

**NATIONAL GRID COMPANY plc**

**GRID CODE REVIEW PANEL**

**MOTHBALLED PLANT & ALTERNATIVE FUELS WORKING GROUP**

**Introduction**

1. This paper proposes revision of the Grid Code to introduce obligations on Generators to provide information on mothballed plant and the capability of gas-fired power stations to operate using alternative fuels, which term includes what might be referred to elsewhere as back-up or secondary fuels.

**Background**

2. In its second report published in May 2003 the DTI/Ofgem Joint Energy Security of Supply working group (JESS) identified a number of gaps in the information provided to it, including in particular information on mothballed plant and alternative fuels for gas-fired power stations.
3. Each year Ofgem requests National Grid to provide information on available generating capacity for the forthcoming winter. This is presented to Ofgem in a Winter Operations Report, which is subsequently published on the Ofgem web site.
4. When preparing any assessment of available generating capacity, however, it is not possible to take account of plant that might be able to either return to service from a mothballed state or switch to an alternative fuel, as the relevant information is not currently provided to National Grid.
5. Following on from the second JESS report Ofgem requested National Grid to undertake collection of this data for Winter 03/04 for inclusion in the 2003 Winter Operations Report and to consider appropriate changes to the Grid Code in order to formalise the collection of this data in future years. National Grid agreed to both requests and wrote to the Generators in respect of the information for Winter 03/04, which has been provided.
6. Following the presentation of a paper by National Grid to the Grid Code Review Panel in September 2003 it was agreed to establish a Working Group to consider the issues and that the Working Group would report to the November 2003 meeting proposing detailed drafting changes for the Grid Code.
7. The Mothballed Plant & Alternative Fuels (MPAF) Working Group was therefore formed and includes representatives nominated by Generators and by National Grid. Ofgem is present as an observer and a representative of the DTI attended the second meeting. The Working Group members are listed in Appendix 1.

**Scope of Work**

8. The MPAF Working Group has met on two occasions to develop the proposed revisions to the Grid Code. The full terms of reference for the Working Group can be found in Appendix 2. The general aim was to propose changes to the Grid Code that would facilitate the collection by National Grid of information on mothballed plant and alternative fuels in line with Ofgem's original request.

9. The final proposals are to introduce obligations on Generators to provide information on mothballed plant and alternative fuels as part of their Week 24 data submissions and at National Grid's reasonable request.

### **Discussion of Major Issues**

10. The MPAF Working Group explored a number of issues regarding the provision of information and these are discussed below.
11. Generators expressed their concerns about having to provide this information to National Grid. In summary the concerns broke down into three areas relating mainly to the commercially confidential nature of the information:
- Its use by DTI and Ofgem.
  - The importance of ensuring that the information is not used by National Grid in its trading activities.
  - The level of detail to be presented in reports that would appear in the public domain.
12. Other concerns included:
- The potential for misinterpretation of 'headline' figures by non-technical readers.
  - Potential liability of Generators for not being able to meet the estimated timescales and outputs submitted.
13. The representatives of DTI and Ofgem noted the Generators' concerns and the Group sought to address these in its discussions.
14. The Group agreed that in order to minimise the potential for misinterpretation a definition related to the term 'mothballed' was necessary and decided that it should be as objective as possible and should be without reference to other data submissions, such as OC2 data. This would also avoid the risk of OC2 submissions being skewed.
15. The Group discussed factors that feed into the decision-making process for returning mothballed plant to service, such as Use of System charges and local rates. It concluded that the decision is ultimately commercial. Recent announcements about returning plant indicated that there are market signals to facilitate this decision being made.
16. On the return to service time for mothballed plant it was agreed that this should be the time required to carry out the necessary technical work to make plant fit for service using Good Industry Practice, reflecting normal working arrangements and procurement lead times. This is consistent with other Grid Code approaches and enhances the likelihood of obtaining consistent data from different generators. Any acceleration of a plant's return would be at the discretion of the Generator. The Group also agreed that it would be beneficial for Generator submissions to include details of significant factors that may prevent Generating Units achieving the submitted values.
17. National Grid's original proposals for draft legal text were for mothballed plant information to be collected through the OC2 process for co-ordinating outages, with alternative fuel information being collected through the Planning Code Week 24 process. After some discussion the Group agreed that the information on mothballed plant was unlikely to change regularly and that it should therefore be included in the

Week 24 process as well. It was noted that the Planning Code requires updates to Week 24 data to be submitted in the event of any changes.

