

**Consequential Changes to the Grid Code as a result of CAP071: Enduring Maximum Generation Service**

**Paper by National Grid to the Grid Code Review Panel**

**6 May 2004.**

This paper outlines the proposed consequential changes to the Grid Code as a result of CUSC Amendment Proposal 071: "Development of a Maximum Generation Service".

CAP071 was proposed by PowerGen and presented to the February 2004 CUSC Amendments Panel, where it was sent to the Working Group stage for further consideration. For the purposes of CAP071, the Balancing Services Standing Group (BSSG) acted as the Working Group. The BSSG is due to report back to the CUSC Amendments Panel on 21 May 2004.

The Amendment Proposal itself has five specific elements:

- MGS is defined as the additional output offered over and above the normal commercial operating range of a BM Unit as defined by Registered Capacity (RC);
- MGS would continue only as an Emergency Service and be utilised in accordance with the CUSC;
- Reasonable endeavours approach to delivery at a point where the BM Unit is operating at a level equal to MEL;
- In order to avoid the potential for discrimination and manipulation, payment for delivery where the MEL of a BM Unit was operating at a level equal to its RC would be guaranteed in full. If a BM Unit was operating at a MEL less than RC, the BM unit would be guaranteed payment for the lower of the volume delivered or X% of RC. 'X' was not defined as part of the Amendment Proposal. Payment for delivery over and above X% would be subject to an appeals mechanism; and
- Full transparency of the service would be available, with publication of prices and volumes on an ex ante and ex post basis.

With the conclusion of the Working Group stage, NGC has, in conjunction with the working group, identified a number of consequential changes to other industry documents, such as the Grid Code and the Transmission Licence Special Condition AA4 Licence Statements.. This paper proposes consequential changes that NGC believe are required to the Grid Code in respect of CAP071. The proposed text is included in Appendix 1.

Maximum Generation Service is already established in the Grid following the introduction of the new service for the Winter 2003/04. The changes proposed as part of CAP071 are in addition to the Maximum Generation Service changes already incorporated in the Grid Code.

### **Definitional Changes**

There is one proposed definitional change in relation to the Maximum Generation Service. This will reflect that the service will now be utilised in accordance with the CUSC instead of the Maximum Generation Service Agreement.

There is no proposal to explicitly define Maximum Generation as this is contained within the CUSC.

### **Changes to Balancing Code 2.9: Emergency Circumstances**

One house keeping change is proposed in order to align the payment reference contained within BC2.9.2.4 with inclusion of generic payment methodology within the CUSC. Currently BC2.9.2.4 refers to the Maximum Generation Service Agreement.

One member of the working group proposed changes below to BC2.9.2.2 to include a hierarchy of actions in relation to emergency situations. In addition, similar changes were also proposed to the Balancing Principles Statement. These proposals are attached in Appendix 2.

Based on the NGCs obligations under the Transmission Licence in relation to the scope of the Grid Code and the Balancing Principles Statement, NGC believes that the principles proposed as contained within Appendix 2, should be taken forward in the Balancing Principle Statement as opposed to the Grid Code. This will avoid the potential for duplication and the introduction of inappropriate cross governance issues.

The final proposals for the Balancing Principles Statement are, of course, subject to industry consultation. NGC will make GCRP members aware when the consultation on consequential changes to the Balancing Principles Statement is issued.

### **Changes to Operating Condition 7.4.8: NGC System Warnings**

As a result of discussion within the working group as to the need for some form of warning that the Maximum Generation Service maybe required, NGC is also proposing a change to OC7.4.8.5 “NGC System Warning – Inadequate System Margin”.

As part of the standard warning issued at times of Inadequate System Margin, it is proposed that notification that the Maximum Generation Service may be required will also be provided as part of the intended consequences for users.

### **Way Forward**

The Working Group report associated with CAP071 will be submitted to the May CUSC Panel in order to ascertain whether the modification should proceed to industry consultation or requires further consideration by the working group.

In conjunction with this, the Grid Code Review Panel is invited to:

- Discuss the proposed changes to the Grid Code as highlighted within this paper.

Following discussion at the Grid Code Review Panel, and based on the CUSC Panel discussion on CAP071, National Grid intends to consult on the consequential changes to the Grid Code arising from CAP071, as well as those in relation to other Industry documents. The outcome of all consultations undertaken in relation to CAP071 will be submitted to Ofgem for decision at the same time to enable an overall view to be taken.

## **Appendix 1: Proposed Changes to the Grid Code Text**

### **Definitions**

#### **Maximum Generation Service (MGS)**

A service utilised by **NGC** in accordance with the **CUSC** and under the **Balancing Principles Statement** in operating the **Total System**.

### **BC2.9 : Emergency Instructions**

BC2.9.2.4 In the case of BC2.9.1.2(e) (ii) where **NGC** issues an **Emergency Instruction** pursuant to a **Maximum Generation Service Agreement** payment will be dealt with in accordance with the **CUSC** and the **Maximum Generation Service Agreement**.

OC7.4.8.5 A **NGC System Warning – Inadequate System Margin** may be issued to **Users** in accordance with OC7.4.8.2 at times when there is inadequate **System Margin** as determined under BC1.5.4. It will contain the following information:

- (i) the period for which the warning is applicable; and
- (ii) the availability shortfall in MW; and
- (iii) intended consequences for **Users**, including notification that **Maximum Generation Service** may be required.

## Appendix 2: Changes proposed by RWE Innogy

### Grid Code

#### BC2.9.2.2

**Emergency Instructions** will always be prefixed with the words “This is an **Emergency Instruction**” except in the case of **Maximum Generation Service** instructed by electronic data communication facilities. ~~where the instruction will be issued in accordance with the provisions of the **Maximum Generation Service Agreement**.~~ For the avoidance of doubt, an Emergency Instruction will only be issued under a Maximum Generation Service Agreement providing all valid and feasible Bid-Offer Acceptances and Emergency Instructions which would be treated as Bid-Offer Acceptances have been issued to BM Participants, but before any valid and feasible Emergency Instructions are issued to Network Operators in respect of Demand reduction pursuant to OC6.

### Balancing Principles Statement

- 5 (e) The need to request the Maximum Generation Service would normally be, in order to maintain system security in the event all valid and feasible Offers have been accepted in the balancing mechanism. The request for Maximum Generation will take place prior to instruction of any measures related to Demand Control under OC6 of the Grid Code. For the avoidance of doubt, valid and feasible Offers are those Offers where energy can be delivered within the relevant settlement period. ~~insufficient relevant Bids and Offers are being available and or in the event of breakdowns and other operating problems (such as, in respect of frequency system voltage levels or system overloads) on any part of the transmission system. However uUnder certain, mainly exceptional, circumstances it may be necessary to invoke Maximum Generation before all valid and feasible relevant Balancing Mechanism Offers have been accepted. Reasons for this include:~~ These circumstances are
- (i) where the call off of available Offers would lead to an erosion of the system response holding below the required level- and/or
  - (ii) where the acceptance of relevant Offers would lead to the depletion of reactive reserves below the required levels and/or
  - (iii) where communication problems preclude the instruction of relevant ~~bid/offers~~.

(iv) ~~where no other plant with suitable dynamics is available.~~

For the avoidance of doubt, the decision to instruct Maximum Generation will be taken based upon the prevailing system conditions ~~on~~ ~~of~~ the Transmission System. ~~The price of other available actions offered through the Balancing Mechanism will have no bearing upon the decision to instruct Maximum Generation.~~ Maximum Generation will only be instructed where a BMU has been instructed to, or is operating at MEL.