\frac{RI_t}{Z_t}\right)$ when $CSF_{Mt} = 0$

where:

RI_t and Z_t shall have the meanings ascribed to them in paragraph B12 and RN shall have the meaning ascribed to it in paragraph B13.

Appendix 9 Income adjusting event provisions related to the STC

Please note that this appendix is included for information purposes. This text is still under review and may change including as a result of consideration of consultation responses.

DRAFT PARAGRAPHS FOR TRANSMISSION LICENCES (SP TRANSMISSION, SHETL and NGC)

1. An income adjusting event in year t is any of the following:

    (i) an event or circumstance constituting Force Majeure under the STC

    (ii) an event or circumstance resulting from a modification to the STC not allowed for in setting the allowed revenues of a transmission licensee for the years t

    (iii) an event or circumstance which is, in the opinion of the Authority, an income adjusting event and approved by him as such.

(b) The Authority's approval of an income adjusting event shall be in writing, shall be copied to the licensee and shall be in the public domain; and the Authority may revoke this approval with the consent of the licensee.

2. (a) Where it appears to the licensee that there have been in respect of relevant period t costs and/or expenses which:

    (i) have been caused or saved by an income adjusting event; and

    (ii) have, for relevant period t, increased or decreased its relevant revenues by more than £1,000,000

    then the licensee shall give notice thereof to the Authority.

(b) The notice provided for in subparagraphs (a) shall give particulars of:

(i) the income adjusting event to which the notice relates;

(ii) the amount of any change in costs and/or expenses which appear to the person giving the notice to have been caused or saved by the event and the method of calculating such costs and/or expenses; and

(iii) the amount of any allowed income adjustment proposed as a consequence of that income adjusting event.

(d) A notice of an income adjusting event shall be given as soon as is reasonably practicable after the occurrence of the income adjusting event, and may not be given more than 3 months after the end of the relevant period in which it occurs.

3. (a) The Authority shall determine (after consultation with the licensee and such other persons as he considers desirable):

(i) whether any or all of the costs and/or expenses given in a notice pursuant to paragraph 2 are caused or saved by an income adjusting event;

(ii) whether the amount specified for the purpose of paragraph 2 c (iii) has increased or decreased the value of W[43] by more than £1,000,000

(iii) (if so, whether the amount of the proposed income adjustment ensures that the financial position and performance of the licensee are, insofar as is reasonably practicable, the same as if that income adjusting event had not taken place, and if not, what allowed income adjustment would secure that effect.

(b) In relation to the relevant period t, the allowed income adjustment IAT_t shall be

(i) the value determined by the Authority under subparagraph (a);

(ii) if the Authority has not made a determination in accordance with subparagraph (a) within 3 months of the date of the notice under paragraph 2, the respective values given to them in that notice; or

(iii) in any other case, zero.

[43] W = TRt for transmission owners; W = NSOCt for NGC

Appendix 10 NGC's licence: transmission owner revenue schedule

Please note that this appendix is included for information purposes. This text is still under review and may change including as a result of consideration of consultation responses.

DRAFT SCHEDULE TO NGC's LICENCE

The following terms have the values notified to NGC by SP Transmission in accordance with schedule [.] of SP Transmission's licence (See Appendix 7)

TSP_t , $TSPC_t$, $TSPN_t$

The following terms have the values notified to NGC by SHETL in accordance with schedule [.] of SHETL's licence (See Appendix 7)

TSH_t , $TSHC_t$, $TSHN_t$

Appendix 11 Connection schedule to the transmission owner's licence.

Please note that this appendix is included for information purposes. This text is still under review and may change including as a result of consideration of consultation responses.

DRAFT SCHEDULE TO TRANSMISSION OWNERS LICENCE

1. The licensee shall:

    a) by the date this condition comes into effect determine a connection charging methodology approved by the Authority; and
    b) conform to the connection charging methodology as modified in accordance with paragraph 3.

2. The licensee shall, for the purpose of ensuring that the connection charging methodology achieves the relevant objectives, keep the connection charging methodology at all times under review.

3. The licensee shall make such modifications to the connection charging methodology as may be requisite for the purpose of better achieving the relevant objectives; such modifications to be approved by the Authority.