18. When discussing the provision of alternative fuel information it was noted that the second JESS Report and the Ofgem request were in the context of interaction of gas availability and electricity generation. The Group concluded that information should only be provided for gas-fired plant.
19. The information requested from Generators for Winter 03/04 was used as the basis for the list of alternative fuel information to be provided in the Grid Code. Generators felt that information on the interruptible nature of contracts with their suppliers and with Transco was not within the scope of the Ofgem request and should not be collected.
20. The Group accepted that National Grid might be required to provide detailed mothballed plant and alternative fuel information to Ofgem and the DTI, but Generators were concerned that if reports were intended for onward publication the data should be suitably aggregated to protect commercial confidentiality. The formats used in the 2003 Winter Operations Report were accepted as being useful examples of such aggregation.
21. It was agreed that information was to be submitted in order for National Grid to provide reports to Ofgem and the DTI. Only after any reports had been published by Ofgem or the DTI, could National Grid use the aggregated information publicly, such as at its Operational Forum. The Group concluded that it was not appropriate to include disaggregated information in the Seven Year Statement.
22. The Group also considered the possibility of interconnectors being mothballed. However, the probability of this occurring was considered low at the current time and as interconnectors are not currently subject to the Planning Code, considerable work would be necessary to incorporate them. In view of the requirement to report to the November 2003 GCRP, the Group therefore agreed to propose text only for Generating Units, though it recognised that there would need to be a review of interconnectors under these provisions in the future.

### **Outline of Proposed Grid Code Revisions**

23. While the full text of the proposed Grid Code revisions can be found in Appendix 3 the proposed changes are outlined as follows:-
24. Glossary & Definitions  
Additional definition for the term 'Mothballed Generating Unit'.
25. Planning Code  
Addition of the detailed data required for mothballed plant and alternative fuels added in the Appendices.
26. Data Registration Code  
Additional data items for mothballed plant and alternative fuels added to reflect PC changes.
27. Numbering  
The draft text for the Planning Code includes a new section PC.A.5.X after section PC.A.5.4. The numbering has been shown in this way because the work of the Generic Provisions Working Group also adds a new section in the same place. If these proposals were to be introduced before a decision on the Generic Provisions

proposals then the numbering should be PC.A.5.5. Otherwise, it would need to take account of the additional Generic Provisions text.

### **Recommendation**

28. The Grid Code Review Panel is invited to
  - consider the proposed Grid Code revisions;
  - note that future consideration may be needed for mothballed interconnectors; and
  - comment on the proposed revisions.
  
29. Having considered comments from GCRP members, National Grid intends to initiate a wider consultation on the proposed Grid Code provisions.

National Grid Company plc  
Date: 6<sup>th</sup> November 2003

**Appendix 1 – Membership of Mothballed Plant & Alternative Fuel Working Group**

<u>Name</u>		<u>Company</u>
Andy Balkwill	(AB)	National Grid (Chairman)
Mike Thorne	(MTh)	National Grid
Rachel Morfill	(RM)	National Grid
Sam Wither	(SW)	National Grid
Simon Lord	(SL)	Edison Mission
Claire Maxim	(CM)	Powergen
John Norbury	(JN)	Innogy
Malcolm Taylor	(MTa)	Association of Electricity Producers
Bridget Morgan	(BM)	Ofgem (Observer)

Additional input:  
Rebecca Martyn

DTI

Appendix 2 – Terms of Reference

Grid Code Review Panel

Mothballed Plant and Alternative Fuels Working Group  
(MPAFWG)

