

**Electricity transmission network reliability
incentive schemes**

Final proposals

December 2004

Summary

This document sets out final proposals for the introduction of new electricity transmission network reliability incentive arrangements for National Grid Company plc (NGC) by 1 January 2005. This document constitutes the statutory consultation on the licence modification process pursuant to section 11 of the Electricity Act 1989 as amended and follows an earlier, informal consultation on Ofgem's Initial Proposals published in October this year.

Ofgem received a number of responses to its October 2004 Initial Proposals. These have been taken into account in formulating the final proposals.

The scheme proposed for NGC incentivises the licensee in accordance with its annual performance against a target level of energy unsupplied from the England and Wales transmission system. The baseline level is based on NGC's average performance since 1991/92 (that is, the average amount of energy unsupplied from the grid), taking into account a number of exclusions. NGC will be rewarded up to 1.0 per cent of its transmission revenue requirement or penalised up to 1.5 per cent of its revenue depending on the level of energy unsupplied from the grid in any given year.

The proposed arrangements seek to provide NGC with a reasonable balance of risk and reward, while protecting consumers' interests by setting incentives that will encourage NGC to maintain and improve its performance in the future and will penalise it for a deterioration in performance relative to the baseline level described above.

While the present focus is on developing incentive arrangements for NGC, in due course it will be appropriate to consider developing similar arrangements for transmission companies in Scotland in order that consumers across Great Britain can benefit from new arrangements.

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1. Introduction

Background

- 1.1. In October 2004, Ofgem consulted on initial proposals for new regulatory incentives designed to encourage electricity transmission licensees to maintain and improve network reliability and continuity of supply to consumers.
- 1.2. This document summarises the responses to this consultation exercise, sets out Ofgem's views on the issues raised by respondents and describes the final proposals for an incentive scheme for NGC.
- 1.3. This document also includes the statutory consultation on the proposed modification to NGC's Electricity Transmission Licence (pursuant to section 11 of the Electricity Act 1989 as amended) that will be required in order to introduce the electricity transmission network reliability incentive arrangements set out in Chapter 3.

Structure of the document

- 1.4. This document is structured as follows:
 - ◆ Chapter 2 provides a detailed discussion of respondents' views and how Ofgem has addressed these in producing the Final Proposals;
 - ◆ Chapter 3 details the new incentive arrangements designed to take effect from 1 January 2005 to further incentivise NGC in its operation of the England and Wales transmission system;
 - ◆ Chapter 4 sets out the way forward in implementing the new incentive arrangements; and
 - ◆ Appendix 1 presents the licence drafting associated with modifying NGC's electricity transmission licence in order to implement the new incentive arrangements.

Consultation responses

- 1.5. If you would like to comment on the issues raised in this paper please respond by 29th December 2004 to the address below (via email if possible). Responses will be made available in the Ofgem library and on the Ofgem website and so any confidential material should be included in a separate annex.

Email: joe.sunderland@ofgem.gov.uk and andrew.walker@ofgem.gov.uk

Or write to:

Joe Sunderland
Ofgem
9 Millbank
London SW1P 3GE
Fax: 020 7901 7197

- 1.6. Please contact Joe Sunderland on 020 7901 7374 if you wish to discuss any of the issues raised in this paper.

2. Respondents' views

- 2.1. In October 2004, Ofgem published its Initial Proposals¹ for the development and introduction of electricity transmission reliability incentive schemes within Great Britain. The primary focus of the document was on the design and implementation of new incentive arrangements for NGC by 1 January 2005, with further consideration to be given to the development of similar arrangements in Scotland.
- 2.2. This chapter summarises the responses to the October 2004 consultation and sets out Ofgem's views on issues raised by respondents, including a description of the changes that have been made to the proposed incentive arrangements to reflect the views of respondents.

Summary of responses

- 2.3. A total of nine responses were received² from National Grid Company plc (NGC), Scottish and Southern Energy plc (SSE), RWE Npower plc (RWE), the Institution of Electrical Engineers (IEE), Centrica Energy plc (Centrica), SP Transmission Limited (SPTL), the Association of Electricity Producers (AEP), EDF Energy (EDF), and United Utilities.
- 2.4. Of the nine responses received to the consultation, three broadly supported the proposed new incentive arrangements, while the remaining six respondents did not support the new incentive arrangements.
- 2.5. Across all respondents, comments were received on a broad range of issues. This chapter groups the issues raised by respondents as follows:
- ◆ objectives and incentives;
 - ◆ structure of arrangements;
 - ◆ treatment of exceptional events;

1.1. _____

¹ The document can be viewed at http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8968_24004.pdf.

² The responses can be viewed on the Ofgem website (<http://www.ofgem.gov.uk>).

- ◆ arrangements for Scotland; and
- ◆ impact assessment.

2.6. The views of respondents on these key aspects of the Initial Proposals are presented below, with Ofgem's views denoted by italics.

Objectives and incentives

2.7. A number of respondents that did not support Ofgem's proposals suggested that they are an unnecessary response to two low probability events — the London and Birmingham transmission failures. Some respondents added that it was unclear as to what effect the incentives could have on NGC's performance given the Authority did not find NGC in breach of its statutory or licence obligations for the events which led to the London and Birmingham blackouts.

While there was not sufficient evidence to find NGC in breach of its legal obligations for the events that occurred in London and Birmingham in 2003 the Authority expressed concerns about aspects of NGC's performance and procedures. This suggested that there may be scope for improvement, despite the Authority's conclusion that NGC had complied with its statutory and licence obligations. These arguments appear to remain valid and the proposed new incentive scheme should complement the existing legal obligations on NGC and strengthen the incentives on the company to improve system performance.

2.8. One respondent questioned the need for such schemes (particularly in Scotland) given the general absence of major single loss of supply events.

The focus of the incentive scheme is on network reliability and continuity of supplies, and so it does not focus only on major events. Even interruptions of a short duration potentially can be highly disruptive, particularly to transport networks. Consequently, the new incentive arrangements aim to incentivise NGC to maintain and improve upon an already high level of network reliability by minimising supply interruptions from the grid, and restoring supplies as quickly as is practicable.

2.9. Another respondent suggested that the new incentive arrangements would reward a system that is gold-plated (i.e. the incentive scheme could encourage

the licensee to invest more than would be appropriate and that it would try and pass these costs onto consumers).

Transmission investment schemes can cost hundreds of millions of pounds and lead to the replacement of only a small proportion of network assets. It seems unlikely that an incentive scheme providing an annual adjustment of a few million pounds would have a significant impact on major investment decisions. The proposals for new incentives should nevertheless be an important complement to existing regulatory framework. The transmission failures in London and Birmingham resulted from procedural failings in relation to new investment and capital works. NGC acknowledged that it made a number of mistakes in relation to each of the incidents and explained to the Authority that following the London incident it had established a number of workstreams to examine issues of co-ordination, communication, the integrity of automatic protection equipment, the management of protection systems and control room procedures. A similar exercise was carried out following the Birmingham incident to identify remedial actions. Through these workstreams, NGC claims a number of improvements have been made to existing processes. This appears to indicate that network reliability can be improved without additional network investment. The introduction of new incentive arrangements for NGC should further strengthen the incentives on NGC to maintain and improve upon an already high standard of network reliability, without perverse incentives being introduced to invest inefficiently in the physical assets that make up the grid.

- 2.10. Another respondent suggested that the new arrangements could create perverse incentives for transmission network operators not to undertake necessary network maintenance if it means putting the system at risk from a single circuit failure.

In carrying out maintenance procedures, licensees need to balance the risk of disruption to consumers from the outages necessary for maintenance with the risk of disruption following asset failure. The new incentives will focus management attention on the costs of disruption to consumers and should encourage a strategy that minimises the overall risk of an interruption in supplies.