4. The licensee shall by the date this condition comes into effect prepare a statement approved by the Authority of the connection charging methodology in relation to charges, including charges:
    a) for the carrying out of works and the provision and installation of electrical lines or electrical plant or meters for the purposes of connection (at entry or exit points) to the licensee's transmission system;
    b) in respect of extension or reinforcement of the licensee's transmission system rendered (at the discretion of a transmission licensee where the extension or reinforcement is of that licensee's transmission system) necessary or appropriate by virtue of the licensee providing connection to the licensees' transmission system at the request of the GB system operator;
    c) in circumstances where the electrical lines or electrical plant to be installed are (at the discretion of a transmission licensee where the electrical lines or electrical plant which are to be installed will form part of that licensee's transmission system) of greater size than that required for use of system by the person seeking connection;
    d) for maintenance and repair (including any capitalised charge) required of electrical lines or electrical plant or meters provided or installed for making a connection to the licensee's transmission system; and
    e) for disconnection from the licensee's transmission system and the removal of electrical plant, electrical lines and meters following disconnection,

    and the statement referred to in this paragraph shall be in such form and in such detail as shall be necessary to enable the GB system operator to determine that the charges to which he would become liable for the provision of such services are in accordance with such statement.

5. Unless otherwise determined by the Authority, the licensee shall only enter into a bilateral agreement or a construction agreement which secures that the connection charges will conform with the statement of the connection charging methodology last furnished under paragraphs 4 either:
   (a) before it enters into the arrangements; or
   (b) before the charges in question from time to time fall to be made.

6. The connection charging methodology shall make provision for connection charges for those items referred to in paragraph 4 to be set at a level for connections which will enable the licensee to recover:
   (a) the appropriate proportion of the costs directly or indirectly incurred in carrying out any works, the extension or reinforcement of the licensee's transmission system or the provision and installation, maintenance and repair or (as the case may be) removal following disconnection of any electric lines, electric plant or meters; and
   (b) a reasonable rate of return on the capital represented by such costs

7. In paragraphs 2 and 3 "the relevant objectives" shall mean:
   (a) that the methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
   (b) that compliance with the methodology results in charges which reflect, as far as is reasonably practicable, the costs incurred by the transmission licensee in its transmission business; and
   (c) that, so far as is consistent with sub-paragraphs (a) and (b), the methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses.
   (d) in addition, the objective, in so far as consistent with sub-paragraphs (a), (b) and (c), of facilitating competition in the carrying out of works for connection to the licensee's transmission system.

8. The licensee shall send a copy of any statement or revision of a statement or report furnished under paragraph 4 to any person who asks for any such statement or revision thereof or report.

Appendix 12 Transmission owner excluded services

Please note that this appendix is included for information purposes. This text is still under review and may change including as a result of consideration of consultation responses.

DRAFT SCHEDULE TO TRANSMISSION OWNER LICENCE

A1. There may be treated as excluded services provided by the licensee in its transmission business such services in respect of which charges are made which:

(a) do not fall within paragraph A2 of this schedule; and

(b) may (subject to paragraph A6) be determined by the licensee as falling under one of the principles set out in paragraphs A3 to A5 of this Schedule.

A2. No service provided by the licensee as part of its transmission business shall be treated as an excluded service in so far as it relates to the provision of services remunerated under the STC (TO General System charges) including (without prejudice to the foregoing):

(i) the transport of electricity;

(ii) the operation of the licensee's transmission system;

(iii) the carrying out of works for the installation of electric lines or electrical plant for the purpose of maintaining or upgrading the licensee's transmission system;

(iv) the carrying out of works or the provision of maintenance or repair or other services for the purpose of enabling the licensee to comply with conditions 8 and 12, the Electricity Supply Regulations 1988 or any regulations made under section 29 of the Act or any other enactment relating to safety or standards applicable in respect of the transmission business; and

(v) the provision, installation and maintenance of any meters, switchgear or other electrical plant ancillary to the grant of use of system.

A3. The whole or an appropriate proportion (as the case may be) of the charges of the type described in Schedule [.] (see Appendix 11).

A4. There may be treated as an excluded service charges for the relocation of electric lines or electrical plant and the carrying out of works associated therewith pursuant to a statutory obligation (other than under section 9(2) of the Act) imposed on the licensee.

A5. There may with the approval of the Authority be treated as an excluded service any service of a type not above referred to which:

(a) consists in the provision of services for the specific benefit of a third party requesting the same; and

(b) is not made available by the licensee as a normal part of the transmission business remunerated under the STC (TO General System Charges).

