

**The form of transmission owner revenue  
restrictions and consequential effects on  
NGC's revenue restrictions**

**An Ofgem consultation document**

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## Summary

Whilst the transmission licensees are under obligations to develop and maintain an efficient, economic and co-ordinated system of electricity transmission, the incentive arrangements that apply to them through their respective revenue restrictions are intended to ensure that they are rewarded for so doing. Presently, the transmission licensees are integrated transmission licensees, undertaking all the functions of a system operator (SO) and transmission owner (TO) within their defined geographical areas. As such they are free to organise themselves so as to discharge their obligations in the way most beneficial to them given the revenue restrictions that apply to them.

In Scotland, BETTA introduces a division of functions between the SO and TOs. The GB System Operator (GBSO) will be the single contractual counter-party for users for access to and use of the transmission system across GB. Hence the revenues received by the GBSO will largely be the revenues to the transmission sector as a whole, whilst the GBSO will make payments to the TOs in respect of the TO's making available their transmission networks and providing associated services, collectively referred to as 'providing transmission services'.

Any interaction between the GBSO and TO could result in a change in costs of one to the benefit or disbenefit of the other. Thus, whilst the GBSO's revenue restriction will provide the incentives to the transmission sector as a whole, under an ideal TO incentive arrangement, the GBSO and transmission owner together would each be rewarded for acting collectively in the same way that an integrated transmission company should have done in the same circumstances.

This paper describes Ofgem proposals for the form of TO revenue restrictions to provide the transmission licensees with such incentives. The proposals have been developed so as to provide adequate incentives, be simple to implement, and conducive to an effective working relationship between the transmission licensees. The proposals also recognise that the revenue restrictions will be proposed to apply only for the period from BETTA go-live until 31<sup>st</sup> March 2007, when a full review of all the transmission price controls will have taken place.

The allocation of functions and interactions between the transmission licensees have been consulted upon in a number of consultation papers, and details of the licences and STC (system operator – transmission owner code) will be subject to further consultation. Incentives have been considered for the principal areas of interaction, namely

investment planning, outage planning, transmission switching, providing transmission services and connections.

- It is proposed that, for investment planning, the TOs will plan and develop their systems in accordance with standards, and in the light of economic assessment by the GBSO, within their RPI-X revenue restrictions, recognising that they have the option of seeking adjustment to their price control if they believe that circumstances warrant it.
- For outage planning, it is proposed that the TOs will be compensated for short-term changes made by the GBSO relative to a plan set towards the end of the previous year. It is proposed that TOs should be compensated for costs incurred rather than to the value to the GBSO, e.g. in terms of avoided balancing costs, of an outage change. Given that the costs largely depend on specific circumstances, it is proposed that the TOs will make a declaration to the GBSO of the costs of any proposed outage change, and will be under an obligation to make such a declaration reflective efficiently-incurred costs. The GBSO will then be in a position to consider whether the benefits of any outage change outweigh the costs.
- Transmission switching and the provision of transmission services will be subject to firm obligations, such that no financial incentive is proposed.
- For new connections, it is proposed that the incentives that can apply to the timely completion of new connections should be unchanged. As a result, charges by TOs will be contingent on the completion of connection works in accordance with the agreement between the GBSO and TO, and possibly subject to liquidated damages in the event of delay.

Consequential effects on the GBSO's revenue restriction, assuming that this continues to be of the same form as NGC's existing Balancing Services Revenue Restriction and Transmission Network Revenue Restriction, are described.

Views are invited.

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# 1. Introduction

- 1.1. The purpose of this consultation document is to describe and consult upon Ofgem proposals for the form of the revenue restrictions that should apply to the transmission owners (TOs), SP Transmission Ltd. (SPT) and Scottish Hydro-Electric Transmission Ltd. (SHETL), under the British Electricity Trading and Transmission Arrangements (BETTA) from BETTA go-live, planned for 1 April 2005, and any consequential effects on the form of the National Grid Company's (NGC's) revenue restriction.
- 1.2. This paper does not make any proposals on the magnitude of the revenues that should be allowed under the respective revenue restrictions, nor does it present any analysis on the costs to the transmission licensees of undertaking their licensed activities. These matters will be the subject of subsequent consultations.
- 1.3. Instead, the paper discusses how the form of the revenue restrictions may be designed to encourage and reward efficient behaviour between the transmission licensees and, in particular, between NGC, as Great Britain system operator (GBSO), and SPT and SHETL.
- 1.4. The structure of the document is as follows. Section 2 gives the background to this consultation, describing relevant developments that affect or are affected by the development of the TO incentives. Section 3 describes the sequence of consultations of which this current consultation paper is part. Section 4 outlines the relevant features of BETTA that have been or continue to be developed, whilst Section 5 describes the aspects of the October 2003 consultation<sup>1</sup> that applied to TO incentives. Section 6 discusses the principles behind the development of efficient incentive arrangements between the GBSO and TOs, and Section 7 discusses the proposals in detail. Section 8 considers the consequential effects that the nature of the TO incentive may have on the form of NGC's incentives. Finally, Section 9 invites views.

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<sup>1</sup> "Price controls and incentives under BETTA. Consultation Paper", Ofgem, October 2003.

## 2. Background

- 2.1. In October 2003, Ofgem published a consultation paper, "Price controls and incentives under BETTA". That paper set out how Ofgem proposed to develop the price controls and incentives that will ensure that transmission licensees will continue to be appropriately financed and incentivised under BETTA.
- 2.2. The price controls and incentives under BETTA have to recognise that the functions undertaken by the three existing transmission licensees – SPT, SHETL and NGC - will be different from today. Currently, each company is responsible for all transmission activities in its respective area. In contrast, under BETTA, SPT and SHETL will continue to provide the transmission networks in their respective areas, whilst NGC<sup>2</sup> will extend its system operation activities to cover the whole of Great Britain, as well as continuing to undertake all transmission functions in England & Wales.
- 2.3. The October 2003 document considered all aspects of setting the revenue restrictions<sup>3</sup>. This included the process by which the appropriate revenues required to fund the new set of activities undertaken by each licensee under BETTA will be determined, as well as the contingency arrangement that would apply in the event that licensees did not accept the revenue restrictions proposed to apply under BETTA.
- 2.4. Developing appropriate incentives for the transmission sector as a whole has been, and continues to be, an active area of work for Ofgem. Ofgem has been consulting on the development of NGC's price controls and, in particular, the development of "deep" SO incentives. Most recently, in February 2004, Ofgem issued proposals for NGC's Balancing Services Revenue Restriction to run for the single year 2004/5<sup>4</sup>. This will have the same form as previous restrictions,

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<sup>2</sup> In December 2002, the then Minister for Energy and Construction announced that he was minded to accept the recommendation of a GBSO Selection Panel that NGC be appointed as GB system operator (Hansard, 17 December 2002, Official Report, Column 45WS).