Terms of Reference

1. To propose changes to the Grid Code to enable information to be collected on the capability of plant to operate using alternative fuels and on mothballed plant to assist National Grid in carrying out its obligations under the Electricity Act and the Transmission Licence. This will include in particular the provision of reports to Ofgem as required.
2. In assessing these changes the following should be taken into account:
  - (a) The possible need for a formal definition for the term 'mothballed'.
  - (b) The information that should be collected, its confidential status, its commercial and variable nature, the mechanisms for collecting it and the frequency with which it should be collected.
  - (c) Its use and the means of presenting it in such a way as to ensure commercial confidentiality.
  - (d) Possible obligations on Generators to formally notify National Grid when generating plant:
    - (i) plans to become mothballed or to return to service from mothballed status;
    - (ii) changes its anticipated time to return to service from being mothballed; or
    - (iii) changes its alternative fuel arrangements or normal stock levels.
3. To produce a report to the 20<sup>th</sup> November 2003 Grid Code Review Panel.

## Appendix 3 - Grid Code Change Proposals

### Addition to Glossary and Definitions

**Mothballed  
Generating Unit**      **A Generating Unit that has previously generated which the Generator plans not to use to generate for the remainder of the current NGC Financial Year but which could be returned to service.**

#### Extract From Planning Code

#### OBJECTIVE

- PC2.1 (b) to provide for the supply of information required by **NGC** from **Users** in order for **NGC** to undertake the planning and development of the **NGC Transmission System** in accordance with the relevant **Licence Standards**, to facilitate existing and proposed connections, and also to provide for the supply of certain information from **NGC** to **Users** in relation to short circuit current contributions; ~~and~~
- (c) to specify the **Licence Standards** which will be used by **NGC** in the planning and development of the **NGC Transmission System**; ~~and-~~
- (d) to provide for the supply of information required by **NGC** from **Users** in respect of the following to enable **NGC** to carry out its duties under the **Act** and the **Transmission Licence**:
- (i) **Mothballed Generating Units**; and
- (ii) capability of gas-fired **Generating Units** to run using alternative fuels.
- Such information shall be collected for the purpose of **NGC** providing reports relating to it to the **Authority** and the **Secretary of State**. Where such reports are intended for wider publication the information shall be aggregated such that individual data items should not be identifiable. Following wider publication **NGC** may use such aggregated information as required.

### PLANNING DATA REQUIREMENTS

#### PC.A.1.            INTRODUCTION

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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
- 4.3.1
- 4.3.2
- 4.3.3
- 4.3.4
- 4.3.5
- 4.5(a)(ii) and (b)(ii)
- 4.7.1
- 5.2.1
- 5.2.2
- 5.X.1

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)
- 4.6
- 5.3.2
- 5.4
- 5.X.3
- 6.2
- 6.3

#### DETAILED PLANNING DATA

PC.A.5 GENERATING UNIT DATA

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PC.A.5.X **Mothballed Generating Unit** and Alternative Fuel Information

Data identified under this section PC.A.5.X must be submitted as required under PC.A.1.2 and at NGC's reasonable request.

PC.A.5.X.1 **Mothballed Generating Unit** Information

Generators must supply with respect to each **Mothballed Generating Unit** the estimated MW output which could be returned to service within the following time periods from the time that a decision to return was made:

- < 1 month;
- 1-2 months;
- 2-3 months;
- 3-6 months;
- 6-12 months; and
- >12 months.

The return to service time should be determined in accordance with **Good Industry Practice** assuming normal working arrangements and normal plant procurement lead times. The MW output values should be the incremental values made available in each time period as further described in the **DRC**.

PC.A.5.X.2 **Generators** must also notify **NGC** of any significant factors which may prevent the **Mothballed Generating Unit** achieving the estimated values provided under PC.A.5.X.1 above, excluding factors relating to **Transmission Entry Capacity**.

PC.A.5.X.3 **Alternative Fuel** Information

The following data items must be supplied with respect to each **Generating Unit** whose main fuel is gas.



For each alternative fuel type (if facility installed):

Alternative fuel type e.g. oil distillate, alternative gas supply

Time to carry out off-line and on-line fuel changeover (minutes).