A6. Where the Authority is satisfied that in light of the principles set out in paragraphs A2 to A5 inclusive any service treated by the licensee as an excluded service should not be so treated, the Authority shall issue directions to that effect, and such service shall cease to be treated as an excluded service with effect from the date of issue of such directions or such earlier date (being not earlier than the commencement of the relevant year to which the statement last furnished to the Authority pursuant to paragraph [.][44] prior to issue of such directions related, unless such statement or the accompanying report or

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[44] Currently, Paragraph 8 of Special Condition L. This Special Condition is being reviewed.

certificate referred to in paragraph [.][45] of such special condition or any earlier such statement, report or certificate was incorrect or misleading in any material respect) as may be specified in the directions.

A7. There may with the approval of the Authority be treated as an excluded service any service of a type not above referred to which is a service provided to the GB system operator pursuant to the STC which is not remunerated under the STC (TO General System Charges). [this includes the services remunerated under the STC (TO Site-Specific charges]

[45] Currently, Paragraph 6 of Special Condition L. This Special Condition is being reviewed

Appendix 13 Price control calculations – NGC

Incremental adjustments for BETTA

2002/03 prices	DRAFT **TO (£m)**	DRAFT **SO (NON INCENTIVISED) (£m)**	DRAFT **SO (INCENTIVISED) (£m)**
	2005/6	**2005/6**	**2005/6**
CAPITAL EXPENDITURE			
Load related	0.0	0.0	0.0
Non Load related	1.5	0.0	0.0
Gross base capex	1.5	0.0	0.0
Capital contributions	0.0	0.0	0.0
Total capex	1.5	0.0	0.0
RAV			
Opening asset value	108.0	18.6	0.0
Depreciation	3.7	2.7	0.0
Net network capex	1.5	0.0	0.0
Closing asset values	105.8	15.9	0.0
ALLOWED ITEMS			
Operating costs	5.6	10.3	5.7
Depreciation	3.7	2.7	0.0
Return	6.7	1.1	0.0
Total costs	**16.0**	**14.1**	**5.7**
REVENUE			
Price control revenue	16.0	14.1	5.7
Excluded revenue	0.0	0.0	0.0
Total revenue	**16.0**	**14.1**	**5.7**

Cost of capital assumption: 6.25% pa

NGC TO: Ofgem's ASSUMPTIONS (Draft)

OPEX (2002/3 prices)

£m	**2005/6**
Post-Vesting England- Scotland interconnector	
~Maintenance & overhead	1.3
~Rates	3.0
License fee adjustments	
~SP Transmission	1.0
~SHETL	0.3
Total	5.6

CAPEX (2002/3 prices)

£m	**2005/6**
Non-load related capital expenditure	
Post Vesting England-Scotland interconnector	1.5
Total	1.5

DEPRECIATION – (2002/03 prices)

£m	**2005/6**	**Dep'n Yrs**
Interconnector	3.7	29
Post Vesting England-Scotland interconnector	-	40
Total	3.7	

PATH OF RAV (2002/3 prices)

£m	**2005/6**
Opening asset value	108.0
Depreciation	3.7
Net network capex	1.5
Closing asset values	105.8

Note : Opening asset value includes:

1. England Scotland Interconnector Asset Value: £108m(value subject to further investigation, see Chapter 3)

NGC SO INTERNAL (NON INCENTIVISED): Ofgem's ASSUMPTIONS (Draft)

OPEX (2002/3 prices)

£m	**2005/6**
BETTA implementation costs	7.3
TO incentives Note 1	3.0
Total adjustments	10.3

Note 1: Ofgem estimate, subject to further analysis with companies

DEPRECIATION – (2002/03 prices)

£m	**2005/6**	**Dep'n Yrs**
BETTA Implementation costs incurred prior to 1 April 2005	2.7	7
Total	2.7	

PATH OF RAV (2002/3 prices)

£m	**2005/6**
Opening asset value	18.6
Depreciation	2.7
Net network capex	0.0
Closing asset values	15.9

Note : Opening asset value includes:

1. BETTA Implementation capex incurred prior to 1 April 2005: £18.6m

NGC SO INTERNAL (INCENTIVISED): Ofgem's ASSUMPTIONS (Draft)

OPEX (2002/3 prices)

£m	**2005/6**
Enduring cost changes	
~operations	5.7
Total adjustments	5.7

PATH OF RAV (2002/3 prices)

£m	**2005/6**
Opening asset value	0.0
Depreciation	0.0
Net network capex	0.0
Closing asset values	0.0