

Alison Kay Commercial Director National Grid National Grid House Warwick Technology Park Gallows Hill Warwick CV34 6DA

Promoting choice and value for all customers

Your Ref: Our Ref:

Direct Dial: 020 7901 7009

Email: stuart.cook@ofgem.gov.uk

17 February 2009

Dear Alison,

### Managing Constraints on the GB Transmission System

I am writing to ask that you conduct an urgent review to consider (and if appropriate consult on) whether urgent changes to the existing commercial and charging arrangements for access to the GB transmission system are necessary before the next charging year (starting April 2009) - to more effectively manage the costs of constraints, and to ensure that any constraint costs are recovered on an equitable basis from customers, suppliers and generators.

National Grid Electricity Transmission (NGET) is forecasting a significant increase in the cost of constraints for the year commencing 1 April 2009. NGET has indicated that you expect constraint costs of £262 million for 2009/10. At this level, constraints costs will be 10% higher than the current forecast for 2008/9 and almost four times higher than in 2007/8. Under the current charging arrangements, this rapid increase in constraint costs will largely be borne by suppliers and will, over time, be passed through to customers (at a rate which will depend, for example, on the extent to which customers are on fixed price contracts). We understand that these transmission constraint estimates may rise further if, you are able to advance the connection dates of renewable generators as part of the "interim connect and manage" arrangements agreed as part of the Transmission Access Review.

A significant proportion of these constraints costs arise as a result of available transmission capacity shortages, relative to transmission entry capacity rights sold to generators in Scotland (and to a lesser extent England and Wales). The level of available transmission capacity (and forecast constraints) will also be heavily influenced by transmission outages as part of the investment the three transmission companies are making to increase network capacity.

Future investments in the network to increase capacity and some of the developments which are being considered in the context of Transmission Access reforms may help to mitigate the level of constraints costs and provide a more equitable and efficient basis for recovering those costs from all transmission network users. But any new arrangements will not be in place until April 2010 at the earliest.

NGET has an obligation under the Electricity Act 1989 "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission". As System Operator, NGET also has an obligation "to co-ordinate and direct the flow of electricity onto and over the GB transmission system in an efficient, economic and co-ordinated manner". In addition, under Standard Condition C5 of the transmission licence, NGET also has the duty to keep the Use of System Charging Methodology under review at all times.

Based on these licence obligations, the rapid escalation of constraint costs in recent years, and the current basis for recovering those costs from generators, suppliers and customers, I am writing to ask you to conduct an urgent review to consider what actions and/or changes to the existing commercial and charging arrangements could be made to more effectively manage the costs of constraints and to ensure that any constraint costs are recovered on an equitable basis from customers, suppliers and generators. I would like you to consider the merit of raising proposals under the relevant charging methodologies and industry codes to facilitate any necessary change. Your review should seek to address matters including:

- The options for reducing the level of constraint costs (both constraint volumes and prices), and
- Whether the current use of system charging mechanisms are equitable and appropriate and whether constraints costs are appropriately targeted on the parties that give rise to the need for constraint actions.

Given the significant level of forecast costs and the fact that the rate at which constraint costs are incurred will increase significantly in the next few weeks (when the planned Cheviot outage programme commences), we consider this matter requires your immediate attention. I would like you to raise any proposals to modify charging methodologies and industry codes by the end of February 2009. If you do not consider it would be appropriate to raise modification proposals at this time, I would like you to publish a report explaining why you consider the current arrangements and forecast level of constraints costs are consistent with all of your relevant statutory and licence obligations.

Given the importance of this issue and the fact that it significantly affects generators, suppliers and domestic and business customers, I am publishing a copy of this letter on our website and will be sending a copy to interested parties who have registered for Ofgem email alerts. I would encourage you to engage actively with all interested parties. This will allow proper – but rapid – consideration of the options and case for any changes.

I have attached to this letter a brief history of constraint costs, and the current way that the various commercial arrangements and charging methodologies deal with those costs to explain why we think an urgent review is necessary.

Yours sincerely,

Stuart Cook

Director, Transmission

<sup>&</sup>lt;sup>1</sup> Section 9(2) of the Electricity Act 1989.

<sup>&</sup>lt;sup>2</sup> Standard Licence Condition C16 paragraph 1.

## **ANNEX – Background information on constraints costs**

# **British Electricity Trading and Transmission Arrangements**

In the development of the British Electricity Trading and Transmission Arrangements (BETTA), Ofgem and the then DTI established principles to apply to the allocation of transmission system access rights. These principles provided that no user should be provided a later connection date or any greater access restrictions in the transition to BETTA than they had signed up to pre-BETTA. The principles were set out in a transitional licence condition, SLC C18, which applied to NGET. The effect of SLC C18 was that, in drawing up offers for the transition to BETTA, offers to 'existing users' would not be dependent on interconnector circuit upgrades and works in E&W if a user is located in Scotland (and vice versa).

