



National Grid

**A REPORT TO THE AUTHORITY
Pursuant to Paragraph 2 of Condition 7 of the
Transmission Licence.**

PROPOSED GRID CODE MODIFICATION

Energy Data

**The purpose of this document is to assist the Authority in its
decision on whether to implement the proposed
Grid Code Modification**

Consultation Paper Ref	F/01
Report Issue	1
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Prepared by	National Grid

DISTRIBUTION

Name	Organisation
The Authority	Ofgem
Grid Code Review Panel Members	Various

1. Paragraph 2 of Condition 7 of the Transmission Licence granted to the National Grid Company plc ("National Grid") provides that National Grid shall, in consultation with authorised electricity operators liable to be materially affected thereby, periodically review the Grid Code and its implementation. That paragraph also requires National Grid, following such review, to send to the Authority:-
 - (a) a report on the outcome of such review;
 - (b) any proposed revisions to the Grid Code as National Grid (having regard to the outcome of such review) reasonably thinks fit for the achievement of the objectives set out in sub-paragraph 1(b) of Condition 7 of the Transmission Licence; and
 - (c) any written representations or objections from authorised electricity operators (including any proposals by such operators for revisions to the Grid Code not accepted by National Grid in the course of the review) arising during the consultation process and subsequently maintained.
2. NGC has just completed a review of the Grid Code. This review relates to the Grid Code requirement under the Planning Code for Users to provide information on their Energy use and the form in which the data is supplied. Attached as Appendix A are the proposed revisions to the current Planning Code and Data Registration Code (shown in typed form with the deletions crossed through and additions double underlined).
3. The proposed changes to the Grid Code were discussed at the Grid Code Review Panel on 13th September 2001 and it was agreed that NGC should issue a Consultation Paper.
4. NGC, in accordance with its obligations under its Transmission Licence, consulted those authorised electricity operators listed in Appendix C by circulating to them Consultation Paper F/01, which was dated 24th September 2001 and which contained the proposed amendments to the Grid Code. A copy of Consultation Paper F/01 is attached to this Report as Appendix B. NGC also placed a copy of the Consultation Paper on its website to ensure its wide availability.
5. Comments were invited from all such authorised electricity operators by 26th October 2001. NGC has received responses from 7 authorised electricity operators. All of the respondents were in favour of the proposed Grid Code changes although one of the responses contained comments pointing out some inconsistencies in the drafting of the proposed changes. NGC has replied to each of those responding to the consultation. Where further changes were identified as a result of the responses the proposals have been amended and these amendments are identified in Appendix A with a vertical line in the right hand margin.
6. The proposed revisions to the Grid Code are, as indicated above, set out in Appendix A to this Report. By way of summary, the proposed changes are described below :-

Background

- 6.1 The Planning Code (PC) currently requires all Users with Demand to provide information on historical and future Energy use (PC.A.4). Originally this data was readily available from Regional Electricity Company's (REC) supply businesses. However with the separation of the REC's into Distribution and Supply Businesses the data will be almost impossible to supply in the form currently required under the Grid Code.

The Proposed Changes

- 6.4 Each Network Operator is already required to make a return to Ofgem on energy supplied into a series of 'energy baskets', as defined in the Network Operators licences. The categories of Customer tariff are defined 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)
- 6.2 Data supplied in this form does not prevent National Grid from carrying out its statutory duties.
- 6.3 It is proposed therefore that the PC should be amended to reflect the collection of Energy data in this form. This also affects the Data Registration Code (DRC).
- 6.4 It is also proposed to delete the text of PC.A.4.1.4 and PC.A.4.1.5. This text is concerned with Network Operators collecting Demand and Active Energy data from Suppliers which was relevant when PES's had an obligation to tariff customers but this is no longer the case.
- 6.5 The proposed Grid Code changes are as shown in Appendix A.

7. As indicated above, having regard to the outcome of the review described in this Report, National Grid proposes the revisions to the Grid Code set out in Appendix A, which revisions we reasonably think fit for the achievement of the objectives referred to in sub-paragraph (b) of paragraph 1 of Condition 7 of the Transmission Licence. In view of this, National Grid would be grateful if the Authority would approve the revisions pursuant to paragraph 3 of Condition 7 of the Transmission Licence.
8. Given the logistic exercise of organising replacement pages to reflect the changes required by your letter of approval, I would be grateful if you would contact me prior to issuing any letter specifying an effective date, in order to seek to ensure that the date is consistent with any other Code changes which may then be approved or be close to being approved.

