NATIONAL GRID COMPANY PLC

GRID CODE REVIEW PANEL

PROPOSED GRID CODE CHANGES ARISING FROM INTRODUCTION OF NEW CAPACITY TERMS PROPOSED IN CUSC CAP043 MODIFICATION

1. Introduction

The CUSC Amendment Panel has been considering a proposal (CAP043) to replace Registered Capacity in generation connection agreements with two new capacity terms to clarify access rights to transmission system capacity. The CUSC Working Group has now issued a report for consultation. The Working Group has not identified any essential Grid Code changes associated with the CAP 043. However, National Grid has identified the need to add references to the two new capacity figures to Standard Planning Data required under the Grid Code.

2. Background

The CAP043 proposal is to replace Registered Capacity in the CUSC by two new terms:

> Connection Entry Capacity, which reflects the maximum generation capacity a User may install and connect to the transmission system (similar to the existing Registered Capacity) and;
>
> Transmission Entry Capacity, which reflects the maximum power the User can export across the transmission system away from the connection site.

In consequence National Grid will need to design sufficient capacity at the connection point to connect the generation based on Connection Entry Capacity and design sufficient infrastructure to transfer power from the connection site based on Transmission Entry Capacity.

When applying for a new generation connection, a User is required to submit Standard Planning Data to National Grid (PC.4.4.1(a)). Standard Planning Data includes Registered Capacity on both a Generating Unit and Power Station basis for Small, Medium and Large Power Stations. In turn National Grid is obliged to use Standard Planning Data (part of Committed Project Planning Data and Connected Planning Data) when considering an application and in the Seven Year Statement (PC5.4 and PC.5.6).

In order to facilitate the use of the two new CUSC terms proposed under CAP043 for assessment of connection applications and for correct identification of transmission opportunities to the market in the Seven Year Statement, Connection Entry Capacity and Transmission Entry Capacity should be added to Standard Planning Data under the Grid Code.

3. Proposed Change to the Grid Code

The scope of this proposal is to add Connection Entry Capacity and Transmission Entry Capacity to Standard Planning Data under the Grid Code. In detail this will require simple additions to the Glossary and Definitions, Planning Code and Data Registration Code.

Appendix 1 includes the additional wording proposed.

4. Recommendation

The Grid Code Review Panel is invited approve the proposals made by this paper. Following discussion at the 21st November GCRP meeting National Grid intends to issue a consultation document.

National Grid Company plc
Date 7th November 2002

APPENDIX 1 – Proposed Changes to the Grid Code Clauses

Glossary and Definitions

Connection Entry Capacity	Has the meaning set out in the CUSC
Transmission Entry Capacity	Has the meaning set out in the CUSC

Planning Code (Part 2)

PC.A.3.2.2 Items (a), (b), (d), (e), (f), (g) and (h) are to be supplied by each **Generator** or **Network Operator** (as the case may be) in accordance with PC.A.3.1.1, PC.A.3.1.2, PC.A.3.1.3 and PC.A.3.1.4. Item (~~c~~e) is to be supplied by each **Network Operator** in all cases:-

(a) **Registered Capacity** (MW);

(b) Connection Entry Capacity

(c) Transmission Entry Capacity

~~(b)~~ (d) **Output Usable** (MW) on a monthly basis;

~~(c)~~ (e) **System Constrained Capacity** (MW) ie. any constraint placed on the capacity of the **Embedded Generating Unit** due to the **Network Operator's System** in which it is embedded. Where **Generating Units** (which term includes **CCGT Units**) are connected to a **Network Operator's User System** via a busbar arrangement which is or is expected to be operated in separate sections, details of busbar running arrangements and connected circuits at the substation to which the **Embedded Generating Unit** is connected sufficient for **NGC** to determine where the **MW** generated by each **Generating Unit** at that **Power Station** would appear onto the **NGC Transmission System**;

~~(d)~~ (f) **Minimum Generation** (MW);

~~(e)~~ (g) MW obtainable from **Generating Units** in excess of **Registered Capacity**;

~~(f)~~ (h) **Generator Performance Chart** at the **Generating Unit** stator terminals;

~~(g)~~ (i) a list of the **CCGT Units** within a **CCGT Module**, identifying each **CCGT Unit**, and the **CCGT Module** of which it forms part, unambiguously. In the case of a **Range CCGT Module**, details of the possible configurations should also be submitted, together:-

(i) (in the case of a **Range CCGT Module** connected to the **NGC Transmission System)** with details of the single **Grid Entry Point** (there can only be one) at which power is provided from the **Range CCGT Module**;

(ii) (in the case of an **Embedded Range CCGT Module**) with details of the single **User System Entry Point** (there can only be one) at which power is provided from the **Range CCGT Module**;

Provided that, nothing in this sub-paragraph (g) shall prevent the busbar at the relevant point being operated in separate sections;

(h) expected running regime(s) at each **Power Station** and type of **Generating Unit**, eg. **Steam Unit**, **Gas Turbine Unit**, **Combined Cycle Gas Turbine Unit**, **Novel Units** (specify by type), etc;

DATA REGISTRATION CODE SCHEDULE 2

Generation Planning Parameters

DATA DESCRIPTION	UNITS	DATA CAT.	**GENSET** OR STATION DATA						
			G1	G2	G3	G4	G5	G6	STN
OUTPUT CAPABILITY									
Registered Capacity on a station and unit basis (on a station and module basis in the case of a **CCGT Module** at a **Large Power Station)**	MW	**SPD**							
Connection Entry Capacity on a station and unit basis (on a station and module basis in the case of a **CCGT Module** at a **Large Power Station)**	MW	**SPD**							
Transmission Entry Capacity on a station basis	MW	**SPD**							
Minimum Generation (on a module basis in the case of a **CCGT Module** at a **Large Power Station)**	MW	**SPD**							
MW available from **Generating Units** in excess of **Registered Capacity**	MW	**SPD**							