



National Grid

CONSULTATION DOCUMENT

**Proposed changes to the Grid Code associated with
the Clarification of Phase Unbalance terms and
change of Company name.**

**The purpose of this document is to consult on the above Grid Code
Modification Proposal with authorised electricity operators liable to be
materially affected by the proposed changes**

Consultation Ref	G/02
Issue	1
Date of Issue	6 th November 2002
Prepared by	National Grid

DOCUMENT LOCATION

National Grid website:

http://www.nationalgridinfo.co.uk/grid_code/mn_consultation_papers.html

DISTRIBUTION

Name	Organisation
AEO's	Various
GCRP Members/Alternates	Various
Interested Parties	Various
National Grid Industry Information Website	

A. Introduction

1. National Grid Company plc ("National Grid"), in accordance with its obligations under paragraph 2 of Condition 7 of the Transmission Licence, believes that the time has come to review, in consultation with authorised electricity operators liable to be materially affected thereby, the Grid Code and its implementation in certain respects.
2. This review is concerned with the clarification of percentage terms used in the Connection Conditions associated with Phase Unbalance. The proposed changes to the Grid Code were discussed at the Grid Code Review Panel meeting held on 5th September 2002 and Panel members agreed that National Grid should issue a Consultation Paper. In addition a housekeeping change is proposed to update National Grid's company name.
3. Following receipt of comments from those authorised electricity operators which it has consulted by this Paper, National Grid intends, in accordance with paragraph 2 of Condition 7 of the Transmission Licence, to send to the Authority :-
 - (a) a report on the outcome of its review, including this consultation process;
 - (b) the proposed revisions to the Grid Code which National Grid (having regard to the outcome of such review) reasonably thinks fit for the achievement of the objectives of the Grid Code referred to in subparagraph (b) of paragraph 1 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.
4. The report will also be made publicly available on National Grid's website.
5. The revisions to the Grid Code proposed by National Grid and sent to the Authority then require approval by that body and will, if approved, come into force on such date (or dates) of which you will be notified by National Grid, in accordance with the Authority's approval.

B. DESCRIPTION OF THE PROPOSED AMENDMENTS AND THEIR EFFECTS

6. Background

- 6.1 The Grid Code makes reference to Phase Unbalance in Connection Conditions CC.6.1.5(b) & CC.6.1.6. However the definition of Phase Unbalance is not clear from the Grid Code text.
- 6.2 In addition since 21st October 2002 National Grid is known as 'National Grid Company plc' not 'The National Grid Company plc'. This affects the Definition of NGC in the Glossary and Definitions only.

7. Proposed Changes

- 7.1 It is proposed that the definition for Phase Unbalance set out in the Electricity Association Engineering Recommendation P29 "Planning Limits for Voltage Unbalance in the UK for 132kV and Below" should be added to the Grid Code Glossary.
- 7.2 The addition of this definition would then require clarification of the text of CC.6.1.5 and CC.6.1.6 related to Phase Unbalance.
- 7.3 Further the text of OC5.5.3 would also require minor modification. However this is currently the subject of a Report to the Authority as a result of Consultation paper D/02 and the modifications to OC5.5.3 proposed in this Consultation Paper G/02 would be valid only in the event that the proposed OC5 changes are approved by the Authority.
- 7.4 It is further proposed that the Definition of NGC in the Glossary and Definitions is amended to reflect the current company name 'National Grid Company plc'.
- 7.4 The proposed Grid Code changes are described in Appendix 1.

C. COMMENTS

8. National Grid would be grateful to receive your comments on, or any suggestions you may have in relation to, these proposed amendments to the Grid Code. Comments would be welcomed and should be sent to National Grid by **Friday 6th December 2002**. The comments will be reviewed and responded to and National Grid will then prepare its report to the Authority.
9. Unless otherwise marked as confidential any responses containing objections to the proposals which are maintained will be published on our website in the copy of the Report to the Authority referred to in paragraphs 3 and 4.
10. Your formal responses may be:-

Posted to: Mr David Payne
Commercial Codes
Network Strategy
National Grid Company plc
National Grid House
Kirby Corner Road
Coventry
CV4 8JY

Faxed to: 024 7642 3298 Emailed to: david.payned@uk.ngrid.com

Appendix 1

(a) New definition to be added to the Glossary and Definitions

Phase (Voltage) Unbalance

The ratio (in percent) between the rms values of the negative sequence component and the positive sequence component of the voltage.

(b) Extract from the Connection Conditions

CC.6.1.5....

(b) Phase Unbalance

Under **Planned Outage** conditions, the maximum ~~negative phase sequence component of the phase voltage~~ **Phase (Voltage) Unbalance** on the **NGC Transmission System** should remain below 1% unless abnormal conditions prevail.

CC.6.1.6

Under the **Planned Outage** conditions stated in CC.6.1.5(b) infrequent short duration peaks with a maximum value of 2% are permitted for ~~phase unbalance~~ **Phase (Voltage) Unbalance**, subject to the prior agreement of **NGC** under the **Bilateral Agreement**. **NGC** will only agree following a specific assessment of the impact of these levels on **NGC** and other **Users Apparatus** with which it is satisfied.

(c) Extract from proposed OC5 Text (subject to approval by the Authority of OC5 changes described in Consultation Paper D/02)

OC5.5.3 Test and Monitoring Assessment

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Phase Unbalance	CC6.1.5 (b)	The measured maximum negative phase sequence component of the phase voltage <u>Phase (Voltage) Unbalance</u> on the NGC Transmission System should remain below 1%.
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(d) Extract from the Glossary and Definitions – proposed housekeeping change associated with National Grid Company name change.

NGC

~~The~~ National Grid Company plc.