As a consequence of SLC C18, a certain volume of generation related to 'existing users' was not restricted, as it otherwise would have been, by the need for network reinforcement across the interconnection boundary and further downstream to ensure compliance with GB Security and Quality of Supply Standards (SQSS). NGET and Scottish Power Transmission Limited (SPTL) were issued with a derogation (which remains in place) from the requirement to comply with the GB SQSS planning criteria over the circuits which form the boundary between England and Scotland (the Cheviot or 'B6' Boundary) until 2011/12, subject to a range of key conditions.

In establishing the principles behind SLC C18 and in issuing the derogation to NGET and SPTL, Ofgem/DTI noted concerns about the extent to which the proposals might distort competition, and encourage less efficient decisions than might be expected. However, Ofgem/DTI considered that the proposals represented a pragmatic and proportionate approach, given the balance of issues involved and the range of relevant considerations, and stated that it would keep the situation under review. These considerations included the extent to which competition between generators is facilitated and the potential emergence of transmission constraints and associated costs<sup>3</sup>.

At the time, Ofgem/DTI noted that the application of SLC C18 would result in offers of connection to the GB transmission system which were less dependent on the completion of transmission network investment than would be the case under the enduring arrangements. It was observed that this could mean that parties connect to the network and participate in energy markets at an earlier point in time than would otherwise be the case, and, before the relevant network investment was complete. However, at the time of the decision, Ofgem/DTI did not accept that this would inevitably lead to less efficient decisions and outcomes. In forming this view, it was noted that an increase in the number of generators participating in the GB market would, other things being equal, increase competition and promote more efficient outcomes. In addition, it was observed that whilst constraints might increase in the short term, market-based evidence of the cost of resolving such constraints could provide important signals as to the value of investment at different points in the network in the longer term, which in turn could promote more efficient transmission investment.

As will be clear from the foregoing, the decisions taken at the time of BETTA were taken in the light of assumptions about the development of competition and the anticipated level of constraints costs. We consider that recent experience and the significant increase in the level of constraint costs from those forecast at the time these decisions were taken imply the need to revisit these assumptions.

\_

<sup>&</sup>lt;sup>3</sup> Please see the following area of Ofgem's website for the suite of BETTA publications: <a href="http://www.ofgem.gov.uk/Networks/Trans/Betta/Publications/Pages/BETTAPubls.aspx">http://www.ofgem.gov.uk/Networks/Trans/Betta/Publications/Pages/BETTAPubls.aspx</a>.

## **Development of competition**

The BETTA decisions were based on assumptions including the view that the development of competition would mitigate the potentially adverse implications of the BETTA decisions. Whilst there are a large number of generators now wanting to connect in Scotland, the planning process and the need to reinforce the grid have delayed the connection of new generators.

In April 2008 Ofgem opened a Competition Act investigation into the conduct of Scottish Power ("SP") and Scottish & Southern Energy ("SSE") in the wholesale electricity sector, following allegations that the companies had a position of dominance arising from transmission constraints between England and Scotland, and had abused this position by withholding generation plant from the wholesale forward market while using the same plant to supply balancing power to NG at excessive prices. Ofgem has looked into a number of allegations concerning similar behaviour since BETTA was introduced, and these other periods were also considered within the scope of the Competition Act investigation.

While Ofgem recently closed the investigation into SP and SSE on grounds of administrative priority, noting that the likelihood of making an infringement finding under the Competition Act was low, we did identify concerns in the relevant market. These included the fact that output from SP's and SSE's generation plant in Scotland appears to have been much more expensive than that of comparable generators in England & Wales at times of constraint, which could indicate the existence of market power. If, and to the extent that such issues could serve to increase the overall cost of resolving constraints in Scotland, we consider that this would necessarily reinforce the need to take action to address constraints costs.

In our recent open letter announcing the closure of the Competition Act investigation<sup>4</sup>, we indicated that Ofgem intends to consult on additional powers and/or specific policy proposals to address the issues highlighted by the investigation, amongst other concerns, by the end of March 2009.

#### Trends in constraints costs

As indicated above, the decisions taken at the time of BETTA were taken in the light of assumptions about the anticipated level of constraints costs. We question the validity of this assumption in the light of recent experience.

Based on information provided to us by NGET, Table 1 summarises information on the level of constraint costs in each of the years since the implementation of BETTA on 1 April 2005. The table also provides information on the level of constraint costs arising from Scottish actions. As can be seen, the level of Scottish constraint costs forecast for 2009/10 are over 3 times higher than those experienced in the first year following the implementation of BETTA. This level of constraint costs is materially higher than anticipated at the time that SLC C18 came into force or at the time that NGET was issued with the Cheviot boundary derogation. The increase in constraint costs in 2008/09 and 2009/10 is unprecedented and unexpected. Less than a year ago, NGET was forecasting constraint costs in 2008/9 would be only £124 million<sup>5</sup>. The current forecast now stands at £238 million.

