

GRID CODE REVIEW PANEL

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GRID CODE - ENERGY DATA

By

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1. Introduction and Background

- 1.1 The Planning Code currently requires all Users with Demand to provide information (both historical and future) on their Energy use (PC.A.4).
- 1.2 At vesting, this data was readily obtainable from RECs supply businesses.
- 1.3 With licence separation of the RECs (the separation into Distribution and Supply) this data is no longer obtainable without disproportional effort. This position has been discussed between National Grid and the Network Operators who are jointly proposing a way forward.

2. Use of Energy Data

- 2.1 The Energy data provided is not used directly for planning, operating or maintaining the system. The data is, however, used for a number of ancillary purposes including:-
 - Calculating daily load profiles at off-peak times
 - Assessment of reactive power requirements
 - Assessment of fault infeedsbecause all the above are related to the ultimate energy end-use.
- 2.2 During discussions held between National Grid and Network Operators it was identified that each Network Operator already makes a return to Ofgem on the energy supplied into each "tariff basket".
- 2.3 The "tariff baskets" as defined in Network Operators' licences are as follows:-
 - LV1 (day time units to domestic/small commercial premises with an Economy 7 or similar tariff supplied at 415V)
 - LV2 (night time units to domestic/small commercial premises with an Economy 7 or similar tariff supplied at 415V)
 - LV3 (units supplied at 415V other than LV1 and LV2)
 - HV (units supplied at 11kV)
 - EHV (units supplied at voltages above 11kV)

- 2.4 The review carried out by National Grid and the REC's indicates that this Ofgem return would be the best alternative to provision of the raw Energy Data.

3. The Way Forward

- 3.1 Ideally, National Grid would prefer to continue to receive Energy consumption data in the existing format. However, National Grid recognises that this is no longer feasible (without inordinate cost).

- 3.2 National Grid has considered the tariff basket option. On the basis that

- The data is readily available
- The data quality is high and audited for Ofgem

National Grid is happy to go forward on the basis of Network Operators providing data on Tariff Basket energy consumption. National Grid confirm that it will not prevent them carrying out their statutory duties.

- 3.3 The opportunity has also been taken to delete some paragraphs from the Planning Code (PC.A.4.1.4 and PC.A.4.1.5) which deal with Network Operators obtaining data from Suppliers. This text was relevant when the PES had an obligation to tariff customers (the Franchise Market) but is no longer relevant.

- 3.4 The proposed amendments to the Grid Code (Planning Code and Data Registration Code) are attached as Appendix 1.

4. Recommendation

- 4.1 The Grid Code Review Panel is invited to:

- CONSIDER the proposals outlined in this paper
- AGREE that National Grid prepare and issue a Consultation Paper on this subject.

The National Grid Company plc
29th August 2001

APPENDIX 1

PROPOSED GRID CODE CHANGES

**PLANNING CODE (Paragraphs PC.A.1.6, PC.A.1.7,
PC.A.4.1.5, PC.A.4.2.3, PC.A.4.2.4 and PC.A.4.2.5)**

DATA REGISTRATION CODE (schedule 10)

Forecast Data, Registered Data and Estimated Registered Data

- PC.A.1.5 As explained in PC.5.4 and PC.5.5, **Planning Data** is divided into:
- (i) those items of **Standard Planning Data** and **Detailed Planning Data** known as **Forecast Data**; and
 - (ii) those items of **Standard Planning Data** and **Detailed Planning Data** known as **Registered Data**; and
 - (iii) those items of **Standard Planning Data** and **Detailed Planning Data** known as **Estimated Registered Data**.

PC.A.1.6 The following paragraphs in this Appendix relate to **Forecast Data**:

- 3.2.2(b), (h), (i) and (j)(part)
- 4.2.1
- ~~4.2.3~~
- 4.3.1
- 4.3.2
- 4.3.3
- 4.3.4
- 4.3.5
- 4.5(a)(ii) and (b)(ii)
- 4.6.1
- 5.2.1.
- 5.2.2

PC.A.1.7 The following paragraphs in this Appendix relate to **Registered Data** and **Estimated Registered Data**:

- 2.2.1
- 2.2.4
- 2.2.5
- 2.2.6
- 2.3.1
- 2.4.1
- 3.2.2(a), (c), (d), (e), (f), (g), (j) (part) and (k)
- 3.4.1
- 3.4.2
- ~~4.2.3~~
- 4.5(a)(i), (a)(iii), (b)(i) and (b)(iii)
- 5.3.1
- 6.2
- 6.3

PC.A.1.8 The data supplied under PC.A.3.3.1, although in the nature of **Registered Data**, is only supplied upon application for a **Master Connection and Use of System Agreement** and **Supplemental Agreement** or for a new or varied **Supplemental Agreement**, as the case may be, and therefore does not fall to be **Registered Data**, but is **Estimated Registered Data**.

