

CONSULTATION DOCUMENT

Modification Proposal to the Connection Charging Methodology

CCM-M-04

**Implementation of Changes Required for CAP012
“Procedure for Renewal of NGC (Connection) Assets”**

11 November 2002

Table of Contents

1. EXECUTIVE SUMMARY	1
2. INTRODUCTION	1
3. BACKGROUND TO THE ISSUES.....	2
4. EXPLANATION OF THE ISSUES	2
5. PROPOSED MODIFICATIONS	3
Description of proposed modification	3
Justification for proposed modification.....	3
Proposed Changes to the Statement of the Connection Charging Methodology.....	3
Suggested alternatives	3
Implementation date	3
Indicative Impact on Connection Charges	3
Impact on Other Industry Documents	3
6. RESPONSES TO THIS CONSULTATION.....	4
APPENDIX 1 - PROPOSED CHANGES TO CHAPTER 2: THE CALCULATION OF THE BASIC ANNUAL CONNECTION CHARGE FOR AN ASSET	5
APPENDIX 2 – PROPOSED CHANGES TO CHAPTER 7: ASSET REPLACEMENT ..	6
APPENDIX 3 – PROPOSED GLOSSARY DEFINITION	8

1. Executive Summary

This paper sets out for consultation National Grid's proposed modification to the Connection Charging Methodology to take account of the CUSC Amendment CAP012: "Procedure for Renewal of NGC (Connection) Assets". This paper is published on the National Grid website at the following address:

www.nationalgrid.com/uk/indinfo/charging/mn_modifications.html

2. Introduction

National Grid is obliged under the Transmission Licence:

- (i) to make revisions to the Charging Statements in order that the information set out in these statements shall continue to be accurate in all material respects;
- (ii) to keep the Connection Charging Methodology at all times under review;
- (iii) to make such modifications of the Connection Charging Methodology as may be requisite for the purpose of better achieving the relevant objectives, which are:
 - a. to facilitate effective competition in the generation and supply of electricity and (so far as is consistent therewith) to facilitate competition in the sale, distribution and purchase of electricity;
 - b. to result in charges which reflect, as far as reasonably practicable, the costs incurred by National Grid in its Transmission Business; and
 - c. to take account of the developments in National Grid's Transmission Business.
 - d. to facilitate competition in the carrying out of works for connection to National Grid's Transmission system.

Before making a modification to the Connection Charging Methodology, National Grid is also required by the Transmission Licence to consult with CUSC Users on the proposed modification and allow them a period of not less than 28 days within which to make written representations. The Authority can consent to a shorter consultation period.

The purpose of this document is to set out for consultation National Grid's proposal to modify the Statement of the Connection Charging Methodology to meet the Relevant Objective in Licence Condition C7A 5(c) of ensuring National Grid properly takes account of the developments in its Transmission Business.

3. Background to the Issues

As part of the conditions imposed by Ofgem on their approval of the Connection Charging Methodology, National Grid was required to carry out a consultation and review of its charging methodology for assets operating beyond their Replacement Period. The conclusion of the review, published in December 2001, was to implement a short term process to cover assets that were already or would become 40 years old or over in the following charging year. The short term process became effective from 1 April 2002 and the Statement of the Connection Charging Methodology was updated accordingly.

A further, longer term conclusion was that it would be necessary to agree enduring arrangements for assets operating beyond their Replacement Period. In January 2002, Innogy plc submitted a CUSC Amendment Proposal (CAP012) for "Procedure for Renewal of NGC (Connection) Assets". This was to modify the existing procedure to include a requirement on National Grid to provide an explanation of the engineering and economic reasons to replace a connection asset, to remove the current distinction between connection assets pre and post Replacement Period and to provide Users with the right of recourse to an Independent Engineer to resolve any dispute between National Grid and a User in regard to the replacement of connection assets.

During the CAP012 consultation process, both National Grid and British Energy submitted alternative amendment proposals (A and B respectively). Both alternative proposals were based on the original Proposed Amendment, but National Grid's differed in that it did not include the role of an Independent Engineer in the process. In September 2002, Ofgem published its decision that Alternative Amendment A, as submitted by National Grid, should be implemented on 1 April 2003.

