

Promoting choice and value for all gas and electricity customers

National Grid Electricity Transmission System Operator Incentives from 1 April 2007

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Target audience: This document will be of interest to network owners and operators, generators, suppliers, customers and other interested parties.

Overview:

National Grid Electricity Transmission plc (NGET) is the system operator (SO) for the electricity transmission system in Great Britain (GB). This document sets out our final proposals for an SO incentive scheme for NGET, including a statutory licence modification consultation. Provided that NGET consents to the licence modification this will come into effect on 1 April 2007. If NGET does not consent to the licence modification, we would need to decide whether to refer the matter to the Competition Commission or else to rely on direct regulation of NGET's SO costs based on our existing powers.

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Context

This project is part of our overall work to regulate monopolies effectively. In both gas and electricity we consider it is important that the system operators are appropriately incentivised to operate their systems in an economic and efficient manner.

We believe that it is appropriate to develop incentives schemes that provide NGET and NGG with an appropriate balance of risk and reward which is in the interests of customers, who ultimately pay for the costs of system operation.

Associated Documents

- National Grid Electricity Transmission and National Grid Gas System Operator Incentives from 1 April 2007: Initial proposals consultation: 5 December 2006
- National Grid Electricity Transmission and National Grid Gas System Operator Incentives from 1 April 2007: October consultation: 2 October 2006
- National Grid Electricity Transmission and National Grid Gas System Operator Incentives 2007-08 - Invitation to Submit Views: 5 July 2006
- Transmission Price Control Review: Draft licence conditions (electricity) second informal consultation: 19 January 2007
- Determination under Special Condition AA5A Part 2 (i), paragraph 12(a) of National Grid Electricity Transmission plc's Transmission Licence in respect of Scottish Constraints and CAP047: 25 September 2006

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Summary

In this document we set out our final proposals for the electricity transmission system operator (SO) incentive schemes for NGET to apply from 1 April 2007. We have consulted three times on these schemes in the past financial year.¹

To date, we have undertaken joint consultations on incentive schemes for the electricity and gas system operators in 2007/08. However, we have now chosen to separate our consultations on final proposals for the electricity and gas SO incentives. This approach is more consistent with the separate statutory licence modification consultations that are being undertaken to implement the Transmission Price Control Review (TPCR) final proposals, and is necessary as we still require more information from National Grid on aspects of the gas SO incentive scheme.

Initial proposals

In December 2006, we published our initial proposals on the scope, form and duration of the electricity and gas SO incentive schemes to apply from 1 April 2007. We presented four options on the form of the external electricity incentive scheme based around expected outturn of costs of £430 million, compared with NGET's then forecast of £458 million for 2007/08.

The majority of respondents considered that NGET's forecast of £458 million for external incentivised balancing costs was too high. Respondents considered that there would be reductions in costs resulting from falling wholesale prices and also reductions in constraint and frequency response costs, whilst some considered NGET has a history of over forecasting.

Key developments in the wholesale electricity market

Since the publication of our initial proposals, wholesale electricity prices have continued to decline, the average wholesale electricity price for this winter being 47% lower than winter 2005/06. As rises in electricity prices have historically been accompanied by a rise in incentivised SO costs, we would, all things being equal, expect a decrease in electricity prices to result in a decrease in SO costs. However, there has been an increase in electricity SO costs over winter 2006/07.

We have looked at these cost increases in detail and undertaken consultation with key stakeholders (as well as attending National Grid forums) to aid our understanding of the drivers of these increased costs.

Office of Gas and Electricity Markets

¹ In an open letter in July 2006, in our preliminary views in October 2006 and in our initial proposals document in December 2006.

NGET's revised forecasts

In January 2007, NGET provided Ofgem with an updated forecast for its incentivised balancing costs for 2007/08. This forecast, of £468 million (£10 million higher than previously forecast) took into account a number of factors, including falling wholesale electricity prices and a recent increase in SO costs (particularly in November).

Our final proposals

For NGET, we are proposing an external SO incentive scheme for 12 months (from 1 April 2007). The parameters of our final proposal are set out in the table below. We consider that this proposal represents a fair balance of risk and reward between NGET and customers.

IBC Target	Upside (reward to NGET if costs are below target)		Downside (payment by NGET if costs are above target)		
£m	Sharing factor (%)	Cap (£m)	Sharing factor (%)	Floor (£m)	
430 -445	20	10	20	-10	

This proposal has a number of conditions attached to it, namely:

- there are no pre-agreed income adjusting event categories. Under normal circumstances (i.e. excluding force majeure or security events) IAEs will only be raised in response to structural changes in market conditions (leading to significant movements in balancing costs);
- if NGET believes any company is abusing a dominant market position, we would expect it to make a complaint under the Competition Act 1998 for us to examine; and
- we ask parties to notify us if they consider NGET has not acted in the most economic and efficient manner in any situation.

We also set out some areas which we consider need further consideration as a result of the recent increase in SO costs, including the impact of system actions and reserve contracts on cash out prices, as well as potentially targeting the costs of transmission constraints more accurately.

In this document, we also set out our final proposals for internal electricity SO costs. Our final proposal for NGET's internal cost incentive will enable NGET to recover £428 million over the period 2007 to 2012 (if NGET performs in line with the cost targets).

Next steps

If NGET consents to our final proposals these would be effective from 1 April 2007. If NGET does not consent we will have to decide whether to refer the matter to the Competition Commission or else rely on direct regulation of NGET's SO costs based on our existing powers. In any event, we propose reviewing fundamentally the external gas and electricity SO incentives later this year. This review will lead to the proposal of revised incentives effective from April 2008.

1. Introduction

Chapter summary

This chapter provides a short background of the process so far. It also provides an outline of the structure of this document and the way forward.

Question box

There are no specific questions in this chapter.

Background

- 1.1. In July we published an open letter inviting interested parties' views on the historical performance of NGET as the electricity SO, and on the scope and form of the electricity (and gas) SO incentive schemes to apply from 1 April 2007. Following receipt of NGET's initial SO cost forecast for 2007/08, we published a Preliminary Views consultation in October. This document also included background on the SO incentive schemes. We received thirteen responses to the October consultation.
- 1.2. Following the publication of our October consultation we received additional information from NGET. This information, together with the responses that we had received from our earlier consultation helped us to develop our initial proposals which we published in December.
- 1.3. We received thirteen responses (two of which were confidential) to our Initial Proposals consultation. A summary of these responses in respect of electricity SO incentives can be found in Appendix 5.² Overall, respondents continued to remain supportive of the process that Ofgem is adopting for setting both the internal and external incentive schemes.
- 1.4. In addition to receiving respondents' views to our Initial Proposals, we have also received further information from NGET. All of this information has helped us to develop our final proposals for SO incentive schemes to apply to NGET's external and internal SO costs from 1 April 2007 which are discussed in this document.

² The non-confidential responses are available in full on the Ofgem website www.ofgem.gov.uk.

1.5. To date, we have undertaken joint consultations on incentive schemes for the electricity and gas system operators in 2007/08. However, we have now chosen to separate our consultations on final proposals for the electricity and gas SO incentives. This approach is more consistent with the separate statutory licence modification consultations that are being undertaken to implement the Transmission Price Control Review (TPCR) final proposals. This is also necessary as we are awaiting more information from National Grid on aspects of the gas SO incentive scheme.

Structure and approach

- 1.6. This final proposals document consists of three chapters. This chapter provides background, and outlines the process we are following in developing SO incentive schemes for NGET from 1 April 2007, the structure of the document and the way forward.
- 1.7. In Chapter 2 we discuss our final proposals for electricity SO incentive schemes to apply to NGET's external and internal SO costs from 1 April 2007. We explain how these final proposals have been informed by NGET's latest forecast, the views of market participants and recent market events. In Chapter 3 we briefly summarise our next steps. Further details are provided in appendices to this document.

Way forward

- 1.8. Appendix 7 of this document contains a statutory notice of our intention to modify by agreement NGET's transmission licence under section 11 of the Electricity Act 1989. These modifications will implement the proposals set out in this document.
- 1.9. We would welcome the views of interested parties regarding all aspects of our proposed modifications. Responses should be sent to wholesale.markets@ofgem.gov.uk to be received no later than **27 March 2007**. Details of how to respond can be found in Appendix 1.³
- 1.10. Further details regarding next steps in the finalisation and implementation of NGET's electricity incentive schemes for 2007/08 can be found in Chapter 3.

³ Appendix 4 provides details of how to give feedback to us on the manner in which this consultation has been conducted.

2. Electricity SO incentive schemes

Chapter summary

This chapter outlines our final proposals for SO incentive schemes to apply to NGET's external and internal SO costs from 1 April 2007. In this chapter we summarise key respondents' views to our Initial Proposals consultation, explain recent movements in external incentivised balancing costs (IBC) and present NGET's revised forecast for IBC. We then set out our final proposals and explain the current events in the wholesale gas and electricity markets that we consider are having a significant influence on the level of IBC.

Question box

Question 1: Do you consider that the final proposals for the SO incentive schemes to apply to NGET's external and internal SO costs represent a fair balance of risk and reward?

Question 2: Do you consider that the proposed licence modifications appropriately reflect the final proposals as described in this chapter?

- 2.1. This chapter outlines details of our final proposals for the electricity SO incentive schemes. These proposals are described in turn for:
- the external electricity incentive scheme; and
- the internal electricity incentive scheme.

External SO incentive scheme

- 2.2. Our December consultation outlined our initial proposals on the scope and duration and presented four options for the form of the external electricity SO incentive scheme. Following consideration of respondents' views and recent events in the electricity markets, we have now developed our final proposal for the external SO incentive scheme that will commence on 1 April 2007 (for one year), provided that NGET agrees to these proposals. If NGET does not agree to these proposals, we would need to decide whether to refer the matter to the Competition Commission or else to rely on direct regulation of NGET's SO costs based on our existing powers.
- 2.3. In this section, we outline:
- a brief summary of our initial proposals;
- developments in the wholesale electricity market and in SO costs since publication of our initial proposals;
- NGET's revised forecast for IBC for 2007/08; and

 Ofgem's final proposal for an electricity external balancing costs incentive scheme for 2007/08.

