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Mr Ben Graff
GCRP Chairman
National Grid Electricity Transmission plc
National Grid Transco House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Your Ref:
Our Ref: blm / I 018
Direct Dial: 020 7901 7366
Email: john.scott@ofgem.gov.uk

26 June 2006

Dear Ben

REVIEW OF THE GRID CODE : DECISION AND NOTICE IN RELATION TO CONSULTATION A/06 – “GRID CODE CHANGES TO APPENDIX 5 OF THE CONNECTION CONDITIONS – TECHNICAL REQUIREMENTS FOR LOW FREQUENCY RELAYS”

The Gas and Electricity Markets Authority (the “Authority”)¹ has carefully considered the changes that NGET² has proposed to its Grid Code as set out in the report to the Authority arising from consultation A/06 (Grid Code Changes to Appendix 5 of the Connection Conditions – Technical Requirements for Low Frequency Relays)³ that has been submitted to it for approval.

The Authority has decided to approve 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 A/06.

This document explains the background to the proposals and sets out the Authority’s reasons for its decision to approve these changes to the Grid Code. This letter constitutes notice by the Authority under Section 49A of the Electricity Act 1989 in relation to this decision.

¹ Ofgem is the office of the Authority. The terms “Ofgem” and “the Authority” are used interchangeably in this letter.

² National Grid Electricity Transmission plc

³ Report from NGET - Consultation Reference A/06, Issue 1, Date of Issue 5 June 2006
<http://www.nationalgrid.com/NR/rdonlyres/1F64791E-29C1-4118-B75C-97EC5AC2CAF9/7418/ReporttotheAuthorityA06LFDDFinal.pdf>.

Background to the proposed changes to NGET's Grid Code

The electricity system in GB is protected against system collapse due to a severe fall in frequency by the national, automatic Low Frequency Demand Disconnection Scheme ("LFDD Scheme"). The LFDD Scheme is a protection scheme that is set up to disconnect customer demand in preset stages in the event of system conditions that are more onerous than those considered in the GB Security and Quality of Supply Standard.

The requirements on NGET and Distribution Network Operators ("DNOs") relating to the setting and operation of the LFDD Scheme are defined in Grid Code Operating Code 6.6 ("OC6.6"). Grid Code Connection Conditions Appendix 5 ("CC.A.5") provides indicative technical requirements for the Low Frequency relays that are used as part of the LFDD Scheme.

The LFDD Scheme was recently reviewed by NGET. This review identified a need for changes to the Low Frequency relay settings and also a need to replace older relay with modern fast acting relays.

NGET and DNOs have worked to ensure that the specification and functional testing arrangements for Low Frequency relays was adequate and consistent. The Energy Networks Association ("ENA") has introduced a technical specification⁴ ("ENA Technical Specification") which defines the functional test requirement for voltage and frequency protection relays. The ENA Technical Specification is used by DNOs in respect of the replacement Low Frequency relays that are being installed.

NGET notes that the ENA Technical Specification includes an additional technical requirement on accuracy that is not currently specified under CC.A.5.1.1. NGET proposes changes to CC.A.5.1.1 to align the Grid Code requirements with those in the ENA Technical Specification. NGET considers that this will ensure consistency and improve the transparency, by publicising the functional test requirement that embedded Low Frequency relays will be required to meet.

NGET received four responses to Consultation A/06 from authorised electricity operators. NGET reported that:

- All respondents were supportive of the proposed Grid Code changes.
- One respondent was concerned that the proposed legal text for CC.A.5.4.1 may be interpreted incorrectly.

Ofgem notes that respondents made the following points:

- The proposed Grid Code change is a sensible update that recognises advances in technology with respect to Low Frequency relays.
- The proposed Grid Code change does not have a direct effect on generators.
- The drafting proposed for CC.A.5.4.1 is potentially misleading as it implies that individual Low Frequency relays should be tested. The respondent noted that the ENA Technical Specification requires type testing of relays and therefore each individual relay would not necessarily be tested.

NGET noted in its report to the Authority that it had amended the drafting of the proposed Grid Code changes to take account of the comments received from respondents relating to the clarity of the drafting.

⁴ ENA Technical Specification 48-6-5 Issue 1, 2005.

NGET's recommendation

In its report⁵ to the Authority on Consultation A/06 NGET set out the drafting for proposed changes to the Grid Code. It recommended that the Authority approved the proposed changes.

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 obligations⁶ set out in condition C14(1)(b) of the Transmission Licence ("the obligations") and Ofgem's wider statutory duties⁷, that the proposed changes to the Grid Code should be approved by the Authority. Ofgem's reasons for reaching this decision are outlined below.

Ofgem notes that all respondents to NGET's consultation were supportive of the proposed Grid Code changes.

Ofgem understands that the LFDD Scheme protects the security of the electricity system as a whole. Ofgem notes that the proposed changes will update the Grid Code to reflect detailed work that has been carried out by the DNOs and NGET in respect of the functional performance requirements of Low Frequency relay protection. Ofgem also notes that the proposed Grid Code changes will more widely publicise the functional test requirements that Low Frequency relays are required to meet if used as part of the LFDD Scheme. Ofgem considers that the proposed Grid Code changes would promote the security of the electricity system within GB by updating requirements which impact on the performance of the LFDD Scheme.

The Authority's decision

Based on the reasons set out above the Authority has therefore decided to approve the Grid Code changes set out in Appendix A of the report submitted to the Authority arising from Consultation A/06 (Grid Code Changes to Appendix 5 of the Connection Conditions – Technical Requirements for Low Frequency Relays).

The implementation date for these Grid Code changes is 1 January 2007.

⁵ As required by C14.2.a

⁶ 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.

⁷ 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.

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 that reads "John Scott". The signature is written in a cursive style with a horizontal line underneath the name.

John Scott
Technical Director

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

cc: Lilian MacLeod, GCRP Secretary