<sup>4</sup> See:

http://www.ofgem.gov.uk/About%20us/enforcement/Documents1/Competition%20Act%20investigation%20into%20ScottishPower%20and%20Scottish%20and%20Southern%20Energy.pdf

<sup>&</sup>lt;sup>5</sup> See: http://www.nationalgrid.com/NR/rdonlyres/1C8B5245-86F7-4313-B13A-B39BFE36F9DD/30038/AppendixtoNGETSOIncentiveInitialProposals.pdf

Table 1 - Historical Trend in Constraints Costs

	2005/06	2006/07	2007/08	2008/09	2009/10
Total Constraints Costs (£' million)	84.0	108.0	70.0	238.0	262.0
Total Volume of Actions in GB (GWh)				4,976	9,605
Average Price of Actions in GB (£/MWh)				47.8	27.4
Constraints Costs Arising from Scottish Actions (£'million)	70.0	80.0	42.0	210.0	212.0
Total Volume of Actions in Scotland (GWh)				4,430	3,538
Average Price of Actions in Scotland (£/MWh) Notes:				47.5	60.0

<sup>\*</sup> Latest forecast

Constraint cost volume and prices are comprised of a multitude of different types of actions

### Capacity and charges

In principle, there are number of actions that could be taken to address this situation:

- NGET could seek to reduce the *volume* of constraints. For example, this might be
  achieved through the more effective management of constraints. Alternatively, it
  might be appropriate to reduce the amount of TEC that NGET makes available in
  constrained zones, and to seek greater coordination between the SO and the TOs in
  the timing and management of planned outages.
- NGET could seek to reduce the *price* of resolving constraint actions by limiting constraints payments and/or by reducing the right for parties to receive payments in certain situations.
- NGET could review whether for a given set of constraints costs if the current charging mechanisms are equitable and appropriate. In this context it is appropriate to ask whether constraints costs are appropriately targeted on the parties that give rise to the need for constraint actions and whether the current share of constraint costs recovering from generators and suppliers (and ultimately customers) is equitable and efficient.

The implications of the current charging mechanism are highlighted by the information set out in Table 2, below (which is based on information provided to us by NGET). The table provides information on the access charges (both Transmission Network Use of System charges (TNUoS) and charges for constraints, which are paid through Balancing Services Use of System charges (BSUoS)) and which are paid by generators and demand customers in Scotland, England & Wales and across Great Britain as a whole.

Generators receive payments when the GB System Operator either pays generators to reduce output when they are bidding negative prices into the Balancing Mechanism, or when they are instructed to increase output, but only pay a proportion of these costs through BSUoS. The table highlights the fact that:

 Generators only contribute £255 million in net charges to the cost of grid access (18% of the total net costs of £1,428). Demand customers pay a total of £1,173 million (82%).  Generators in Scotland pay only £41 million in net access charges, despite them being net exporters and therefore using both the Scottish and England and Wales transmission system and the fact that existing transmission rights in Scotland relative to transmission system capacity give rise to a significant proportion of constraints costs. This figure therefore appears low given the constraint costs imposed on the system.

Table 2 – Transmission and system operation charges in 2009/10 (forecast £' million)

illilloit)							
Charge	Geographical Area						
	Total Great	Scotland	England &				
	Britain		Wales				
Transmission Network	1,428	192	1,236				
Use of System Charge							
<b>Constraint Payments</b>	262	32	230				
Total Transmission	1,690	224	1,466				
Access Charge							
Generator - Use of	517	157	359				
System & Generator							
<b>Constraint Payments</b>							
Generator - Receipts	-262	-116	-146				
for Constraints							
Generator - Net	255	41	213				
Payments							
Demand – Use of	1,173	67	1,106				
System & Constraint							
Payments							

## Advancing generators in the GB queue

There is a large volume of generators, including renewable generators, waiting to connect to the grid. NGET has recently identified scope to advance the connection dates of 450MW of Scottish renewable generation. This would represent a 16% increase in the installed renewable capacity in Scotland.

NGET has stated that the connection of an additional 450MW of Scottish generation is expected to give rise to an additional £40 million of constraints costs per annum if the full amount connects in 2009/10. This would potentially take the level of annual constraint costs to a figure exceeding £300 million. We welcome actions that will help generators connect to the grid and reduce the GB queue where the costs of doing so do not outweigh the benefits. We would need to understand the actions that you propose to take to manage constraint costs. This will form an important input to our ongoing work to assess the merit of advancing the connection of these generators.