<sup>3</sup> The terms "revenue restriction", "price control", and "incentives" are often used interchangeably. In the context of this document, "revenue restriction" and "price control" are synonymous. A "revenue restriction" will determine the maximum revenue that a licensee can earn under defined circumstances, whilst the form of the revenue restriction will determine the most beneficial type of behaviour. Thus, "form of the revenue restriction" may be used interchangeably with "incentives".

<sup>4</sup> "NGC System Operator incentive scheme from April 2004. Proposals and statutory licence consultation",

where a major feature has been the sharing with users of the differences between outturn balancing costs and a reference value. Ofgem intends also to consult on enhanced incentives to apply from BETTA go-live.

- 2.5. Given that in each of the geographic areas covered by activities of SPT and SHETL, there will be, under BETTA, a division of transmission functions between SPT and SHETL as TOs, and NGC as GBSO, it is important that, irrespective of the incentives on the transmission sector as a whole, the TO incentives should promote efficiency and co-operation between the transmission licensees.
- 2.6. These incentives also have to be developed in the light of renewable energy generation proposals. In October 2003, Ofgem published a consultation paper<sup>5</sup> which discussed the appropriate regulatory treatment of any expenditure on the transmission system required to accommodate new renewable generation sources. Options included: making no adjustment to the current revenue restrictions, but taking any additional expenditure into account at the next transmission price control reviews; or reopening the current revenue restrictions to include either a fixed allowance or an adjustment term that will reflect additional transmission capacity provided.
- 2.7. Also, on 17 November 2003, Ofgem published an open letter proposing a two year extension to the current Scottish transmission price controls and a one year extension to NGC's electricity transmission price control. Consequently the proposals in this consultation paper have been developed, recognising that they are intended to apply only until 31 March 2007, when a full review of all the transmission price controls will have taken place.

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Ofgem, February 2004.

<sup>5</sup> "Transmission investment and renewable generation. Consultation Document", Ofgem, October 2003.

### 3. Timetable

- 3.1. In parallel with this consultation paper, Ofgem is consulting on the appropriate extension of the revenue restrictions for SPT and SHETL in the event that BETTA does not go-live on the planned date of 1 April 2005.
- 3.2. Ofgem intends to publish in April 2004 a further paper on revenue restrictions for SPT and SHETL. This paper will provide an update on the extension of the SPT and SHETL revenue restrictions, It will also consider the adjustments to the SPT and SHETL revenue restrictions, and to NGC's Transmission Network Revenue Restriction, that will be appropriate under BETTA, including conclusions on the form of the TO revenue restrictions as a result of responses to this consultation paper.
- 3.3. Draft and final proposals for the SPT and SHETL revenue restrictions and NGC's Transmission Network Revenue Restriction will follow in July and October 2004.
- 3.4. Meanwhile consultation on NGC's Balancing Services Revenue Restriction to apply from 1 April 2005, considering both the appropriate revenue restriction to apply absent BETTA, as well as the adjustments necessary under BETTA, will begin in summer 2004.

#### ***Views invited***

- 3.5. Respondents are invited to comment on any of the matters covered in this paper. Each response will be published on the Ofgem website and held electronically in Ofgem's Research and Information Centre, unless there is good reason why it must remain confidential. Respondents are asked to put any confidential material in appendices, such that the main body of the response can still be published.



- 3.6. Responses, marked "Response to TO Incentives Consultation", should be sent by 31 March 2004. Ofgem would prefer responses to be sent by email to [BETTA.consultationresponse@ofgem.gov.uk](mailto:BETTA.consultationresponse@ofgem.gov.uk), but responses can also be posted to:

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

or faxed to 020 7901 7479.

- 3.7. If you wish to discuss any aspect of this document, please contact Peter Wibberley by emailing [peter.wibberley@ofgem.gov.uk](mailto:peter.wibberley@ofgem.gov.uk), or telephoning 020 7901 7109.

## 4. Overall Framework of BETTA

- 4.1. As described in a number of earlier consultation papers<sup>6,7,8</sup> it is intended that NGC will be the single contractual counter-party providing access to and use of the GB transmission system. In Scotland, SPT and SHETL will provide transmission services, comprising making available transmission assets for the purposes of transmitting electricity together, with associated services, such that NGC can discharge its obligations under licence and under contract to users.
- 4.2. Accordingly, the revenues paid by users to NGC will be the only revenues paid by users to the transmission sector as a whole<sup>9</sup>. Payments will then be made by NGC to the TOs in return for the services provided by them.
- 4.3. It is proposed that the arrangements that apply across the whole of GB should be based on the arrangements prevailing in England & Wales. Consequently, the BETTA project does not seek to make any changes to the nature of the incentives on NGC compared with those which would have applied to NGC absent BETTA. Thus, it is anticipated that the form of the revenue restriction on NGC will not significantly change as a result of BETTA, although there may be a case for some changes consequential to the division of functions between the transmission licensees, which are discussed later in this paper.
- 4.4. Currently each transmission licensee undertakes all of the functions of the transmission sector in its Authorised Area. Each licensee is able to organise itself internally to discharge its obligations in the most advantageous way, given its revenue restrictions and any limitations placed on it by any licence conditions. However, BETTA introduces a division of functions, at least in Scotland, between the GBSO and TOs. Ideally incentives should encourage the GBSO and the TOs to work collectively to take the same decision as they should do in the equivalent circumstances, were they all part of an efficient GB integrated

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<sup>6</sup> "The Development of British Electricity Trading and Transmission Arrangements (BETTA). A consultation paper", Ofgem, December 2001.

<sup>7</sup> "The Development of British Electricity Trading and Transmission Arrangements (BETTA). Ofgem/DTI Report on consultation and next steps", Ofgem, May 2002

<sup>8</sup> "Regulatory framework for transmission licensees under BETTA Volume 3: The SO - TO Code and other contractual interfaces between transmission licensees", Ofgem, December 2002

<sup>9</sup> Excepting that TOs may also undertake contestable activities

transmission company. Notwithstanding the incentives, however, it should be noted that all of the transmission licensees will be under an obligation to “develop and maintain an efficient, co-ordinated and economical system of electricity transmission”<sup>10</sup> which, given that the system of electricity transmission encompasses all transmission functions GB-wide, will require them to act so as collectively to produce the same outcome as would an efficient GB integrated transmission company. The function of incentives is thus to ensure that each licensee is also rewarded, as far as is practicable, for behaving in this manner.

