

**Terms of Reference for the Grid Code Working Group
to Review the Provisions of BM Unit Data Provided by Intermittent Generation**

Background

1. NGET's management of the short term balance between supply and demand and power flows across critical system boundaries relies on forecasts of Generator output and the ability to vary that output through the acceptance of Bids and Offers in the Balancing Market. The actions taken by NGET to achieve these objectives are determined using the data provided by Generators and Suppliers under BC1 and BC2 of the Grid Code. This data includes the expected output of the BMU, limits on output, parameters defining the cost and flexibility to move from one output level to another. The accuracy of this data is critical in ensuring that the actions taken by NGET deliver economic and efficient operation of the transmission system.
2. The existing data requirements were established some time ago when virtually all Generating Units were powered by controllable energy sources like coal and nuclear fission. Since then the capacity of Generating Units powered by uncontrollable sources, primarily wind has increased significantly predicting the output of these generators is more onerous, and some Generators have indicated that this is hindering their ability to submit BM data and actively participate in the Balancing Market. There have been several occasions where these factors have significantly affected NGET's operation of the GB Transmission System and the occurrence of such events can be expected to increase as the proportion of intermittent generation to non intermittent generation increases. Consequently at the Grid Code Review Panel meeting in September 2008 it was decided to establish a Working Group to review the data provided under BC1. The data provided by Suppliers takes into account predicted output from embedded Small Power Stations hence increasing levels of embedded intermittent generation will impact on the accuracy of the data. The effect of this on NGET's ability to operate the system needs to be considered. Furthermore the project to replace the BM system through which the data is submitted is underway and it would be prudent to ensure that the project takes account of any changes to the data provided.
3. Generators also provide forecasts of output ahead of real time in accordance with OC2 ie Output Usable. This is defined in the Grid Code as maximum export level but with intermittent generation this could be interpreted in a number of ways. Therefore there is a need to verify that the compatibility of the assumptions made by Generators in providing this data are compatible with the assumptions made by NGET in using it. This may lead to a requirement for additional information.
4. The working group will consider:
 - How the current arrangements could be amended to facilitate provision by intermittent generation.
 - If changes are required to reflect the uncontrollability of the primary source of power.
 - The effect on system operation of 'inaccuracies in Supplier data' due to increasing levels of embedded intermittent generation.
 - NGET's and the Generators understanding of Output Useable for intermittent generation and whether additional data is required.

5. We are seeking representatives for this Working Group which will commence in April 2009. Please provide nominations to Richard Dunn by close of play on 31st January 2009.

Objectives

6. The working group will complete a review of the existing requirements for data under BC1 to:
 - identify where the requirements are incompatible with the intermittent nature of the primary power source;
 - Identify any changes required to improve the compatibility;
 - Develop proposals to change the Grid Code to accommodate changes to BM data requirement.

Deliverables

7. The Working Group will provide a report to the Grid Code Review Panel which will:
 - detail the findings of the working group's review of the existing arrangements for the provision of BM data and
 - recommend proposed changes to Grid Code in respect of requirements to provide BM data under BC1 and BC2.

Timescales

8. The Working Group is required to complete its review of the provisions of BMU data provided by intermittent generation and recommend any proposed changes to the Grid Code Review Panel by February 2010.