Initial proposals

- 2.4. In our Initial Proposals consultation we outlined four possible options for the form of an electricity external balancing cost incentive scheme for 2007/08. The options were based around our expected outturn of costs of £430 million for 2007/08. This compared with NGET's then forecast of £458 million. The main differences between the two views related to the level of wholesale prices, and views on frequency response and constraint costs. In our Initial Proposals consultation document we also provided details on the possibility of indexing IBC to changes in wholesale prices and presented an option that included such indexation.
- 2.5. The majority of respondents to our Initial Proposals considered that NGET's forecast of external balancing costs for 2007/08 of £458 million was too high and should be reduced. The key reasons stated for this were:
- insufficient allowance had been made for recent market conditions, particularly falls in wholesale prices. To this end, several respondents supported revising the IBC target ahead of the final proposals to ensure that it is consistent with prevailing market conditions;
- the costs of procuring mandatory frequency response should reduce in 2007/08 as a result of the impact of CAP107⁴ (although some parties considered that it was too early to determine the effect of CAP107);
- the costs of managing constraints in 2007/08 should reduce as a result of the more efficient use of long term contractual arrangements and the use of more innovative contractual arrangements more generally; and
- history suggests that NGET tends routinely to over-forecast SO costs.
 - 2.6. Although there was no consensus on the appropriate level of IBC for 2007/08 the majority of respondents considered that a target in the range £400 £430 million was appropriate, based on the above factors.

⁴ Connection and Use of System Code (CUSC) CAP107 "Redefinition of Response Energy Payment (REP) for Mandatory Frequency Response" was approved by the Authority on 28 September 2006 and implemented on 28 December 2006. CAP107 had the effect of amending the Response Energy Payment component of the payment for the provision of mandatory frequency response such that it is based on the Market Index Price adjusted by defined multipliers.

- 2.7. In respect of the four options outlined in the Initial Proposals, there was no consensus on the most appropriate option, although a number of respondents did consider that the options provided a sufficient range of risk and reward choices for NGET. Respondents were also generally supportive of the application of indexation to the overall IBC target.
- 2.8. More details on respondents' views can be found in Appendix 5.

Recent developments in the wholesale markets and in external balancing costs

- 2.9. As we outlined in our December document, wholesale electricity prices have fallen in recent months, and this trend has continued since the publication of that document. Specifically, wholesale electricity prices in winter 2006/07 are around 47% lower than winter 2005/06.⁵
- 2.10. In our December document we published analysis showing a close correlation between IBC and wholesale electricity prices. Although this analysis was mainly undertaken during a period when wholesale prices were rising, we would expect a similar correlation when wholesale prices were falling (all things being equal).
- 2.11. Figure 2.1 shows the month by month external balancing costs for 2005/06, 2006/07 to date actual costs and NGET's projected costs for the remainder of this year. It also shows the wholesale electricity price this year and last year.

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⁵ Source: APX Power UK Reference Price Data Spot Price Index. Price reduction calculated using the daily average of the 48 half hourly settlement periods for each day for winter 2005/06 (1 October to 30 March) and winter 2006/07 (1 October to 23 February).

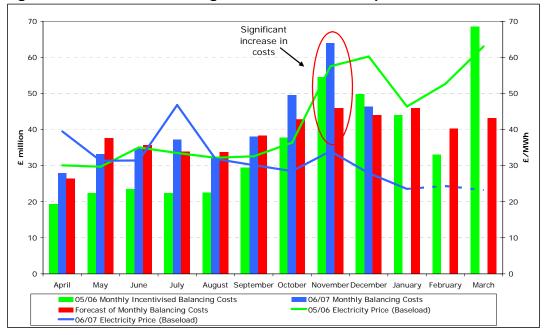


Figure 2.1 External balancing costs and wholesale prices

- 2.12. This diagram shows that costs were particularly high in autumn 2006, and that these costs arose at a time when wholesale electricity prices were falling. It also shows that wholesale prices in autumn 2006 were considerably lower than in autumn 2005. It therefore appears that the relationship between wholesale electricity prices and SO costs has weakened.
- 2.13. The majority of these high levels of SO costs are attributable to three areas of NGET's balancing services:
- **Frequency response:** The 2006/07 cost of this is projected to be £115 million (a 77% increase from 2005/06).
- Scottish constraints: These costs are projected to be £87 million for 2006/07 (a 45% increase from 2005/06).
- Balancing Mechanism costs: NGET incurred significant costs in the Balancing Mechanism in the early part of the winter through having to procure more expensive reserve, in part as the result of the unavailability of British Energy's nuclear units.
 - 2.14. We have examined the potential reasons for these recent increases in IBC (against a backdrop of falling wholesale prices). As part of our work we undertook meetings with key stakeholders. These meetings have helped us significantly in the development of our final proposals, some of the key points raised being:

- that the period of price discovery for frequency response following the implementation of CAPO47 was coming to an end and that there did appear to be a summer/winter differential;
- that NGET often takes actions in the Balancing Mechanism for a number of reasons (e.g. for both system and energy reasons) but it is not clear to some participants for what reason plant is sometimes taken out of price order;
- a lack of information means it is often difficult to respond to market conditions;
 and
- increased transparency in the market would be helpful.

NGET's revised cost forecasts

- 2.15. NGET provided us with a revised IBC forecast for 2007/08 on 25 January which was £10 million higher than the previous forecast (increasing from £458 million in October to £468 million in January).
- 2.16. NGET stated that its revised forecast took into consideration the effect of lower wholesale prices in reducing IBC. However, NGET considered that this reduction had been more than offset by an increase in system length (which has the effect of reducing the IBC gain from the Net Imbalance Adjustment term during short periods) and increases in the costs of frequency response, standing reserve and Scottish constraints, as evidenced particularly during November 2006. Further details of NGET's revised forecast are set out in Appendix 6.
- 2.17. Table 2.1 summarises NGET's January forecast together with its previous forecasts, its projected costs for this year, 6 as well as the actual costs for 2005/6.

⁶ As at 15 February 2007.

Table 2.1: External SO costs - 2005/06 to 2007/08 (£ million)⁷

	2005/06 (Actual)	2006/07 (Estimate)	2007/08 (July forecast)	2007/08 (October forecast – mean)	2007/08 (January forecast)
Balancing Mechanism (excluding constraints)	190	82	152	152 ⁸	110
Balancing Services Contract Costs (excluding constraints):					
- Ancillary services	228	308	313	317	322
- Trades	59	43	47	15	9
Constraints	80	115	72	81	95
Transmission loss adjustment	(6)	8	0	0	09
Less: Net imbalance adjustment	(104)	(60)	(101)	(107)	(68)
Total	428	496	483	458	468

2.18. Since NGET submitted its forecasts of costs to Ofgem, wholesale electricity prices have continued to fall. As a consequence, NGET has confirmed that further reductions in wholesale prices since January mean that its figure for forecast IBC for 2007/08 is now in the region of £459 million.

Ofgem's Final Proposals

- 2.19. It is in the interests of customers who pay for the costs of system operation that NGET is appropriately incentivised to operate the transmission system in an economic and efficient manner. We have therefore developed our final proposal with the intention of providing NGET with an appropriate balance of risk and reward.
- 2.20. We have previously noted the challenges of setting an SO incentive scheme for external balancing costs at a time when wholesale prices have been falling. These challenges have been exacerbated by the recent increase in IBC at a time when wholesale prices continue to fall.
- 2.21. In this section we set out:
- our final proposal;

⁷ All data in money of the day. Numbers may not total exactly as a result of rounding.

As a result of its different forecasting methodology and allocation of costs, despite the fall in wholesale prices, NGET's forecast of total Balancing Mechanism costs did not alter from its July forecast.
 Whilst there is no change in the forecast of transmission loss adjustment in IBC, NGET has increased its

Whilst there is no change in the forecast of transmission loss adjustment in IBC, NGET has increased its forecast of the volume of transmission losses. This is discussed further below.

- the conditions of the proposed scheme; and
- the issues that we consider warrant further consideration.

Final proposal

- 2.22. We welcome NGET's latest view that balancing costs for 2007/08 are likely to be lower than its January forecast as a result of further falls in wholesale prices. However, we still consider that there is the opportunity to reduce further the target level of IBC.
- 2.23. We outlined in our Initial Proposals consultation that we consider there is potential for cost savings against NGET's forecast in both the areas of frequency response costs and Scottish constraints. We discuss the reasons why we continue to consider this to be the case below.

Frequency response costs

2.24. The total costs of frequency response to NGET on a monthly basis are shown in Figure 2.2.

Figure 2.2: Monthly frequency response costs



- 2.25. As illustrated in Figure 2.2, in November 2005 (following implementation of CAP047¹⁰), the costs of frequency response increased significantly. CAP047 introduced a market for frequency response and moved away from the previous administered price arrangements. It is likely that some of these increases were the consequence of prices before the implementation of CAP047 being held at levels that may have been artificially low (i.e. not fully reflecting the true cost of providing frequency response).
- 2.26. We also continue to consider that the rule change CAP107¹¹ should result in frequency response prices that are more cost reflective than the prices under CAP047. As CAP107 was only implemented in December 2006 it is difficult to draw any firm conclusions over the effectiveness of this rule change. However a number of generators consider that this would have a downward pressure on costs in this area.
- 2.27. NGET is concerned that frequency response costs are continuing on a (shallow) upward price trend as a result of generators, on average, continuing to increase their prices. However, we believe that there is evidence that frequency response costs are now stabilising. This view is shared by generating companies, who also consider that the period of price discovery that was inevitable after the introduction of CAP047 is coming to an end. In addition, we consider that between June 2006 and December 2006 these costs show signs of seasonality.
- 2.28. Overall, we therefore consider that frequency response costs will not increase to the extent forecast by NGET, and that this view is supported by our discussions with key market players.