4.5. The appropriate division in functions between TOs and the GBSO under BETTA has been discussed in a number of consultation papers<sup>11,12,13,14</sup>. The transmission licensees have been assisting Ofgem/DTI through STEG<sup>15</sup> and the STEG Development Groups in looking at the current organisation of transmission functions within the licensees, and the detail of how these functions could be organised, consistent with the division of functions that Ofgem/DTI has consulted upon and concluded on as being appropriate for BETTA.

4.6. STEG and the STEG Development Groups have considered the interactions between the licensees under a number of main headings:

- (i) investment planning
- (ii) outage planning
- (iii) transmission switching
- (iv) providing transmission services, and
- (v) new connections.

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<sup>10</sup> Electricity Act 1989 (as amended), clause 9(2)(a).

<sup>11</sup> “The Development of British Electricity Trading and Transmission Arrangements (BETTA). A consultation paper”, Ofgem, December 2001.

<sup>12</sup> “The Development of British Electricity Trading and Transmission Arrangements (BETTA). Ofgem/DTI Report on consultation and next steps”, Ofgem, May 2002

<sup>13</sup> “Regulatory framework for transmission licensees under BETTA Volume 3: The SO - TO Code and other contractual interfaces between transmission licensees”, Ofgem, December 2002

<sup>14</sup> “The SO-TO Code under BETTA. Summary of responses and conclusions on Volumes 3 and 4 of the December 2002 consultation on the regulatory framework for transmission licensees under BETTA, and further consultation on content of the SO-TO Code”, Ofgem, June 2003

<sup>15</sup> “SO - TO Expert Group”

## 5. October 2003 Consultation

- 5.1. The October 2003 consultation paper noted that Ofgem did not anticipate altering significantly the form of NGC's revenue restriction as a result of BETTA, although it is acknowledged that slight amendments might be needed. It noted that the TO incentives will be designed to support NGC in reacting to its incentives, consistent with meeting its obligations in relation to the transmission sector as a whole. The paper also stated that Ofgem considered that the TOs would be best incentivised by an RPI-X form of control along with adjustment arrangements that would allow changes to the allowable revenues of the TOs corresponding to changes in the transmission services provided to NGC.
- 5.2. Seven responses were received to the October 2003 consultation paper. A list of the respondents is included in Appendix 1.
- 5.3. A number of respondents commented that the form of NGC's revenue restriction should remain broadly the same as is presently the case in England & Wales. One respondent suggested that the sliding scale elements of the GBSO revenue restriction would need to reflect the larger risks that it will face than currently, due to the different relationship between the GBSO and TOs as compared with the relationship between the GBSO and the affiliated TO function within England & Wales.
- 5.4. With regard to the TO revenue restrictions, one respondent suggested that the objectives of these revenue restrictions should be: to expose TOs only to costs they control; not to provide perverse incentives for the GBSO to push balancing costs onto TOs; not to expose the GBSO unduly to failure of the TOs to plan, develop and maintain an efficient transmission system; and simple to implement and audit.
- 5.5. Respondents agreed that the TO revenue restriction should be comprised substantially of a RPI-X component, together with adjustments or incentives in respect of additional services provided by the TO. Another respondent questioned whether this needed to be characterised explicitly as a two-part restriction, as proposed in the October paper, pointing out that the maximum allowable revenues of network businesses can already take into account many

factors without creating a two part control, which it suggested would be unnecessarily complicated.

- 5.6. One respondent commented on the value of an approach consisting of RPI-X plus incentives for aligning the interests of the TOs and GBSO, and with the interests of end customers. The respondent also remarked on the importance of avoiding an adversarial relationship between GSBO and TOs. The respondent also commented on the relative merits of exposing the TOs to GB external balancing costs, a component of external balancing costs, or relating the revenues of the TOs to other metrics. It concluded that the last of these approaches was the preferable, as it avoided exposing TOs to market risk and because of ease of implementation, providing improvements in these factors could be related to reductions in external costs or improvement in quality of service.
- 5.7. A number of respondents commented on the desirability of having “Income Adjusting Events” in the TO revenue restrictions, although one respondent suggested that events such as a reallocation of functions under the STC would be dealt with through a licence change.
- 5.8. One respondent commented that there was a disparity in that NGC had an adjuster in respect of the volume of new connections, whereas SPT and SHETL did not. It suggested that this disparity should be rectified.

## 6. Principles of TO incentives

- 6.1. Presently, an integrated transmission licensee, undertaking all the functions of a system operator and TO, is free to organise itself internally so as to best respond to the incentives that apply to it by discharging its obligations in the way most beneficial to it. The incentives are designed to reward the licensee for fulfilling its obligations efficiently and otherwise align the interests of the licensee with users and ultimately end-customers.
- 6.2. A division of functions between GBSO and TOs is not itself an objective of BETTA, but a consequence of other objectives. In particular, the objective of creating a single set of arrangements for access to and use of the GB transmission system has led to the creation of a single system operator, whilst forced divestment of transmission assets in order to create a single integrated transmission company was considered as being an unnecessary and disproportionate measure to put in place such GB-wide arrangements. Hence, in Scotland, it has been necessary to divide the transmission licensee functions, which are undertaken today by a single licensee, between NGC, as the GBSO, and SPT and SHETL, as the providers of transmission services.
- 6.3. Under an ideal transmission owner incentive arrangement, the GBSO and TOs would each be rewarded for acting collectively in the same way that an integrated transmission company should have done in the same circumstances.
- 6.4. Any interaction between the licensees could result in costs being incurred by one party to the benefit – either by saving costs or increasing revenues - of the other. For example, an investment by a TO in uprating a transmission circuit could result in reduced balancing costs to the benefit of the GBSO. Any action where the benefits exceed the costs incurred is efficient and, as noted earlier, the licensees will be under an obligation to take such actions, irrespective of any effect on payments between the two.
- 6.5. However, the party incurring the costs will have an incentive to agree to such action if it is compensated by an amount equal to or exceeding the costs. Conversely the party receiving the benefit will have an incentive to agree to such action providing that any compensation it is required to make does not exceed

the benefit. Compensation which satisfies both criteria can be said to be “incentive-compatible”. Conversely, if the costs outweigh the benefits, such that both criteria cannot be met simultaneously, the action is inefficient and should not be taken<sup>16</sup>. Where the compensation equals the costs, the compensation is sometimes described as “cost-based”, whilst, at the other extreme, if the compensation is equal to the benefit, it can be described as “value-based”.

