



edf
ENERGY
networks

**Methodology of
Charges for
Connection to the
Electricity
Distribution System**

EDF Energy
Networks (EPN) plc,
EDF Energy
Networks (LPN) plc &
EDF Energy
Networks (SPN) plc

Effective From:

~~15th August 2007~~ 15th December 2008

Published: ~~27th July 2007~~ 15th December 2008

This Charging Methodology has been approved
by the Gas and Electricity Markets Authority

CONTENTS

IMPORTANT NOTE	74
-----------------------------	-----------

SECTION 1 - GENERAL	85
----------------------------------	-----------

1.1 INTRODUCTION	85
1.2 WHO MAY APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM?	85
1.3 COMPETITION IN CONNECTIONS	85
1.4 HOW TO APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM	96

SECTION 2 – CHARGING METHODOLOGY STATEMENT	107
---	------------

2.1 INTRODUCTION	107
2.2 EXTENSIONS TO THE COMPANY'S DISTRIBUTION SYSTEM	1410
2.3 REINFORCEMENT OF THE COMPANY'S DISTRIBUTION SYSTEM	1511
2.4 SPECULATIVE AND INFRASTRUCTURE ONLY PROJECTS	1814
2.5 TEMPORARY CONNECTIONS	1814
2.6 SOLE USER ASSETS	1814
2.7 RESERVATION OF IMPORT CAPACITY	1915
2.8 CONNECTIONS FOR GENERATION	2016
2.9 CONNECTIONS FOR LICENSED DISTRIBUTION NETWORKS	2016
2.10 STANDARD OF SECURITY FOR A SUPPLY OF ELECTRICITY	2016
2.11 ELECTRICITY (CONNECTION CHARGES) REGULATIONS 2002	2016
2.12 REGENERATION ZONES	2117
2.13 DE-ENERGISATION AND DISCONNECTION	2117
2.14 PAYMENT POLICY	2218
2.15 LAND RIGHTS REQUIRED BY THE COMPANY	2218
2.16 INTERACTIVE CONNECTION APPLICATIONS	2319
2.17 UNMETERED CONNECTIONS	2319
2.18 NATIONAL GRID ELECTRICITY TRANSMISSION CHARGES TO THE COMPANY	2419
2.19 EXAMPLES	2420

SECTION 3 – ITEMS OF SIGNIFICANCE LIABLE TO BE REQUIRED FOR THE CONNECTION	3430
---	-------------

3.1 TABLES	3430
3.2 FACTORS INFLUENCING COSTS AND CHARGES	3733
3.3 ITEMS INCLUDED IN THE ILLUSTRATIVE CHARGES	3834

SECTION 4 – INDICATIVE CHARGES FOR NON-CONTESTABLE WORK ...	3935
--	-------------

4.1 INTRODUCTION	3935
4.2 ASSESSMENT AND DESIGN	3935

4.3	OTHER CHARGES	4540
-----	---------------------	------

GLOSSARY OF TERMS	4641
--------------------------------	-------------

APPENDIX – STANDARD LICENCE CONDITION 13	5247
---	-------------

IMPORTANT NOTE.....	4
----------------------------	----------

SECTION 1 – GENERAL.....	5
---------------------------------	----------

1.1	INTRODUCTION	5
-----	--------------------	---

1.2	WHO MAY APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM?	5
-----	--	---

1.3	COMPETITION IN CONNECTIONS	5
-----	----------------------------------	---

1.4	HOW TO APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM	6
-----	--	---

SECTION 2 – CHARGING METHODOLOGY STATEMENT	7
---	----------

2.1	INTRODUCTION	7
-----	--------------------	---

2.2	EXTENSIONS TO THE COMPANY'S DISTRIBUTION SYSTEM	10
-----	---	----

2.3	REINFORCEMENT OF THE COMPANY'S DISTRIBUTION SYSTEM	11
-----	--	----

2.4	SPECULATIVE AND INFRASTRUCTURE ONLY PROJECTS	14
-----	--	----

2.5	TEMPORARY CONNECTIONS	14
-----	-----------------------------	----

2.6	SOLE USER ASSETS	14
-----	------------------------	----

2.7	RESERVATION OF IMPORT CAPACITY	15
-----	--------------------------------------	----

2.8	CONNECTIONS FOR GENERATION	16
-----	----------------------------------	----

2.9	CONNECTIONS FOR LICENSED DISTRIBUTION NETWORKS	16
-----	--	----

2.10	STANDARD OF SECURITY FOR A SUPPLY OF ELECTRICITY	16
------	--	----

2.11	ELECTRICITY (CONNECTION CHARGES) REGULATIONS 2002	16
------	---	----

2.12	REGENERATION ZONES	17
------	--------------------------	----

2.13	DE-ENERGISATION AND DISCONNECTION	17
------	---	----

2.14	PAYMENT POLICY	18
------	----------------------	----

2.15	LAND RIGHTS REQUIRED BY THE COMPANY	19
------	---	----

2.16	INTERACTIVE CONNECTION APPLICATIONS	19
------	---	----

2.17	UNMETERED CONNECTIONS	20
------	-----------------------------	----

2.18	NATIONAL GRID ELECTRICITY TRANSMISSION CHARGES TO THE COMPANY	20
------	---	----

2.19	EXAMPLES	20
------	----------------	----

SECTION 3 – ITEMS OF SIGNIFICANCE LIABLE TO BE REQUIRED FOR THE CONNECTION.....	31
--	-----------

3.1	TABLES	31
-----	--------------	----

3.2	FACTORS INFLUENCING COSTS AND CHARGES	34
-----	---	----

3.3	ITEMS INCLUDED IN THE ILLUSTRATIVE CHARGES	35
SECTION 4 – INDICATIVE CHARGES FOR NON-CONTESTABLE WORK		36
4.1	INTRODUCTION	36
4.2	ASSESSMENT AND DESIGN.....	36
4.3	OTHER CHARGES	41
GLOSSARY OF TERMS		42
APPENDIX – STANDARD LICENCE CONDITION 13.....		48
IMPORTANT NOTE.....		4
SECTION 1 – GENERAL		5
1.1	INTRODUCTION	5
1.2	WHO MAY APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM?	5
1.3	COMPETITION IN CONNECTIONS	5
1.4	HOW TO APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM	6
SECTION 2 – CHARGING METHODOLOGY STATEMENT		7
2.1	INTRODUCTION	7
2.2	EXTENSIONS TO THE COMPANY'S DISTRIBUTION SYSTEM	10
2.3	REINFORCEMENT OF THE COMPANY'S DISTRIBUTION SYSTEM	11
2.4	SPECULATIVE AND INFRASTRUCTURE ONLY PROJECTS	14
2.5	TEMPORARY CONNECTIONS	14
2.6	SOLE USER ASSETS	14
2.7	RESERVATION OF IMPORT CAPACITY	15
2.8	CONNECTIONS FOR GENERATION	16
2.9	CONNECTIONS FOR LICENSED DISTRIBUTION NETWORKS.....	16
2.10	STANDARD OF SECURITY FOR A SUPPLY OF ELECTRICITY	17
2.11	ELECTRICITY (CONNECTION CHARGES) REGULATIONS 2002	17
2.12	REGENERATION ZONES	17
2.13	DE-ENERGISATION AND DISCONNECTION	18
2.14	PAYMENT POLICY.....	18
2.15	LAND RIGHTS REQUIRED BY THE COMPANY	19
2.16	INTERACTIVE CONNECTION APPLICATIONS.....	19
2.17	UNMETERED CONNECTIONS.....	20
2.18	NATIONAL GRID ELECTRICITY TRANSMISSION CHARGES TO THE COMPANY	20
2.19	EXAMPLES	20