Constraint costs

2.29. NGET can face costs either as a consequence of having to constrain generating plant on to or off of the system as a consequence of needing to balance the transmission system. Where plant is being constrained on to the network this is because the owner of the plant has assessed the economics of running that plant and has made a decision that it is not economically viable to operate against prevailing wholesale prices. This means that the system operator

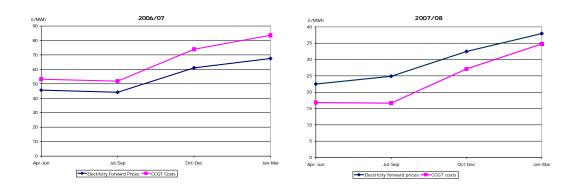
¹⁰ The introduction of an amendment to the CUSC, CAP047, on 1 November 2005 removed the administered 'cost reflective' basis for setting holding payment prices. Following this change, generators were able to price freely this aspect of their mandatory frequency service. For further details see Ofgem's Connection and Use of System Code Proposed Amendment CAP047: "Introduction of a competitive process for the provision of mandatory frequency response" Impact Assessment, August 2004, (reference 210/04).

¹¹ CAP107 had the effect of amending the Response Energy Payment component of the payment for the provision of mandatory frequency response such that it is based on the Market Index Price adjusted by defined multipliers, as a proxy for the System Buy Price and the System Sell Price.

potentially has no alternative but to pay the generating company to operate if the plant is required to generate for system reasons.

- 2.30. During 2005/06 and 2006/07, wholesale prices prevailing at the time in the gas and electricity markets meant that, for many periods, it was not economic for gas fired generation to operate. However, NGET required a specific gas fired plant to generate at certain times to support the transmission network in the area where it was sited. Therefore, throughout this period, NGET had to pay constrained on payments to ensure that this particular gas fired plant did actually operate and that the integrity of the network in that area was maintained.
- 2.31. Looking ahead to 2007/08, the forward prices are showing that conditions in the wholesale markets have changed considerably mainly as a consequence of the falling wholesale gas price. Against these conditions it is necessary to assess whether NGET will face the same level of constraining on costs.
- 2.32. Figure 2.3 compares the typical operating costs of a gas plant with the electricity forward prices for 2006/07 and 2007/08 (on a quarterly basis). 12

Figure 2.3: Comparison of CCGT operating costs and electricity forward prices



2.33. These diagrams show that, as a consequence of changes in energy prices, it is reasonable to assume that plant that opted not to operate under the prevailing wholesale market conditions in previous years will, going forward, be economic to run. In turn, we believe that this will reduce the overall level of constraint costs

¹² We have compared CCGT costs (based on the gas forward price) with the electricity forward price. We consider that a System Operator acting economically and efficiently would consider these factors and an assessment of the risks of these prices changing in the future in considering whether it would be appropriate to sign a contract with a generator who is required to operate for transmission system reasons.

incurred by NGET relative to recent years as it will not need to constrain this plant on to the system.

2.34. We believe that NGET's forecast of constraint costs for 2007/08 did not reflect fully this change as it was concerned that the generator may choose not to run irrespective of the relative energy prices. We do not consider it is appropriate to include allowances for generators not operating according to prices in the wholesale markets and as such, we believe there is scope to reduce NGET's cost estimate further. Instead, if NGET were to observe a generator not acting according to prices in the wholesale market and potentially abusing a position of market power it is appropriate for it to raise a complaint under the Competition Act 1998. This is set out more fully below.

Final proposal for the form of the external balancing costs incentive scheme

- 2.35. As Table 2.2 highlights, our final proposal represents a reduction of around £30 million on NGET's January forecast. While some of this reduction is partially explained by the further fall in wholesale prices, a further reason for the reduction is our views on some of the constituent elements of the total forecast costs (as discussed above).
- 2.36. Our Final Proposal for an electricity external balancing cost incentive scheme for one year commencing on 1 April 2007 is set out in Table 2.2 below.

Table 2.2: Final Proposal

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	IBC Target	Upside (reward to NGET if costs are below target)		Downside (payment by NGET if costs are above target)		
	£m	Sharing factor (%)	Cap (£m)	Sharing factor (%)	Floor (£m)	
Final Proposal	430 -445 (deadband)	20	10	20	-10	

2.37. This proposal contains a 'deadband' of £15 million, ranging from £430 million to £445 million. In the event that outturn IBC costs fall within this range, no payments are made through the incentive scheme. The full range of potential incentive payouts under this proposal is shown in Figure 2.4 below.

¹³ Comparing the central point of the target deadband to NGET's January forecast of £468m.

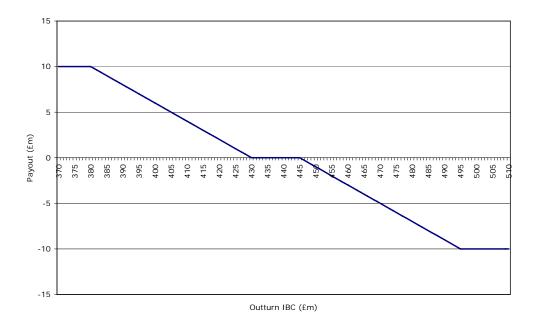


Figure 2.4: Potential Incentive Payout vs Outturn for Incentive Scheme

Final proposal for transmission losses

- 2.38. The incentive on transmission losses operates by setting NGET a target for the volume of transmission losses. If NGET beats this target it receives a payment and if actual losses exceed the target it faces a cost. The calculation of this payment or cost is made by multiplying the difference between the actual and target losses by the Transmission Losses Reference Price (TLRP), which to date has been set ex ante.
- 2.39. In its October forecast, NGET's volume of losses for 2007/08 was 5.82 TWh. In its January forecast, NGET increased the volume to 5.95 TWh, based on a forecast of increased generation in Scotland, which is based on the experience of autumn 2006. We consider that this volume of losses is reasonable and should form the basis of our final proposal.
- 2.40. In our Initial Proposals consultation we proposed to keep the same methodology (i.e. ex ante) for the pricing of transmission losses, except for the option that included indexing the external incentive scheme to wholesale prices.
- 2.41. Our Final Proposal is to accept NGET's forecast of the volume of transmission losses as it appears to be reasonable, particularly given the changes in the location of generation. We also propose no changes in the methodology (i.e. ex ante) for pricing of transmission losses and propose that it be set at £29/MWh.

- 2.42. Appendix 7 sets out the statutory licence modification consultation in respect of our final proposals set out above. We would welcome views on whether the proposed licence modifications appropriately reflect these final proposals.
- 2.43. In the proposed licence drafting we have also updated the provisions of special condition AA5E. The relevant dates have been amended, and we have removed any references to the transmission network revenue restriction. The TPCR proposals will include a new, separate condition dealing with disapplication requests for the purposes of the transmission network revenue restriction. We will be reconsidering special condition AA5E as part of our review of the SO incentive scheme next year and it may be that the form of this condition changes as a result of that review.

Conditions of our final proposals

- 2.44. In defining our final proposal for NGET's incentive scheme for 2007/08, we consider it important to set out a number of conditions that will apply in the event that NGET accepts our final proposal. These are outlined in turn below. These relate to:
- Income adjusting events;
- Potential use of the Competition Act 1998; and
- Requirements under NGET's licence.

Income adjusting events

- 2.45. As part of the consultation process for this year's SO incentives schemes we have considered whether income adjusting events (IAEs) should remain in place. This, in part, followed the submission by NGET under its 2005/06 SO incentive scheme of notices for two proposed IAEs. These IAEs related to constraint costs and frequency response costs. In accepting that these were IAEs (although we did not accept the full reduction in IBC that NGET had requested), we recognised the concerns of a number of market participants that the IAE provisions may be allowing NGET to appeal some elements of costs whilst retaining benefits arising from other areas of the incentive scheme.
- 2.46. Overall, as set out in the initial proposals documents, we believe that it is appropriate to retain the IAE provisions for the scheme in 2007/08. However, it is important to note that these provisions not only allow NGET the opportunity to claim, but also for third parties as well (i.e. in the event that unanticipated demand and supply conditions lead to a significant and unexpected change in costs to the benefit of NGET).

- 2.47. Going forward, we agree that IAEs may well be needed, but only if there are major structural changes in wholesale markets.¹⁴ These could occur in either direction and would be notable because of a significant change in the outturn wholesale price (either higher or lower) relative to the current forward curve. In considering an IAE for a structural shift in the wholesale market we would also take a view on, for example, how much NGET could or had hedged its risk exposure through the forward market.
- 2.48. As such, a condition of our final proposal is we would only expect NGET to raise IAEs in the event that there are unexpected and fundamental changes in wholesale energy markets in 2007/08. We also consider it important to note that, in developing our final proposal, we have not identified any issues, areas of cost or potential events that we consider could constitute an automatic justification for an IAE at this time.
- 2.49. Finally, we also confirm our intent to review the IAE provisions more fundamentally as part of the wider review of NGET's SO scheme later this year.

Potential use of the Competition Act 1998

- 2.50. As discussed above, in defining our final proposals we have made a reduction in NGET's forecast of IBC for 2007/08 to remove some of the costs of resolving transmission constraints. As we noted, this is because, based on forward prices for wholesale gas and electricity, both Ofgem and NGET agree that it appears economic for gas fired generating plant to run.
- 2.51. In our discussions, NGET set out concerns that a gas plant might withdraw its operation from the system to exploit market power. In this way the generator would earn higher returns through constrained on payments from NGET than it might earn through the wholesale market. If a generator were to exploit its dominant position in this way, this would result, in the first instance, in additional cost to NGET as it would have to pay higher constrained on charges than anticipated at the time the incentive scheme target was set.
- 2.52. In such circumstances, NGET might seek to recover this additional cost by raising an IAE. However, in our view, such costs would not be likely to be considered as IAEs. As noted previously, we consider that under normal circumstances, the only reason for raising an IAE would be in response to a structural change in market conditions. Instead, if a gas plant appeared to deviate markedly from operating patterns that might reasonably be expected given prevailing market prices and/or appeared to offer materially different prices to NGET in constrained periods relative to unconstrained periods, then this might

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¹⁴ IAEs may also be needed in response to force majeure and/or security events.