6.6. It should be noted that, although it is the form of the TO revenue restrictions that is being considered, and that the phrase “TO incentives” is sometimes used, the appropriate form of TO revenue restrictions gives incentives to all parties, i.e. the GBSO as well as TOs, to behave in a collectively efficient manner. Whilst for the TO this is achieved by compensating the TO for costs incurred which are to the benefit of the GBSO, for the GBSO it is achieved by ensuring that the GBSO is exposed to the costs of the TO, in addition to receiving the benefits, of collectively-efficient decisions.

6.7. Compensation, in the form of adjustments to a TO’s revenues, could be determined in a number of ways:

- (a) metrics could be defined which reflect the amount of transmission services provided by the TO to the GBSO, and unit price adjusters pre-determined for each metric as part of the price control review to apply at least for the subsequent price control period
- (b) by negotiations between the GBSO and the TO, where each negotiation could be specific to a particular action being contemplated or, alternatively, might concern types of actions being contemplated, or
- (c) by explicit revision to the price control on a case-by-case basis.

In effect, in (a) and (c), matters are resolved between the TO and the Authority, ex-ante in the case of (a) and ex-post in (c). The negotiations between GBSO and TO in (b) could, in principle, be either ex-ante or ex-post, although the

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<sup>16</sup> Although where some of the benefits are shared with users, say, an action may be efficient even if there is a net cost to the GBSO and TOs. Also the action might be necessary in order for one or other of the parties to comply with licence obligations.

incentives on parties to agree in ex-post negotiations generally rely on similar situations recurring.

6.8. Whilst any compensation that is greater than 'cost' and less than 'value' would be incentive-compatible, Ofgem's initial view is that compensation should generally reflect the TO's costs, rather than the value to the GBSO. There are two main reasons for this:

- (i) the value of any action to the GBSO will be only partly under the control of the TO. For instance, rearranged outages could save balancing costs, but the saving in balancing costs will be dependent not only on revised timing of the new outage, but on the effectiveness of the GBSO in procuring and calling-off balancing actions. Thus exposing a TO to such costs will be exposing it to a risk outside its control;
- (ii) rents, i.e. the net of benefits and costs, will accrue to the GBSO, and will be shared with users through the same mechanisms by which improvements in efficiency by NGC are currently shared with users. These mechanisms enable such sharing, as appropriate, either: immediately, through sharing factors in the Balancing Services Revenue Restriction; through the relatively frequent<sup>17</sup> reviews of the Balancing Services Revenue Restriction; or through the relatively infrequent reviews of the Transmission Network Revenue Restriction. However, if rents were to accrue to TOs, then these could only be shared with the GBSO (and hence users) at the relatively infrequent review of the TO revenue restriction, unless specific additional mechanisms were incorporated for this purpose.

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<sup>17</sup> Although Ofgem is committed to longer duration Balancing Services Revenue Restrictions.



## 7. Proposed Form of TO Incentives

7.1. As mentioned earlier, the split of functions between the GBSO and TOs has been the subject of much discussion and consultation, and a division in responsibilities has been developed to meet a number of criteria. Given the split, the STC has been developed to govern the interactions between the transmission licensees and to set down the obligations owed by the transmission licensees to each other.

7.2. As stated earlier, the principal interactions have been considered under a number of main headings:

- investment planning;
- outage planning;
- transmission switching
- providing transmission services, and
- new connections

These are considered below.

### ***Investment Planning***

#### ***Planning Process***

7.3. It has already been concluded from previous consultations that it will be the TOs that undertake planning and development of their own transmission systems. Details of the process will be set down in the STC and consulted upon in the near future, but the process is expected to be broadly as follows:

- (i) GBSO develops generation and demand backgrounds
- (ii) TO plans network to meet criteria specified in the planning standard using backgrounds provided by the GBSO

- (iii) GBSO undertakes economic assessment of each TO's investment plans, and discusses with the TO the case for additional investment on economic grounds, such as constraint costs and transmission losses
- (iv) TO incorporates any additional investment as it deems appropriate, and
- (v) GBSO has the option to dispute the investment plan on certain grounds.

Thus, the TO decides on the investment required for its own system, subject to the right of the GBSO to dispute.

- 7.4. As a result of this process, investment decisions taken by TOs may affect costs, such as constraints and transmission losses costs, incurred by the GBSO and, conversely, generation and demand backgrounds developed by the GBSO are likely to affect the amount of investment, and hence the costs incurred, by the TOs.
- 7.5. Nevertheless, the planning decisions taken by licensees are subject to standards, compliance with which is a condition of their transmission licences. The GBSO's provision of the generation and demand backgrounds for use in investment planning, as well as the planning of the system to meet the various criteria under those generation and demand backgrounds, will each be governed by standards. Consequently, the TOs will be, as now, planning and developing their systems so as to comply with standards.

### ***Incentive Arrangements***

- 7.6. The first approach, as described in section 6.7, to investment planning incentives would be to make adjustments to TO revenues in respect of every metric that imposes or reduces additional costs on the TO or delivers additional benefits or imposes costs on the GBSO. Every aspect of the generation and demand backgrounds against which the transmission networks are planned, together with the additional economic assessment and investment, would need to be parameterised and unit cost adjusters determined. Such metrics are potentially complex and large in number.
- 7.7. In the second approach in section 6.7, TOs and the GBSO could negotiate adjustments to the revenue restriction that was set at the price control review.

However, the GBSO would then be involved in similar discussions with the TO as was the Authority at the time of the price control review, placing the GBSO in a perhaps inappropriate pseudo-regulatory role in having to scrutinise the costs of proposed investments as compared to the capex needs anticipated at the time that the price control was set.

- 7.8. The third approach would be for the Authority to make adjustments to the price controls on a case-by-case basis. This approach has the advantage of being consistent with existing practice, as follows.
- 7.9. Currently, the Scottish transmission licensees each negotiate an allowable revenue based on expectations of the costs that they will incur over the period of the next price control. The allowable revenue recognises that what the transmission licensee is required to do may be more or less onerous than that anticipated, and such changes are at the licensee's risk. Some unforeseen circumstances may occur between reviews, as a result of which the licensees may seek additional revenues, either at the next price control or through an interim adjustment, and Ofgem would need to consider the impact of the expenditure on the companies' ability to finance their functions. The recent renewable energy generation proposals illustrate such a situation.
- 7.10. Similarly, under BETTA, the TOs could continue each to have an allowable revenue set on the basis of expectations formed during the price control review. Variations that could, as now, arise as a consequence of changes to the anticipated generation and/or demand backgrounds or as a result of economic assessments would continue to be funded by the TOs, recognising that they have the option of seeking an adjustment to their price control if they believe that the circumstances warrant it. Conversely if the TOs were to incur lower capital expenditure, then to the extent to which this was not due to efficiency improvements, it might be appropriate to take this into account in the price control process.
- 7.11. In view of the problems of the first two approaches, and given the consistency of the third approach with current processes, Ofgem is minded to propose this third approach.