PC.A.4 **DEMAND AND ACTIVE ENERGY DATA**

PC.A.4.1 **Introduction**

PC.A.4.1.1 Each **User** directly connected to the **NGC Transmission System** with **Demand** shall provide **NGC** with the **Demand** data, historic, current and forecast, as specified in PC.A.4.2, PC.A.4.3 and PC.A.4.5. Paragraphs PC.A.4.1.2 to PC.A.4.1.5 apply equally to **Active Energy** requirements as to **Demand** unless the context otherwise requires.

PC.A.4.1.2 Data will need to be supplied by:

- (a) each **Network Operator**, in relation to **Demand** and **Active Energy** requirements on its **User System**;
- (b) each **Non-Embedded Customer** (including **Pumped Storage Generators** with respect to Pumping **Demand**) in relation to its **Demand** and **Active Energy** requirements.

Demand of **Power Stations** directly connected to the **NGC Transmission System** is to be supplied by the **Generator** under PC.A.5.2.

PC.A.4.1.3 References in this **PC** to data being supplied on a half hourly basis refer to it being supplied for each period of 30 minutes ending on the hour or half-hour in each hour.

~~PC.A.4.1.4 (a) The data to be supplied by each **Network Operator** will include, if any exists, **Demand** being (or to be) met by other **Suppliers** supplying **Customers** in the **User System** together with **Active Energy** requirements relating thereto.~~

~~(b) Accordingly, if a **Network Operator** receives forecast data from **Suppliers** and intends to use that data in preparing data to be supplied to **NGC**, each **Network Operator** must ensure that the **Demand** and **Active Energy** requirements forecasts provided by those **Suppliers** are prepared in accordance with **Good Industry Practice**.~~

~~PC.A.4.1.5 (a) In assembling its **Demand** and **Active Energy** requirements forecast, each **Network Operator** must endeavour to avoid duplication between the **Demand** together with **Active Energy** requirements relating thereto being and to be met by each of the **Suppliers** supplying **Customers** in the **User System**.~~

~~(b) Therefore, in formulating its **Demand** and **Active Energy** requirements forecast, each **Network Operator** will only include in the **Demand** it expects to be met together with **Active Energy** requirements relating thereto:-~~

- ~~(i) that **Demand** together with **Active Energy** requirements relating thereto in respect of which~~

~~there is a contractual arrangement to meet (whether or not that **Demand** and those **Active Energy** requirements exist at the date of the forecast);~~

~~(ii) any anticipated development in **Demand** and **Active Energy** requirements relating to that contractual arrangement;~~

~~(iii) any anticipated development in **Demand** and **Active Energy** requirements relating to **Tariff Customers** generally (whether or not a contractual arrangement then exists); and~~

~~(iv) where a contractual arrangement exists, or where a person is anticipated to be a **Tariff Customer**, for only a portion of the period for which data is required, will include an assumption for the remainder of that period (which will be identified as an assumption in the data submission) unless it is aware that that **Demand** will be met by other **Users** acting as **Suppliers**, which will be reflected in any event in its **Demand** and **Active Energy** requirements forecast.~~

~~The **Demand** and **Active Energy** requirements forecast may include specific reservations on particular aspects of the forecast.~~

PC.A.4.2 **Demand (Active and Reactive Power) and Active Energy Data**

PC.A.4.2.1 **User's Total System Demand (Active Power) and Active Energy**

Forecast daily **Demand (Active Power)** profiles, as specified in (a), (b) and (c) below, in respect of each of the **User's User Systems** (each summated over all **Grid Supply Points** in each **User System**) are required for:

- (a) peak day on each of the **User's User Systems** (as determined by the **User**) giving the numerical value of the maximum **Demand (Active Power)** that in the **Users'** opinion could reasonably be imposed on the **NGC Transmission System**;
- (b) day of peak **NGC Demand (Active Power)** as notified by **NGC** pursuant to PC.A.4.2.2;
- (c) day of minimum **NGC Demand (Active Power)** as notified by **NGC** pursuant to PC.A.4.2.2;

~~and the annual **Active Energy** requirement for each of the **User's User Systems** (each summated over all **Grid Supply Points** in each **User System**) is required, subdivided into the following categories of **Customer**:~~

~~Domestic;~~

Farms,
Commercial,
Industrial,
Traction,
Public Lighting and
User System losses.