¹⁵ As noted above, IAEs may also be needed in response to force majeure and/or security events.

be evidence of abuse of a dominant position under the Competition Act 1998. OFT guidance on the application of the Competition Act in the energy sector explains that Ofgem may assess potential abuses of dominance in temporal markets and that, in this respect, it would consider the effects of any deviations from competitive price levels even for relatively short durations. The OFT guidance explains that this issue particularly applies to markets for wholesale electricity.

- 2.53. Therefore in the event of an apparent abuse of a dominant position by a generator in the provision of balancing services, we would expect NGET to raise a complaint to Ofgem under the Competition Act. This would be consistent with the behaviour we would expect from a market participant in any other market that believed it was incurring additional cost as a consequence of another participant exploiting an apparently dominant position. In any event, we would expect NGET to have an important role in providing us with the evidence and information on any apparent market abuse. Of course, Ofgem would consider any complaint made and whether or not it has reasonable grounds to investigate; Ofgem cannot fetter its discretion as regards such an investigation.
- 2.54. It is important to note that it is not just NGET that is able to make a complaint in this respect; any party may make such a complaint and Ofgem itself may initiate an investigation. Again, it would be helpful if complainants could put together a well formed case with the appropriate evidence, as outlined previously.

Requirements under NGET's licence

- 2.55. Standard Condition 16 of NGET's transmission licence requires NGET to "coordinate and direct the flow of electricity onto and over the GB transmission system in an efficient, economic and co-ordinated manner". NGET is required to act at all times in compliance with this obligation.
- 2.56. We will continue to monitor NGET's behaviour to ensure that it operates the transmission system in an economic and efficient manner, consistent with its obligations. However, if any party is aware of situations where it considers that NGET has not acted in the most economic and efficient manner we would ask that the party concerned puts together a case containing the necessary evidence, as outlined previously, that we can then investigate further.

¹⁶ It is helpful in such situations if complainants clearly explain the abuse and include copies of all relevant evidence in their evidence of the abuse and of the materiality of the harm. This may include, but should not be limited to, any type of documents, minutes of internal risk assessment meetings, or correspondence with the relevant party (including emails, minutes of meetings, notes of telephone conversations etc.) which establishes the facts of the abuse or the effects on the complainant/market.

Issues that we consider warrant further consideration

- 2.57. There has been no external balancing cost incentive scheme in place in 2006/07. Instead, we have been closely monitoring the costs of the SO throughout the year. Partly as a result of this monitoring we have identified a number of issues that we believe the industry needs to consider over the forthcoming period. These include some potential changes to the market arrangements.
- 2.58. Two reviews that we are about to undertake with market participants should provide an opportunity to address some of these issues. Our cash out review aims to simplify the rules and make the imbalance price more reflective of NGET's electricity energy balancing costs. We will also be reviewing more fundamentally the role of the system operator.
- 2.59. In the context of these reviews we consider there to be a number of areas that warrant further consideration. These include:
- mechanisms for bringing about a more accurate targeting of the costs of transmission constraints:
- the impact of system actions on the cash out price; and
- the effect of reserve contracts on the level of cash out prices.

Targeting the costs of managing transmission constraints

- 2.60. One of the issues that will be considered is whether it is appropriate to target better the costs of managing constraints through locational charging of the costs of transmission constraints. This policy was first considered in the 1990s by OFFER in response to apparent abuses of locational market power by some generating units that, at the time, National Grid was required to 'constrain on' as a result of transmission constraints.
- 2.61. This issue was again examined at the time that British Electricity Trading and Transmission Arrangement (BETTA) was introduced¹⁷ as it was anticipated that additional transmission constraint costs would lead to an increase in the Balancing Services Use of System (BSUoS) charges levied on customers. However, given the costs and complexity of targeting costs it was not pursued at that time.

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¹⁷ See, for example, "The proposed transmission use of system charging methodology of the GB system operator: An Impact Assessment" February 2005 25/05

2.62. Since BETTA was implemented, the costs of managing Scottish transmission constraints have escalated considerably. As a consequence, it might be an appropriate time to reconsider whether the costs of transmission constraints incurred by the system operator could be more accurately targeted on participants in areas in which these costs arise. This may have the benefit of giving market participants a stronger incentive to consider more carefully the impact of their operational decisions on the system. This would have consequential reductions in the level of costs incurred by the SO - and ultimately borne by customers in aggregate - in the resolution of system constraints.

System actions impacting upon the derivation of cash out prices

- 2.63. As noted above, we will also be undertaking a review of the way in which cash out prices are determined. In particular, we have some concerns that cash out prices may be unduly influenced by "system actions" by NGET in the Balancing Mechanism (rather than actions purely related to ensuring that the system remains in balance). An example of such system actions is those taken to resolve transmission constraints (rather than "energy actions" that are taken to bring about aggregate demand supply balance).
- 2.64. Our review will therefore examine the extent to which the cost of such system actions impact on cash out prices, and explore ways in which cash out prices could better reflect the costs NGET incurs in balancing the system, rather than the costs it incurs in resolving transmission constraints.

Reserve contracts dampening cash out prices

- 2.65. NGET's reserve contracts are typically structured such that there is an option fee and an exercise fee. We are keen to examine in more detail how costs incurred through the exercise of these contracts feed back into cash out prices.
- 2.66. Specifically, we are keen to ensure that, at times when reserve contracts are used by NGET to bring about energy balance, the appropriate level of cost incurred by NGET feeds into the cash out calculation (i.e. the exercise fee and an appropriate portion of the option fee).

Price Indexation

- 2.67. In the October consultation we discussed the possibility of linking elements of the incentive scheme to an index of wholesale electricity prices. This proposal was designed to protect customers and NGET from windfall gains or losses as a consequence of large movements in wholesale prices.
- 2.68. In our Initial Proposals consultation document we provided more detail on how such indexation would work and presented an option that included indexation.

- 2.69. Respondents to the Initial Proposals consultation were generally supportive of applying indexation to the overall IBC target on the basis of the strong link between external incentivised balancing costs and wholesale power prices.
- 2.70. Earlier in this chapter we recognised that there has recently been a breakdown in the relationships that we observed as part of our analysis in our initial proposals document. Largely as a result of this apparent breakdown we do not think it is appropriate to pursue this option at this time.
- 2.71. We propose to reconsider the possibility of some form of price indexation (potentially in the context of offering an alternative to Income Adjusting Events) as part of the review of the SO that we will commence later this year.

Internal SO incentive scheme

- 2.72. In our December document we set out our initial proposals for NGET's SO internal cost incentive for the period 2007 to 2012. Respondents were generally supportive of these proposals. Table 2.3 below sets out our final proposals.
- 2.73. Following further discussions with NGET we have made two adjustments since December. Firstly, we have removed identified pension costs from NGET's forecast of operating costs given that there is a separate allowance for pension costs. Secondly, we have adjusted our modelling of tax, in particular to ensure depreciation is calculated on a straight line basis. The combined effect of these two adjustments increases our total proposed allowances by around £4 million.

Table 2.3 NGET Internal SO Costs 2007-2012 Final Proposals

(£ million, 2004/05 prices)	NGET Forecast	Ofgem Final Proposals	Change from Dec 2006
Opex	251.5	234.2	-14.0
Capex (Incentivised)	46.9	41.0	No change
Tax	n/a	20.5	+18.5
Pensions	n/a	76.2	no change

- 2.74. Taking our final proposals together with NGET's existing allowances for capital expenditure associated with the set up of the New Electricity Trading Arrangements (NETA) and BETTA, NGET will be allowed to recover on average £85.5 million per annum.
- 2.75. As discussed in December, and in our October consultation document, the allowances for pensions and tax are new for the SO internal incentive scheme and are consistent with our approach to NGET's transmission owner (TO) price control. These allowances will not be incentivised on an annual basis. Instead,

like the TO price controls these costs will be assessed for the whole of the five year period to 2012. New terms for pensions and tax have been introduced into NGET's transmission licence to allow it to recover these costs.

Incentives on capex and the roll forward of the RAV

- 2.76. In December we consulted on whether SO Internal capital expenditure should be subject to a "fixed strength incentive" similar to that being introduced for the TO price control. The key features of the fixed strength incentive are:
- fixed sharing factors proposed at 25% upside and down side, to be applied each year to capital expenditure incurred which could then be added to the internal regulatory asset value (RAV); and
- notwithstanding the above, a disallowance of items from the RAV that are demonstrably wasteful or inefficient and an adjustment to claw back any revenue recovered on such expenditure.
 - 2.77. Those respondents who commented were generally supportive of these proposals. Our final proposal is therefore to introduce a fixed strength incentive in the form outlined above (fixed sharing factors of 25% upside/downside). Operating costs will continue to be subject to the same sharing factors used in the external incentive. These changes are reflected in our proposed licence modification in Appendix 7. We would welcome respondents' views on whether the proposed licence modifications appropriately reflect these proposals.

NGET SO Internal costs associated with modifications to commercial frameworks

- 2.78. In December we consulted on how NGET should recover costs incurred as a result of modifications to commercial frameworks e.g. the Balancing and Settlement Code (BSC) where these costs were clearly incremental to the baseline cost allowances. NGET proposed a mechanism that would allow the SO to recover such costs on an annual basis accompanied by greater transparency and accountability on NGET to report such costs to the industry. We also noted that such costs could be recovered through the existing income adjusting event (IAE) provision which has a threshold of £1 million for internal costs.
- 2.79. Respondents who commented on this issue were divided; some supported NGET's proposals whilst others expressed concerns, particularly regarding the transparency of such a process and the information made available regarding such costs. Having considered respondents' views, we propose that if such costs arise NGET should propose these as IAEs; the existing IAE provisions have sufficient safeguards including a defined consultation process.