SIGNED BY

For and on behalf of The National Grid Company plc
17th December 2001

Appendix A

EXTRACT FROM PC

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 **CUSC Contract**, 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 **Active Energy** used on each of the **Network Operators' or Non-Embedded Customers' 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 **Embedded Small Power Stations** and **Embedded 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) in the case of PC.A.4.2.1(a), (b) and (c), 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** and imports across **Embedded External Interconnections**;
 - (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 be based on **Average Conditions**.

EXTRACT FROM DRC

DRC.6.1.10 SCHEDULE 10 - **USER'S DEMAND PROFILES AND ACTIVE ENERGY DATA**

Comprising information relating to the **User's Network Operators' and Non-Embedded Customers'** total **Demand** and **Active Energy** taken from the **NGC Transmission System**

SCHEDULE 10
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DATA DESCRIPTION	Out-turn		F.Yr	F.Yr	F.Yr	F.Yr	F.Yr	F.Yr	F.Yr	F.Yr	F.Yr	
	Actual	Weath corr.	0	1	2	3	4	5	6	7	Update Time	
<p>Active Energy Data</p> <p>Total annual Active Energy requirements under average conditions of each User Network Operator and each Non-Embedded Customer in the following categories of Customer tariff:-</p> <p>DomesticLV1 FarmsLV2 CommercialLV3 IndustrialEHV Traction Lighting User System Losses</p> <p>Active Energy from Embedded Small Power Stations and Embedded Medium Power Stations</p> <p>— Off Peak— — Domestic — Commercial</p>											Wk 24	SPD

NOTES:

- 'F. yr.' means 'NGC Financial Year'
- 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.
- 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**.
- 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.

Appendix B

Consultation Paper F/01

APPENDIX C

AEO Distribution List for Consultation Paper E/01

Accord Energy Limited	London Energy Company Ltd
AES (for Barry Ltd + Fifoots Point Ltd + Partington Ltd + Drax Ltd)	MANWEB plc
AES Indian Queens Power	Marubeni Europower Ltd
Alcan Aluminium UK Ltd	Medway Power Ltd
Allied Steel & Wire	Midlands Electricity plc
Aquila Energy Supplies Ltd	Midlands Power (UK) Ltd
Atlantic Energy (UK) plc	Norsk Hydro (UK) Ltd
Barking Power	Northern Electric Distribution Ltd
BNFL + Magnox Electric Ltd	Northern Electric Supply Ltd
BOC Limited	Norweb (supply)
BP Chemicals Ltd	NORWEB plc (distribution)
British Energy Generation Ltd	Pentex Oil and Gas Ltd
British Energy Investment (no 2) Ltd	PowerGen UK plc + PowerGen CHP Ltd
British Energy Retail Markets Ltd	Railtrack plc
British Gas Plc	Regional Power Generators Limited
British Gas Trading Ltd	Renewable Energy Co
British Steel plc	Rocksavage Power Company Ltd
Celtpower Ltd	Saltend Cogeneration Co Ltd
Cinergy Global Power (UK) Ltd	Scottish and Southern Energy plc
Commercial Electricity Supplies Ltd	Scottish Power plc
Conoco Global Power (UK) Limited	Seabank Power Ltd
Corby Power Ltd	SEEBOARD plc (distribution)
Coryton Energy Co Ltd	SEEBOARD plc (supply)
Cottam Development Centre	Shell Power Ltd
Damhead Creek Ltd	Slough Energy Supplies Ltd
Derwent Co-Generation Limited	South Coast Power Ltd
East Midlands Electricity	South Wales Electricity plc
Eastern Electricity (distribution)	South Western Electricity plc
Eastern Energy Ltd	Southern Electric
Economy Power Ltd	Southern Energy UK Generation Ltd
Edison First Power Ltd	Spalding Energy Company Ltd
Electricite de France	Sutton Bridge Power Ltd
Electricity Direct (UK) Ltd	Teesside Power Ltd
Energy Power Resources Limited	TXU Europe
Enfield Energy Centre Ltd	TXU Europe Merchant Generation + Peterborough Power Ltd + Anglian Power Generators + Shotton CHP Ltd + Citigen (London) Ltd
Enron Direct Ltd + Enron Gas & Petrochemical Trading	UK Electric Power Ltd
Enron Teesside Operations Ltd	UKAEA
Fellside Heat & Power Ltd	Unit Energy Limited
First Hydro Company	Wainstones Power Ltd
Great Yarmouth Power Limited	Yorkshire Electricity Group plc (distribution)
Heartlands Power Ltd	Yorkshire Electricity plc (supply)
Humber Power Ltd	
ICI Chemicals & Polymers Ltd	
Impkemix Energy Ltd	
Independent Energy UK Ltd	
Innogy + NP (Cogen Trading) Ltd	
Keadby Development Ltd	
Keadby Gen Ltd + HE Cogen Ltd + HE Energy Ltd	
Lakeland Power Ltd	
London Electricity plc	