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6 February 2008

Dear Duncan

## **REVIEW OF THE GRID CODE : DECISION AND NOTICE IN RELATION TO CONSULTATION D/07 (FREQUENCY RESPONSE REQUIREMENTS)**

The Gas and Electricity Markets Authority (the "Authority")<sup>1</sup> has carefully considered the changes that NGET<sup>2</sup> has proposed to its Grid Code as set out in the report to the Authority arising from consultation D/07 (Frequency Response Requirements)<sup>3</sup> that has been submitted to it for approval.

The Authority has decided to reject the proposed changes to the Licensee's Grid Code (the "Grid Code") as set out in the Appendix A of the report to the Authority arising out of Consultation D/07.

This document explains the background to the proposals and sets out the Authority's reasons for its decision to reject these changes to the Grid Code.

### **Background to the proposed changes to NGET's Grid Code**

NGET has concerns about the interpretation of the frequency response capability requirements defined in the Grid Code Connection Conditions. In particular, NGET has noted concerns about the interpretation that the current Grid Code requirements:

- Permit a time delay before a generator responds to a change in system frequency.
- Are met provided that frequency response capability at 10 seconds is achieved.

<sup>1</sup> Ofgem is the office of the Authority. The terms "we", "Ofgem" and "the Authority" are used interchangeably in this letter.

<sup>2</sup> National Grid Electricity Transmission plc

<sup>3</sup> Report from NGET – Consultation Reference D/07, Issue 1, Date of Issue 7 January 2008, <http://www.nationalgrid.com/NR/rdonlyres/6EC140AC-3508-42B2-8CEB-6E94D841BE93/22455/ReporttotheAuthorityD07issued.pdf>.

In consultation D/07 NGET described three options for clarifying the Grid Code frequency response capability requirements and proposed changes to the Grid Code to define an indicative, allowable time delay.

NGET received eight responses to Consultation D/07 from authorised electricity operators and one response from other interested parties. NGET reported that:

- Five respondents supported the need to clarify ambiguities in the current Grid Code frequency response requirements.
- Two respondents considered that restricting the maximum time delay to two seconds would represent a significant, material change and would place a more onerous requirement on generators.
- One respondent queried the need to clarify existing Grid Code obligations that have been successfully achieved.
- Two respondents considered that a Grid Code Review Panel ("GCRP") working group should be established to consider the basis (in terms of system requirements and overall economics) of the proposed Grid Code requirements.
- Two respondents noted that justification has not been presented in support of the proposed Grid Code changes.
- One respondent did not consider that a linear response is possible from any type of generating plant.
- One respondent noted that not all manufacturers offer generating plant which can start to respond to a change in system frequency within two seconds. This respondent suggested that a requirement to start to respond in five seconds should apply until 2010.

NGET held a workshop for respondents to the D/07 consultation to present NGET's revised Grid Code change proposal in light of discussions with wind farm developers. NGET's now proposes changes to the Grid Code to define a specific minimum requirement for the profile of the frequency response to apply to all types of generator with a completion date after 1 January 2008. NGET invited comments on its revised Grid Code change proposal from participants at its workshop and received six responses from authorised electricity operators and one response from other interested parties. NGET reported that:

- Five respondents consider that a GCRP working group is needed to carry out a further review of the Grid Code frequency response requirements.
- One respondent considered that NGET's application of the Grid Code to date has been reasonable but that further work is needed to determine if any "relaxations" for certain types of generator are needed.
- One respondent suggested that a requirement defined in terms of energy delivered should be considered.
- One respondent considered that the requirement for a maximum delay of two seconds had not been justified and that Grid Code changes should not be implemented for at least one year.

Ofgem notes that respondents were concerned by:

- The process NGET followed in developing the D/07 Grid Code change proposals.
- The lack of information presented in the D/07 consultation. In particular, one respondent did not consider that sufficient information was presented for a proper assessment to be made of the Grid Code change proposals.

- The significant restriction to the number of wind turbine manufacturers able to offer Grid Code compliant generating equipment that would result from the proposed D/07 Grid Code changes.
- The proposal to implement Grid Code changes with immediate effect.
- The change in NGET's view about the need to review these Grid Code requirements that were deliberately excluded from the scope of the GCRP's Power Park Modules and Synchronous Generating Units working group.
- NGET having a decision making role in respect of assessing generator compliance in respect of Grid Code frequency response requirements.

### **NGET's recommendation**

In its report<sup>4</sup> to the Authority on Consultation D/07 NGET set out the drafting for proposed changes to the Grid Code. It recommended that the Authority approved the proposed changes.

NGET has proposed changes to the Grid Code as it considers that the current wording is insufficient. However, NGET agrees that further work is needed to examine frequency response requirements. NGET intends to ask the Balancing Service Standing Group<sup>5</sup> ("BSSG") to consider whether commercial mechanisms can be developed to allow for frequency response requirements to be based on energy delivered within 10 seconds. Subject to the findings of a BSSG review, NGET would initiate investigation of relevant technical requirements.