Transmission support schemes (TSS) capital expenditure

2.80. Transmission support schemes (TSS) capex on all three transmission networks can help NGET in its role as GB SO manage balancing costs more efficiently. Our final proposals for the TO price controls¹⁸ included certain TSS projects in the capex baseline allowances for all three transmission licensees. We have therefore not made an allowance for TSS capex for NGET as GB SO. Requirements for TSS capex incremental to the assumed baseline will need to be reviewed before April 2008.

Offshore Transmission

2.81. We noted in October 2006 that NGET had been appointed designate system operator for GB offshore transmission. As a result, NGET expects to incur costs in contributing to the Ofgem/DTI project to facilitate GB Offshore Transmission. We have agreed that NGET may recover any such costs that are efficiently incurred strictly in its role as GB SO through the internal incentive as a revenue adjustment. We will consult on any costs that we propose should be remunerated. NGET has presently forecast it will incur £7 million between now and October 2008.

¹⁸ Transmission Price Control Review, Final Proposals, 4 December 2006.

3. Way forward

Chapter summary

This chapter briefly summarises our next steps.

Question box

There are no specific questions in this chapter.

- 3.1. Responses to this consultation document should be sent to wholesale.markets@ofgem.gov.uk to be received no later than **27 March 2007**. Further details of how to respond can be found in Appendix 1.
- 3.2. The statutory notice under section 11 of the Electricity Act 1989 specifies a period of not less 28 days during which interested parties can make representations or objections to the proposed licence modification, following which revisions to the proposed licence modification will be made if they are considered appropriate, except where the Secretary of State directs Ofgem not to make the modifications.
- 3.3. NGET must consent to the proposed licence modifications before they can be implemented. If NGET does not consent to the proposed licence modifications Ofgem can refer the proposed SO incentive scheme modifications to the Competition Commission for final adjudication. Alternatively, we could allow the incentive schemes to fall away. If this occurs, NGET will simply pass through its actual costs. Ofgem would then be responsible for directly regulating NGET's performance as SO and could take enforcement action and impose financial penalties if NGET was operating the system inefficiently or was found to be in breach of other relevant licence conditions.
- 3.4. If NGET consents, Ofgem intends, subject to any representations made during the consultation and any direction received from the Secretary of State, to direct the relevant modification of NGET's transmission licence in line with the proposed licence modifications shortly after 27 March 2007, so that the new licence conditions can apply from **1 April 2007**.

Appendices

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Appendix 1 - Consultation Response and Questions

1.1. We would welcome the views of interested parties regarding all aspects of our proposed modifications. Responses should be received by **27 March 2007** and should be sent to:

Sonia Brown
Director, Wholesale Markets
Ofgem
9 Millbank
London
SW1P 3GF

- 1.2. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.
- 1.3. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.
- 1.4. Any questions on this document should, in the first instance, be directed to Lisa Martin Tel: 020 7901 7123, Email: wholesale.markets@ofgem.gov.uk.

CHAPTER: One

There are no specific questions in this chapter.

CHAPTER: Two

Question 1: Do you consider that the final proposals for the SO incentive schemes to apply to NGET's external and internal SO costs represent a fair balance of risk and reward?

Question 2: Do you consider that the proposed licence modifications appropriately reflect the final proposals as described in this chapter?

February 2007

CHAPTER: Three

There are no specific questions in this chapter.

Appendix 2 – The Authority's Powers and Duties

- 1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).
- 1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts. ¹⁹
- 1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly²⁰.
- 1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of consumers, present and future, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.
- 1.5. The Authority must when carrying out those functions have regard to:
- The need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- The need to secure that all reasonable demands for electricity are met;
- The need to secure that licence holders are able to finance the activities which are the subject of obligations on them²¹; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.²²

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¹⁹ Entitled "Gas Supply" and "Electricity Supply" respectively.

²⁰ However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

²¹ Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions. ²² The Authority may have regard to other descriptions of consumers.

- 1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:
- Promote efficiency and economy on the part of those licensed²³ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; and
- Secure a diverse and viable long-term energy supply.
- 1.7. In carrying out the functions referred to, the Authority must also have regard, to:
- The effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- The principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- Certain statutory guidance on social and environmental matters issued by the Secretary of State.
- 1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation²⁴ and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

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²³ Or persons authorised by exemptions to carry on any activity.

²⁴ Council Regulation (EC) 1/2003

Appendix 3 - Glossary

В

Bid multiplier

The bid multiplier is defined as the ratio of the daily average accepted bid price and the day ahead average baseload power price.

Black Start

Certain power stations are required to have contingency provisions to enable them to restart should the system shut down - a "Black Start" capability. It is remunerated via capability payments indexed to inflation and forward prices. It is contracted for bilaterally.

British Electricity Trading and Transmission Arrangements (BETTA)

The BETTA reforms, introduced on 01 April 2005, created a single, competitive wholesale electricity trading market in Great Britain. These trading arrangements are based upon the preceding England and Wales trading arrangements. The BETTA arrangements allow parties to trade energy forward through bilateral over the counter trades, through exchanges, or in any other manner they deem appropriate on a GB basis.

Ε

Enhanced reactive service

This describes a range of products delivering reactive power not provided via an obligatory arrangement. This is contracted for via market based arrangements.

F

Fast reserve

This is the fast provision of reliable power via increased generation or reduction in demand which can be provided within 2 minutes, at a delivery rate of \geq 25MW/minute and the reserve needs to be sustainable for 15 minutes. Entered into via tender process.

Fast Start

Fast start is the ability of OCGT plant to ramp from standstill to its maximum rated output within five minutes of initiating a low frequency relay, or within seven minutes of a manual instruction. It comprises an availability fee and an utilisation fee. It is contracted bilaterally.

Frequency response

NGET has a statutory duty to maintain system frequency between +/- 1% of 50 hertz. The immediate second-to-second balancing to meet this requirement is provided by continuously modulating output. Mandatory frequency response is priced via the CAPO47 provisions, which enable providers to alter their holding prices. Further frequency response is provided by demand side and other non-mandatory services which form commercial frequency response services.

Ī

Income Adjusting Event (IAE)

NGET and NGG are able to submit notices to Ofgem under their respective licences of proposed income adjusting events if costs (or savings) are incurred in connection with their SO activities that were not envisaged at the time the scheme was agreed.

Intertrip

The majority of intertrips are required to strategically manage power flows on the system, and remove at short notice potentially vulnerable circuits. Commercial intertrips are negotiated bilaterally, whilst operational intertrips are remunerated via the CAP076 provisions (administered arrangements).

M

Maxgen

This is an emergency service and is used to extract additional output beyond a unit's normal operational range. It is contracted bilaterally with NGET, with submitted prices, volumes and "Xs" being provided on a monthly basis to NGET. This service is provided for under CAP071.

Ν

NGET

National Grid Electricity Transmission plc (NGET) is the system operator (SO) for the electricity transmission system in Great Britain (GB), with responsibility for making sure that electricity supply and demand stay in balance and the system remains within safe technical and operating limits.

0

Offer multiplier

The offer multiplier is the ratio of the daily average accepted offer price and the day ahead average base-load power price.

R

Reactive Power

Power generation creates background energy which absorbs or generates reactive energy as a result of the creation of magnetic and electric fields. Reactive power needs to be provided to assist in balancing the system and retaining its integrity.

Regulatory Asset Value (RAV)

The value ascribed by Ofgem to the capital employed in the licensee's regulated transmission or (as the case may be) distribution business (the 'regulated asset base'). The RAV is calculated by summing an estimate of the initial market value of each licensee's regulated asset base (at privatisation) and all subsequent allowed additions to it at historical cost, and deducting annual depreciation amounts calculated in accordance with established regulatory methods. These vary between classes of licensee. A deduction is also made in certain cases to reflect the value realised from the disposal of assets comprised in the regulatory asset base. The RAV is indexed to RPI in order to allow for the effects of inflation on the licensee's capital stock. The revenues licensees are allowed to earn under their price controls include allowances for the regulatory depreciation and also for the return investors are estimated to require to provide the capital.

S

Sharing factors

These describe the percentage of profit or loss NGET will be subjected to if the day to day costs of running the system/performance fall below or exceed the target.

Standing reserve

NGET's requirement for standing reserve can be met from synchronised and non-synchronised plant. The response time must be within 20 minutes, for a delivery of at least 3MW and needs to be maintained for at least 2 hours if instructed. Contracts struck via open tender.

System Operator (SO)

NGET is the operator of the high voltage electricity transmission system for GB. NGG is the operator of the gas NTS for GB.

W

Warming

This service is used to decrease the notice period a unit needs to deliver power. It substantially increases the flexibility of plant on the system. Warming and hot standby contracts exist, in £/hr availability fees. When a warmed unit is instructed the warming payment falls away, but the hot standby fees remains (provided it has been initiated), provided for via bilateral agreement. Note that from 1 November 2006 Warming has been superseded by the BM start up service.

Appendix 4 - Feedback Questionnaire

- 1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:
- **1.** Do you have any comments about the overall process, which was adopted for this consultation?
- 2. Do you have any comments about the overall tone and content of the report?
- 3. Was the report easy to read and understand, could it have been better written?
- 4. To what extent did the report's conclusions provide a balanced view?
- **5.** To what extent did the report make reasoned recommendations for improvement?
- 6. Please add any further comments.
- 1.2. Please send your comments to:

Andrew MacFaul

Consultation Co-ordinator
Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk

Appendix 5 – Initial Proposals consultation responses

- 1.1. To assist us in developing final proposals for the 2007/08 incentive schemes we published an Initial Proposals consultation document on 5 December 2006. This document presented our initial proposals for the SO incentive schemes to apply to NGET and NGG from 1 April 2007, and invited feedback from interested parties on these proposals.
- 1.2. We received thirteen responses to the Initial Proposals consultation document. The eleven non-confidential responses are published on Ofgem's website.²⁵ In addition to addressing the specific questions posed by Ofgem some parties chose to provide general comments. The views of respondents in relation to NGET's incentive scheme are outlined below. This section is intended to summarise the principal themes of respondents' views only and is not intended to provide a comprehensive overview of the responses received.