7.12. Responses to the October consultation remarked that NGC currently has a revenue adjustment associated with the commissioning of new generating plant, often referred to as the “G<sub>r</sub> term” and based on a figure of £23m for each GW for connections in excess of a specified amount. As noted in Section 5, one respondent suggested that a similar mechanism might be appropriate for the TOs. The Authority’s consideration of the capital expenditure plans of the licensees as part of further developing proposals for the TO revenue restrictions will inform whether or not such a mechanism is appropriate.

## ***Outages Planning***

### ***Outage Planning Process***

7.13. It has been concluded from previous consultations that, whilst SPT and SHETL propose to NGC the transmission outages that they wish to take and when they wish to take them, it is the NGC that will formulate the plan of when outages are to be taken. As with investment planning, the detail of the process will be set down in the STC and consulted upon in the near future. The proposed process is expected to be as follows:

- (i) TOs will propose the outages that they wish to take, giving to NGC information about the flexibility of the outages, such as the range of dates that the outage can be taken, the emergency return to service times and relative priorities
- (ii) NGC will develop an outage plan, taking into account the proposals of the TOs and its own outage requirements
- (iii) Where NGC cannot accommodate a TO’s outage proposal it will inform the TO, and the TO has the option to dispute the decision
- (iv) At any time, TOs may make changes to their outage proposals, and NGC will revise the outage plan as it considers appropriate. Again, if NGC does not accommodate the outage proposal it will notify with reasons, and the TO may dispute on certain grounds, and

- (v) (i) to (iv) continue iteratively right up until the outage is taken. However, two 'snapshots' are of particular importance. Firstly, the outage plan for the following year as at Week 34 is published to users, in that each user is informed about the parts of the plan of relevance to it. Secondly, the outage plan for the following year as at Week 49 is used as a baseline, changes from which may warrant compensation (see below).

- 7.14. Outages can thus be rearranged either in response to a request by SHPT or SHETL, or at the behest of NGC. In formulating outage plans, NGC may be unable to accommodate outages due to the interaction with other outages, i.e. operating difficulties, including the risk of high balancing costs, which could occur if outages on related items of transmission plant are taken simultaneously. NGC may also wish to move or postpone outages close to real-time, possibly as a result of changes in user outage plans, again due to the operational difficulties that might otherwise ensue. Note that if TOs can provide flexibility in outages close to real-time as part of the outages proposal, then the GBSO may not need to move or postpone the outage other than within the defined flexibility. Providing such flexibility may assist NGC in accommodating the outage in the first instance.
- 7.15. Outage plans will be implemented by NGC directing the configuration of the transmission system such that the relevant transmission assets can be isolated from the system, enabling the TO to undertake the necessary work. After completion of the work, the transmission assets will be released by the TO and returned to service. In exceptional circumstances, NGC may need to terminate outages early, and the TO will be obliged to comply with the relevant emergency return to service time or such other conditions on the taking of the outage as may have been stipulated.

### ***Incentive Arrangements***

- 7.16. It is suggested that incentives would apply to outage planning, i.e. to the extent that changes are made at any time to the Week 49 outage plan, the TO would be entitled to financial compensation as described below. As with any outage plan, the Week 49 plan would be developed by the GBSO so as to minimise operational costs, given the outage proposals, and subject to the right of dispute

of the TOs. The Week 49 plan would be developed with no compensation being payable to TOs, and hence at no cost to the GBSO.

- 7.17. It can be argued that, under this approach, TOs will have an incentive to overstate the need for outages, proposing more and longer outages than are strictly required. However, the same problem exists internally within the transmission licensees currently, and Ofgem considers that BETTA does not exacerbate the problem. Furthermore, the requirement for outages historically is well understood and capable of being verified. Thus any significant change in the number of proposed outages or in proposed outage durations could be easily monitored and investigated. In any case, the GBSO would have the option of not scheduling what it considered to be excessive outages, and leaving the TO having to dispute such decisions.
- 7.18. The first of the three options for incentive arrangements would require performance metrics to be defined for the movement of outages. These metrics might involve: the start and end dates; durations (recognising that outages can be accelerated); and changes to any of the other parameters which may have been used to determine the outage plan in the first place. The problem with this approach is that the costs incurred by a TO in changing an outage plan are likely to vary significantly from case-to-case. The costs of rearranging an outage may be highly dependent on how easily the resources allocated to the outage can be redeployed elsewhere, and hence highly dependent on what other work is going on elsewhere. Hence it is unlikely that metrics could be defined that could, along with corresponding unit cost adjusters, reasonably reflect the change in costs.
- 7.19. The second approach is that the TO and GBSO would negotiate the compensation due as a result of an outage change. As discussed in Section 6, any solution will be incentive-compatible if it results in compensation in the range between the costs incurred by the TO and the value to the GBSO.
- 7.20. Ordinarily, in such situations, the outcome would be dictated by the relative bargaining power of the two parties. However Ofgem believes and understands, based on responses to the October document and discussions with the licensees, that the transmission licensees feel that:

- a solution that sets the GBSO and TO in direct conflict would not be conducive to a good working relationship, and
- exposing the TOs to value, e.g. savings in constraint costs, would expose them to costs that are more under the control of the GBSO.

7.21. Accordingly, it is suggested that the TOs should be placed under an obligation to make declarations that accurately reflect reasonable and efficiently-incurred costs. Given such a declaration, the GBSO would then be in a position to decide whether the cost of the outage change would be justified given the value that might be derived through lower balancing or other costs. In order to simplify the process, the GBSO and TO could develop and agree to use a menu of standard costs which might cover a range of circumstances. For instance, the TO could develop standard costs to cover the costs of weekend or 24-hour working. A menu might fall a long way short of the system of metrics and unit cost adjusters in the first approach, but would be developed and agreed by the parties, and would evolve, purely to the extent that it simplified the process of declaring and agreeing a worthwhile number of outage changes.