Structure of arrangements

- 2.11. A number of comments were made by respondents regarding the structure of the proposed arrangements. These comments generally related to the targets established under the scheme, and the associated rewards and penalties.
- 2.12. Some respondents suggested that the London and Birmingham transmission failures were one-off events and, as such, they should not be included within the calculation of NGC's average level of unsupplied energy from the grid (for the purposes of deriving a baseline level of unsupplied energy). It was suggested that including these incidents would distort NGC's targets under the new incentive scheme and increase the probability that NGC would avoid financial penalties under the scheme.

The information presented in Ofgem's Initial Proposals indicates that over the 13 year period against which NGC's performance was assessed, the level of unsupplied energy from its network was relatively low by comparison with the performance of other transmission networks. On this basis there seems to be no compelling arguments for excluding the impact of the London and Birmingham incidents in establishing targets for the new incentive scheme.

- 2.13. One respondent queried the exclusion of events affecting three customers or less, particularly given the extent to which such events contribute to the overall level of unsupplied energy from the grid.

As noted in the Initial Proposals, the reason for excluding such events from the new incentive arrangements is to avoid capturing events involving low-cost / low-specification connection assets, and this measure is seen as a reasonable proxy for such events. These events have been excluded from the baseline level of unsupplied energy against which NGC's performance will be assessed and so NGC should not benefit from this exclusion. These customers will continue to be protected by the obligations on NGC to maintain and operate an efficient transmission system. It should be noted that NGC is still required under Standard Condition C17 of its Electricity Transmission Licence to report to Ofgem on all events on the transmission system involving loss of supply, including those affecting three customers or less.

- 2.14. Some respondents implied that the structure of the scheme could be reviewed in order to better capture the impact of large interruptions. For instance, one respondent suggested that it is 'debatable whether the definition of network reliability targets for electricity unsupplied on an accumulated annual basis distinguishes sufficiently between such large scale failures and a more general deterioration in the quality of supply manifested in a larger number of lower impact incidents'. NGC suggested that 'an alternative could be to adopt a two part scheme, one part which would incentivise NGC on the annual level of unsupplied energy, and one which would capture the worst single loss event during the year'.

The proposed incentive scheme is an interim arrangement following the transmission failures in London and Birmingham. The next main transmission price control review, scheduled to commence in 2005, will provide an opportunity to consider whether more sophisticated incentive arrangements might be appropriate.

- 2.15. A number of respondents queried the asymmetric nature of penalties and rewards under the proposed new arrangements that results in a greater proportion (maximum 1.5 per cent) of NGC's transmission network revenue being exposed to a potential penalty rather than a potential reward (maximum 1.0 per cent of revenue). Related to this issue is NGC's suggestion that the level of unsupplied energy at which the maximum penalty comes into effect under the new arrangements is too low. NGC states that 'the combination of the relatively low level, by international standards, at which the maximum loss is incurred, and the magnitude of the proposed maximum penalty, seems particularly severe'.

The asymmetric structure of the proposed incentive payments should give NGC a clear incentive not to let its network reliability performance deteriorate and so is consistent with protecting the interests of consumers. In excess of 526MWh of energy would need to be unsupplied from the grid on an annual basis before NGC is exposed to a financial penalty greater than 1.0 per cent of its transmission network revenue. Excluding events that affected 3 customers or less, NGC has only experienced two years since 1991/92 when more than 526MWh of energy was unsupplied from the grid — in 1992/93 (when it lost 560MWh) and in 2003/04 (when it lost 853MWh).

- 2.16. On a similar note, some respondents queried the placement of the revenue neutral dead-band at between 90 and 100 per cent of NGC's average level of energy unsupplied from the grid since 1991/92. One respondent made the point that it would be possible for NGC to maintain or improve its performance marginally (on average over a number of years) but receive a small net penalty over that time. The probability of such an outcome arising is increased as a result of the dead-band being placed below (rather than around) the baseline level of MWh lost.

In the light of these arguments it is proposed to move the revenue neutral dead-band to around the baseline level of MWh unsupplied from the transmission grid. It will be symmetrical insofar as it results in neither a reward nor penalty in the event that NGC falls within the range ± 5 per cent of its average level of performance since 1991/92.

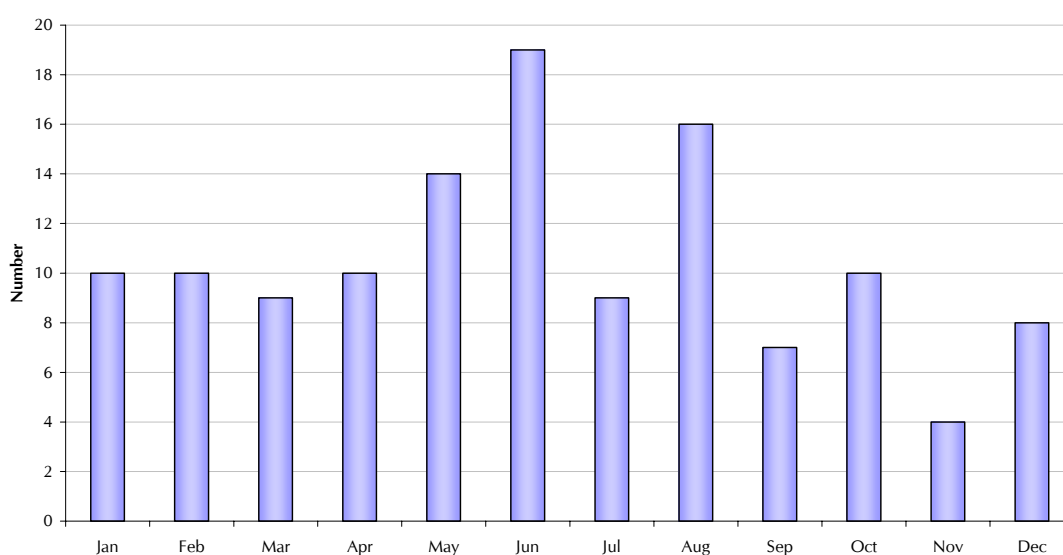
- 2.17. A number of respondents suggested that the structure of the incentive arrangements (and the associated rewards/penalties) implies a value of lost load of around £40,000 per MWh. One respondent suggested that they did not believe there to be 'a demonstrable cost-benefit for marginal improvements in lost load at a value of around £40,000/MWh'. Another respondent remarked that 'there must be some information available to Ofgem from the electricity market that would give a rough estimate of whether this figure is even of an appropriate magnitude'.

Although on a £ per MWh basis the structure of rewards and penalties under the incentive arrangements now equates to just under £33,000, this should not be regarded as Ofgem's estimate of (or proxy for) the value of the energy unsupplied from the grid (i.e. the value of lost load). This incentive scheme is designed and calibrated to provide NGC's management with a sufficient incentive to focus their attention on maintaining and improving network reliability. As noted in the Initial Proposals document, estimates of the value of lost load would vary according to the time and location of an interruption, and the type of customers affected. The range of estimates for the value of lost load is very wide. An attempt to quantify the value of lost load or the true economic cost to customers of a supply interruption would involve a more detailed and complex exercise, which is beyond the scope of these interim arrangements.

- 2.18. One respondent queried whether there is any evidence of a seasonal pattern in unsupplied energy and, if so, whether this should be factored into the scaling of targets for the first period of the scheme.

Figure 1 (below) presents data on the number of incidents on NGC's transmission network involving unsupplied energy since 1991/92, by month. On average, there were around 10.5 incidents per month. The data suggest no discernable trends in supply interruptions over the course of a year.

FIGURE 1: Number of incidents involving unsupplied energy from the England and Wales transmission system, 1991/92 to 2003/04, by month



Treatment of exceptional events

- 2.19. NGC says in its consultation response that 'the types of event covered by force majeure provisions, such as civil unrest, threat of war or acts of terrorism, are clearly beyond NGC's control...'. NGC goes on to suggest that the incentive scheme should provide it with the opportunity to '... apply for an adjustment in the event of an incident such as a terrorist attack'.