General comments

1.3. One respondent suggested that the electricity market is in a transitional period, which makes it very difficult to make definitive judgements about the appropriate level of SO costs and the factors driving these costs. It was considered that this uncertainty lends support to exploring some form of price band approach to setting incentives, rather than any of the four options proposed by Ofgem in the Initial Proposals document.

Question 1: What are your views on NGET's revised forecast of £458 million? In particular, do you consider that there are any areas where NGET is being risk disposed or risk averse in its assessment of costs? Alternatively do you consider that there are any drivers of cost that NGET has not identified?

Question 2: In this chapter we identify areas where we believe that NGET has over forecast its costs. Do you agree with our assessments? Please provide as much analytical detail as possible in your response.

- 1.4. The majority of respondents indicated that NGET's IBC forecast of £458m is too high and should be reduced. Some of the reasons given included:
- the IBC forecast is not fully reflective of recent market conditions, particularly wholesale power prices
- the cost of procuring mandatory frequency response and managing constraints should reduce in 2007/08 due, respectively, to the impact of CAP107 and the more efficient use of long term contractual arrangements

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²⁵ www.ofgem.gov.uk

- history suggests NGET tends to routinely over-forecast SO costs
- using 2005/06 as the baseline for forecasting 07/08 costs is not appropriate.
- 1.5. It was also noted by one respondent that the IBC target should be challenging to ensure NGET is sufficiently incentivised to reduce SO costs where it is economic and efficient to do so. Several parties supported revising the IBC target ahead of the Final Proposals document if wholesale power prices continue to fall.
- Question 3: Within NGET's forecast a continued area of increasing cost is mandatory frequency response costs. What do you consider to be the drivers of costs for frequency response? What impact do you consider that CAP107 will have on these costs? Do you believe there is scope for cost reductions as competition is established in the provision of these services?
- 1.6. The majority of respondents agreed that CAP107 will lead to a reduction in the cost of procuring mandatory frequency response. Some parties considered that it is too early to determine the effect of CAP107, but noted that the impact should be clearer after the current winter period.
- 1.7. With respect to establishing the scope for further cost reductions, one party suggested that if additional information were provided to frequency response providers about NGET's frequency response utilisation decisions, this would help reduce costs. It was also considered by one party that NGET ought to be investigated if they are thought to be instructing frequency response out of price order.
- Question 4: NGET is forecasting that constraint costs will continue to be of the order of £81 million. Do you consider that there is any scope for reductions in these costs? In particular, do you consider that with falling wholesale gas prices there should be a reduction in within Scotland constraint costs?
- 1.8. The majority of respondents considered that the cost of managing constraints could be reduced through the more efficient use of long term contracts and the use of more innovative contractual arrangements generally. Two parties had reservations about whether there was scope for further cost savings due to a lack of publicly available information on constraint management. As was the case with frequency response services, it was noted by one respondent that NGET should be investigated if constraint costs remain too high.
- Question 5: In November, a significant change was introduced to the electricity cash out arrangements (Modification P205). What is your assessment of the impact of this change on NGET's forecast level of costs? Please provide as much analytical detail as possible in your response.
- 1.9. Respondents' views on whether P205 will lead to a reduction in SO costs were mixed. Three parties felt that this change should lead to stronger incentives upon NGET to balance at the margin and therefore reduce costs. One party noted that when P205 was being considered by industry, expected savings were reported to be

at least £60m. This respondent suggested that if these savings have not been realised NGET needs to explain why.

1.10. Two parties considered that P205 has had no noticeable impact on the main imbalance price to date, and therefore found it difficult to foresee any balancing cost savings arising in future. A further party thought it was too early to fully understand the impact on NGET's balancing actions (and costs) of this change to electricity cashout arrangements.

Question 6: Do you think it is appropriate that we take into account the then current wholesale market conditions when setting the IBC target in the final proposals?

- 1.11. Respondents agreed that the strong link between external incentivised SO costs and wholesale power prices means it is important that NGET's final IBC target is consistent with prevailing market conditions, to protect both NGET and consumers. It was suggested by one respondent that while Ofgem has taken positive steps towards accounting for falling wholesale prices, more needs to be done in this area.
- 1.12. One party questioned the strength of the correlation between power prices and IBC, and suggested that only certain components of IBC show a clear relationship with wholesale power prices.

Question 7: What do you think is an appropriate level of IBC for 2007/08?

1.13. Although there was no consensus on the appropriate level of IBC for 2007/08, the majority of respondents considered that a target in the range of £400m-430m was appropriate, based on falling wholesale power prices and anticipated reductions in the cost of constraint management and procuring frequency response.

Question 8: Do you have any comments on our indexation analysis? Specifically, do you support the way in which indexation has been applied in the option we have proposed? Do you have any comments on our approaches to determining the adjustment factor? Are there any alternative approaches that we have not considered? Do you have any comments on the dead band size?

- 1.14. Respondents were generally supportive of applying indexation to the overall IBC target, and there was cautious support for a 10% dead band to be used. It was determined that indexation would help protect NGET and consumers from windfall gains and losses, and insure against the risk of applying an inaccurate IBC target in any one year. One respondent considered that only certain components of SO costs should be indexed, rather than the overall IBC target.
- 1.15. It was considered by one party that indexation isn't appropriate on the basis that the correlation between BSIS and wholesale prices is limited, and applying indexation would only add un-necessary complexities to the incentive scheme process. One respondent suggested there were errors in Ofgem's analysis of price indexation, which raises concerns about the validity of the conclusions presented.

Question 9: What are your views on the four proposed options?

1.16. Reactions to the four proposed options were mixed. A number of respondents considered that the options provide a sufficient range of risk and reward choices for NGET, but did not indicate a clear preference for any of the proposed schemes. One of these parties noted that the diversity of choice should increase the likelihood of a scheme being agreed for 2007/08, which is a positive step for the industry.

Question 10: Do you agree with our views on IAE's going forward?

- 1.17. Respondents generally supported retaining the IAE provisions however a number considered the current structure to be inadequate, particularly with respect to the transparency of the process. Several parties noted that there is a significant information asymmetry in the IAE process favouring NGET, and that this needs to be better managed. It was widely agreed that if price indexation is to be applied to the IBC target, those cost components which are indexed to wholesale prices under the incentive scheme should not be able to be claimed as part of any IAE.
- 1.18. One respondent considered that there should not be any 'flagged' IAE's as this only encourages NGET to refute or reject set cost targets, and therein undermines the incentive scheme process. A further party favoured removing the IAE provisions altogether under an annual scheme if there are no major risks identified at the time of setting the scheme. One party considered there was no need to amend the current IAE provisions.

Question 11: Do you have any comments on the draft Terms of Reference for a review of the external SO incentive scheme contained in Appendix 12?

- 1.19. The draft TOR were welcomed and supported by the majority of respondents, however various issues were identified as requiring further consideration ahead of finalising the TOR. Parties generally agreed that a longer-term scheme which runs alongside the transmission price control period will provide the desired stability and certainty to NGET and consumers, and thereby draw out deeper investment. Two respondents noted that the relative benefits of a longer-term scheme should be regularly assessed against the option of continuing with an annual scheme.
- 1.20. One party considered that the fact that NGET has the ability to reject all of the incentive scheme options, leaving no scheme in place, is problematic, and should be addressed in the TOR.

Question 12: Do you agree with our Initial Proposals for levels of internal opex, capex, tax, and pensions allowances?

1.21. The majority of respondents supported Ofgem's Initial Proposals for internal SO cost allowances, however a number of parties considered there was not sufficient information made available in the paper to properly assess the appropriateness of

these amounts. One party noted that the capex allowance should not be as high as during the period of BETTA implementation.

Question 13: What are your views on implementing fixed sharing factors for internal capital expenditures? Do you have a view on the level of these sharing factors? What are your views on the alignment of the operating expenditure sharing factors?

- 1.22. Respondents generally considered that there would be benefits from implementing fixed sharing factors for internal costs, and no party opposed doing this. One party recommended aligning the sharing factors for internal capex with NGET's recently agreed transmission price control sharing factors. A further respondent elected not to comment on this mechanism except to note that the arrangements for internal costs seem to have become more complex.
- 1.23. No party suggested an appropriate level at which to set these fixed sharing factors, except to note that the current capex sharing factor was set at 25% due to difficulties with accurately assessing whether appropriate investment has been undertaken by NGET, and Ofgem should continue to be mindful of this uncertainty.

Question 14: Do you think incremental internal costs associated with modifications to commercial frameworks (e.g. BSC) should be remunerated through the existing IAE provision or via a more automatic cost recovery process built around enhanced cost reporting and accountability to industry through the existing commercial frameworks?

- 1.24. There was majority support, albeit marginal, for continuing with the current IAE approach to remuneration of internal costs arising from modification proposals, though a number of parties emphasised that this process must be transparent and clearly understandable to industry. Two respondents indicated a preference for an automatic cost recovery mechanism to be implemented.
- 1.25. One party suggested that NGET should not be able to recover costs from its own modification proposals, only those raised by third parties. It was considered by one respondent that neither the automatic cost recovery process, nor the IAE provision, is an appropriate mechanism for NGET to recovery these costs.

Appendix 6 - Further information on NGET's revised forecast

- 1.1. NGET has stated that it amended its forecast for IBC for 2007/08 in a number of costs areas based on its experience of the previous three months. The cost areas which it has amended and the key reasons for those amendments are summarised below.
- Lower power prices: the reduction in wholesale power prices has resulted in NGET reducing its forecast of Balancing Mechanism costs and Reactive Power costs (where the wholesale power price has a direct effect on the default price).
- Increased system length: NGET has also taken into account the slightly longer system that has been experienced since October. A longer system has two opposite effects on IBC. Firstly, a longer system reduces the volume of Margin actins that NGET has to take, thereby reducing IBC. However, this reduction is more than offset by the reduction in the number of short periods, when IBC typically gains from the NIA term.
- Frequency response costs: NGET has increased its forecast of frequency response costs. This takes into account the continued rise in response prices since NGET's October forecast.
- **Standing reserve**: NGET has increased its forecast of standing reserve as a result of the increase in prices it received through the STOR tender.
- Constraints: NGET has revised its forecast of constraint costs to take into account updated information on transmission system outages. This updated information has had the effect of reducing some costs of constraints, whilst increasing costs elsewhere, with the overall effect being to increase constraint costs. NGET has also taken into account the recent increase in output from Scottish generation, which has the effect of increasing constraint costs across the Cheviot boundary (the old interconnector between England and Wales).
- 1.2. A more detailed breakdown of NGET's forecast for individual Ancillary Service costs is provided in Table 2.4 below.

