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07 April 2005

Dear Colleagues,

**Recovering the costs of compensation for temporary physical disconnection (CAP048)**

This letter invites views on the options for recovering the costs National Grid Company (NGC) will incur as a result of making compensation payments to those generators with firm access rights that are temporarily disconnected from the transmission network. The letter:

- ◆ sets out the background to Ofgem's approval of Connection and Use of System Code Amendment Proposal 048 (CAP048) *Firm Access and Temporary Physical Disconnection*<sup>1</sup>
- ◆ considers the likely level of compensation costs
- ◆ sets out options for the recovery of costs and discusses whether incentive arrangements should be designed to encourage licensees to minimise these costs
- ◆ discusses the attribution of costs between the SO and TO activities of transmission licensees
- ◆ sets out Ofgem's initial view on a cost recovery scheme and the longer term development of such a scheme, and
- ◆ invites views on the above and proposes a timetable for implementation.

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<sup>1</sup> The CAP048 decision letter is available at <http://www.nationalgrid.com/uk/indinfo/cusc/pdfs/CAP048D.pdf>

Data provided by NGC on historical incidents of temporary disconnection is attached as an annex.

## **Background**

CAP048 *Firm Access and Temporary Physical Disconnection* was approved on 19 March 2004<sup>2</sup>. It established a compensation mechanism within the CUSC that required NGC to compensate generators for planned or unexpected temporary disconnection from the transmission system.

No funding mechanism for CAP048 was in place for the period 2004/2005. NGC had the ability to recover any compensation costs incurred during this period by raising an Income Adjusting Event (IAE) under the terms of its existing England and Wales SO incentive scheme, if the level of costs exceeded £2 million. Ofgem undertook to develop arrangements for funding compensation costs from 2005/6 onwards.

Since the implementation date of the British Electricity Trading and Transmission Arrangements (BETTA)<sup>3</sup>, NGC is now GB System Operator (GBSO). NGC, Scottish Power Transmission Limited (SPTL) and Scottish Hydro Electric Transmission Limited (SHETL) will retain their Transmission Asset Owner (TO) roles in their respective geographic areas, but have relinquished their SO roles to NGC.

## **Calculation of compensation payments**

The level of compensation payable under CAP048 depends on whether an outage is planned or unplanned. Compensation for planned outages is calculated based on the maximum of system average Transmission Network Use of System (TNUoS) charges or site TNUoS charges, while for unplanned events an eligible generator is compensated using the Market Index Price (MIP)<sup>4</sup> for the first 24 hours of an event or fault, with compensation being paid based on TNUoS charges for periods in excess of 24 hours.

Ofgem has requested historical and forecast data on the magnitude of compensation costs for both planned and unplanned outages in England and Wales and Scotland. This data is attached as an annex. The data illustrates that the level of compensation payable under CAP048 in

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<sup>2</sup> For additional background see the CAP048 Amendment Report at [http://www.nationalgrid.com/uk/indinfo/cusc/pdfs/CAP048\\_Amendment\\_Report\\_v\\_1\\_0.pdf](http://www.nationalgrid.com/uk/indinfo/cusc/pdfs/CAP048_Amendment_Report_v_1_0.pdf)

<sup>3</sup> 1 April 2005

<sup>4</sup> As published on the Balancing Mechanism Reporting Service (BMRS)

England and Wales, for 2004/05, has been relatively low (approximately £7,300 for one incident).

NGC considers that the implementation of BETTA and the redefinition of its role as GBSO could make compensation costs large, unpredictable and difficult to forecast. In particular:

- ◆ NGC's control over outages for Scottish generators is limited because of the role of the TO in maintaining assets and rectifying faults
- ◆ the radial nature of the network in Scotland tends to increase the likelihood that an outage of transmission equipment will result in the temporary physical disconnection of a generator from the system; as it is less likely to have a secondary circuit by which it may retain access to the GB Transmission System
- ◆ the asset ownership boundary between England and Wales and Scotland differs, resulting in assets that are frequently owned by a generator in England and Wales being owned by the Transmission Owner in Scotland and being classified as part of the Transmission System. As a result any routine maintenance of such assets could incur CAP048 payments in Scotland, but not in England and Wales.