The conclusion of the CAP012 process established the enduring arrangements for assets operating beyond their Replacement Period. This modification paper proposes changes to Chapters 2 and 7 of the Statement of the Connection Charging Methodology (see Appendices) required as a consequence of the CAP012 Amendment.

4. Explanation of the Issues

Historically, National Grid has levied a default charge to cover any depreciation charges that would be incurred on a new asset which is replaced beyond the expiry of the Replacement Period (without notification upon the expiry of the Replacement Period) without agreement on charging with the User.

The establishment of an enduring process for assets operating beyond their Replacement Period, as a result of the CAP012 Amendment, removes the requirement to levy the default charge, and also removes the distinction between asset replacement pre and post the expiry of the Replacement Period.

The new arrangements will require National Grid and the User(s) to reach agreement on the asset replacement, and charging for the new assets cannot commence until the agreement is in place. This process removes the need for the default charge and provides a greater level of transparency.

In line with the CUSC Alternative Amendment (A), National Grid will be required to provide, where practical and prudent and with regard to the confidential nature of any

relevant information, its rationale behind the decision to asset replace. This information should include any wider network factors that were considered, details of the physical condition of the NGC Asset to be replaced, information regarding any alternatives to asset replacement considered by NGC, and any other relevant information in NGC's possession.

5. Proposed Modifications

Description of proposed modification

In line with the Authority's decision on CAP012: Procedure for Renewal of NGC (Connection) Assets, it is proposed to modify the Connection Charging Methodology to reflect the new process and to remove the default charge for assets operating beyond their Replacement Period.

Justification for proposed modification

To better meet the Relevant Objectives in Licence Condition C7A 5(c) of ensuring National Grid properly takes account of the developments in its Transmission Business.

Proposed Changes to the Statement of the Connection Charging Methodology

It is proposed that Chapter 2 of the Statement of the Connection Charging Methodology is modified to remove the default charge for assets operating beyond their Replacement Period.

It is also proposed that Chapter 7 of the Statement of the Connection Charging Methodology is modified as indicated in Appendix 2, to reflect the revised arrangements associated with CAP012.

Finally, as a consequence of the changes to Chapter 2, it is proposed to add a new definition to the Glossary of the Statement as indicated in Appendix 3.

Suggested alternatives

None.

Implementation date

1 April 2003.

Indicative Impact on Connection Charges

Connection assets that are operating beyond their current Replacement Period will not have the 2.5% default charge levied on Users.

Impact on Other Industry Documents

There is no impact on other industry documents.

6. Responses to this Consultation

Comments and views are invited on all the issues raised in this consultation document. In order that your comments and views are considered as part of National Grid's report to the Authority, responses must be received by **9 December 2002**. If you wish to provide comments on this proposed modification, responses are welcome via email to: Stuart.Easterbrook@uk.ngrid.com.

Alternatively, written comments may be addressed to:

Stuart Easterbrook
Commercial Analyst
Commercial
National Grid Company plc
Kirby Corner Road
Coventry
CV4 8JY

If you have further queries, please do not hesitate to contact Stuart on 024 7642 3173.

Appendix 1 - Proposed Changes to Chapter 2: The Calculation of the Basic Annual Connection Charge for an Asset

Delete current section 2.23 and replace with new 2.23:

2.23 The final charge for each connection asset in year n can be derived from the general formula below. This is illustrated more fully by the examples in **Appendix 2: Examples of Connection Charge Calculations.**

$$\text{Annual Connection Charge}_n = D_n (\text{GAV}_n) + R_n (\text{NAV}_n) + \text{SSF}_n (\text{RPIGAV}_n) + \text{TC}_n (\text{GAV}_n)$$

Where:

For n = year to which charge relates within the Depreciation Period

n	=	year to which charge relates
GAV _n	=	GAV for year n re-valued by relevant indexation method
RPIGAV _n	=	GAV for year n re-valued by RPI indexation
NAV _n	=	NAV for year n based on re-valued GAV _n
D _n	=	Depreciation rate as percentage (equal to 1/Depreciation Period duration - typically 1/40 = 2.5% of GAV)
R _n	=	real rate of return for chosen indexation method (6% for RPI indexation, 7.5% for MEA Indexation)
SSF _n	=	Site Specific Factor for year n as a % (equal to the Site Specific Cost / Total Site GAV)
TC _n	=	Transmission Running cost component for year n (other Transmission Owner Activity costs).