SECTION 3 – ITEMS OF SIGNIFICANCE LIABLE TO BE REQUIRED FOR THE CONNECTION.....	31
3.1 – TABLES	31
3.2 – FACTORS INFLUENCING COSTS AND CHARGES.....	34
3.3 – ITEMS INCLUDED IN THE ILLUSTRATIVE CHARGES.....	35
SECTION 4 – INDICATIVE CHARGES FOR NON-CONTESTABLE WORK	36
4.1 – INTRODUCTION	36
4.2 – ASSESSMENT AND DESIGN.....	36
4.3 – OTHER CHARGES	41
GLOSSARY OF TERMS	42
APPENDIX – STANDARD LICENCE CONDITION 13.....	48
IMPORTANT NOTE.....	4
SECTION 1 – GENERAL.....	5
1.1 – INTRODUCTION	5
1.2 – WHO MAY APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM?	5
1.3 – COMPETITION IN CONNECTIONS	5
1.4 – HOW TO APPLY FOR A CONNECTION TO THE COMPANY'S DISTRIBUTION SYSTEM	6
SECTION 2 – CHARGING METHODOLOGY STATEMENT	7
2.1 – INTRODUCTION	7
2.2 – EXTENSIONS TO THE COMPANY'S DISTRIBUTION SYSTEM	10
2.3 – REINFORCEMENT OF THE COMPANY'S DISTRIBUTION SYSTEM	11
2.4 – SPECULATIVE AND INFRASTRUCTURE ONLY PROJECTS	14
2.5 – TEMPORARY CONNECTIONS	14
2.6 – SOLE USER ASSETS	14
2.7 – RESERVATION OF CAPACITY	15
2.8 – CONNECTIONS FOR GENERATION	16
2.9 – CONNECTIONS FOR LICENSED DISTRIBUTION NETWORKS.....	16
2.10 – STANDARD OF SECURITY FOR A SUPPLY OF ELECTRICITY	17
2.11 – ELECTRICITY (CONNECTION CHARGES) REGULATIONS 2002	17
2.12 – REGENERATION ZONES	17
2.13 – DE-ENERGISATION AND DISCONNECTION	18
2.14 – PAYMENT POLICY.....	18

2.15	LAND RIGHTS REQUIRED BY THE COMPANY	19
2.16	INTERACTIVE CONNECTION APPLICATIONS	19
2.17	UNMETERED CONNECTIONS	20
2.18	NATIONAL GRID ELECTRICITY TRANSMISSION CHARGES TO THE COMPANY	20
2.19	EXAMPLES	20
SECTION 3 – ITEMS OF SIGNIFICANCE LIABLE TO BE REQUIRED FOR THE CONNECTION.....		31
3.1	TABLES	31
3.2	FACTORS INFLUENCING COSTS AND CHARGES.....	34
3.3	ITEMS INCLUDED IN THE ILLUSTRATIVE CHARGES	35
SECTION 4 – INDICATIVE CHARGES FOR NON-CONTESTABLE WORK		36
4.1	INTRODUCTION	36
4.2	ASSESSMENT AND DESIGN.....	36
4.3	OTHER CHARGES	41
GLOSSARY OF TERMS		42
APPENDIX – STANDARD LICENCE CONDITION 4B.....		48

IMPORTANT NOTE

This statement describes the terms and conditions under which connections may be made to each Distribution System belonging to respectively, EDF Energy Networks (EPN) plc, EDF Energy Networks (LPN) plc and EDF Energy Networks (SPN) plc (each respectively being 'the Company', and together 'the Companies').

The publication is prepared by the Companies in accordance with the requirements of their Electricity Distribution Licences ('the Licence') issued under the Electricity Act 1989 as amended by the Utilities Act 2000 ('the Act'). Words and expressions used in this statement have the definitions given to them in the Act and shall be construed accordingly.

A fee of £10 (plus VAT) will be payable at the Company's discretion for each copy of this statement which is provided in accordance with a request. An electronic copy of this statement is available free of charge from the Company's website at: www.edfenergy.com. Follow the links for 'Networks' and 'Publicly Available Information'.

SECTION 1 - GENERAL

1.1 Introduction

This document describes how you can obtain a new or altered connection to the Company's Distribution System. It also sets out the basis upon which the Company will charge you for doing so.

This document has been prepared having taken account of the requirements of Standard Condition [4B13](#) of the Licence. A Charging Methodology Statement is included in Section 2, the form of which has been approved by Ofgem. Sections 3 and 4 provide an illustrative guide to potential charges and are in a form approved by Ofgem. Section 5 provides further information should you wish to use an Approved Contractor to carry out the Contestable Work.

In this document certain words are capitalised, e.g. Distribution System. These words have a specific meaning which is set out in the Glossary of Terms on page [4642](#).

1.2 Who May Apply for a Connection to the Company's Distribution System?

Anyone may apply for a connection to the Company's Distribution System for the purpose of receiving a supply of electricity.

If you do not own or occupy the Premises for which you request a connection, or are not an Authorised Supplier acting with the consent of the owner or occupier of those Premises, or are not an Authorised Distributor, the Company is not under a duty to provide the connection. The Company's duty to connect and the exceptions to that duty are set out in the Act.

If you are an Approved Contractor or other agent of the applicant, you will be required to provide a letter of authority from the applicant that will allow the Company to make information available to you as appropriate.

1.3 Competition in Connections

Important Note

You may choose to appoint an Approved Contractor to carry out those parts of the work involved in the connection which are open to competition. Such work is referred to as 'Contestable Work'. There is no legal requirement for the Company to adopt Contestable Work; if the Company does so, it shall do so voluntarily in accordance with the terms of the Construction and Adoption Agreement that it may enter into with you.

1.4 How to Apply for a Connection to the Company's Distribution System

If you wish to apply for the connection of Premises to the Company's Distribution System or require the alteration of an existing connection to it, please write to:

Projects Gateway
EDF Energy Networks Ltd
Metropolitan House
Darkes Lane
POTTERS BAR
Hertfordshire
EN6 1AG

General Enquiries

Phone: 0845 234 0040
E-mail: connections@edfenergy.com

Domestic and small commercial customers

(up to 70 kVA or for work to connect up to four properties)

E-mail: connections.smallservices@edfenergy.com
Fax: 08701 964 133 or 08701 964 146

Customers with larger power requirements

(over 70 kVA or for work to connect five or more properties)

E-mail: connections.projectsgateway@edfenergy.com
Fax: 0845 6500 248
Phone: 08701 964599

Customers requiring unmetered connections in London and the East of England

Fax: 08701 964 562
Phone: 08701 962 217

Customers requiring connections for telecommunications equipment

E-mail: connections.mobilemasts@edfenergy.com
Fax: 08701 964 562
Phone: 08701 962 279

These contact details should be used regardless of whether you wish the Company or an Approved Contractor to carry out Contestable Work.

Section 2 – Charging Methodology Statement

2.1 Introduction

Connection Charges will contain some or all of the cost elements indicated in the following table.

	Charge Element	Explanation
A	Assessment	To identify the most appropriate point on the existing Distribution System for connection of the Network Extension.
B	Design	Design of the Network Extension.
C	Design approval	Approval of a Network Extension design produced by an Approved Contractor.
D	Additional design	Additional design requirement for reinforcement of the Distribution System, non-standard civil works, remote Premises, Land Rights, planning permissions and other third party consents.
E	Network Extension	Electric Lines and Electrical Plant forming part of the Network Extension (mainly Contestable Work).
F	Reinforcement	Electric Lines and Electrical Plant required to reinforce the Distribution System (Non-Contestable Work and subject to the voltage level rule and the reinforcement contribution rule).
G	Inspection and Testing	Our inspection and testing necessary to effect the connection.
H	Liaison	Charges (in arrears) for additional liaison requirements as requested by or made necessary by you.
I	Commissioning	High Voltage or Extra High Voltage circuit outage and commissioning of High Voltage or Extra High Voltage Network Extension.

Connection Charges for a new or altered connection will normally be calculated after taking account of the items listed in the table above and in accordance with the principles set out as follows, or as otherwise provided for under the terms of the Act or the Licence.

In order to facilitate connection to the Distribution System, you may ask the Company to carry out all of the work that is required. Alternatively, you may ask an Approved Contractor to carry out all of the Contestable Work, in which case the Company will still need to carry out the Non-Contestable Work.