The incentive arrangements that apply to the DNOs allow them to claim an adjustment for events which they believe are exceptional and have had a significant impact on their performance. In deciding the extent of any adjustment, Ofgem decides on whether the event is exceptional and takes into account whether the DNO has taken all reasonable steps to restore customers in an efficient and effective manner.

Having considered the arguments put forward by respondents, there appears to be a case for adopting a similar approach across electricity distribution and transmission. NGC would be allowed to claim an adjustment for events which it believes are exceptional and have had a significant impact on its performance. Ofgem would determine whether the event was exceptional and taking into account whether NGC had taken reasonable steps to prevent the event having the effect of interrupting supply and to mitigate its effect (both in anticipation and subsequently).

For the purposes of these arrangements it is proposed to use the definition of an exceptional event as set out in Appendix 1 as part of the licence drafting. This now includes extreme weather related events, which is explained further in the following chapter.

Impact assessment

2.20. One respondent commented on the impact assessment included within Ofgem's Initial Proposals. The respondent noted that the impact assessment failed to compare whether:

- ◆ additional costs falling to those who pay transmission network use of system (TNUoS) charges would be better applied to distribution network performance; or
- ◆ what investment or operational actions NGC might undertake to improve performance.

2.21. The respondent suggested that 'in the development of any transmission incentive scheme, a comparison should be drawn between the marginal improvement in reliability that is likely to be realised by applying the same resource to the transmission network or the distribution network'.

The purpose of the incentive scheme is to ensure management effort is focused on maintaining or improving network reliability. It is not intended to lead to a significant increase in investment or mandate particular operational actions by NGC. There will only be small extra costs for transmission users if NGC improves its performance, and it is reasonable to expect NGC to adjust TNUoS charges to the extent that these incentive arrangements impact upon NGC's

revenue. There are already incentive arrangements in place for electricity distribution companies which balance any extra costs for distribution consumers with the likely improvements in quality of service. In these circumstances the analysis suggested by the respondent does not appear to be necessary.

In the absence of further comments from respondents on the impact assessment and given that the final proposals are broadly consistent with the Initial Proposals, the impact assessment published in the October 2004 document remains valid.

Arrangements for Scotland

- 2.22. Some respondents commented upon the development and implementation of electricity transmission network reliability incentive schemes in Scotland.
- 2.23. One respondent supported the development of incentive arrangements for the Scottish transmission network owners (SPTL and SHETL), pointing to the relative performance of the two operators in relation to network reliability.
- 2.24. However, other respondents suggested that it would be too difficult to implement for Scotland given the different nature of these networks (that is, the presence of a greater proportion of lower voltage circuits compared to the England and Wales network).
- 2.25. One respondent suggested that a number of issues would need to be resolved before similar incentive arrangements could be applied to the Scottish transmission system. These included:
- ◆ the recognition of NGC's role in restoring supplies following a supply interruption caused by one of the Scottish TOs post BETTA 'go-live', and how this would be accounted for under any incentive arrangements; and
 - ◆ the extent of network development in the light of increased renewable generation, and the impact of this upon the level of risk of supply interruptions.

There are differences between the transmission systems in England and Wales and in Scotland and BETTA will introduce additional complexity regarding the respective roles of SHETL and SPTL (as transmission asset owners) and NGC (as

GBSO). These issues will be considered further in developing proposals for electricity transmission network reliability incentive arrangements for SPTL and SHETL.

3. Incentive arrangements

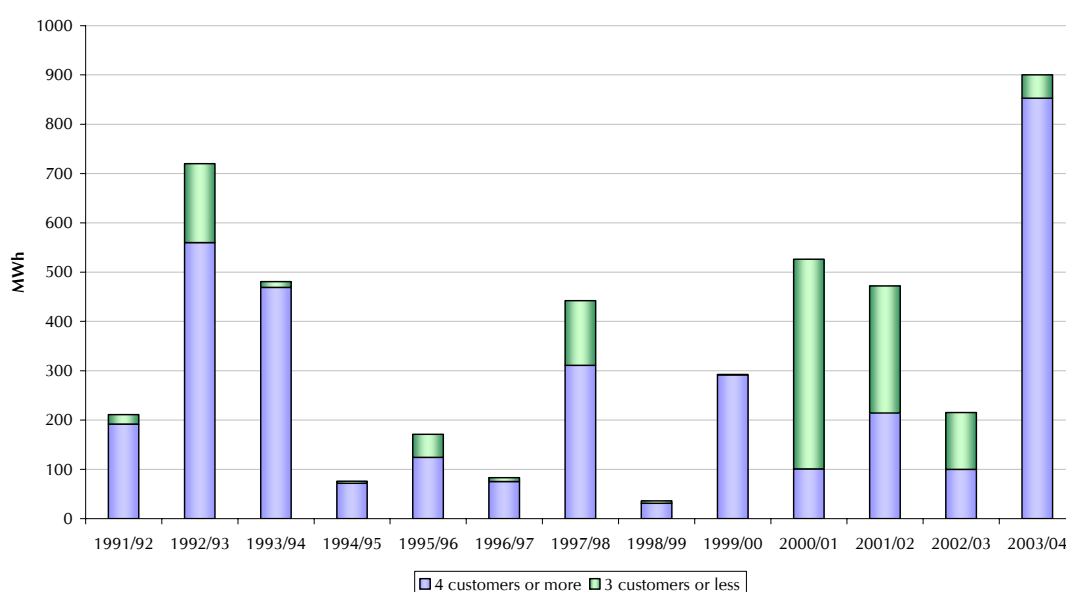
3.1. This chapter details the new arrangements designed to further incentivise NGC to maintain/improve the reliability of its transmission system with respect to the continuity of supplies to consumers. The arrangements are based on those presented in the Initial Proposals document, but draw upon the comments of respondents as set out in Chapter 2.

Annual performance target

3.2. The incentive arrangements are based around NGC's annual performance measured by the cumulative amount of energy unsupplied from the transmission system throughout the course of the year.

3.3. The arrangements utilise an annual target based on megawatt hours (MWh) unsupplied from the transmission network in any given year, against which NGC's performance will be assessed. This target is equivalent to NGC's annual performance since 1991/92, but excludes events that affect 3 customers or less. The data used to derive this target are presented in Figure 2 below.

FIGURE 2: Energy unsupplied - National Grid Company, by incident type



- 3.4. Events that affect 3 customers or less are already separately reported by NGC and thus will be recorded and excluded from the incentive scheme in a manner consistent with current practice.
- 3.5. The Initial Proposals also suggested excluding extreme weather related events (resulting in a loss of supply) from the calculation of energy unsupplied from the England and Wales transmission system for the purposes of this scheme. While these are exceptional (in terms of their infrequency, potential impact and the extent to which NGC has control over their occurrence) NGC should continue to be incentivised under the arrangements to prevent the events having the effect of interrupting supply and to mitigate their effect (both in anticipation and subsequently). Consequently, instead of automatically excluding such events from the scope of the incentive arrangements, it is proposed to define such events as exceptional events and allow NGC to claim an adjustment consistent with the arrangements set out in Chapter 2 of this document (see the section on Treatment of exceptional events) and in Schedule 4.
- 3.6. Based on the data presented in Figure 2, the average amount of energy unsupplied from the England and Wales transmission system between 1991/92 and 2003/04 was 261MWh per year (for interruptions to 4 or more customers).
- 3.7. The data presented in the Initial Proposals document on the amount of energy unsupplied on the England and Wales transmission system since 1991/92 (by incident type) have since been revised by NGC³. Therefore, the data presented above (and used in the calculation of average MWh unsupplied) are marginally different to that shown in the Initial Proposals document.