For n = year to which charge relates beyond the Depreciation Period

n	=	year to which charge relates
GAV _n	=	GAV for year n re-valued by relevant indexation method
RPIGAV _n	=	GAV for year n re-valued by RPI indexation
NAV _n	=	0
D _n	=	0
R _n	=	real rate of return for chosen indexation method (6% for RPI indexation, 7.5% for MEA Indexation)
SSF _n	=	Site Specific Factor for year n as a % (equal to the Site Specific Cost / Total Site GAV)
TC _n	=	Transmission Running cost component for year n (other Transmission Owner Activity costs).

Appendix 2 – Proposed Changes to Chapter 7: Asset Replacement

Delete heading “Early Asset Replacement”.

Delete current sections 7.1 to 7.3 and replace with new sections 7.1 to 7.2 :

7.1 Appendix A of a User's Bilateral Connection Agreement specifies the age (number of complete charging years old), for charging purposes, of each of the National Grid assets at the Connection Site for the corresponding Financial Year. Connection charges are calculated on the assumption that the assets will not need to be replaced until the charging age has reached the duration of the asset's Replacement Period.

If an asset is replaced National Grid will continue to charge for the original asset and make no charge to the existing User(s) for the new asset until an agreement is in place with the User(s) and the original asset's charging age has reached the duration of its Replacement Period.

7.2 When the original asset's charging age has reached the duration of its Replacement Period the User's charge will be calculated on the then Net Asset Value of the new asset. The new asset begins depreciating for charging purposes upon completion of the asset replacement.

Delete heading “Assets Operating after their Replacement Period”.

Delete current sections 7.4 to 7.6.

Delete current sections 7.7 to 7.10 and replace with new sections 7.3 to 7.6:

7.3 There are a number of situations where an asset replacement scheme may involve a change in the voltage level of a User's connection assets. These replacement schemes can take place over a number of years and may involve a long transitory period in which connection assets are operational at both voltage levels.

7.4 These situations are inevitably different from case to case and hence further charging principles will need to be developed over time as more experience is gained. Set out below are some initial generic principles which have been applied to date. This methodology will be updated as experience develops.

7.5 The general principles used to date are to ensure that, in the transitory period of an asset replacement scheme, the User does not pay for two full transmission voltage substations and that the charges levied reflect the Replacement Period of the original connection assets. In addition, in line with paragraph 7.1 above, charges will only be levied for the new assets once the original assets would have required replacement.

7.6 For example, National Grid, in investing to meet a future Security Standard need on the main transmission system, may require the asset replacement of an existing 275kV substation with a 400kV substation prior to the expiry of the original assets' Replacement Period. In this case, National Grid will seek to recover the connection asset component via connection charges when the assets replaced were due for asset replacement. Prior to this, the User

should not see an increase in charges and therefore the investment costs would be recovered through TNUoS charges. In addition, if in the interim stage the User has say one transformer connected to the 275kV substation and one transformer connected to the 400kV substation, the charge will comprise an appropriate proportion of the HV assets at each site and not the full costs of the two substations. This would not be the case if the allocation rules as set out in **Chapter 10: The Connection Asset Allocation Process** were strictly applied as the general rule is allocation up to the first transmission voltage. Note that the above described treatment is only made for transitory asset replacement and not enduring configurations where a User has connection assets connected to two different voltage substations.

Appendix 3 – Proposed Glossary Definition

Glossary

Depreciation Period

In relation to an NGC Asset, for a particular User, the period over which the depreciation element of the connection charge is levied, taking account of the effective charging date and the appropriate Depreciation Period duration.