For reasons of safety, and to enable the Company to comply with its duty under the Act to develop and maintain an efficient, co-ordinated and

economical system of electricity distribution, the following is classed as Non-Contestable Work:

In respect of the Distribution System:

- Processing your application and network planning for the connection;
- Planning, designing, specifying and carrying out of any diversion works to the Distribution System ¹;
- Planning, designing, specifying and carrying out of any reinforcement works to the Distribution System ²;
- Deciding upon the point of connection to the Distribution System;
- Connection of the extension to the Distribution System and its energisation; and
- Removal or repositioning of existing Electrical Plant and Electric Lines.

In respect of a new extension to the Company's Distribution System:

- Planning, designing (or approving the design where the Approved Contractor is to carry out the design - see below) and specifying any Contestable Work and the materials to be used;
- Obtaining any Land Rights and other consents the Company requires;
- Operation, repair and maintenance of the Electrical Plant and the Electric Lines; and
- Inspection, monitoring and testing of any Contestable Work.

An Approved Contractor may choose to carry out the design of the new extension to the Company's Distribution System where this work is to be carried out together with all the other elements of Contestable Work. The "Statement of Basis and Methodology of Charges for Connection to the

¹ The carrying out of Diversion works may be conducted contestably when associated with the provision of a connection and subject to the circumstances described in the relevant section of the "Statement of Basis and Methodology of Charges for Connection to the Electricity Distribution System" document

² The carrying out of Reinforcement works may be conducted contestably when associated with the provision of a connection and subject to the circumstances described in the relevant Section of the "Statement of Basis and Methodology of Charges for Connection to the Electricity Distribution System" document, though the Planning, Designing and Specifying remain non-contestable.

Electricity Distribution System" document sets out further details of the split between Contestable and Non-Contestable Work and the process you have to comply with in appointing Approved Contractors to carry out work on your behalf.

Assessment and design charges are as indicated in Section 4, which also includes other charges for Non-Contestable Works. Assessment and design charges ~~are to be paid in advance with your application for a connection will be included as part of the charges that comprise the formal Connection Offer.~~

Where a connection is to be made to the Company's Extra High Voltage (EHV) network, a detailed study may be required prior to or as part of the design for the connection. The Company may need to agree with you an appropriate charge for this work. ~~This charge will also be payable in advance.~~

The Company may also need to agree with you charges for any further planning, design or specification undertaken as a result of any change to your requirements, or of any additional application made in respect of the same Premises. The Company may require you to enter into a design study contract for this work.

~~For the avoidance of doubt, the Company will not begin any design work until the relevant charges have been paid.~~

The Company reserves the right to apply, following consultation with you, appropriate terms in cases where the normal criteria may not apply. Examples could include:

- significant differences in the technical arrangements for the connection; or
- the expected pattern of usage from those upon which the Company's prices are based; or
- where the Company is asked to provide infrastructure only assets (i.e. no connections to premises) or connections for speculative developments; or
- in order to accommodate the technical requirements specific to the customer's equipment to be connected; or
- where the Company has reasonable grounds to believe that the proposed connection would reduce the security of the Company's Distribution System to a level below the standard required by the Act.

For connections with a capacity of 100kVA and above, the requested capacity will be applied for a minimum period of five years from the date of connection and the customer will be required to pay availability charges on this basis. Where the customer does not enter into a Connection Agreement

at the time of their application, the applicant may be required to meet all of the reinforcement costs where reinforcement is required to effect the connection.

In general, Connection Charges for both demand and generation connections will be calculated on the same basis and to the principles as described in this section.

2.2 Extensions to the Company's Distribution System

Whether the Contestable Work is carried out by the Company or by an Approved Contractor, the Connection Charge will reflect (subject to the principles set out in this section) the following:

- [The cost of providing assessment and design work.](#)
- An estimate of the cost of the work to be done by the Company and of the Electric Lines and Electrical Plant to be provided and installed by the Company for your specific benefit, including any associated metering telemetry or data processing equipment if this is to be supplied and installed by the Company as part of the Connection Works;
- The cost of providing additional or enhanced Electrical Plant and Electric Lines to be installed by the Company to achieve a security of electricity supply or enhanced capability in excess of the appropriate design standard, and the capitalised cost of the expected operation, repair and maintenance of that additional or enhanced Electrical Plant and Electric Lines, whether or not provided by the Company;
- The cost of providing Electrical Plant and Electric Lines to meet any abnormal features or special supply requirements of the connection, including the capitalised cost of operation, repair and maintenance. An illustrative list of such features is set out below:
 - Transformer/substation sites not provided to the Company in suitable locations at nominal prices or rents, taking account of cable access as well as access by personnel;
 - Loads with abnormal characteristics which affect the ongoing security and standard of service on the system, e.g. arc welders and large motors;
 - Higher than normal security of supply arrangements where the customer requests an enhanced security of supply.

Important Note - This is not a complete list and other abnormal features may also attract capitalised repairs and maintenance charges.

The capitalised costs of the expected operation, repair and maintenance referred to above are normally derived from taking the estimated cost of the additional Electric Plant and/or Electric Lines required for the connection multiplied by a discounted maintenance rate incorporating the cost of capital agreed with Ofgem and the assumed life of the connection, and is normally expressed as a percentage of the initial capital value of that apparatus. The assumed life will normally be based on a 20 year term; however, where the Company has grounds to believe that this is not

appropriate, either from your stated methods of operation or the Company's own technical knowledge, the Company will, at its own discretion, apply a different duration. Where the Company assumes a different duration, this will be identified to the relevant customer. At the time of publication of this document, this percentage is currently set at 18%, but may change as a result of periodic review.

The work to be done and the Connection Charge payable will depend on your requirements, network availability at the point of connection, spare capacity (if any) at the point of connection and on other characteristics relevant to the connection, including the effective capacity and voltage level and number of phases of the relevant part of the Distribution System in relation to your requirements.

The costs to be recovered in the Connection Charge will be determined from the estimated costs of the minimum scheme which would be designed to meet the requirements of your connection and for your sole benefit, consistent with sound engineering practices and your requirements and the requirements of the Distribution Code, and subject to the specifications and standard sizes of equipment used by the Company.

Where the connection designed and/or the Electrical Plant and/or Electric Lines to be installed are of a greater size and capacity than the practicable minimum required for that connection, the excess cost will normally be borne by the Company.

Where the Company's design is the practicable minimum but is capable of accommodating additional connections, and the relevant parties agree at the time of application to pay a share of the Connection Charge, it will be apportioned accordingly.

In certain circumstances, you will be required to make a payment in respect of Electrical Plant and/or Electric Lines that have been installed previously but which are to be used for the purpose of providing your connection.

2.3 Reinforcement of the Company's Distribution System

The cost apportionment rules in this section relate to the reinforcement of shared use Distribution System assets only, being those assets upstream of the point of connection.

In the event that a customer requests:

- a 3 phase supply; and/or
- a voltage of supply

that is not required to meet the maximum requested demand and the local distribution system is not of the customer requested:

- number of phases; and/or
- voltage

then the cost of reinforcing the distribution system to the customer specified number of phases and/or voltage will be charged in full.

Where 'sole use' or 'service' assets are to be replaced in order to provide an increased or decreased capacity connection, the costs will be charged in full.

Charges for reinforcement of the Company's Distribution System will be included in the Connection Charge, subject to the application of the following cost apportionment factors (CAFs):

- a 'security' CAF; and
- a 'fault level' CAF.

Normally the CAFs will be applied as described below. However, in some circumstances other rules may apply - e.g. where a generation connection has reinforcement costs in excess of £200/kW³ (export capacity), the CAFs will be applied (as appropriate) to the reinforcement costs up to £200/kW⁴ and the reinforcement costs in excess of £200/kW⁵ will be charged in full, including the capitalised costs of operation, repair and maintenance. In this context reinforcement means non-sole use project costs as defined in Ofgem's Distributed Generation Regulatory Instructions and Guidance.

Where reinforcement is required to permit the connection of loads with abnormal characteristics, the CAFs will not apply and the costs will be charged in full, including the capitalised costs of operation, repair and maintenance where appropriate.

The CAFs will not be applied in the circumstances described in Sections 4 and 5.