NGC has forecast costs for planned outages in Scotland of approximately £870,000 for 2005/6. This estimate excludes incidents where a generator has entered into a bilateral connection agreement (BCA) with NGC which covers temporary disconnection.

### **Options for cost recovery**

An allowance for the efficient level of compensation costs for temporary disconnection could be recovered from transmission system users by:

- ◆ a mechanism that feeds costs into balancing services use of system (BSUoS) charges, or
- ◆ making an adjustment to the allowed revenues of each of the three TOs and recovering compensation costs via Transmission Network Use of System (TNUoS) charges.

Alternatively a cost pass through mechanism could be developed as an interim measure until there is better information on likely levels of GB costs.

## **Mechanisms for recovering costs via BSUoS charges**

An SO based funding mechanism would recover the costs of compensation from system users, and ultimately customers, via BSUoS charges. Such a mechanism could be implemented by:

- ◆ making an allowance for the costs of compensation within NGC's SO incentive scheme (under the incentivised balancing cost (IBC) target). This approach would allow NGC to choose economic trade-offs to minimise compensation as part of overall balancing costs, or
- ◆ adding a term to the balancing services activity revenue restriction on external costs (BXext). The term could be subject to the same parameters as those determined under the SO incentive scheme or to independent sharing factors, caps and collars.

## **Mechanisms for recovering costs via TNUoS charges**

Amending the TOs' price control allowed revenue restrictions could involve:

- ◆ adding a term to the TOs' allowed revenue restriction and allowing the TOs to recover these costs as pass through via TNUoS charges, or
- ◆ allowing TOs to keep a proportion of costs in the event that compensation costs outturn below a target cost level determined on an ex-ante basis. TOs would be exposed to a proportion of compensation payments if costs exceeded the target level, subject to appropriate caps and collars.

## **Attributing responsibility for costs**

In considering an appropriate mechanism to recover the costs of compensation payments made under CAP048 it is important to consider the extent to which compensation costs can be attributed to actions taken by the SO or TOs.

## **Duration**

Additional consideration needs to be given to the length of time for which any scheme is implemented and the scope of any longer term arrangements.

In the longer term, it may be appropriate to develop TO incentive arrangements. However, until more data on the level of GB outages is available, there may be difficulties in assessing the forecast level of costs on a GB basis. It would seem practicable to implement a short term scheme, with a view to developing more enduring arrangements as part of the transmission price control review.

### **Ofgem's initial views**

There is limited information available on historic levels of compensation costs in England and Wales. Additionally, there is only forecast planned outages information for Scotland. There is also uncertainty about the attribution of these costs between SO and TO activities. In the light of these factors it may be appropriate to provide an incentive for NGC to minimise compensation costs arising in England and Wales through the existing NGC SO balancing services activity revenue restriction arrangements. Costs for Scotland would be subject to pass through arrangements. These matters would be reviewed after one year.

The data in the annex shows that outage compensation costs have been relatively low in England and Wales since the implementation of CAP048. Nevertheless NGC has argued that there may be circumstances where these outage costs could be somewhat higher.

Ofgem proposes to set NGC a target level of costs as an incentivised performance measure for England and Wales. With reference to annex 1, a figure in the region of £50 000 - £100 000 could balance the identified forecast of compensation costs for planned outages in England and Wales with the possibility that there may be an occasional upward spike in costs due to unplanned outages.

## Implementation

Any proposed cost recovery mechanism would be effective retrospectively from 1 April 2005, subject to the outcome of this consultation process.

## Summary and views invited

Ofgem invites views from interested parties on its initial proposals and, in particular, on:

- ◆ the proposed options for costs recovery in England and Wales and Scotland
- ◆ whether £50 000 - £100 000 is the appropriate target range for England and Wales compensation costs for 2005/6
- ◆ the attribution of costs to SO and TO actions, and
- ◆ any views respondents may have on the development of these arrangements in the longer term.