Rewards and penalties

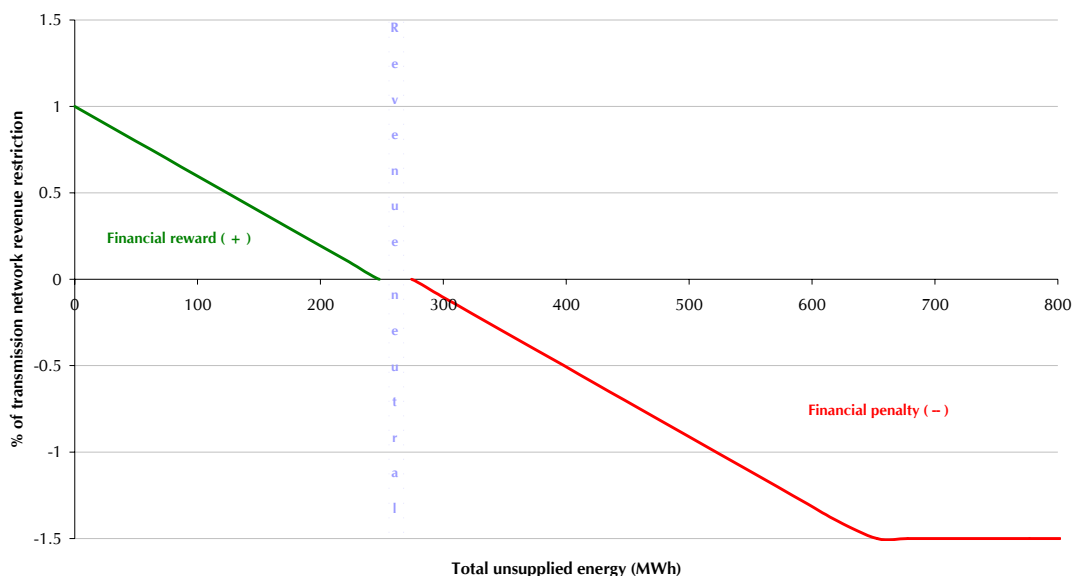
- 3.8. Under the arrangements, NGC will be neither rewarded nor penalised for maintaining an annual level of system performance that falls within the range ± 5 per cent of its average level of performance since 1991/92. This range is

1.1. _____

³ In 2003/04, the 'anomalous losses' reporting category was replaced by 'loss of supply events affecting 3 customers or less' and all historical losses were appropriately re-assigned for reporting purposes. A more recent review by NGC has led to a re-categorisation of a few events resulting in a marginal increase in the average annual loss level in the Incentive scheme.

248MWh-274MWh, as denoted by the revenue neutral dead-band shown in Figure 3 below.

FIGURE 3: Financial incentive structure

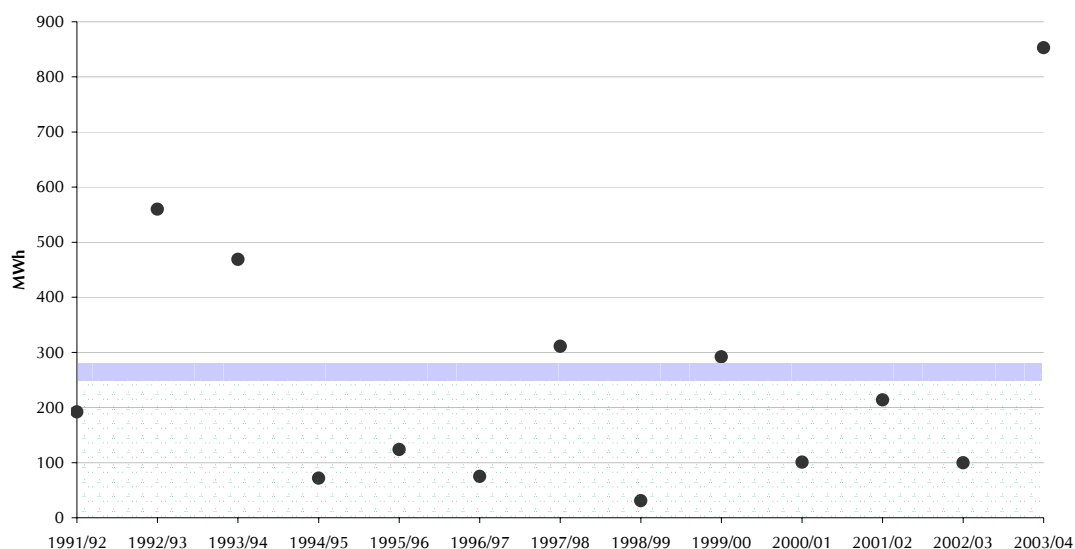


- 3.9. NGC will be penalised for an annual level of energy unsupplied from the grid which exceeds 274MWh, and it will be rewarded for an annual level of energy unsupplied from the grid which is less than 248MWh.
- 3.10. Figure 3 shows the sliding scale of financial penalties and rewards in accordance with the dead-band range of 248MWh-274MWh per year. For an accumulated amount of unsupplied energy that is less than 248MWh per year, NGC will be rewarded on a sliding scale to a maximum amount equivalent to + 1.0 per cent of its transmission network revenue restriction (in the event that there is 0MWh of energy unsupplied in a year). Conversely, for an accumulated amount of unsupplied energy that is greater than 274MWh per year, NGC will be penalised on a sliding scale to a maximum amount equivalent to -1.5 per cent of its transmission network revenue restriction (in the event that there is approximately 653MWh or more of unsupplied energy in a given year).
- 3.11. As discussed above, the new incentive arrangements for NGC subject up to 1.5 per cent of its revenue to incentives. NGC's current transmission network revenue restriction under the price control is around £800 million, which implies that a maximum of around £12 million (or 1.5 per cent) of its revenue would be exposed to the loss of supply incentive scheme on an annual basis in

relation to the amount of total unsupplied energy (MWh) from the transmission network. This will provide NGC's management with a clear and direct financial incentive to maintain/improve its performance with respect to system reliability.

3.12. Figure 4 shows what the impact would have been had the incentive arrangements been retrospectively fitted to NGC's past performance. In eight of the past thirteen years, NGC would have received a financial reward under current incentive arrangements, whereas it would have received a penalty in the remaining five years. In two of those five years, the penalty would have exceeded 1.0 per cent of NGC's revenue.

FIGURE 4: Energy unsupplied from the England and Wales transmission system - hypothetical impact of proposed incentive arrangements if retrospectively fitted



3.13. Table 1 summarises the targets (and associated penalties/rewards) — it shows two periods of the scheme in the event that NGC's current price control is extended to 2007.

Table1: Summary of scheme structure and targets

	Range of MWh lost	Range of incentive
Period 1: 1/1/05 to 31/3/06 (125% of annual targets)^a ...		
Financial reward (+)	0 – 309MWh	+ 1.25% to 0% of revenue
Revenue neutrality	310 – 342MWh	0% of revenue
Financial penalty (-)	343MWh +	0 to -1.875% of revenue
Period 2: 1/4/06 to 31/3/07 (100% of annual targets) ...		
Financial reward (+)	0 – 247MWh	+ 1.0% to 0% of revenue
Revenue neutrality	248 – 274MWh	0% of revenue
Financial penalty (-)	275MWh +	0% to -1.5% of revenue

^a Targets and associated rewards/penalties have been scaled up due to the longer duration of Period 1 of the scheme.

4. Way forward

- 4.1. This chapter outlines briefly the way forward in implementing the new incentive arrangements for NGC described in the previous chapter.

Licence modification

- 4.2. This document includes the statutory consultation on the proposed modification of the Electricity Transmission Licence of NGC published pursuant to section 11 of the Electricity Act 1989 (the Act). Appendix 1 includes a modification proposal notice along with the detailed proposed modifications.
- 4.3. A summary of the proposed modifications, the reasons why and their effect, is set out in Table 1 (below).
- 4.4. The statutory notice under section 11 of the Act specifies a period of not less than 28 days during which interested parties can make representations or objections to the proposed licence modification. The Authority will not make a modification if, within the period specified in the notice, the Secretary of State directs the Authority not to make any modification.
- 4.5. Subject to the consideration of any representations or objections, Ofgem will effect the necessary modification(s) to the Electricity Transmission Licence of NGC in order to initiate the electricity transmission network reliability incentive scheme set out in Chapter 3 of this document.
- 4.6. It is envisaged that the licence amendments will take effect for NGC on and from 1 January 2005. If NGC rejects the licence modification, it will be necessary for Ofgem to consider making a statutory licence modification reference to the Competition Commission.