The security CAF ensures that the share of the reinforcement cost to be paid by the applicant is equal to the capacity requirement expressed as a percentage of new network capacity as shown below:

$$\text{Security CAF} = \frac{\text{Required capacity} \times 100}{\text{New network capacity}} \quad (\text{maximum } 100\%)$$

The 'required capacity' is the connection capacity that you have requested or, for multiple connections, the total capacity required after the Company has taken diversity into account.

The 'new network capacity' is the secure capacity of the relevant section of network following reinforcement of the assets. This is the Company's assessment of the resultant capacity and will be considered in respect of thermal capacity, voltage drops, upstream restrictions and compliance with relevant security of supply standards. The capacity will normally be the 'secure' capacity of the assets in respect of relevant security standards (e.g.

³ £200/kW at 2005/06 prices

⁴ £200/kW at 2005/06 prices

⁵ £200/kW at 2005/06 prices

where two circuits are provided in order to comply with Engineering Recommendation P2/6, the capacity of only one circuit will be considered).

The fault level CAF is applied so that the applicant pays only a proportion of the reinforcement costs where the reinforcement works or a part of the reinforcement works have been prompted by the fault level contribution of the equipment to be connected. This factor will normally only be material in respect of connections for generation or where other motive equipment is anticipated. Expressed as a percentage:

$$\text{Fault Level CAF} = \frac{3 \times \text{fault level contribution from connection} \times 100}{\text{New equipment fault level capacity} \times 100\%}$$

The 'fault level contribution from connection' is the Company's assessment of the fault level contribution from the equipment to be connected, taking account of its impact at the entry point to the Company's network (i.e. the ownership boundary).

The 'new equipment fault level capacity' is the fault level rating of the relevant section of network following reinforcement of the assets.

On some projects there may be a degree of interaction between the two CAF considerations above. In such cases, the security CAF will be applied to the reinforcement works which are driven by compliance with the security requirement. The fault level CAF will be applied to any other costs not already apportioned according to the security CAF that are associated with works required to maintain the network within fault level limits.

Where the Company has reason to believe that an application for connection forms part of a larger project, the Company will use the aggregate capacity of the projects to determine the appropriate CAF.

In some cases, application of the CAFs will result in some of the costs being met by the Company. In such circumstances, subsequent applicants who would make use of the capacity created will also be charged an appropriate proportion of the initial costs using the CAFs, which will be applied on the same basis. This retrospective charge will be applied for a period of five years from the installation of the original assets but will not normally be applied where this element of the Company's charges would result in an amount of less than one thousand pounds (£1,000).

Where the Company has contributed to reinforcement costs and, within a five year period from the date of connection, the actual demand or actual fault level contribution is found to be in excess of the values considered within the original application, the Company will recalculate the CAFs and apply retrospective charges to the applicant as appropriate.

Where reinforcement works result in existing Electrical Plant and/or Electric Lines being recovered from site, no credit value will be given regardless of whether the items have a probability of re-use.

In general, Connection Charges will not take into account reinforcement undertaken at more than one voltage level above the voltage at the point of connection, but will be included within Connection Charges for generation connections where the non-sole use project costs exceed £200/kW⁶.

2.4 Speculative and Infrastructure Only Projects

A 'speculative project' is where the end user of the connection is unknown at the time the Company's Connection Offer is made. An 'infrastructure only' project is where advanced infrastructure is to be provided in order to facilitate connections to be made at a later date. In both of these cases, it will not be possible for an end user customer to enter into a Connection Agreement when the Company's Connection Offer is made and the Company's investment and liability for maintaining and repairing such infrastructure must be secured through alternative mechanisms.

In such cases, the costs of any reinforcement works will normally be charged in full and the Company reserves the right to charge an amount in respect of the capitalised cost of operation, repair and maintenance.

Operation, repair and maintenance charges on assets required in these circumstances do not provide any entitlement to or secure future usage of network capacity on the part of the applicant. For speculative or infrastructure only projects, where the end user of the connection is unknown, the Company does allow the applicant to reserve capacity in the absence of an end user connection agreement – this is explained in Section 2.7.

The Company may also require the applicant to enter into a special agreement for the project.

2.5 Temporary Connections

We treat as temporary a connection to the Company's Distribution System which is required for a period of five years or less. Where the connection is provided using Low Voltage (LV) assets only, then an advance charge will be made for the full costs of the work to be carried out and of the Electrical Plant and/or Electric Lines provided for the purposes of making the connection, together with the final disconnection costs. Where the connection includes use of High Voltage (HV) or Extra High Voltage (EHV) assets, the Company's charges will be made separately for connection and final disconnection. In all cases, the costs of any reinforcement works will be charged in full. However, the Company may make a credit in respect of any Electrical Plant and/or Electric Lines which are recovered in a cost effective manner, if that apparatus has a reasonable probability of re-use.

2.6 Sole User Assets

Where assets are provided by the Company for the sole use of a customer or group of customers, have reached the end of their deemed useful life and

⁶ £200/kW at 2005/06 prices

require replacement, such replacement will normally be funded through use of system income. However, where assets are provided:

- **To a standard of security different from that normally provided by the Company or at a voltage level higher than 11kV; or**
- **Where the parties have mutually agreed that the customer will fund replacement and this is reflected in ongoing use of system charges; or**
- **To afford supply to groups of customers through shared cable systems within single contiguous properties,**

the costs of such replacement will be met by the customer or group of customers affected.

The decision as to whether the Company's assets require replacement will be at the discretion of the Company and will be determined with reference to normal industry practice.

2.7 Reservation of Import Capacity

On occasion, applicants will wish to reserve Import Capacity on the Distribution System ahead of their planned usage, once the Company has constructed the infrastructure for their development. Where such situations arise, the applicant will be required to pay a reservation charge.

The reservation charge will be payable in advance of the period to which it pertains. Failure on the part of the applicant to pay the reservation charge will release the Company from an obligation to reserve the Import Capacity and it may be allocated to other parties. The Company reserves the right to revise and recalculate the reservation charge where take-up of constructed Import Capacity varies from agreed arrangements and may make further reservation charges according to the circumstances.

Reservation charges will reflect the value of the asset capacity reserved. In most circumstances this will be represented by a proportion of the availability charge, HV or LV as appropriate. Where the reservation takes place at EHV, or there are special circumstances, then project specific charges will be developed.

The Company does not offer applicants the right to reserve Import Capacity where applicants' requirements relate to specific end connections from its network for which a Connection Agreement can be entered into. In these circumstances, applicants may secure capacity by entering into a Connection Agreement and paying ongoing Use of System charges commensurate with the requested capacity for which the Company has undertaken works.

2.8 Connections for Generation

If you are seeking a connection for the purpose of generating electricity, you should refer to the Distribution Code.

If you have installed or intend to install on-site generation capacity and seek connection to the Company's Distribution System to receive a supply from it at any time (whether intermittently or continuously), the principles for determining the Connection Charge are those set out in this Statement. You should discuss with the Company the relevant requirements of the Distribution Code and, where applicable, the Grid Code.

2.9 Connections for Licensed Distribution Networks

Charges for the connection of licensed Distribution Networks will be calculated in the same manner as for other categories of connection as described in this document in accordance with Standard Condition [4C-19](#) of the Licence.

2.10 Standard of Security for a Supply of Electricity

The Company is required by the Act to develop and maintain an efficient, co-ordinated and economical system of electricity distribution. It is also required by the Licence to meet supply of electricity quality standards. Engineering Recommendation P2/6 is an industry standard which describes the minimum design standards for a secure supply of electricity. In some cases, a design will be selected which achieves a standard of security for supply of electricity which exceeds that set out in Engineering Recommendation P2/6, in order to satisfy other regulatory obligations.

Where, on request, a connection is made at a standard of security different from that normally provided by the Company, or at a voltage level higher than 11kV, the terms described in this Statement are not a reliable guide to the Connection Charges which will apply. If you seek such a connection, you should contact the Company at the address shown in Section 1.4. The approval of the Authority may be required for connections which do not meet the Company's minimum standard of security.