~~A separate return is required for off-peak tariffs for Domestic and Commercial Customers.~~

~~The annual **Active Energy** used on each of the **User's User Systems** (each summated over all **Grid Supply Points** in each **User System**) both outturn and weather corrected is required in the above categories in respect of the preceding **NGC Financial Year**.~~

In addition, the total **Demand (Active Power)** in respect of the time of peak **NGC Demand** in the preceding **NGC Financial Year** in respect of each of the **User's User Systems** (each summated over all **Grid Supply Points** in each **User System**) both outturn and weather corrected shall be supplied.

PC.A.4.2.2 No later than calendar week 17 each year **NGC** shall notify each **Network Operator** and **Non-Embedded Customer** in writing of the following, for the current **NGC Financial Year** and for each of the following seven **NGC Financial Years**, which will, until replaced by the following year's notification, be regarded as the relevant specified days and times under PC.A.4.2.1:

- a) the date and time of the annual peak of the **NGC Demand**;
- b) the date and time of the annual minimum of the **NGC Demand**.

PC.A.4.2.3. The total annual **Active Energy** used on each of the **User's User Systems** (each summated over all **Grid Supply Points** in each **User System**) in the preceding **NGC Financial Year**, both outturn and weather corrected, together with a prediction for the current financial year, is required. Each **Active Energy** submission shall be subdivided into the following categories of **Customer** tariff:

LV1
LV2
LV3
HV
EHV
Traction
Lighting

In addition the total **User System** losses, and the **Active Energy** provided by **Small** and **Medium Power Stations** shall be supplied.

PC.A.4.2.34 All forecast **Demand (Active Power)** and **Active Energy** specified in PC.A.4.2.1 and PC.A.4.2.3 shall:

- (a) be such that the profiles comprise average **Active Power** levels in 'MW' for each time marked half hour throughout the day;
- (b) in the case of PC.A.4.2.1(a), (b) and (c), be that remaining after any deductions reasonably considered appropriate by the **User** to take account of the output profile of all **Embedded Small Power Stations** and **Embedded Medium Power Stations** and **Customer Generating Plant**;
- (c) in the case of PC.A.4.2.1(a) and (b), be based on **Annual ACS Conditions** and in the case of PC.A.4.2.1(c) and the details of the annual **Active Energy** required under PC.A.4.2.1-~~3~~3 be based on **Average Conditions**.

DATA DESCRIPTION	Out-turn <u>Energy</u>		F. Yr.	F	F	F	F	F	F	UPDATE TIME F.Yr.	DATA CAT F.Yr.
	Actual	Weather Corr.									
<p><u>Active Energy Data</u></p> <p>Total annual Active Energy requirements under average conditions of each User Network Operator and each Non-Embedded Customer in the following <u>tariff baskets</u>:- categories:-</p> <ul style="list-style-type: none"> - <u>Domestic LV1</u> <u>LV2</u> <u>LV3</u> <u>HV</u> <u>EHV</u> Industrial Traction Lighting User System Losses <u>Energy from Embedded Small and Medium Generating Plant</u> <u>Off-Peak:-</u> <u>Domestic</u> <u>Commercial</u> 										Wk.24	<u>SPD</u>

NOTES:

1. 'F. yr.' means 'NGC Financial Year'
2. **Demand and Active Energy Data (General)**

Demand and Active Energy data should relate to the point of connection to the **NGC Transmission System** and should be net of the output (as reasonably considered appropriate by the **User**) of all **Embedded Small Power Stations, Medium Power Stations and Customer Generating Plant**. ~~Demand met by Suppliers supplying Customers within the User System should be included.~~ Auxiliary demand of **Embedded Power Stations** should be included in the demand data submitted by the **User** at the **Connection Point**. **Users** should refer to the **PC** for a full definition of the **Demand** to be included.
3. **Demand** profiles and **Active Energy** data should be for the total **System** of the **Network Operator**, including all **Connection Points**, and for each **Non-Embedded Customer**. **Demand Profiles** should give the numerical maximum demand that in the **User's** opinion could reasonably be imposed on the **NGC Transmission System**.
4. In addition the demand profile is to be supplied for such days as NGC may specify, but such a request is not to be made more than once per calendar year.