Table 1: Proposed modifications to the special conditions of NGC's Electricity

Transmission Licence

Special condition	Modification	Effect	Reason
AA5	Amendment to references in paragraphs 1, 2, 3 and 4	References to AA5E have been amended to AA5F where appropriate	The inclusion of Special Condition AA5F requires reference to it in Special Condition AA5
AA5A	Amendment to the formula for the calculation of maximum allowable revenue in paragraph 1, Part 1 Amendment to the definition of I_t in paragraph 2, Part 1	The variable 'RIt' is added to the formula for maximum allowable revenue from transmission network services The threshold level of over-recovery prior to the incurrence of penal interest has been amended under the definition of I_t from 2.0 per cent to 2.75 per cent	The new variable represents the revenue impact of the new incentive arrangements The increased threshold is to account for the increased volatility of revenue forecasts based on the volatility of transmission interruptions to supply
AA5B	Amendment to the percentages specified in paragraphs 1 and 2	The threshold levels of over-recovery set out in paragraphs 1 and 2 have been amended to 3.75 per cent and 4.75 per cent respectively	The increased threshold is to account for the increased volatility of revenue forecasts based on the volatility of transmission interruptions to supply, and to ensure consistency with the change to AA5A outlined above
AA5C	Addition of paragraph 1(g) Addition of paragraph 5(g) Amendment to paragraph 6(a)	Paragraph 1(g) is being included to oblige NGC to provide the Authority with a written forecast of RIt the variable added to AA5A Paragraph 5(g) has been added to oblige NGC to provide the Authority with the actual outcome of RIt Paragraph 6(a) has been amended to ensure that NGC's measurement of the actual outcome of the value of RIt is in accordance with the licensee's accounting records which have been maintained in accordance with standard condition B1 (Regulatory accounts)	This change requires NGC to forecast a value for RIt and provide this information to the Authority This change requires NGC to measure the actual outcome of RIt and provide this to the Authority This change requires NGC to measure the actual outcome of RIt in accordance with standard condition B1
AA5F	Inclusion of Special Condition AA5F	Special Condition AA5F (Adjustment to Transmission Network Revenue Restriction due to Transmission Network Reliability Incentive Performance) is being included in NGC's Electricity Transmission Licence	The new licence condition defines the formula for the calculation of RIt and sets out the requirements upon NGC in deriving and reporting to the Authority the relevant data that make up this variable

Extension of NGC's price control

- 4.7. Ofgem is currently in the process of consulting on an extension to NGC's current price control to 31 March 2007. The incentive arrangements proposed in this document have been designed to continue until 31 March 2007 on the assumption that NGC's price control will be extended to this time. In the event that the price control is not extended to this time, then it would be necessary to consider whether these incentive arrangements needed to be modified in line with these circumstances.

Arrangements for Scotland

- 4.8. Clearly there are a number of issues to resolve before incentive arrangements can be introduced for the two Scottish transmission companies SHETL and SPTL. It is intended to complete this work to coincide with the BETTA 'go-live' date.

Interim arrangements

- 4.9. The proposed incentive scheme detailed in this document should be viewed as an interim arrangement. The arrangements may not reflect the underlying economic value of interruptions, and they do not provide for compensation to customers that have experienced a transmission-related interruption.
- 4.10. These interim arrangements will be reviewed as part of the work to put new transmission price controls in place.

Appendix 1 :

Notice under section 11(2) of the Electricity Act 1989

The Gas and Electricity Markets Authority (“the Authority”) hereby gives notice pursuant to section 11(2) of the Electricity Act 1989 (“the Act”) as follows:

1. The Authority proposes to modify the conditions of the transmission licence treated as granted to National Grid Company plc (“NGC”) under section 6(1)(b) of the Act by:
 - (a) modifying Special Condition AA5;
 - (b) modifying Part 1 (only) of Special Condition AA5A;
 - (c) modifying Special Condition AA5B;
 - (d) modifying Special Condition AA5C; and
 - (e) including Special Condition AA5F (Adjustment to Transmission Network Revenue Restriction due to Transmission Network Reliability Incentive Scheme).
2. For the avoidance of doubt, no amendments are being proposed to Part 2 of Special Condition AA5A.
3. Subject to the consideration of any representations or objections, it is the intention of the Authority that these proposed licence modifications shall be deemed to take effect from 00:00 hours on 1 January 2005.
4. The reasons why the Authority proposes to make the licence modifications appearing in paragraph 1 and their effect are set out by the Authority in the following documents:
 - (a) Electricity transmission network reliability incentive schemes, Initial proposals, Ofgem, October 2004; and

- (b) Electricity transmission network reliability incentive schemes, Final proposals, Ofgem, December 2004.

5. In summary, the effects of the proposed licence modifications are as follows:

The proposed amendments seek to revise the relevant sections in order to accommodate the proposals for the introduction of a new scheme that aims to strengthen the incentives on NGC to maintain and improve upon the reliability of the England and Wales transmission network.

The proposed licence drafting seeks to establish the key parameters to be used under the scheme in order to assess NGC's performance in relation to network reliability and the continuity of supplies to consumers. The proposed licence drafting also seeks to establish the obligations upon NGC with respect to facilitating an assessment of its performance under the scheme.

The revisions to NGC's transmission network revenue restriction as proposed in the licence drafting seek to define the impact of the new incentive arrangements on NGC's revenue as defined under its licence.

- 6. A copy of the proposed licence modifications and other documents referred to in this notice are available (free of charge) from the Ofgem library (telephone 020 7901 1600) or on the Ofgem website (www.ofgem.gov.uk) and the proposed licence modifications are annexed to this notice.
- 7. Any representations or objections to the proposed licence modifications may be made in writing before 29 December 2004 to Joe Sunderland, Office of Gas and Electricity Markets, 9 Millbank, London SW1P 3GE, or via email to joe.sunderland@ofgem.gov.uk and andrew.walker@ofgem.gov.uk.



Andrew Walker

Director – Transmission, Networks

Duly authorised on behalf of the Authority

1st December 2004

Schedule 1: NGC's proposed transmission licence drafting: Special Condition AA5

1. In this special condition, and in special conditions AA5A to AA5F inclusive and in Schedule A:

“acceleration repayment”

means any payment from the licensee to a user representing repayment of part of that user's accelerated depreciation and land charges which has become payable to the user as a consequence of a change to the licensee's connection charging methodology made on 1 April 2004.

“annual legacy asset payment”

means the sum of all payments in a financial year associated with a legacy asset made by the licensee to a user.

“asset age”

means the difference between the relevant year t and the year in which the asset was provided.

“average specified rate”

means the average of the daily base rates of Barclays Bank PLC current from time to time during the period in respect of which

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

such assets are, following that date, charged for via use of system charges as a consequence of a change to the licensee's connection charging methodology made on 1 April 2004.

"maximum revenue"

means the revenue calculated in accordance with the formula in Part 1 of special condition AA5A.

"New Electricity Trading Arrangements" or "(NETA)"

means the wholesale electricity trading arrangements in England and Wales introduced by the Secretary of State under the Utilities Act 2000.

"non-domestic rates"

means non-domestic rates payable by the licensee in respect of hereditaments (other than excepted hereditaments being a hereditament consisting of or comprising premises used wholly or mainly:

(a) as a shop or other place for the sale, display or demonstration of apparatus or accessories for use by consumers of electricity (any use for receipts of

payments for the use of electricity being disregarded);

(b) as office premises of the licensee where those premises are not situated on operational land of the licensee; or

(c) for both of the foregoing purposes (for the avoidance of doubt, office premises and operational land shall have the meaning ascribed to those terms in SI 2000/525 Central Ratings List (England) Regulations)) wholly or mainly used for the purposes of the transformation or transmission of electrical power, or for ancillary purposes.