2.11 Electricity (Connection Charges) Regulations 2002

The Company's Connection Charges reflect the cost of the Electrical Plant and the Electric Lines installed for you. In certain circumstances, you will be required to make a payment in respect of Electrical Plant and/or Electric Lines that have been installed previously but which are to be used for the purpose of providing your connection. These circumstances include those in The

Electricity (Connection Charges) Regulations 2002 as amended, a copy of which can be obtained at www.opsi.gov.uk.

2.12 Regeneration Zones

Where Electrical Plant and/or Electric Lines are to be installed, modified or enhanced to support a regeneration zone or similar project, for the purposes of increasing the infrastructure available to cater for sustained development of that area over time, such projects will be considered on their specific merits and customer requirements.

The calculation of connection costs will generally follow the principles discussed elsewhere in this Statement. Any attribution of specific Connection Charges in respect of infrastructure assets may be based on the apportionment of the available capacity as requested.

If you are seeking a subsequent connection to the infrastructure assets, you may be required to make a contribution towards the cost of the apparatus already installed in that zone. Normally the contribution will be based on the capacity you have requested.

The Connection Charge may also include an amount in respect of the financing costs for the period between the initial installation of the above-mentioned network infrastructure and the customer's request to be connected and the capacity required by that customer.

This approach has been based on the principle that other customers not connected to these infrastructure assets will not be required to contribute to these costs within an initial period of five years from the energisation of the infrastructure assets, or another period if otherwise agreed with Ofgem.

2.13 De-Energisation and Disconnection

If the Company has to de-energise your connection at your electricity supplier's request, or at your request, or due to your failure to comply with the terms of your Connection Agreement, or due to a failure by your supplier of electricity to comply with the terms of its use of system agreement, the de-energisation and any subsequent re-energisation will be at your expense.

If it is necessary to disconnect you (that is, to remove the Company's Electrical Plant and/or Electric Lines from the Premises) for any reason, any element of the Connection Charge not yet paid will become due immediately.

If you require the supply of electricity to be permanently disconnected, please make your request in writing to your electricity supplier who will liaise with the Company for the work to be carried out. When the Company receives a request from your electricity supplier to effect a disconnection, the Company will take all reasonable steps to remove the Electrical Plant and/or Electric Lines in accordance with your electricity supplier's reasonable requirements. Normally service termination equipment will be removed within

28 days, but a longer notice period will be required to remove HV substation plant. In the case of EHV supplies, the Company should be consulted at an early stage and a programme for the removal of equipment will be subject to individual assessment.

On termination of the Connection Agreement, the Company retains the right to remove its Electrical Plant and Electric Lines and charge you if it does so. Apparatus which is not cost effective for the Company to recover (e.g. Electric Lines laid underground) will normally be made safe and left at the Premises, but if you require the Company to remove them, the cost of removal will be payable by you. All such apparatus/equipment will remain the Company's property until otherwise agreed in writing by us.

Temporary disconnection (and reconnection) of the Premises at your request will be at your cost.

2.14 Payment Policy

2.15 We usually require payment in full and in advance. However, if major works are to be carried out over an extended period of time, the Company may agree to payment being made in instalments; each instalment being paid before the next phase of the works has begun.

2.16 2.15 Land Rights Required by the Company

Before the Company begins its works it will require, as the case may be, the transfer to it of the freehold of any substation site on which is to be sited Electrical Plant that is comprised in the connection, alternatively the grant to it of a long lease of that site, and in either case an easement for its Electric Lines. In some cases, the Company may be prepared to rely upon a wayleave. Whether the Company obtains a transfer, a lease, an easement or a wayleave, these are legal agreements that will be between it and the landowner and any occupier. We require that the relevant agreement has been completed before the Company energises the connection, or, in cases where agreement is required from a third party, before the Company commences its work. Where Land Rights are required from a third party, an estimate of the cost of acquiring those rights will be included in the Company's Connection Charge to you.

If the Land Rights that the Company requires cannot be obtained by negotiation, the Company may exercise its powers of compulsory purchase (Section 10 and Schedule 3 of the Act) or apply to the Secretary of State for a 'necessary wayleave' (paragraphs 6-8 of Schedule 4 of the Act). If the Company does so, it will require you to pay to it the costs that it estimates it will incur in any such proceedings, as well as its estimate of the costs of proceedings before the Lands Tribunal (which determines issues of compensation) and its estimate of what it considers the Lands Tribunal may award as compensation to the landowner and/or anyone interested in the land.

The Company will require payment of the amounts that it estimates in advance of exercising these powers. If the Company's estimate proves to be too low, it will ask you to pay the shortfall before proceeding any further. If the Company's estimate is too high, then on conclusion of proceedings it will refund the difference to you.

2.172.16 Interactive Connection Applications

'Interactive Connection Applications' arise where the Company receives two or more applications for connection which could individually make use of the same part of the Distribution System, but where there is insufficient spare capacity or other network constraints on the Company's Distribution System that will prevent both being connected.

For connections with a requested capacity in excess of 1MVA, the Company will normally apply an interactive connection application process in order to prioritise the applications fairly. The Application Date (please refer to the Connection Process section above) will be used to sequence Connection Offers in time order such that the first Connection Offer will be made to the first applicant to reach the 'application' stage of the process, and so on.

All parties will be notified in writing if their application is interactive, or becomes interactive with others, and the validity period of any current Connection Offer will be reduced to thirty (30) days from the date of any such notification, where more than thirty (30) days is still outstanding.

2.182.17 Unmetered Connections

For some street lighting and other installations, the Company may allow items of equipment to be connected to its Distribution System without a meter. This is subject to the equipment having a low and predictable pattern of consumption; the owner maintaining an auditable inventory ⁷, so that an accurate estimate of consumption can be produced; and the arrangement meeting the requirements of The Electricity (Unmetered Supply) Regulations 2001. In all other circumstances a meter will be required, including where connection is provided to a licensed distribution network.

In addition to job-specific, related Connection Charges, where certain criteria are met the provision of services for Unmetered Connections may be made via a time-based connection service charge ⁸. This is subject to the Company entering into a contract with you for the provision of such services.

⁷ Alternative use of system charges for ongoing use may apply where unmetered connections are not managed within an auditable inventory.

⁸ Colloquially termed 'rent a jointer', being a hiring of resource from the Company to facilitate unmetered connections.

2.192.18 National Grid Electricity Transmission Charges to the Company

The Company has an obligation under the CUSC to discuss certain requests for connection or changes in connection with National Grid. Such requests are typically for large electrical demand or generation projects. Under certain circumstances, as determined by National Grid, they may apply charges to assess the potential impact on the transmission system of a request or the combined effect of a number of requests. Subsequent to such assessment National Grid may also require works to be undertaken on their transmission system as a condition of your connection being permitted. In the event of National Grid applying charges for assessment activity and/or subsequent works the Company will reflect such costs in its charges to the requesting party as appropriate in accordance with its Methodology.

2.202.19 Examples

The following examples are included to illustrate the connection charge methodology principles described above. Whilst representative of a number of actual connection arrangements that may be encountered, they are not exhaustive and many other physical connection arrangements may be adopted. The cost of assets will be charged in addition to other charge elements as described in Section 2.1 (Introduction). An indication of the level of charges can be found in Sections 3 and 4.

In the diagrams, any new or replacement assets necessary to support the connection are shown in bold type.

Example 1 – Connection for 200 Houses

Application for connection to a development of 200 houses. A new 11kV/LV substation will be required on the site.

