

Direct Dial: 020 7901 7240  
Email: david.gray@ofgem.gov.uk

Date: 30 July 2007

Dear Colleague,

### **Transmission Arrangements for Distributed Generation - Working Group Report and Next Steps**

Over the past year the Transmission Arrangements for Distributed Generation ("TADG") Working Group ("the Group") has been reviewing and developing high level options for change to the existing transmission arrangements with respect to distributed generation. The Group's Report ("the Report") is being published today on Ofgem's website, and includes the Group's assessment of the issues with the existing arrangements and of four strawman options for change to those arrangements.

This letter, being published alongside the Report, provides an update on Ofgem's thinking on the enduring transmission arrangements with respect to distributed generation ("DG"), in the light of the key findings of the Group.

#### **Background**

During the development of British Electricity Trading and Transmission Arrangements ("BETTA"), which were implemented in April 2005, parties raised a number of issues with the treatment of DG within the transmission charging arrangements. These issues included cost-reflectivity, incentives created by embedded benefits and the interaction with transmission access issues, particularly in the context of DG leading to exports to the transmission system and leading to transmission investment. Ofgem acknowledged that there was a need to review the transmission charging arrangements with respect to DG after BETTA. In the mean time, to achieve greater consistency across GB in transmission charging for generators under 100MW and connected to 132kV, Ofgem introduced the "small generator discount" in Scotland as an interim measure. The discount was set at 25% of the total residual element of TNUoS charges and was put in place for three years with a view to replacing it with an enduring solution after BETTA following a more detailed review.

In September 2005, Ofgem published a discussion document<sup>1</sup> seeking views on the appropriateness of the existing transmission charging arrangements for DG, and on high level options for change. Ofgem further noted that, as a minimum, the review should seek to develop, if appropriate, an enduring solution to replace the small generation discount in Scotland noting that it would cease in March 2008. In May 2006 Ofgem published a further

---

<sup>1</sup> Enduring transmission charging arrangements for distributed generation – a discussion document – September 2005, Ofgem #211/05

thoughts document<sup>2</sup>, followed by an open letter<sup>3</sup>, resulting in the establishment of the TADG Working Group to develop strawman models for the enduring transmission arrangements that reflect the impact of DG on the transmission system. The Group would cover not only charging arrangements, but also related issues of transmission access, operation and planning. In considering changes it would focus on models which enable DG to use an agent, such as their supplier or distribution network operator ("DNO"), to deal with transmission-related issues.

Between July 2006 and April 2007, the Group explored issues with the treatment of DG in the existing transmission arrangements and associated consequences of the continued growth of DG. The Group then developed four strawman agency models and assessed them against the Group's key objectives, namely to minimise implementation costs, be cost-reflective, and facilitate efficient development and use of networks. The Group has now concluded its work, with its findings set out in the Report being published today. Further information and documentation associated with the work of the group, including material from each meeting, are publicly available on Ofgem's website.

### **Ofgem's provisional views**

The Group was established as a development group not a decision making body. It will be for the industry to consider whether to take forward any particular model and if so to submit change proposals to the industry codes or other documents. Ofgem's role is to consider specific proposals for approval when they are submitted to the Authority for decision. Nothing presented or discussed at the Group, or contained in the Report or this letter, can have the effect of fettering the Authority's discretion in considering any subsequent change proposals. Each proposal must be considered on its merits and in the light of the information available at that time.

However, we consider that there is value in setting out our provisional thinking in the light of the work of the Group, based on the information available to us at present, so as to provide a further context, in addition to the Report, to inform any change proposals being considered by industry parties.

#### *Case for change*

We remain of the view that there are important issues with the current treatment of DG in the transmission arrangements that need to be addressed.

It is important that transmission charging reflects the costs imposed on the transmission network and gives appropriate credit for benefits provided. This promotes the economic development of the transmission network and helps to ensure that competition in generation and supply takes place on a level playing field. It is also important that transmission access is allocated in an efficient and coordinated manner. In addition it is important that the administrative and regulatory burden for smaller participants in the market is proportionate. We note that these principles are consistent with the Government's position set out in the Energy White Paper.<sup>4</sup>

For all the above reasons (cost-reflectivity, allocation of transmission access and commercial proportionality), we think there is a case for change. These are discussed further below.

---

<sup>2</sup> Enduring transmission arrangements for distributed generation – further thoughts document – 31 May 2006, Ofgem #92/06

<sup>3</sup> Transmission Arrangements for Distributed Generation ("TADG") Working Group – Invitation and draft terms of reference – 21 June 2006, Ofgem #102/06

<sup>4</sup> Meeting the Energy Challenge – A White Paper on Energy – May 2007, Department of Trade and Industry. (paragraph 3.71)

### *Cost-reflectivity*

Transmission charges that reflect costs and benefits imposed on the transmission network will promote the efficient development and use of the network through efficient decision making by relevant parties and will facilitate competition. In our view, this applies to distributed generation as well as to other parts of the industry.