“relevant period t”

means that period for the purposes of which any calculation falls to be made commencing on the effective time and ending on 31 March 2002 and thereafter shall have the same meaning as “relevant year t”.

“relevant year”	means a financial year commencing on or after 1 April 1990.
“relevant year t”	means that relevant year for the purposes of which any calculation falls to be made; “relevant year t-1” means the relevant year preceding relevant year t, and similar expressions shall be construed accordingly.
“remote transmission asset rentals”	means any rent or other periodic payment receivable by the licensee from an authorised electricity operator under an agreement relating to remote transmission assets.
“transmission network revenue”	means the aggregate of revenue in the relevant year derived by the licensee from the provision of transmission network services and from remote transmission asset rentals.
“transmission network revenue restriction”	means Part 1 of special condition AA5A, and Part A of Schedule A and such parts of special condition AA5 and special conditions AA5B to AA5F inclusive as are ancillary

thereto, all as from time to time modified or replaced in accordance therewith or pursuant to sections 11, 14 or 15 of the Act.

“user maintenance”

means maintenance by a user of connections in operation before the grant of this licence.

2. In this special condition and in special conditions AA5A to AA5F inclusive and Schedule A, all revenue shall be measured on an accruals basis, after deduction of value added tax (if any) and any other taxes based directly on the amounts so derived.
3. Any term used in a formula appearing in special conditions AA5A to AA5F inclusive and Schedule A and defined for the purpose of that formula shall have the same meaning if used in any other formula in those special conditions.
4. In this special condition and in special conditions AA5A to AA5F and Schedule A, any cost, charge, payment or amount may either be positive or negative.

Schedule 2: NGC's proposed transmission licence drafting: Special Condition AA5A

No amendments are proposed to Part 2 of Special Condition AA5A and nothing in this text alters the operation of Part 2 of Special Condition AA5A.

Part 1

1. The Transmission Network Revenue Restriction

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

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

where:

M_t means the maximum revenue in relevant year t.

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

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

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

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

save that:

- (i) in relation to the relevant year commencing on 1 April 2001 P_{t-1} shall have a value equal to £785,400,000;
- (ii) in relation to the relevant year commencing on 1 April 2002 P_{t-2} shall have that value; and
- (iii) in relation to the relevant year commencing on 1 April 2003 P_{t-2} shall have the value derived from the following formula:

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

where:

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

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

where:

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

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

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

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

- G_t means a revenue adjustment factor derived from the formula in paragraph 3.
- U_t means a revenue adjustment factor reflecting changes in non-domestic rates and the licence fee, and is derived from the formula given in paragraph 4.
- CCC_t means a revenue adjustment factor reflecting the difference between the reference level of excluded services revenue income in relevant year t as forecast when the price control was initially set and actual excluded services income in relevant year t, and is derived from the formula given in paragraph 4A.
- LPC_t means a revenue adjustment factor reflecting the depreciation allowance and rate of return on legacy assets in relevant year t, and is derived from the formula given in paragraph 4B.
- LPR_t means a revenue adjustment factor which is equal to the sum of all acceleration repayments made to users in relevant year t, save that in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 LPR_t shall have a value equal to zero (0).
- RI_t means a revenue adjustment factor reflecting the licensee's performance against a transmission network reliability incentive in the relevant incentive period relating to year t, and derived from the formula in Special Condition AA5F.

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

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

where:

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

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

I_t means the interest rate in relevant year t which is equal to, where K_t has a positive value and the transmission network revenue in relevant year t-1 exceeds the maximum revenue in relevant year t-1 by more than 2.75 per cent, the average specified rate plus 4 or, where K_t has a negative value or the transmission network revenue in relevant year t-1 does not exceed the maximum revenue in relevant year t-1 by more than 2.75 per cent, the average specified rate.

3. For the purpose of paragraph 1, the term G_t (being the revenue adjustment associated with the commissioning of new generating plant to be applied to transmission network revenue for the relevant year t) shall be calculated according to the following formula:

$$G_t = A_t [GW_t]$$

where:

A_t is given by the following formula

$$A_t = ce_t [R_t + Dep_t]$$

where:

ce_t which represents the capital expenditure per gigawatt of capacity of new generation or interconnector(s) capacity using the licensee's transmission system, is given by the following formula:

$$ce_t = ce_{t-1} \left[1 + \frac{RPI_t}{100} \right]$$

Where for the relevant year commencing on 1 April 2001 ce_{t-1} shall have a value determined by the following formula:

$$ce_{t-1} = \text{£}23,000,000 \left[1 + \frac{RPI_{t-1}}{100} \right]$$

R_t has the value six point two five (6.25) percent and is the licensee's allowed rate of return.

Dep_t has the value two point five (2.5) percent and is the licensee's allowed cost of depreciation.

GW_t is given by the following formula:

$$GW_t = GWfor_t - GWref_t$$

where:

$$GWfor_t = GWout_t + GWexp_t$$

$GWout_t$ is the sum of all capacities in gigawatts of those generation sets and interconnector(s) additional to those capacities under construction at 1 January 2000 which have commenced using the licensee's transmission system between 1 April 2001 and 31 December in the year t-1, save that in the case of the relevant year commencing on 1 April 2001 $GWout_t$ equals zero.

$GWexp_t$ is the sum of all capacities in gigawatts of those generation sets and interconnector(s) additional to those capacities under construction at 1 January 2000 which have not commenced but which are expected to commence using the licensee's transmission system between 1 January in the year t-1 and 31 March in the year t+1, save that in the case of the relevant year

commencing 1 April 2001 GW_{exp_t} is the sum of all such capacities in gigawatts of those generation sets and interconnector(s) additional to those capacities under construction at 1 January 2000 which have not commenced but are expected to commence using the licensee's transmission system between 1 April 2001 and 31 March 2003.

GW_{ref_t} represents the reference level of generation set and interconnector(s) capacity commissioning between 1 April 2001 and 31 March in year $t + 1$, and has the value for relevant year t given against that year in the following table:

Relevant Year t commencing on 1 April	2001	2002	2003	2004	2005
GW_{ref_t}	0.6	1.7	3.4	4.5	5

4. For the purpose of paragraph 1, the term U_t (being the revenue adjustment for the relevant year t reflecting changes in non-domestic rates and the licence fee) shall be derived from the following formula:

$$U_t = [\text{Rate}_t + L_t] \left(1 + \frac{I_t}{100} \right)$$

where:

Rate_t is the difference between the non-domestic rates payable by the licensee in respect of year $t-1$ (being for the avoidance of doubt, £Million, in money of the day) and the amount set against relevant year $t-1$ in the following table:

Relevant Year t commencing on 1 April	2001	2002	2003	2004	2005
Rate_t £Million	100.2	99.4	96.5	98.3	102.7

Save that in the case of relevant year commencing on 1 April 2001 $Rate_t$ shall have a value equal to zero (0).

L_t is the difference between the licence fee payable by the licensee in year t-1 pursuant to standard condition A4 (Payments to the Authority) (being for the avoidance of doubt, £Million in money of the day) and the amount set against the relevant year t-1 in the following table:

Relevant Year t commencing on 1 April	2001	2002	2003	2004	2005
L_t £Million	7.6	7.8	8.0	8.1	8.3

Save that in the case of relevant year commencing on 1 April 2001 L_t shall have a value equal to zero (0).

- 4A. For the purpose of paragraph 1, the term CCC_t (being the revenue adjustment factor reflecting the difference between the reference level of excluded services revenue income in year t as forecast when the price control was initially set and actual excluded services income in year t) shall be derived from the following formula:

$$CCC_t = \left[1 + \frac{RPI(ES)_t}{100} \right] ES_{ref_t} - ES_t$$

where:

$RPI(ES)_t$ means the percentage change (whether of a positive or a negative value) in the arithmetic average of the Retail Price Index published or determined with respect to each of the six months from May to October (both inclusive) in relevant year t-1 and that are published or determined with respect to the same months in relevant year commencing 1 April 1999.