Maximum output following off-line and on-line changeover (MW).

Maximum output during on-line fuel changeover (MW).

Maximum operating time at full load assuming typical and maximum possible stock levels (hours).

Maximum rate of replacement of depleted stocks (MWh electrical/day)

Month & year of last successful changeover.

PC.A.5.X.4 **Generators** must also notify **NGC** of any significant factors and their effects which may prevent the use of alternative fuels achieving the estimated values provided under PC.A.5.X.3 above (e.g. emissions limits, distilled water stocks etc.)



**Extract From Data Registration Code**

**MOTHBALLED GENERATING UNIT INFORMATION**

The following data items must be supplied with respect to each **Mothballed Generating Unit**.

**Power Station** \_\_\_\_\_ **Generating Unit Name (e.g. Unit 1)** \_\_\_\_\_

<u>DATA DESCRIPTION</u>	<u>UNITS</u>	<u>DATA CAT.</u>	<u>GENERATING UNIT DATA</u>						
			<u>&lt; 1 month</u>	<u>1 - 2 months</u>	<u>2 - 3 months</u>	<u>3 - 6 months</u>	<u>6 - 12 months</u>	<u>&gt; 12 months</u>	<u>Total MW being returned</u>
<u>MW output that can be returned to service</u>	<u>MW</u>	<u>DPD</u>							

Notes

1. The time periods identified in the above table represent the time it would take to return to service once a decision to return has been made.
2. Where a **Mothballed Generating Unit** can be physically returned in stages covering more than one of the time periods identified in the above table then information should be provided for each applicable time period.
3. The estimated notice to physically return MW output to service should be determined in accordance with **Good Industry Practice** assuming normal working arrangements and normal plant procurement lead times.
4. The MW output values in each time period should be incremental MW values, e.g. if 150MW could be returned in 2 - 3 months and an additional 50MW in 3 - 6 months then the values in the columns should be Nil, Nil, 150, 50, Nil, Nil, 200 respectively.
5. Significant factors which may prevent the **Mothballed Generating Unit** achieving the estimated values provided in this table, excluding factors relating to **Transmission Entry Capacity**, should be appended separately.

ALTERNATIVE FUEL INFORMATION

The following data items for alternative fuels need only be supplied with respect to each **Generating Unit** whose primary fuel is gas.

Power Station \_\_\_\_\_ Generating Unit Name (e.g. Unit 1) \_\_\_\_\_

<u>DATA DESCRIPTION</u>	<u>UNITS</u>	<u>DATA CAT.</u>	<u>GENERATING UNIT DATA</u>			
			<u>Oil distillate</u>	<u>Other gas (please specify)</u>	<u>Other (please specify)</u>	<u>Other (please specify)</u>
<u>For off-line changeover:</u> <u>Time to carry out off-line fuel changeover</u> <u>Maximum output following off-line changeover</u>	<u>Minutes</u> <u>MW</u>	<u>DPD</u> <u>DPD</u>				
<u>For on-line changeover:</u> <u>Time to carry out on-line fuel changeover</u> <u>Maximum output during on-line fuel changeover</u> <u>Maximum output following on-line changeover</u>	<u>Minutes</u> <u>MW</u> <u>MW</u>	<u>DPD</u> <u>DPD</u> <u>DPD</u>				
<u>Maximum operating time at full load assuming:</u> <u>Typical stock levels</u> <u>Maximum possible stock levels</u>	<u>Hours</u> <u>Hours</u>	<u>DPD</u> <u>DPD</u>				
<u>Maximum rate of replacement of depleted stocks of alternative fuels</u>	<u>MWh(electrical) /day</u>	<u>DPD</u>				
<u>Month &amp; year of last successful changeover</u>	<u>Text</u>	<u>DPD</u>				

Notes

1. Where a **Generating Unit** has the facilities installed to generate using more than one alternative fuel type details of each alternative fuel should be given.
2. Significant factors and their effects which may prevent the use of alternative fuels achieving the estimated values provided in this table (e.g. emissions limits, distilled water stocks etc.) should be appended separately.