To provide connection the following will be required:

New assets

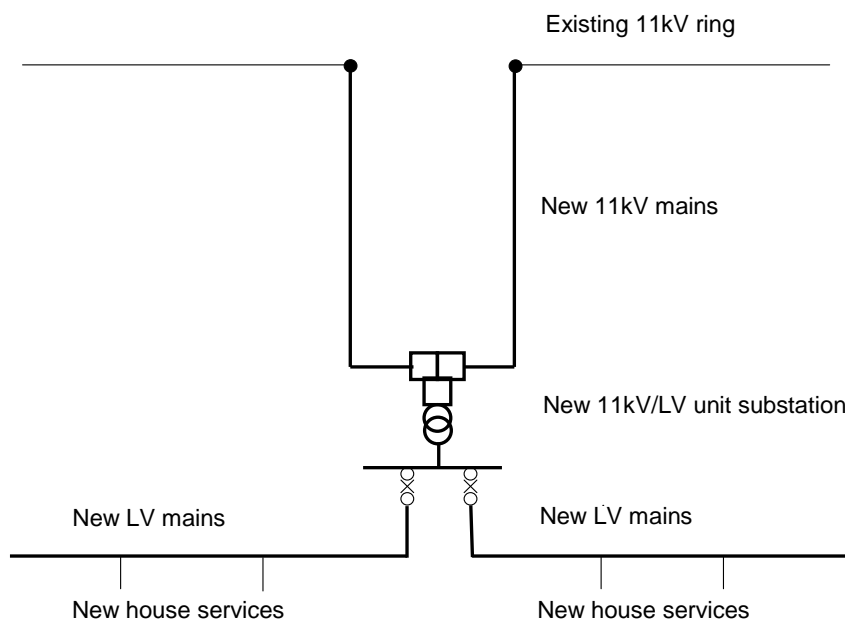
Two 11kV straight joints to existing network

11kV mains extension

11kV/400V unit substation

Low Voltage mains

Single phase services to each house



The connection charge will take account of the following:

Full cost of new assets

Example 2 – Single Industrial or Commercial Connection at LV with Capacity of 600kVA

Application for 600kVA at 230/400V. A new substation will be required on the customer's Premises. The customer has asked for a ring connection to be provided.

To provide connection the following will be required:

New assets

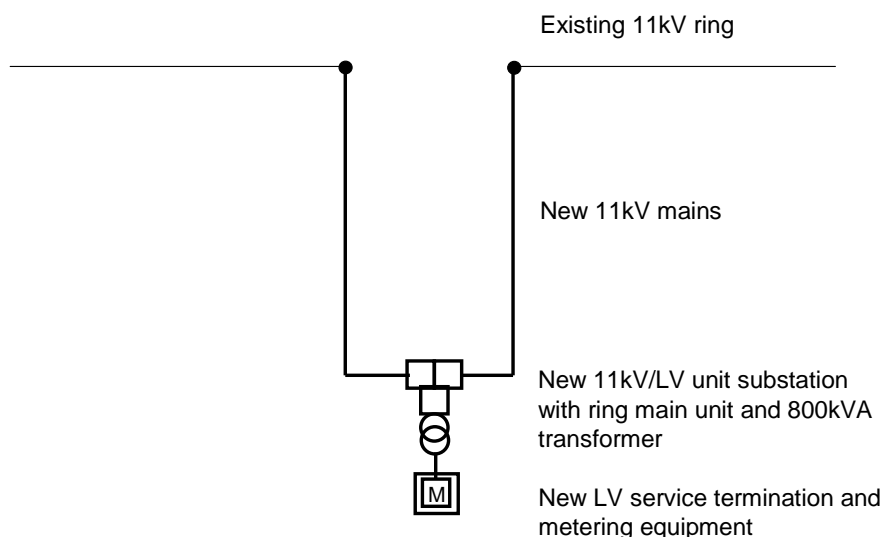
Two 11kV straight joints to existing network

11kV mains extension

11kV/400V unit substation with 800kVA transformer

Service termination

Metering current transformers/panel



The Connection Charge will take account of the following:

Full cost of new assets and;

Capitalised repairs and maintenance charge for the additional assets provided for enhanced security of supply (i.e. the second 11kV cable and associated equipment) applied at 18% of the additional costs.

Example 3 – Single Industrial or Commercial Connection at LV with Capacity of 200kVA Where Reinforcement is Required

Application for 200kVA at 230/400V. Connection will be to an existing LV main but reinforcement at the local 11kV/LV substation will be required.

To provide connection the following will be required:

Reinforcement

Replacement 800kVA transformer at existing 11kV/LV substation

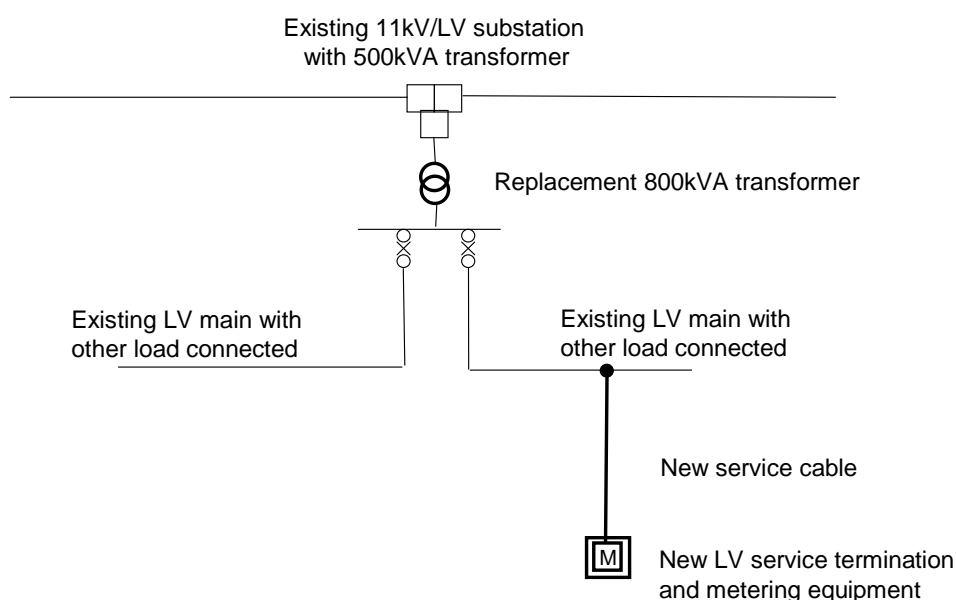
New assets

Service joint to existing LV main

Service cable

Service termination

Metering current transformers/panel



The Connection Charge will take account of the following:

Full cost of new assets and:

25% of the full cost of the replacement 800kVA transformer - calculated under the security CAF as 200kVA/800kVA

(No credit value will be given in respect of the recovered 500kVA transformer)

Example 4 – Single Industrial or Commercial Connection at 11kV with Capacity of 5MVA Where Reinforcement is Required

Application for 5MVA at 11kV. The customer has requested that two 11kV feeders are provided so as to achieve an enhanced security of supply. Reinforcement at a 33/11kV substation will be required.

To provide connection the following will be required:

Reinforcement

Two replacement 18MVA transformers at existing 33/11kV substation

New assets

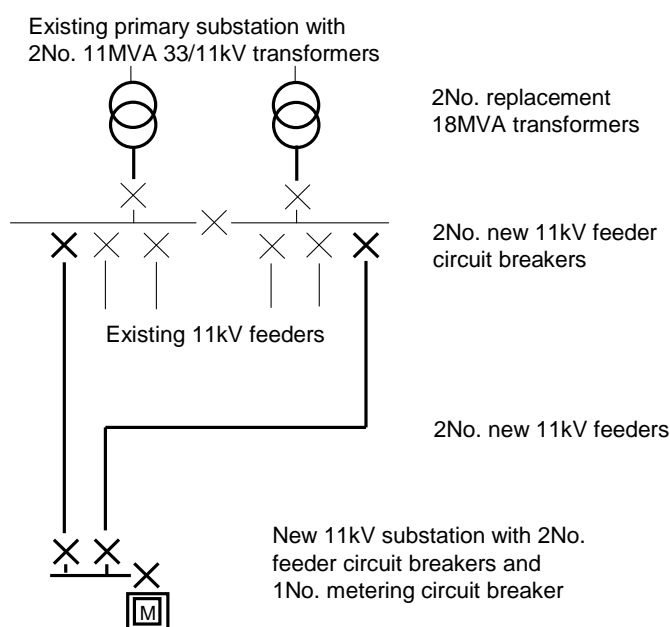
Two 11kV feeder circuit breakers at 33/11kV substation

Two 11kV feeders to the site

Two 11kV feeder circuit breakers at intake substation

11kV metering circuit breaker at intake substation

Metering panel at intake substation



The Connection Charge will take account of the following:

Full cost of new assets and:

Capitalised repairs and maintenance charge for the additional assets provided for enhanced security of supply (i.e. the second new 11kV feeder and associated 11kV circuit breakers) applied at 18% of the additional costs; and

27.8% of the full cost of the two replacement 18MVA transformers - calculated under the security CAF as 5MVA/18MVA

(No credit value will be given in respect of the two recovered 11MVA transformers)

Example 5 – Generator Connection at 11kV with Export Capacity of 5MVA Where Reinforcement is Required Due to Fault Level

Application for a generator connection of 5MVA at 11kV. Customer has requested only a single 11kV feeder to the site. The generator will have a fault level contribution of 25MVA at the new intake substation. The 11kV switchboard at the 33/11kV substation is to be replaced only to accommodate the increased fault level.