7.22. Furthermore, changes instigated typically by the GBSO would result in an increase in TO costs. It is possible, however, that the GBSO might be able to remove a previous restriction on the taking of an outage, and hence move an outage which would reduce TO costs. If, under such circumstances, payments were to be made by the TO to the GBSO then, in principle, this might give the GBSO a perverse incentive to impose a more expensive (for the TO) Week 49 outage plan in order to benefit from subsequent payments from the TO. Thus, it may be inappropriate that the TO might have to make payments to the GBSO as a result of GBSO decisions.

7.23. An outage change might also be requested by a TO. Any change to one outage may well have a knock-on effect on other outages. The GBSO could appraise the TO of these consequential changes, and the TO could decide whether to bear the cost, in terms of the consequential changes on its own outages. In cases where there was a knock-on effect on an outage of another TO, then it might possibly be appropriate to have payments to the other TO or NGC.

- 7.24. The potential exists for outages to overrun. Once they have begun, this risk is under the control of the TO, whilst potentially the costs will be borne by NGC in terms of increased balancing costs.
- 7.25. In principle, incentives could be provided to encourage outages not to overrun. The extremes of the solution would be: (i) to expose the TO to the consequential costs to the GBSO of the outage overrun, or (ii) to compensate the TO for any additional costs that the TO might have to incur to prevent the outage overrunning. This assumes that in all instances, it would be possible to accelerate the outage in order to adhere to the planned date, which may not always be the case, and that the TO was indeed saving costs by not adhering to the plan. Option (ii) would leave TOs indifferent to meeting outage completion dates, whilst (i) would expose TOs to outage values rather than costs.
- 7.26. However, Ofgem understands from discussions with the transmission licensees that outages typically run according to plan, except in unusual circumstances. Accordingly, it is considered that, rather than design a sophisticated incentive mechanism, the TOs could be subject to an obligation to use reasonable endeavours, or similar, to comply with the outage plan. If performance were to deteriorate in this respect, the matter could be investigated ex-post.
- 7.27. The GBSO would always retain the option of terminating an overrunning outage within the relevant emergency return to service time, although in the cases where outage overruns are due to legitimate reasons, such as the discovery of further equipment faults, any return to service might be at a reduced capability. TOs could also fail to comply with the relevant emergency return to service time, although it would be easy to establish when such a breach occurred and the matter investigated by the Authority.
- 7.28. As with investment planning, the third approach would be for the Authority to make adjustments to the TO's revenue restriction. However, unlike change to investment plans that might require revenue restrictions adjustments, changes to outage plans are likely to be numerous. It would be practicable only to consider changes to outage costs on an aggregate basis, and this would be likely to lead to a loss of efficiency in individual outage plan changes.



- 7.29. Consequently, in view of the impracticality of the first approach, and the inefficiency of the third, Ofgem favours the second approach of bilateral negotiation between the GBSO and the TOs, in combination with an obligation to declare efficient and reasonable costs, and to adhere to outage plans. Ofgem considers that this approach would be workable whilst adequately rewarding all parties for collectively efficient decisions.
- 7.30. Note that, to the extent that existing revenue restrictions recognise the costs associated with the outage rescheduling that takes place presently within the integrated transmission licensees, it may be appropriate to make an adjustment to the TOs' revenue restrictions in view of the fact that explicit compensation will be made by the GBSO.

### ***Transmission Switching***

- 7.31. A conclusion from previous consultations is that the GBSO will direct the configuration of the GB transmission system, whereas the TOs will carry out the GBSO's directions, subject to it being safe to do so. It is recognised that switching actions of the TOs could thus have a very significant effect on the operational costs of the GBSO and on users. However, the function was allocated to the TOs because it can be clearly codified (in the STC) such that compliance can be easily monitored. Accordingly, Ofgem does not regard an arrangement to incentivise switching in accordance with GBSO directions to be necessary. Instead the TOs will be obliged, in respect of transmission switching, to follow the directions of the GBSO.

### ***Providing Transmission Services***

- 7.32. One of the principal functions of the TOs under BETTA will be to provide transmission services. The extent to which they are made available will affect the GBSO. However:
- the effect of planning outages on the availability of services has already been considered above
  - the level of availability of assets in normal services, e.g. the rating of transmission plant, will be subject to obligations on TOs to declare

appropriate “Operating Capability Levels” in accordance with the STC, and will be subject to appeal by the GBSO, and in such matters Ofgem considers that it is likely that what constitutes acceptable practice would be relatively easy to establish, and

- the incidence of unplanned outages, i.e. faults, on the availability of services is generally low, and the STC will provide processes whereby the actions to restore services to their normal capabilities are proposed by the TO, but subject to dispute by the GBSO, for example where the GBSO considers that repairs are taking too long. Again, it is anticipated that, except in extreme cases, the appropriate actions under most circumstances will be well understood.

7.33. In light of the above, Ofgem does not propose that sophisticated arrangements to incentivise the provision of transmission services in real-time would be warranted. Instead it is proposed that reliance is placed on the appropriateness of the obligations on the licensees. Performance against such an obligation can be monitored and kept under review.

## ***New Connections***

7.34. The process associated with the offering and making of new connections and modifications to existing connections shares many characteristics with investment planning. The essential differences lie in the very specific obligations owed to connectees that exist in the licences and in the Connection and Use of System Code (CUSC) and bilateral agreements, and it is proposed that these will be reflected under BETTA in the obligations that the licensees will owe to each other in licences and in the STC.

7.35. Beyond compliance with licence and contractual obligations, incentives currently exist to the extent that charges are likely to be contingent upon completion, and liquidated damages (LDs) terms may be included in Construction Agreements between NGC and users. Ofgem understands that these LDs invariably accord with British Electro-technical And Manufacturing Association (BEAMA) standard terms, and provide for the payment of LDs as a

percentage of the contract value for delays in completion and for a contract premium in recompense for taking on this liability.

- 7.36. Ofgem understands that standard BEAMA terms generally apply also to the provision of transmission plant by contractors to the licensees. Consequently, BEAMA terms may apply as between the user and the GBSO, and as between the TO and its contractors. Ofgem considers that such terms should thus apply also between the GBSO and TOs, so that TOs continue to have the incentive to apply such terms to their contractors.
- 7.37. Consequences of this arrangement may be that:
- LDs being payable to users by the GBSO on the value of any GBSO works as well as the value of TO works, which could expose the GBSO to the LDs payable on the value of the GBSO works even in the event of a TO-caused delay, and
  - where more than one TO is involved, the GBSO is exposed to LDs on the value of the one TO's works even in the event that delays are caused by the other.
- 7.38. In either case, this is equivalent to the situation that prevails in England & Wales today as a result of a delay caused by a contractor. In the second case, NGC would face the same situation as it would were it to have more than one contract, such as might be the case where there are separate contractors for connection assets and contingent infrastructure.
- 7.39. It is yet to be decided whether any special obligations will be required on any of the transmission licensees in respect of the inclusion of LDs in connection offers between the TO and GBSO. No such obligations exist in the present licences, and the negotiation of LD terms is, in principle, no different from the negotiation of any other aspect, e.g. technical design, of a connection offer to connectees.