Table 2.4: Ancillary Services costs - 2005/06 to 2007/08 (£ million)²⁶

Tubic E. T. Allionial y	OCI VIOCO OC	<u> </u>	, 10 <u>2007</u> , 00	<u> </u>	/
	2005/06 (Actual)	2006/07 (Estimate)	2007/08 (July forecast)	2007/08 (October forecast – mean)	2007/08 (January forecast)
Reactive Power	55	55	64	54	46
Frequency Response	65	115	106	114	124
Fast Reserve	37	41	39	41	41
Standing Reserve	42	60	65	69	72

²⁶ All data in money of the day. Numbers may not total exactly as a result of rounding.

NGET SO incentives from 1 April 2007

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Other Reserve (inc	6	6	7	7	7
SO - SO fees) ²⁷					
Warming	7	12	12	12	12
Black Start	15	17	19	18	18
Other	1	2	2	2	2
Total	228	308	313	317	322

 $^{^{\}rm 27}$ SO-SO energy costs are included within Balancing Mechanism costs and are not included within Ancillary Services Costs.

Appendix 7 - Notice under Section 11 of the Electricity Act 1989

NOTICE OF MODIFICATION OF THE SPECIAL CONDITIONS OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC'S ELECTRICITY TRANSMISSION LICENCE UNDER SECTION 11 OF THE ELECTRICITY ACT 1989

- 1. National Grid Electricity Transmission plc ("NGET") holds an electricity transmission licence (the "licence") treated as granted pursuant to section 6(1)(b) of the Electricity Act 1989 (the "Act").
- 2. In accordance with section 11(2) and (3) of the Act, the Gas and Electricity Markets Authority (the "Authority") gives notice that it proposes to modify the special conditions of the licence in accordance with the Schedule to this Notice.
- 3. The proposed licence modifications are intended to implement proposals relating to the NGET balancing services activity incentive scheme from 1 April 2007. In summary:
 - (a) the parameters for the NGET balancing services activity revenue restriction on external costs intended to run from 1 April 2007 to 31 March 2008 are set out in the table below:

	Target	Upside (reward to NGET if			Downside (penalty to NGET if		
		costs are below target)			costs are above target)		
	£m	Sharing	factor	Cap (£m)	Sharing factor	Floor (£m)	
		(%)			(%)		
Final	430 -	20		10	20	-10	
Proposal	445						

- (b) the transmission losses element of the balancing services activity incentive scheme is included on a net basis in line with the proposals. The transmission losses target is set at 5,950,000 MWh, and the transmission losses reference price is set at 29 £/MWh; and
- (c) the parameters for the NGET balancing services activity revenue restriction on internal costs intended to run from 1 April 2007 to 31 March 2012 are set out in the table below:

Final Proposal	2007/08	2008/09	2009/10	2010/11	2011/12
(values in £m					
and based on					
2004/05					
prices)					
Opex	47.9	47.0	45.9	46.9	46.5

Capex	11.1	7.5	8.3	7.4	6.7
Tax	8.4	3.9	3.2	2.5	2.4
Pensions	15.6	15.4	15.1	15.0	15.0
Non	17.8	2.1	1.7	1.6	1.6
incentivised					
capex revenue					
BETTA	3.6	3.4	3.3	3.2	3.0
Implementation					
capex revenue					

- 4. Subject to the outcome of this statutory consultation, consideration of respondents' views and the consent of NGET being given, it is the intention of the Authority that these proposed licence modifications shall have effect on and from 00:00 hours on 1 April 2007.
- 5. The reasons why the Authority proposes to make these licence modifications were published by the Authority in the following documents:
 - "National Grid Electricity Transmission System Operator Incentives from 1 April 2007: Final proposals and statutory licence consultation", Ofgem, February 2007.
 - (b) "National Grid Electricity Transmission and National Grid Gas System Operator Incentives from 1 April 2007: Initial proposals consultation", Ofgem, December 2006;
 - (c) "National Grid Electricity Transmission and National Grid Gas System Operator Incentives from 1 April 2007: October consultation", Ofgem, October 2006; and
 - (d) "National Grid Electricity Transmission and National Grid Gas System Operator Incentives 2007-08 – Invitation to submit views", Ofgem, July 2006;

These documents are available free of charge from the Ofgem Research and Information Centre, 9 Millbank, London SW1P 3GE or from the Ofgem website at www.ofgem.gov.uk.

6. Any representations or objections to the proposed licence modifications may be made before 27 March 2007 and sent to:

Sonia Brown Director, Wholesale Markets Office of Gas and Electricity Markets 9 Millbank London SW1P 3GE

or by e-mail to wholesale.markets@ofgem.gov.uk.

Sonia Brown Director, Wholesale Markets Duly authorised on behalf of the Gas and Electricity Markets Authority

27 February 2007

SCHEDULE

PROPOSED MODIFICATION OF THE SPECIAL CONDITIONS OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC'S ELECTRICITY TRANSMISSION LICENCE UNDER SECTION 11 OF THE ELECTRICITY ACT 1989

1. In special condition AA5 (Revenue Restriction Conditions: Definitions), after the definition of "relevant year t" insert:

""security period"

means a period commencing on the date on which any direction issued by the Secretary of State under section 34(4) 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 as it shall principally affected) 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.".

- 2. In special condition AA5A:
 - (a) for the heading, substitute "AA5A: Balancing Services Activity Revenue Restriction";
 - (b) for "relevant period", where it appears, substitute "relevant year".
- 3. In special condition AA5A, Part 2 (i) (balancing services activity revenue restriction on external costs):
 - (a) in paragraph 5, for the definition of "BXext_t", substitute;
 - "BXext_t represents the maximum allowed revenue derived in relevant year t from and associated with procuring and using balancing services";
 - (b) paragraph 5A is omitted;
 - (c) in paragraph 10(a)(iii), "as defined in special condition AA5D" is omitted;
 - (d) in paragraph 10(b):
 - (i) for "1 April 2005", substitute "1 April 2007";
 - (ii) for "31 March 2006", substitute "31 March 2008";

(iii) for Table 1 (Proposed modifications to the BSC), substitute:

BSC Modification Proposal	BSC Modification Title (as entitled by the proposer of the modification)
None	
applicable	

(iv) for Table 2 (Proposed amendments to the CUSC), substitute:

CUSC Amendment Proposal	CUSC Amendment Title (as entitled by the proposer of the amendment)
None applicable	

- 4. In special condition AA5A, Part 2 (ii) (balancing services activity revenue restriction on internal costs):
 - (a) in paragraph 13, for the formula and words from "in accordance with the following formula" substitute:

$$"BXint_{t} = CSOC_{T} + IncPayInt_{t} + NC_{t} + IAT_{t} + IONT_{t}$$

where:

BXint_t means the balancing services activity revenue associated with internal costs in relevant year t other than any revenue in relevant year t accounted for under paragraph 5 of part 2(i) of this special condition and is derived from the following components:

CSOC_t which is the aggregate of all incentivised internal costs associated with the balancing services activity in respect of relevant year t, calculated in accordance with paragraph 15;

IncPayInt_t which means the incentive payment associated with the internal operating costs of undertaking the balancing services activity in respect of relevant year t, calculated in accordance with paragraph 15B;

 NC_t which means non-incentivised costs, calculated in accordance with paragraph 15C;

IAT $_{\rm t}$ which means, in respect of each relevant year t, the amount of any allowed income adjustment given by paragraph 18(b);

 IONT_t which means, in respect of each relevant year t, the amount of any allowed income adjustments given by paragraph 24(b)";

- (b) for paragraph 14 substitute the words "Not used.";
- (c) for paragraph 15, substitute:

"15. Determination of incentivised internal costs

For the purposes of paragraph 13, the term $CSOC_t$ shall be derived from the following formula:

$$CSOC_t = CSOOC_t + CSOCEC_t$$

where:

CSOOC_t means the aggregate of the incentivised internal operating costs associated with the balancing services activity in respect of relevant year t;

CSOCEC_t means the aggregate of the incentivised internal capital expenditure associated with the balancing services activity in respect of relevant year t and shall be derived from the following formula:

$$CSOCEC_t = CSOD_t + CSOR_t$$

where:

CSOD_t means the depreciation on the SO regulatory asset base (as defined below) in respect of relevant year t and is calculated on a straight-line basis using an asset life of 7 years;

CSOR_t means the return on the SO regulatory asset base in respect of relevant year t and is calculated as 5.05% of the SO regulatory asset base;

"SO regulatory asset base" means the aggregate of assets associated with the balancing services activity excluding, for the avoidance of doubt, Plant (which has the meaning given to it in the CUSC) expenditure and has the value £43.3 million at 1 April 2007. Allowed internal capital expenditure (ASOCE $_{t}$) shall be added to the SO regulatory asset base in respect of any relevant year t and is determined in accordance with paragraph 15A.";

(d) after paragraph 15, insert:

"15A. Determination of Allowed Internal Capital Expenditure (ASOCE_t)

 $ASOCE_t$ means the allowed internal capital expenditure that shall be added to the SO regulatory asset base in respect of any relevant year t and is derived in the following manner:

$$ASOCE_{t} = \left(\left[1 + \left(\frac{IRPI_{t}}{100} \right) \right] \times CSOCET \right) - \left(\left(\left[1 + \left(\frac{IRPI_{t}}{100} \right) \right] \times CSOCET \right) - ACE_{t} \right) \times 0.75 \right)$$

where:

CSOCET_t means the internal capital expenditure target in respect of relevant year t as set out in the following table:

	Relevant year						
Variable	2007 2008 2009 2010 2011 /08 /09 /10 /11 /12						
csocett, £ million	11.1	7.5	8.3	7.4	6.7		

- ACE_t means the internal capital expenditure associated with the balancing services activity excluding Plant (which has the meaning given to it in the CUSC) in respect of relevant year t;
- IRPI_t in respect of relevant year t, means the percentage change (whether of a positive or a negative value) between (a) 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 (b) the value 181.80 (being the value for t-1 in 2004/05).
- 15B. Determination of incentive payments on internal operating costs

For the purposes of paragraph 13, the term $IncPayInt_t$ shall be derived from the following formula:

$$IncPayInt = \left((1 - ISF_t) \left(\left(\left[1 + \left(\frac{IRPl}{100} \right) \right] IMOT_t \right) - CSOOC_t \right) \right) + \left[\sum_{M} (1 - CSF_{Mt}) \left(CP_{Mt} - OS_{Mt} \right) \right]$$

where:

ISF_t is the balancing services activity sharing factor in respect of relevant year t, and is calculated in accordance with the formula set out below:

if
$$IMOT_t > CSOOC_t$$
 then $ISF_t = IUSF_t$ otherwise $ISF_t = IDSF_t$

where:

IUSF_t is the balancing services activity upside sharing factor in respect of relevant year t and has the value specified in paragraph B7 of Part B of Schedule A;

IDSF_t is the balancing services activity downside sharing factor in respect of relevant year t and has the value specified in paragraph B7 of Part B of Schedule A;

 $\begin{array}{ll} \text{IMOT}_t & \text{is the target for the incentivised internal operating costs} \\ & \text{associated with the balancing services activity in respect} \\ & \text{of relevant year t as specified in the following table:} \end{array}$

	Relevant year						
Variable	2007 2008 2009 2010 2011 /08 /09 /10 /11 /12						
IMOT _t £ million	47.9	47.0	45.9	46.9	46.5		

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 year t and has the value determined in accordance with paragraph B5 of Part B of Schedule A;

 ${\sf CP_{Mt}}$ 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 in month M of relevant year t;

 OS_{Mt} is the Contingency Provisions offset in respect of each month M of relevant year t and has the value determined in accordance with paragraph B6 of Part B of Schedule A:

 $\sum\limits_{M}$ means the summation over all months M in relevant year t;

CSOOC_t has the meaning given in paragraph 15;

 $IRPI_t$ has the meaning given in paragraph 15A.

15C. Determination of non-incentivised costs

For the purposes of paragraph 13, NC_t shall be derived from the following formula:

$$NC_{t} = \left(NSOC_{t} + BI_{t} + T_{t} + P_{t} + ON_{t}\right) \times \left(1 + \frac{IRPI_{t}}{100}\right)$$

where:

NSOC_t has the value set against relevant year t as set out in the following table:

		Relevant year					
Variable	2007	2007 2008 2009 2010 2011					
	/08	/09	/10	/11	/12		
NSOC, (£,million)	17.8	2.1	1.7	1.6	1.6		

BI_t represents the costs incurred by the licensee for preparing for the introduction of BETTA and has the value for the relevant year t set out in the following table:

	Relevant year							
Variable	2007	2007 2008 2009 2010 2011						
	/08	/09	/10	/11	/12			
BIt,	3.6	3.4	3.3	3.2	3.0			
(£,million)								

T_t means the tax allowance in respect of relevant year t as set out in the following table:

	Relevant year					
Variable	2007	2008	2009	2010	2011	
	/08	/09	/10	/11	/12	
T _t ,	8.4	3.9	3.2	2.5	2.4	
(£,million)						

P_t means the pension cost allowance in respect of relevant year t as set out in the following table:

	Relevant year				
Variable	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12
P _{t,} (£,million)	15.6	15.4	15.1	15.0	15.0

ON_t unless determined otherwise by the Authority, has the value £1,000,000 for the relevant year t and represents an allowance for payments by the licensee in respect of outage changes.";

- (e) in paragraph 16:
 - (i) in sub-paragraph (a)(iii), for "CSOC_t by more than £1,000,000 (the "STC" threshold amount")", substitute, "CSOOC_t or ACE_t by more than £1,000,000 (the "STC threshold amount") and is demonstrably not included in IMOT_t or CSOCET_t respectively for relevant year t";
 - (ii) in sub-paragraph (b), for "1 April 2006", substitute "1 April 2007";
 - (iii) in sub-paragraph (b), for "31 March 2007", substitute "31 March 2008";
- (f) in paragraph 18(a)(ii), for "CSOC_t by more than the STC threshold amount", substitute "CSOOC_t or ACE_t by more than £1,000,000 (the "STC threshold amount") and is demonstrably not included in IMOT_t or CSOCET_t respectively for relevant year t";
- (g) in paragraph 20:
 - (i) in sub-paragraph (b)(ii)(B) for "standard condition 5", substitute "standard condition B1 (Regulatory accounts)";

- (ii) in sub-paragraph (c), delete "CSOC_t", "PSC_t", "ASO_t" and "SOBR_t" and after "IncPayInt_t" insert "CSOC_t, CSOOC_t, CSOD_t, CSOR_t, ACE_t".
- 5. In special condition AA5C, in paragraph 8(a), "save in relation to the relevant year t commencing on 1 April 2005" is omitted.
- 6. In special condition AA5E (Duration of the Transmission Network Revenue Restriction and the Balancing Services Activity Revenue Restriction):
 - (a) in the heading, omit "Transmission Network Revenue Restriction and the";
 - (b) in paragraph 1, omit "and the transmission network revenue restriction";
 - (c) in paragraph 2, omit "transmission network revenue restriction and the";
 - (d) for paragraph 3(ii), substitute "specify the balancing services activity revenue restriction or any part or parts thereof to which the request relates";
 - (e) for paragraph 4(i), substitute the words "Not used.";
 - (f) in paragraph 4(ii), for "31 March 2007" substitute "31 March 2008";
 - (g) in paragraph 4(iii), for "31 March 2007" substitute "31 March 2012";
 - (h) for paragraph 4(A), substitute the words "Not used.";
 - (i) in paragraph 4(B):
 - (i) before "Schedule A" insert "Part 2(ii) of special condition AA5A and";
 - (ii) for "1 April 2006" substitute "1 April 2007".
- 7. Schedule A (Supplementary Provisions of the Charge Restriction Conditions), Part B (Terms used in the balancing services activity revenue restriction), is amended in accordance with paragraphs 8 to 13.
- 8. For "relevant period", where it appears, substitute "relevant year".
- 9. For paragraph B1 substitute:
 - "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 2007, from the following table:

IBC _t (£)	MT _t (£)	SF _t	CB _t (£)	
380,000,000<	0	0	10,000,000	
$380,000,000 <= IBC_t$	430,000,000	0.2		
<430,000,000			0	
$430,000,000 <= IBC_t$	IBC _t	0	0	
<445,000,000				
445,000,000<= IBC _t	445,000,000	0.2		
<495,000,000			0	
>= 495,000,000	0	0	-10,000,000	

- (b) in respect of the relevant year t commencing on 1 April 2008 and each relevant year thereafter, the terms MT_t , SF_t and CB_t shall be set to zero."
- 10. For paragraph B2 substitute the words "Not used.".
- 11. For paragraph B3, substitute:
 - "B3. For the purpose of paragraph 9 of Part 2(i) of special condition AA5A:
 - (a) the term TLRP_j in respect of each settlement period during relevant year t shall have the value in £ per megawatt hour of 29;
 - (b) the term TLT_j in respect of each settlement period during relevant year t shall be given by the following formula:

$$TLT_{j} = \frac{TLT_{t}}{SP_{t}}$$

where:

- TLT_t which is the target volume of transmission losses in relevant year t, shall have the value in megawatt hours of 5,950,000;
- SP_t is the total number of settlement periods in the relevant year $\mathsf{t}.$ ".
- 12. Paragraphs B5 to B15 are omitted.
- 13. After paragraph B4 insert:
 - "B5. For the purpose of paragraph 15B of Part 2(ii) of special condition AA5A, the term CSF_{Mt} shall have the value:
 - (a) in respect of each month M of relevant year t:
 - (i) $CSF_{Mt} = 0.4$ when $0 \le 0.4$ CP_{Mt} \langle £250,000
 - (ii) $CSF_{Mt} = 0$ otherwise
 - (b) in respect of each month M of relevant year t:

(i)
$$CSF_{Mt} = 0.4 \text{ when } 0 \le \left[0.4 \text{ CP}_{Mt} \right] \left\{ \left[£250,000 \left(1 + \frac{IRPI_t}{100} \right) \right] \right\}$$

(ii) $CSF_{Mt} = 0$ otherwise

where:

- \mbox{IRPI}_{t} shall have the meaning ascribed to it in paragraph 15A of special condition AA5A.
- B6. For the purposes of paragraph 15B of Part 2(ii) of special condition AA5A, the term OS_{Mt} shall have the value:
 - (a) in respect of each month M of relevant year t:
 - (i) $OS_{Mt} = 0$ when $CSF_{Mt} > 0$
 - (ii) $OS_{Mt} = £250,000 \text{ when } CSF_{Mt} = 0$
 - (b) in respect of each month M of relevant year t:
 - (i) $OS_{Mt} = 0$ when $CSF_{Mt} > 0$

(ii)
$$OS_{Mt} = £250,000 \left(1 + \frac{IRPI_t}{100}\right)$$
 when $CSF_{Mt} = 0$

IRPI_t shall have the meaning ascribed to it in paragraph 15A of special condition AA5A

B7. For the purposes of paragraph 15B of Part 2(ii) of special condition AA5A, the terms $IUSF_t$ and $IDSF_t$ in respect of relevant year t shall be derived from the following tables:

	Relevant year				
Variable	2007	2008	2009	2010	2011
	/08	/09	/10	/11	/12
IUSF _t	0.2				

	Relevant year					
Variable	2007	2008	2009	2010	2011	
	/08	/09	/10	/11	/12	
IDSF _t	0.2					