Responses should be received by 5 pm on 9 May 2005, addressed to

Patrick Smart  
Electricity Transmission Policy  
Ofgem, 9 Millbank  
London, SW1P 3GE

Ofgem prefers electronic responses. These may be sent to ([Patrick.Smart@ofgem.gov.uk](mailto:Patrick.Smart@ofgem.gov.uk)).

Responses can also be sent by fax to 020 7901 7478 (marked for the attention of Patrick Smart).

If you would like to discuss any aspect of this letter, Mark Copley (0207 901 7410) or Tolani Azeez (020 7901 7043) will also be pleased to assist.

Respondents should include any confidential material in a separate annex. Ofgem intends to publish responses to this consultation by placing them in the Ofgem library.

## **Way forward**

Following consideration of respondents' views Ofgem will develop an appropriate cost recovery mechanism and issue explanatory notes to accompany a statutory licence consultation under section 11(2) of the Electricity Act 1989.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'A Walker', with a stylized flourish at the end.

Andrew Walker  
**Director Transmission Network Regulation**

## ***Annex 1: Historical and forecast levels of compensation costs***

### **Historical England and Wales costs**

#### *Planned Outages*

There were no incidents of a generator being disconnected from the transmission system because of planned maintenance which would have resulted in the payment of compensation in 2003/04 or to date in 2004/05.

#### *Unplanned Outages*

There was a single incident in 2003/04 of a generator being disconnected because of an unplanned outage. Had CAP048 been in place at the time, compensation totalling £76,929 would have been payable.

In 2004/05 there has again been a single eligible incident. Total compensation of £7,300 was payable in this case.

### **Forecast costs in England and Wales for 2005/2006**

#### *Planned Outages*

Of the 51 eligible transmission connected generating stations in England and Wales, one is likely to be disconnected during 2005/06, with compensation expected to total approximately £50,000.

#### *Unplanned Outages*

NGC has submitted data to Ofgem indicating how, in slightly different circumstances, three incidents where generators were disconnected in 2004/05 could have necessitated the payment of compensation costs totalling £1.2m. NGC have also estimated that two or three disconnections in England and Wales per year would not be unlikely.

### **Historical Scottish costs**

Due to the differing arrangements in Scotland, no data is available on the historical cost levels for planned or unplanned outages.



## Forecast costs in Scotland for 2005/2006

### *Planned Maintenance*

There are 29 transmission connected stations in Scotland forecast to have a non-zero Transmission Entry Capacity in 2005/06, representing approximately 9GW of installed capacity. 5 outages of TO owned equipment which will result in disconnection are planned during the year. NGC estimate that compensation payable will total £870,000.

NGC have indicated the differing asset ownership boundaries between England and Wales, and Scotland, mean that the TO, rather than a generator, frequently own the generator transformer at Scottish sites. NGC considers that, in order to assess compensation costs on a like for like basis across GB, outages on such assets should not necessitate the payment of compensation costs and has reflected this in bilateral connection arrangements.

### *Unplanned maintenance*

NGC has estimated that the level of compensation costs payable in Scotland may total at least £1m. This reflects the increased number of disconnection risks and probability of longer restorations. It also reflects the fact that Scottish terrain is more mountainous and the weather tends to be worse. NGC also considers that 132kV lines are more vulnerable to faults than 275kV.

NGC additionally states that where a connection depends on a single plant item, restoration will be dominated by the speed of TO repairs. As there are proportionately more such connections in Scotland there is proportionately less opportunity for the GBSO to effect restoration times. NGC note that the Scottish TO's do not face any direct incentives for restoring circuits.

### **2005/06 Summary**

	<b>Planned Outages</b>	<b>Unplanned Outages</b>
<b>England and Wales</b>	<b>£50,000</b>	<b>NGC estimate up to £1m</b>
<b>Scotland</b>	<b>£870,000</b>	<b>NGC estimate up to £1m</b>