ES_t is the actual excluded services revenue for the relevant year t.

$ESref_t$ represents the reference level of excluded service revenue and has the value for relevant year t given against that year in the following table:

Relevant Year t commencing on 1 April	2004	2005
ESref_t	116	121

Save that in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 CCC_t shall have a value equal to zero (0).

- 4B. For the purpose of paragraph 1, the term LPC_t (being the revenue adjustment factor reflecting the depreciation allowance and rate of return on legacy assets in relevant year t) shall be derived from the following formula:

$$LPC_t = \sum_{j=1}^{j=J} Lpc_{t,j,T}$$

where:

J is the total number of annual legacy asset payments which have been made in all years up to and including relevant year t.

Year T is the relevant year t of an annual legacy asset payment.

$Lpc_{t,j,T}$ means the revenue adjustment reflecting the depreciation allowance and rate of return in respect of annual legacy asset payment j in relevant year t for an annual legacy asset payment originally made in year T.

In year t = T $Lpc_{t,j,T}$ shall be calculated as:

$$Lpc_{t,j,T} = \left[\frac{2.5(B_{j,T})}{100} + \frac{6.25(N_{j,T})}{100} \right]$$

In all subsequent years where asset age is less than forty (40), $Lpc_{t,j,T}$ shall be calculated as:

$$Lpc_{t,j,T} = \left(\prod_{T+1}^t \left(1 + \frac{RPI_t}{100} \right) \right) \left[\frac{2.5(B_{j,T})}{100} - \left(\frac{1.5625(B_{j,T})}{1000} \right) (n) + \frac{6.25(N_{j,T})}{100} \right]$$

where:

$B_{j,T}$ shall be calculated as:

$$B_{j,T} = \left[\frac{40(\text{annual legacy asset payment } j \text{ in year } T)}{(40 - \text{asset age in year } T \text{ for the asset related to annual legacy asset payment } j)} \right]$$

$N_{j,T}$ shall be calculated as:

$$N_{j,T} = \left[\frac{2(\text{annual legacy asset payment } j \text{ in year } T) - \frac{2.5B_{j,T}}{100}}{2} \right]$$

n is the difference in years between year t and year T .

RPI_t shall have the same meaning as in paragraph 1 of this condition.

Save that:

- (a) in the case of the relevant years commencing on 1 April 2001, 1 April 2002, and 1 April 2003 LPC_t shall have a value equal to zero (0); and
- (b) no assets may be included in the calculation of LPC_t that have an asset age greater than 40.

Schedule 3: NGC's proposed transmission licence drafting: Special Condition AA5B

1. If, in respect of any relevant year, the transmission network revenue exceeds the maximum revenue by more than 3.75 per cent of the latter, the licensee shall furnish an explanation to the Authority and in the next following relevant year the licensee shall not effect any increase in charges for the provision of transmission network services unless it has demonstrated to the reasonable satisfaction of the Authority that the transmission network revenue would not be likely to exceed the maximum revenue in that next following relevant year.
2. If, in respect of any two successive relevant years, the sum of the amounts by which the transmission network revenue has exceeded the maximum revenue is more than 4.75 per cent of the maximum revenue for the second of those years, then in the next following relevant year the licensee shall, if required by the Authority, adjust its charges such that the transmission network revenue would not be likely, in the judgement of the Authority, to exceed the maximum revenue in that next following relevant year.
3. If, in respect of two successive relevant years, the transmission network revenue is less than 90 per cent of the maximum revenue, the Authority, after consultation with the licensee, may direct that, in calculating K_t in respect of the next following relevant year, there shall be substituted for C_{t-1} in the formula set out in paragraph 2 of Part 1 of special condition AA5A above such figure as the Authority may specify being not less than C_{t-1} and not more than $0.90 (M_{t-1})$.

Schedule 4: NGC's proposed transmission licence drafting: Special Condition AA5C

1. Where the licensee is intending to make any change in charges for the provision of transmission network services, the licensee shall not later than the time of publication of such change provide the Authority with:
 - (a) a written forecast of the maximum revenue, together with its components, in respect of the relevant year t in which such change is to take effect and in respect of the next following relevant year $t + 1$;
 - (b) a written estimate of the maximum revenue, together with its components, in respect of the relevant year $t-1$ immediately preceding the relevant year in which the change is to take effect, unless a statement complying with paragraph 5 in respect of relevant year $t-1$ has been furnished to the Authority before the publication of the proposed change;
 - (c) a written forecast of the value of D_t ;
 - (d) a written forecast of the value of CCC_t ;
 - (e) a written forecast of the value of LPC_t and $B_{j,T}$ and $N_{j,T}$ for assets where relevant year $t = T$;
 - (f) a written forecast of the value of LPR_t ; and
 - (g) a written forecast of the value of RI_t .
2. If within three months of the commencement of any relevant year t the licensee has not made any such change in charges as is referred to in paragraph 1, the licensee shall provide the Authority with a written forecast of the maximum revenue, together with its components, in respect of that relevant year t .
3. Any forecast or estimate provided in accordance with paragraph 1 or 2 shall be accompanied by such information as regards the assumptions underlying the

forecast or estimate as may be necessary to enable the Authority to be satisfied that the forecast or estimate has been properly prepared on a consistent basis.

4. Not later than six weeks after the commencement of any relevant year t , the licensee shall send the Authority a statement as to:
 - (a) whether or not the provisions of special condition AA5B are likely to be applicable in consequence of the transmission network revenue in the preceding relevant year $t-1$ or the two preceding relevant years $t-1$ and $t-2$; and
 - (b) its best estimate as to the relevant correction factor K_t to be applied in calculating the maximum revenue in respect of the relevant year t .

5. Not later than three months after the end of a relevant year the licensee shall send the Authority a statement, in respect of that relevant year:
 - (a) containing the information relating to the amount of the licensee's allowed security costs, the aggregate amounts charged on account of the licensee's allowed security costs and the bases and calculations underlying the increases in charges made by the licensee in respect of transmission network services together with an explanation of the basis of attribution of allowed security costs in respect of transmission network services referred to in paragraph 5 of special condition AA5D;
 - (b) specifying the nature of all services provided as part of its transmission business and treated as excluded services by the licensee, together with a statement of the revenues derived by the licensee from each service so treated;
 - (c) stating whether there were connections subject to user maintenance and quantifying the value of user maintenance;
 - (d) stating the actual outcome of the value of CCC_t ;
 - (e) stating the actual outcome of the value of LPC_t and the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year $t = T$;

- (f) stating the actual outcome of the value of the LPR_t broken down into all its component parts; and
 - (g) stating the actual outcome of the value of RI_t broken down into all its component parts.
6. The statement referred to in the preceding paragraph shall be:
- (a) accompanied by a report from the Auditors that in their opinion
 - (i) such statement fairly presents the amount of the allowed security costs, the aggregate amounts charged on account of such allowed security costs, the bases and calculations underlying the increases in charges together with the basis of attribution of such costs, the transmission network revenue, the nature of the services treated as excluded services and the revenues attributable thereto, and the value of user maintenance, and the value of CCC_t and the value of LPC_t , and the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year $t = T$, and the value of LPR_t , and the value of RI_t , and (ii) the amounts of the allowed security costs, the aggregate amounts charged on account of the allowed security costs, the transmission network revenue, the revenue from excluded services, the value of user maintenance shown in such statement, the value of CCC_t , the value of LPC_t , the values of $B_{j,T}$ and $N_{j,T}$ for assets where relevant year $t = T$, the value of LPR_t and the value of RI_t are in accordance with the licensee's accounting records which have been maintained in accordance with standard condition B1 (Regulatory accounts); and
 - (b) certified by a director of the licensee on behalf of the licensee that to the best of his knowledge, information and belief having made all reasonable enquiries:
 - (i) there is no amount included in its calculations of allowed security costs under special condition AA5D which represents other than an amount permitted under this Condition to be so included; and

- (ii) no service has been treated as an excluded service other than a service permitted to be so treated in accordance with Part A of Schedule A; and
- (iii) no amount included in the revenues stated in respect of excluded services represents other than bona fide consideration for the provision of the excluded service to which it relates;
- (iv) the value which the licensee has attributed to D_t takes into account all user maintenance in that relevant year, whether agreed or determined (or, where neither agreed nor determined, properly estimated); and
- (v) amounts included in LPC_t are bona fide considerations and do not include considerations for assets which have been fully depreciated.