### ***Connections as Excluded Services***

- 7.40. Under the incoming so-called "plugs" charging methodology in England & Wales, the connection assets, particularly for generation connectees will be greatly reduced, and many of the assets currently treated as connection assets,

paid for by the user, will become infrastructure assets paid for through the Use of System charges. Notwithstanding this fact, it is proposed that post-Vesting connections continue to be treated, as now, as an excluded service, both as between the connectee and GBSO and as between the GBSO and TO. A number of corollaries arise from this fact, such as:

- the GBSO will have a connection charging methodology that applies across GB, which derives connection charges to users from the costs involved in making and maintaining the connection. The charges for connections by the TO to the GBSO are likely to be based on the same, or an identical methodology, such that the GBSO is not exposed to a difference between payments it makes to the TO and the charges it is entitled to levy on users, except to the extent that these represent the GBSO's own costs in making and maintaining the connection. In principle, the two methodologies could diverge if there were good reason, but no such reason is anticipated at present
- the GBSO may be exposed to the credit risk of the connectee, insofar as it is unable to secure against it, whilst being under an obligation still to pay the TO. This risk exists today to the extent that the licensee is obliged to pay contractors irrespective of whether connectees pay the licensee. From NGC's perspective, the risk will be extended in scope to the degree that, as GBSO, it will be responsible for more connections, although, as just noted above, the scope has been drastically reduced by the introduction of plugs. Thus, taken together with the steps the CUSC entitles NGC to take to manage credit risk, Ofgem does not consider this risk to be highly significant, and merely represents the expansion in the scope of the GBSO's connections business, and
- the reconciliation of indicative charges with outturn costs will have to be managed between both the user and GBSO and between the GBSO and TO. Whilst disagreements with users concerning reconciliations may occur, this is no different in principle to disagreements concerning the connection design and costs prior to the initial acceptance of the connection offer.

## ***Income Adjusting Events***

- 7.41. As mentioned earlier, the October 2003 consultation paper suggested that the TO revenue restrictions could incorporate income adjusting events that would provide for an adjustment to the revenue restriction without the need for the Authority to propose a change.
- 7.42. No events other than the reallocation of functions under the STC have been identified, and the income adjusting event would be defined to include only reallocations that materially affect the licensee.
- 7.43. Views are invited as to whether this mechanism continues to be appropriate for this one type of event, or whether such events can be adequately be addressed by making changes to the licence if and when the event occurred.

## 8. Effect on NGC Incentives

- 8.1. As noted in Section 2, developing appropriate incentives for the transmission sector as a whole has been, and continues to be, an active area of work for Ofgem.
- 8.2. NGC's present Transmission Network Revenue Restriction has been running since 1 April 2001. This was originally due to expire on 31 March 2006, but on 17 November 2003, Ofgem published an open letter proposing to extend this end date to 31 March 2007. The revenue restriction takes the form of a RPI-X restriction, albeit with an adjuster of £23m per GW of new connections additional to a specified amount in each of the years of the revenue restriction.
- 8.3. In February 2004, Ofgem issued proposals for NGC's Balancing Services Revenue Restriction to run for the single year 2004/5<sup>18</sup>. This will have the same form as previous restrictions, where a major feature has been the sharing of the differences between outturn balancing costs and a reference value. Ofgem intends to develop the form of this revenue restriction further in future years. Whilst Ofgem considers that the TO incentives discussed in this paper will be robust to a range of different forms of NGC Balancing Services Revenue Restriction, the present development of the TOs' revenue restrictions to apply from BETTA go-live will require that NGC's restriction is compatible with them.
- 8.4. It was noted in the October 2003 document that, under BETTA, both NGC's Balancing Service Revenue Restriction and NGC's Transmission Network Revenue Restriction would have to be increased to fund not only NGC's own activities, but also the costs incurred by NGC in procuring transmission services in Scotland from the TOs, and in procuring additional balancing services to balance the system GB-wide, rather than in England & Wales only.
- 8.5. However, although it is not the objective of BETTA to alter the effect of NGC's incentives, there are some additional aspects in which the form of NGC's revenue restrictions should differ as a result of BETTA, and Ofgem will need to

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<sup>18</sup> "NGC System Operator incentive scheme from April 2004. Proposals and statutory licence consultation", Ofgem, February 2004.

take these aspects into account when consulting in the coming months on the NGC revenue restrictions to apply from BETTA go-live. These aspects are described below.

## ***Sharing Factor***

- 8.6. NGC may perceive that it has less control over balancing costs incurred in operating the transmission system in Scotland than it would have were it responsible for all aspects of the transmission system, as in England & Wales. In particular, NGC will be dependent on the TOs for the design and development of the transmission system, and on the effectiveness of the TOs' maintenance and repair of faults in providing high availability.
- 8.7. The division of functions, and the obligations and processes enshrined in the STC, have been devised to promote the effective management of the GB transmission system, with rights of dispute when, amongst other things, either party is concerned that its obligation to plan, develop, maintain and operate an efficient, co-ordinated and economical system of electricity transmission in GB is being compromised by another STC party. Nevertheless, to the extent that NGC could be regarded as having less control than if it undertook all transmission activities itself, then the risk to NGC of exposure to balancing costs is increased.
- 8.8. A sharing factor<sup>19</sup> exists in NGC's current Balancing Services Revenue Restriction because it is considered inefficient to expose NGC to the full risk of balancing costs, or indeed the greater risk that would be presented by a sharing factor higher than the one used. Users bear the proportion of the risk not borne by NGC. Thus, given an increase in the risk presented by balancing costs, such as might arise from a lessening of NGC's ability to control it, the efficient solution might be for users to shoulder a greater proportion of that risk, and hence reduce the sharing factor.
- 8.9. It could be argued that the most efficient solution would be to separately identify constraint costs arising as a result of the transmission system in Scotland, and to define a lower sharing factor in respect of these only. However, separating out

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<sup>19</sup> The sharing factor in NGC's Balancing Services Revenue Restriction has the effect that if certain balancing

constraints costs is a complex and not particularly precise science. Given this, together with the protection that the STC affords to NGC, and the relatively small size of the system in Scotland in terms of generation and demand, it is doubtful whether separating out constraint costs would be a beneficial measure, and indeed whether the reduction in sharing factor would be significant.