### **Ofgem's view**

Approval of these changes by the Authority is required by standard condition C14(3). Having carefully considered the NGET's report on the proposed changes, Ofgem considers that, having had regard to the licensee's obligations<sup>6</sup> set out in condition C14(1)(b) of the Transmission Licence ("the obligations") and Ofgem's wider statutory duties<sup>7</sup>, that the proposed changes to the Grid Code should not be approved by the Authority. Ofgem's reasons for reaching this decision are outlined below.

We do not consider that evidence has been presented that demonstrates that the proposed Grid Code changes would better facilitate any of the Grid code objectives. We also consider that robust justification of the basis for the proposed Grid Code changes has not been presented in the D/07 report to the Authority.

We note that NGET and the majority of the respondents to the D/07 consultation consider that there is a need for a detailed review of frequency response obligations particularly in respect of Power Park Modules (PPMs). We also note that the D/07 Grid Code change

<sup>4</sup> As required by C14.2.a

<sup>5</sup> A Standing group that has been established under the CUSC governance arrangements.

<sup>6</sup> The licensee's transmission licence defines the Grid Code objectives as follows:

- (i) to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity;
- (ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the GB transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity); and
- (iii) subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in Great Britain taken as a whole.

<sup>7</sup> Ofgem's statutory duties are wider than the matters that the NGET has to take into consideration and include amongst other things a duty to have regard to social and environmental guidance provided by Ofgem to the government.

proposal has been presented in advance of a more detailed review of the Grid Code obligations.

We note that the majority of respondents to NGET's D/07 consultation and subsequent workshop do not support the proposed Grid Code changes. In particular, we are concerned by the views expressed that the proposed Grid Code obligations would not be achievable using generating plant that is available from most wind turbine manufacturers.

We note that draft legal text has not been presented in the report to the Authority arising from consultation D/07, that defines proposed Grid Code changes should the changes proposed in the report to the Authority arising from NGET's G/06<sup>8</sup> consultation not be approved. We consider that as a minimum, proposed Grid Code changes should be presented against current Grid Code text. We also observe that it is generally informative for other, relevant, current code change proposals to be identified in the report to the Authority.

We note the concerns about the process that NGET followed in developing these Grid Code change proposals. We accept that the GCRP is an advisory body to NGET. We also acknowledge that NGET is responsible for developing and consulting on Grid Code change proposals. However we are concerned by the divergence between GCRP views and the approach taken by NGET in developing the D/07 Grid Code change proposals.

We note that one respondent noted that we had previously advised that the current Grid Code does not preclude a delay before responding to a change in system frequency. We note that we provided this view when assessing a dispute between NGET and a generator in respect of a PPM in Scotland that had a completion date of earlier than 1 April 2005 and was therefore not required to comply with the obligations defined in Appendix 3 of the Grid Code's Connection Conditions. We observe that the requirements defined in Appendix 3 of the Grid Code's Connection Conditions apply to PPMs in Scotland with a completion date after 1 April 2005. We note that NGET has presented an interpretation to the Grid Code frequency response requirements including obligations defined in Appendix 3 of the Grid Code's Connection Conditions.

We note the concerns raised by respondents associated with NGET continuing to take a pragmatic approach when assessing generator compliance with Grid Code frequency response requirements. We also note that NGET does not consider that it would be appropriate for NGET to continue with this role. We observe that NGET is required by standard condition C14 of its electricity transmission licence to have in force the Grid Code. We consider that as part of this role, NGET is responsible for ensuring that users of the GB transmission system comply with relevant Grid Code obligations. We understand that an assessment of Grid Code compliance forms part of the commissioning process for new connections.

### **The Authority's decision**

Based on the reasons set out above the Authority has therefore decided to reject the Grid Code changes set out in Appendix A of the report submitted to the Authority arising from Consultation D/07 (Frequency Response Requirements).

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<sup>8</sup> Report from NGET – Consultation Reference G/06 (Power Park Modules and Synchronous Generating Units), Issue 1, Date of Issue 21 December 2007, [http://www.nationalgrid.com/NR/rdonlyres/D478E2DC-DDBE-4E92-9332-EA9ED330977E/22321/ReporttotheAuthorityG06PPM\\_issued.pdf](http://www.nationalgrid.com/NR/rdonlyres/D478E2DC-DDBE-4E92-9332-EA9ED330977E/22321/ReporttotheAuthorityG06PPM_issued.pdf).

Please do not hesitate to contact me on the above number if you have any queries in relation to the issues raised in this letter or alternatively contact Bridget Morgan on 020 7901 7080.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R Hull', written in a cursive style.

**Robert Hull**

**Director, Transmission**

Signed on behalf of the Authority and authorised for that purpose by the Authority

cc: Richard Dunn, GCRP Secretary