To provide connection the following will be required:

Reinforcement

Replacement 380MVA rated 11kV switchboard at existing 33/11kV substation

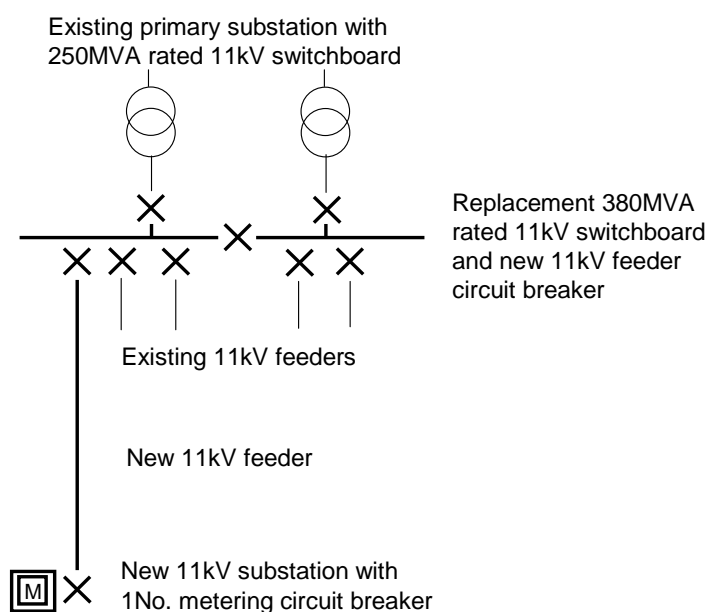
New assets

11kV feeder circuit breaker at existing 33/11kV substation

11kV feeder to the site

11kV metering circuit breaker at intake substation

Metering panel at intake substation



The Connection Charge will take account of the following:

Full cost of 'new' assets and:

19.7% of the full cost of the replacement 380MVA 11kV switchboard - calculated under the fault level CAF as $3 \times 25\text{MVA}/380\text{MVA}$

(No credit value will be given in respect of the recovered 11kV switchboard)

(This example assumes that the £200/kW reinforcement threshold described in Section 2.3 is not exceeded. If this threshold were exceeded then the CAF

would be applied up to the total reinforcement cost £200/kW limit and any costs in excess of this level would be charged in full)

Example 6 – Generator/Demand Connection at 11kV with Export Capacity of 5MVA and Import Capacity of 3MVA Where Reinforcement is Required Due to Both Capacity and Fault Level

Application for 11kV connection to a site having an export capacity of 5MVA and an import capacity of 3MVA when the generator is not operating. Customer has requested only a single 11kV feeder to the site. The generator will have a fault level contribution of 25MVA at the new intake substation. The 33/11kV transformers are to be replaced to accommodate the new 3MVA demand. The 11kV switchboard at the 33/11kV substation is to be replaced to accommodate both the new 3MVA demand and the additional fault level.

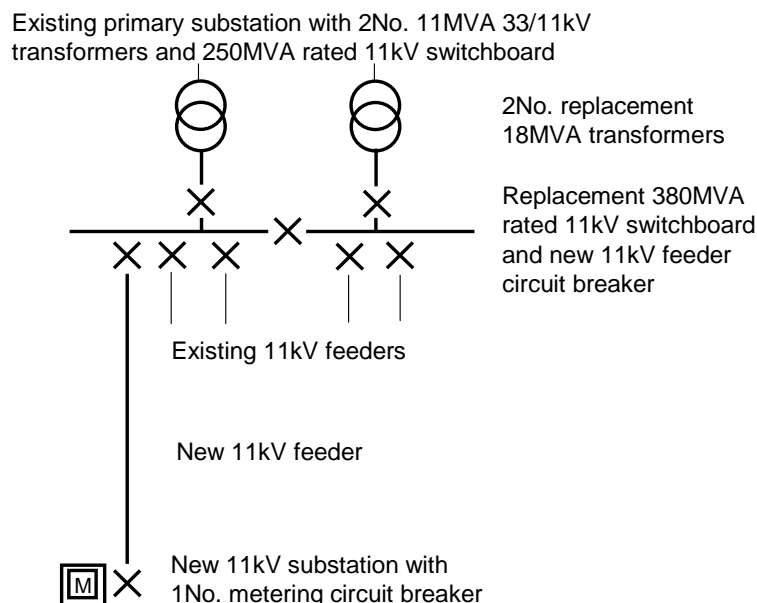
To provide connection the following will be required:

Reinforcement

Two replacement 18MVA transformers at existing 33/11kV substation
380MVA rated 11kV switchboard at existing 33/11kV substation

New assets

11kV feeder circuit breaker at existing 33/11kV substation
11kV feeder to the site
11kV metering circuit breaker at intake substation
Metering panel at intake substation



The Connection Charge will take account of the following:

Full cost of 'new' assets and:

16.7% of the full cost of the two replacement 18MVA transformers and an equivalent 250MVA rated 11kV switchboard – calculated under the security CAF as 3MVA/18MVA; and

19.7% of the additional cost of the replacement 380MVA 11kV switchboard over and above the full cost of the equivalent 250MVA 11kV switchboard considered above - calculated under the fault level CAF as 3 x 25MVA/380MVA

(No credit value will be given in respect of the recovered 33/11kV transformers or 11kV switchboard)

(This example assumes that the £200/kW reinforcement threshold described in Section 2.3 is not exceeded. If this threshold were exceeded then the CAFs would be applied as appropriate up to the total reinforcement cost £200/kW limit and any costs in excess of this level would be charged in full)

Section 3 – Items of Significance Liable to be Required for the Connection

3.1 Tables

The following tables contain illustrative charges for significant items, which may form part of a Connection Charge, and are based on the assumption that the Premises are located close to the Distribution System and that sufficient spare capacity exists. For many connections, it will be necessary to add elements from some or all of the tables as appropriate. The costs should be considered together with the other charge elements as described in the tables in Section 4.

The examples are based on underground cable networks in urban (excluding inner city) areas. In other circumstances different charges will apply, e.g. inner city areas and rural areas with overhead line networks.

The examples do not include charges for any special traffic management measures, which will be charged as an additional sum where appropriate.

Much higher charges will apply in other situations, including where works on the Company's Extra High Voltage (EHV) system are required.

The examples do not include capitalised operation, repair and maintenance charges, which will be applied as appropriate.