### ***G<sub>t</sub> Term***

- 8.10. The automatic existing revenue adjustment of £23m per GW is intended to reflect the additional costs to the England & Wales transmission system that are likely to result from connections in excess of an anticipated amount. As with sharing factors discussed above, using such an adjustment reduces the risk that would otherwise be borne solely by the licensee and should reduce the rate of return that might otherwise be appropriate in determining the allowable revenues. The term has been introduced into NGC's Transmission Network Revenue Restriction as a result of examining NGC's differing capex requirements under different scenarios for generator new connections.
- 8.11. Currently the adjustment applies to new connections in Scotland only to the extent that they prompt an upgrade to the capacity of the interconnector, and then only in respect of the costs of reinforcing the infrastructure in England & Wales. However, connections in Scotland could be expected to require additional reinforcement to the infrastructure of the Scottish transmission licensees, and the exposure of the Scottish transmission licensees could be lessened by an adjustment term of a similar form. As noted earlier, this observation was made in the responses to the October 2003 consultation.
- 8.12. Whether or not it would be appropriate to introduce such a term into the revenue restrictions of the TOs in Scotland will be determined by any examination, as part of the development of the TO revenue restrictions, of the capex requirements of the TOs under a range of scenarios for generator new connections. The extent to which new connections in Scotland would give rise to additional infrastructure in England & Wales over the duration of the revenue restrictions would also need to be reviewed.

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costs outturn lower than a reference value then a share of the savings are retained by NGC.



- 8.13. Nevertheless, if such a term were adopted, then connections in Scotland could result in an increase in revenue for the Scottish licensees as well as in England & Wales. Consequently, the revenue adjustment in NGC's revenue restriction applied to new connections in Scotland could have to cover both the £23m per GW for infrastructure in England & Wales and any equivalent figure in Scotland. More particularly, separate adjusters might be appropriate for each of: new connections to SHETL's network; new connections to SPTL's network; and new connections in England & Wales.
- 8.14. Note that such geographically differentiated revenue adjusters would not affect the geographical differentiation of transmission charges. The variation in charges would still be determined by using the then prevailing Transmission Network Use of System Charging Methodology. The adjustments described here would merely determine the maximum allowable revenue to be recovered under that methodology.

### ***Revenue Restriction Re-openers***

- 8.15. Any adjustment to the revenue restriction of a TO will result in a change in the payments to the TO by NGC. As with any other provider of services to NGC, an increase in payments should correspond with more transmission services being provided by the TO. This may, in turn, be necessitated either by:
- (i) an increase in the amount of transmission being provided to users by the transmission sector as a whole; or
  - (ii) a saving in the cost of other services, most notably balancing services, needed from other service providers.
- 8.16. Consequently, for any re-opening of a TO's revenue restriction it will be necessary to consider whether there should be a corresponding re-opening of NGC's revenue restrictions or whether the increase in payments to the TO should be funded out of savings that will arise in other costs. It may also be possible that, where a re-opening of NGC's revenue restrictions is warranted, any subsequent adjustment should be smaller than the change to the TO's revenue restriction as a result of partial savings in other costs.

- 8.17. A re-opener to NGC's revenue restrictions could be achieved by either of two possible mechanisms:
- (a) at the same time that the Authority was proposing a change to the TO's revenue restriction, it could propose change to NGC's revenue restriction to allow a full or partial recovery; or
  - (b) NGC's revenue restriction could provide for recovery of any change to the TO's revenue restriction by default, with the Authority, at the same time as it is proposing a change to the TO's revenue restriction, proposing a change to NGC's revenue restriction to allow only partial or no recovery.
- 8.18. Views are invited as to the more appropriate of the two mechanisms.

### ***Allocation of Costs***

- 8.19. Under NGC's present revenue restriction, different costs incurred by NGC are allocated under the different elements of the revenue restriction. Some costs, such as external balancing costs, are allocated unambiguously under the Balancing Services Revenue Restrictions, whereas for other costs, particularly internal costs such as staff, the costs may be attributable to different components of the revenue restriction, depending on the purpose for which the cost was incurred. Similarly, with costs incurred in installing various items of transmission plant, the way in which these costs are attributed may depend on criteria involving the reason for which the cost was incurred.
- 8.20. Under BETTA, it is to be expected that a large proportion of the costs paid to TOs will be directly attributable to NGC's Transmission Network Revenue Restriction. However, this is not exclusively the case, and it is entirely possible that costs due to, say, short-term outage changes might be attributable in different ways, depending on why the outage change costs were incurred.
- 8.21. Consequently, the attribution of such TO costs should be in accordance with the same criteria as internally-incurred costs. Whilst there is no reason why this should affect the design of the TO revenue restriction – this should be designed to promote efficient action irrespective of the purpose – additional information

may be required from the TOs in order that NGC can account for the costs appropriately.

## 9. Views Invited

9.1. Views are invited on all aspects of the proposals made in this consultation paper. In particular, views are sought on the proposals :

- (a) for making adjustments to the TOs' revenues in respect of investment through the process of price control review, in a manner consistent with current practice
- (b) for adjustment to the TOs' revenues in respect of outage plan changes through a process of declaring costs to, and decision by, the GBSO
- (c) to rely on obligations rather than financial incentives in respect of transmission switching and providing transmission services
- (d) to reflect typical industry-standard terms concerning liquidated damages for new connections as between users and the GBSO, and as between TOs and contractors, in the terms and conditions between the GBSO and TOs,

Respondents are invited to consider: the effectiveness of the incentives on both the TOs and NGC to reach collectively efficient decisions; the feasibility of the arrangements in terms of both simplicity of implementation and whether they are conducive to a co-operative working relationship between transmission licensees; and the scope for a complete review of the form of the revenue restrictions for April 2007.

9.2. Views are also invited on the possible effects on the NGC revenue restrictions, specifically:

- the effect on Balancing Services Revenue Restriction sharing factors;
- the  $G_t$  term; and
- the mechanism for effecting possible changes to the NGC's revenue restrictions as a result of changes to TOs' revenue restrictions.

# **Appendix 1 Respondents to the October 2003 Consultation Paper**

Price controls and incentives under BETTA, An Ofgem/DTI consultation, October 2003,  
Ofgem 130/03

## **Respondents**

Centrica

EDF Energy

National Grid Transco

RWE Innogy

ScottishPower UK Division

Scottish and Southern Energy plc

SP Transmission Ltd