For example, the Transmission Network Use of System (TNUoS) charges are based on a combination of locational charges and additional flat charges (residual elements) separately to demand and generation to balance with allowed revenue. The generation and demand elements of locational charges are (subject to zoning) equal and opposite. At present, unlicensed DG is treated as negative demand in TNUoS charging, thereby avoiding the generation TNUoS charges and being paid the demand TNUoS charges. Through the negative demand TNUoS charges, DG sees broadly the same impact from locational charges as transmission connected generation. There is no proposal to change this. However, the question is whether DG should (a) be paid the demand residual and (b) avoid the generation residual element of the charge. NGET estimate that the embedded benefits for annual TNUoS charges is of the order of £17/kW.

We consider that there is a good case for a review of the cost-reflectivity of the size of the embedded benefits contained in the current transmission charging arrangements with respect to DG. We consider that NGET should undertake a review of the drivers of the costs associated with the residual TNUoS charge, taking into account the impact of DG on such costs. It seems logical that DG should pay less than transmission connected generation because it avoids the need for some network costs (such as costs of increasing transformation capacity at the local distribution and transmission interface), but we believe that the value of these embedded benefits does require further review. In particular, this review should address the issue of the treatment of generation under 100MW and connected at 132kV across GB, and develop a consistent and cost-reflective arrangement that replaces the interim small generation discount in Scotland.

### *Gross vs net*

A key issue on which the Group was divided was whether a gross or net approach should be adopted to deal with transmission access and charging for DG. Indeed some of the strawman models developed were based on net export alone, with the current arrangements retained with respect to net imports.

We do not consider that the distinction between gross and net is particularly useful to achieving cost-reflective charging. In our view, cost-reflective charging can be applied through variants of either a gross or net basis. However, we do not consider that a solution based on net local export alone would be appropriate, because the impact of DG on transmission is not limited only to where there is net export. Furthermore, a net model in general would conversely apply an obligation on the demand side to offset the DG output. This could require changes to the exit arrangements, potentially with undue additional costs and complexity. A gross model, on the other hand, avoids this interaction.

However, we do note the point raised that some generation (e.g. on a private network) will be considered net. It is therefore important to recognise that changes to charges which reduce the distortion in cost-reflectivity between the transmission and distribution may well increase the distortion elsewhere. The appropriate approach then depends on the materiality of the distortions likely to be caused. For practical reasons, there may be merit in considering an appropriate threshold below which DG is treated net.

### *Choice and role of agent*

We continue to believe that agency models, whether DNO or supplier based, may provide an appropriate means for smaller DG to deal with transmission issues, as they could help reduce burden on DG and take into account diversity of generation. We note that the recent

implementation of CAP097<sup>5</sup> provides for DNOs to have a role in dealing with transmission issues for DG without the latter having direct contractual relationship with transmission, but there is scope to clarify or further develop relevant obligations.

In the short term, in order to minimise implementation costs and complexity, there is merit in making use of existing interfaces and aligning with the current placement of responsibilities. This might mean some aspects of an agency role falling to the DNO, for example the allocation of access rights to new DG connections, building on the provisions introduced by CAP097, and others to the supplier, for example metering and billing for transmission charges.

However, it is also important to take into account the evolution of those responsibilities in the long term, e.g. the development of more active management of the distribution networks with more dynamic and wider interfaces between the DNO and DG.

#### *Impact on existing contractual arrangements*

The work of TADG focussed on the development of appropriate agency arrangements for DG which do not contract directly with NGET. Any changes must take into account any associated impact on the existing arrangements for DG which do have direct contracts. This includes consideration of whether the arrangements applied to the agency model should similarly apply to DG with a BEGA or a BELLA, taking into account any differences in access rights and trading arrangements where appropriate.

In its discussion on transmission charges, the Group focussed on TNUoS charging. In considering any changes to the embedded benefits within TNUoS charges, there may be related issues on other transmission charges, e.g. BSUoS and transmission losses.

#### **Way forward**

We would like to thank all those involved in the Group for their effort and constructive contributions. It is now for the industry to consider whether to take forward any particular changes, whether based on any of the strawman models developed by the Group, or indeed any other new models, through change proposals to relevant industry codes or other documents. Any models taken forward in this way would be developed in more detail through the modifications processes including relevant industry consultations, before being submitted to Ofgem for decision.

We would encourage industry parties to take account of the transmission access review and further work on distributed energy as set out in the Energy White Paper and other developments in the regulatory and licence framework for DNOs and suppliers when developing change proposals, and also to consider any action that can be taken forward in the short term under the existing arrangements.

More specifically, given that the small generation discount will expire in April 2008, there is a need for appropriate charging arrangements to be implemented by then.

If you have any questions on this letter or on the work of the Group then please contact either Min Zhu ([Min.zhu@ofgem.gov.uk](mailto:Min.zhu@ofgem.gov.uk)) on 020 7901 7060, or Cheryl Mundie ([Cheryl.mundie@ofgem.gov.uk](mailto:Cheryl.mundie@ofgem.gov.uk)) on 0141 331 6003.

Yours faithfully,



David Gray

---

<sup>5</sup> CAP097 - Revisions to the contractual requirements for small and medium embedded power stations under 6.5 – June 2006, Ofgem