Schedule 5: NGC's proposed transmission licence drafting: Special Condition AA5F

1. For the purpose of paragraph 1 of Special Condition AA5A Part 1, the term RI_t shall be derived from the following formula:

$$RI_t = P_{t-1} \cdot RAF_y$$

Save that:

- (a) in the relevant year commencing on 1 April 2005 RI_t shall have a value equal to 0;
- (b) in the relevant year commencing on 1 April 2006 RI_t shall relate to the transmission network reliability incentive performance during incentive period y commencing on 1 January 2005 and ending on 31 March 2006; and
- (c) in the relevant year commencing on 1 April 2007, and in each subsequent year, RI_t shall relate to the transmission network reliability incentive performance during incentive period y , which shall equate to the relevant year $t-1$.

where:

RAF_y is the adjustment factor based on the licensee's performance against the transmission network reliability incentive during incentive period y , and is derived from the following formulae:

If $RIP_y < RILT_y$:

$$RAF_y = RIUPA_y \left[\frac{RILT_y - RIP_y}{RILT_y} \right]$$

If $RIP_y > RIUT_y$:

$$RAF_y = \max \left(RIDPA_y, RIDPA_y \left[\frac{RIP_y - RIUT_y}{RICOL_y - RIUT_y} \right] \right)$$

Otherwise:

$$RAF_y = 0$$

where:

$RILT_y$ is the lower incentivised loss of supply volume target in respect of incentive period y , which has the value as specified in the following table:

Incentive Period y	1 January 2005 – 31 March 2006	1 April 2006 – 31 March 2007
$RILT_y$	310 MWh	248 MWh

$RIUT_y$ is the upper incentivised loss of supply volume target in respect of incentive period y , which has the value as specified in the following table:

Incentive Period y	1 January 2005 – 31 March 2006	1 April 2006 – 31 March 2007
$RIUT_y$	342 MWh	274 MWh

$RIUPA_y$ is the maximum upside percentage adjustment in respect of incentive period y , which has the value as specified in the following table:

Incentive Period y	1 January 2005 – 31 March 2006	1 April 2006 – 31 March 2007
$RIUPA_y$	1.25%	1%

$RIDPA_y$ is the maximum downside percentage adjustment in respect of incentive period y , which has the value as specified in the following table:

Incentive Period y	1 January 2005 – 31 March 2006	1 April 2006 – 31 March 2007
$RIDPA_y$	-1.875%	-1.5%

$RICOL_y$ is the incentivised loss of supply collar in respect of incentive period y which has the value as specified in the following table:

Incentive Period y	1 January 2005 – 31 March 2006	1 April 2006 – 31 March 2007
$RICOL_y$	816MWh	653 MWh

RIP_y is the sum of the volumes of unsupplied energy in all incentivised loss of supply events in incentive period y .

max (A,B) means the value equal to the greater of A and B.

2. The licensee shall on or before 1 February 2005 or such later date as the Authority may direct, determine and prepare a transmission reliability incentive methodology statement to be approved by the Authority, setting out the methodology by which the licensee will determine the volume of unsupplied energy in each incentivised loss of supply event.
3. Unless the Authority otherwise directs within 2 months of the date specified in paragraph 2, the licensee shall take all reasonable steps to apply the methodology set out in the statement in calculating the volume of unsupplied energy in relation to any incentivised loss of supply event.
4. Before revising the methodology referred to in paragraph 2 the licensee shall submit to the Authority a copy of the proposed revisions to the methodology.
5. Unless the Authority otherwise directs within 1 month of the Authority receiving any proposed revisions to the methodology under paragraph 4, the licensee shall take all reasonable steps to apply the methodology revised in accordance with such proposed revisions.
6. For the purposes of this Special Condition “incentivised loss of supply event” shall mean any event on the licensee’s transmission system that causes electricity not to be supplied to a customer subject to the following exclusions:
 - (a) any such event that causes electricity to not be supplied to 3 or less directly connected parties;
 - (b) any unsupplied energy resulting from a shortage of available generation;
 - (c) any unsupplied energy resulting from a de-energisation or disconnection of a user’s equipment under an event of default as defined in the CUSC;
 - (d) any unsupplied energy resulting from a user’s request for disconnection in accordance with the Grid Code; and
 - (e) any unsupplied energy resulting from emergency de-energisation by a user as defined in the CUSC.

7. For the purpose of paragraph 6 a “directly connected party” is any party with a direct connection to the licensee’s transmission system with the exception of any connection to a distribution system.

8. Where:

- (a) the licensee considers that any event on the licensee’s transmission system that causes electricity not to be supplied to a customer has been wholly or partially caused by an exceptional event;
- (b) the licensee has notified the Authority of such event within 14 days of its occurrence;
- (c) the licensee has provided details of the volume of unsupplied energy that the licensee considers resulted from the exceptional event and such further information, if any, as the Authority may require in relation to such an exceptional event; and
- (d) the Authority is satisfied that the event notified to it under subparagraph (b) is an exceptional event

the Authority may, by notice to the licensee, direct that, for the purpose of calculating the volume of unsupplied energy for the relevant incentivised loss of supply event the constituent data relevant to that event shall be adjusted as specified in that direction.

9. For the purpose of paragraph 8, the adjustment directed by the Authority shall be based on the extent to which the Authority is satisfied that the licensee had taken reasonable steps to prevent the event having the effect of interrupting supply and to mitigate its effect (both in anticipation and subsequently).

10. A direction under paragraph 8 shall not have effect unless, before it is made, the Authority has given notice to the licensee:

- a) setting out the terms of the proposed direction;
- b) stating the reasons why it proposes to issue the direction; and

- c) specifying the period (not being less than 14 days from the date of the notice) within which the licensee may make representations or objections

and the Authority has considered such representations or objections and given reasons for its decision.

11. For the purpose of paragraph 8, an “exceptional event” means an event or circumstance that is beyond the reasonable control of the licensee and which results in or causes electricity not to be supplied to a customer and includes an act of the public enemy, war declared or undeclared, threat of war, terrorist act, revolution, riot, insurrection, civil commotion, public demonstration, sabotage, act of vandalism, fire (not related to weather), any severe weather event resulting in more than 50 faults being recorded by the licensee on the licensee’s transmission system in any 24 hour period, governmental restraint, Act of Parliament, other legislation, bye law or directive (not being any order, regulation or direction under section 32, 33, 34 and 35 of the Electricity Act 1989) provided that lack of funds shall not be interpreted as a cause beyond the reasonable control of the licensee.
12. Within 28 days of the end of the incentive period y , or such later date as the Authority may direct, the licensee shall provide a report to the Authority in a form approved by the Authority. The report shall contain the following information:
 - (a) the volume of unsupplied energy in each incentivised loss of supply event occurring during the incentive period y ;
 - (b) the details of any excluded events referred to in paragraph 6 with reference to the relevant supporting information as specified by the methodology;
 - (c) the details of any adjustments made to the volumes of unsupplied energy made in accordance with paragraph 8; and
 - (d) the sum of the volumes of unsupplied energy in all incentivised loss of supply events in incentive period y , RIP_y .

13. Unless the Authority otherwise directs within 28 days of receipt of the report, the report and the calculations described within it shall be deemed to be final.