Low Voltage (230/400 Volt) Services	Illustrative Charge (£) – EPN	Illustrative Charge (£) – LPN	Illustrative Charge (£) – SPN
Single-phase 100 amp service, including: <ul style="list-style-type: none"> • 100 amp fusible cut-out on your Premises • Up to 40 metres of service cable on your Premises in trench or duct provided by others • Connection to LV main cable including excavation for joint in public footpath, jointing, permanent reinstatement and liaison with highway authority 	£A	£A	£A
Three-phase 100 amp service, including: <ul style="list-style-type: none"> • 100 amp fusible cut-out on your Premises • Up to 40 metres of service cable on your Premises in trench or duct provided by others • Connection to LV main cable including excavation for joint in public footpath, jointing, permanent reinstatement and liaison with highway authority 	£B	£B	£B
Three-phase 300 amp service, including: <ul style="list-style-type: none"> • Metering current transformer chamber • 300 amp fusible cut-out on your Premises • 10 metres of service cable on your Premises in trench or duct provided by others • Connection to LV main cable including excavation for joint in public footpath, jointing, permanent reinstatement and liaison with highway authority 	£C	£C	£C
100 metres of three phase 300 amp mains cable in public highway (footpath), including: <ul style="list-style-type: none"> • Excavation, cable laying, permanent reinstatement and liaison with highway authority • Joint to the Distribution System • Pressure end 	£E	£E	£E
Additional 'road crossing' charge, including: <ul style="list-style-type: none"> • 10 metres excavation in road carriageway (single carriageway road) • 10 metres of three phase 300 amp mains cable • Permanent reinstatement • Liaison with highway authority 	£F	£F	£F

High Voltage (11,000 Volt) Mains Extensions	Illustrative Charge (£) – EPN	Illustrative Charge (£) – LPN	Illustrative Charge (£) – SPN
100 metres of three phase 300 amp HV mains cable in public highway (footpath), including: <ul style="list-style-type: none"> • Excavation, cable laying, permanent reinstatement and liaison with highway authority • Outage of existing HV network to facilitate final connection • Joint to the Distribution System • Pressure end 	£G	£G	£G
100 metres of three phase 300 amp HV mains cable on customer Premises in trench or duct provided by others, including: <ul style="list-style-type: none"> • Installation of HV cable on your Premises • Excavation for jointing in public highway (footpath), permanent reinstatement and liaison with highway authority • Outage of existing HV network to facilitate final connection • Joint to the Distribution System • Pressure end 	£H	£H	£H
Additional 'road crossing' charge, including: <ul style="list-style-type: none"> • 10 metres excavation in road carriageway (single carriageway road) • 10 metres of three phase 300 amp HV mains cable • Permanent reinstatement • Liaison with highway authority 	£I	£I	£I

Electrical Plant (Excluding Land, Buildings, Civil Works and Land Rights)	Illustrative Charge (£) – EPN	Illustrative Charge (£) – LPN	Illustrative Charge (£) – SPN
Unit substation, including: <ul style="list-style-type: none"> • 11kV ring main unit • 800kVA 11kV/LV transformer • 5 way LV fuse cabinet • All HV and LV cable terminations 	£J	£J	£J
Substation to provide 11kV metered connection for capacity of up to 3.8MVA, including: <ul style="list-style-type: none"> • 11kV ring main unit • 11kV metering unit with secondary connection to metering panel • All HV cable terminations 	£K	£K	£K

The charges shown in this section are current at the time of publication but are subject to change without notice.

3.2 Factors Influencing Costs and Charges

The above examples are representative of many connections, but the following factors can cause significant variations in charges:

- Length of cable/line required from existing system;
- Size of customer demand in relation to available capacity of existing network, including the age of the assets and the condition of the network;
- Whether any extension or reinforcement of the existing network is by underground cable or overhead lines;
- Type of ground requiring excavation; type and extent of reinstatement necessary (including New Roads and Street Works Act 1991 requirements); need for road crossings;
- Availability of Land Rights for Electric Lines and Electrical Plant including any planning consents;
- Availability of suitable substation sites including any necessary planning consents;
- Necessity of overtime working;
- Market factors influencing raw material prices and labour;
- Traffic management statutes and regulations;
- Customer-specific timescales and sequencing; and
- Statutory obligations and other standards governing the system.

3.3 Items Included in the Illustrative Charges

The provision and installation of all Electric Lines and Electrical Plant required to make the connection. This includes the Company's provision of equipment, labour and materials, and installation charges.

Section 4 – Indicative Charges for Non-Contestable Work

4.1 Introduction

This section provides an indication of the Company's Connection Charges for carrying out Non-Contestable Works. Higher charges will apply in some circumstances, e.g. connections at remote locations or where EHV works are required. All charges shown are exclusive of VAT.

The figures shown in this section are for works on the Company's Low Voltage and 11kV networks only and are **in addition** to the charges indicated in Section 3 for the installation of Electrical Plant and Electric Lines.

While the design work for some Network Extensions is 'contestable', it is included in this section for convenience.

4.2 Assessment and Design

Assessment and design charges are shown in the tables below – one table for each licensee. ~~The tables are structured to allow you to identify the advance payment that you must include with your application.~~ Assessment and design charges will be included within each ~~apply if you would like the Company to provide a~~ formal Connection Offer.

For some projects, additional design charges may be applied. These are for works that may not be obvious to you at the time of application and are as indicated in the subsequent 'Additional Design Charges' table. ~~However, with the exception of works required on the Company's EHV network, e~~Additional design charges will be included in the Connection Offer and are not required to be paid in advance of design.

~~Assessment, design and additional design charges are not also recovered within other charge elements and are therefore not deducted from any subsequent Connection Charge.~~

The assessment and design table contains charges shown in three columns. This is to facilitate arrangements where an Approved Contractor is to carry out the design of the Network Extension.

Where the Company is required to carry out the design of the Network Extension, only the figures in Column A will apply.

Where the Network Extension design works are to be carried out by an Approved Contractor, the sum of Column B plus Column C will apply. The Approved Contractor may choose to pay these together or separately, but ~~charges for design approval each~~ must be paid in advance of ~~each~~ this element of work being undertaken. ~~Payment of the Column B 'assessment only' amount will allow the Company to provide an initial point of connection decision.~~



EPN

Table 1 (EPN) - Assessment and Design - EPN	Col A	Col B	Col C
(This table should be read in conjunction with the notes below)	Assessment and Design (£)	Assessment Only (£)	Design Approval (£)
Unmetered connections Price of 1 st Connection plus for each additional connection (per site*)	£A + £B/ connection	£C + £D/ connection	£E+ £F/ connection
Domestic connections (1–4 dwellings) Price for 1 dwelling Price for 2 dwellings Price for 3 dwellings Price for 4 dwellings	£G £J £M £P	£H £K £N £Q	£I £L £O £R
Domestic connections (5–1000 dwellings) Price for 5 dwellings plus for each additional connection (per site*)	£S + £T/ connection	£U + £V/ connection	£W + £X/ connection
Industrial or commercial connections up to 70kVA (per site*)	£Y	£Z	£AA
Industrial or commercial connection(s) (71–8000kVA) For first 70 kVA plus for each additional kVA (per site*)	£AB + £AC/kVA	£AD + £AE/kVA	£AF + £AG/kVA
Establish maximum capacity of an existing connection (where a site visit is required)	-	£AH	-

* - A 'site' consists of either single or adjacent Premises and is that included within one Connection Offer.

LPN

Table 1 (LPN) - Assessment and Design - LPN	Col A	Col B	Col C
(This table should be read in conjunction with the notes below)	Assessment and Design (£)	Assessment Only (£)	Design Approval (£)
Unmetered connections Price of 1 st Connection plus for each additional connection (per site*)	£A + £B/ connection	£C + £D/ connection	£E + £F/ connection
Domestic connections (1–4 dwellings) Price for 1 dwelling Price for 2 dwellings Price for 3 dwellings Price for 4 dwellings	£G £J £M £P	£H £K £N £Q	£I £L £O £R
Domestic connections (5–1000 dwellings) Price for 5 dwellings plus for each additional connection (per site*)	£S + £T/ connection	£U + £V/ connection	£W + £X/ connection
Industrial or commercial connections up to 70kVA (per site*)	£Y	£Z	£AA
Industrial or commercial connection(s) (71–8000kVA) For first 70 kVA plus for each additional kVA (per site*)	£AB + £AC/kVA	£AD + £AE/kVA	£AF + £AG/kVA
Establish maximum capacity of an existing connection (where a site visit is required)	-	£AH	-

* - A 'site' consists of either single or adjacent Premises and is that included within one Connection Offer.

SPN

Table 1 (SPN) - Assessment and Design - SPN	Col A	Col B	Col C
(This table should be read in conjunction with the notes below)	Assessment and Design (£)	Assessment Only (£)	Design Approval (£)
Unmetered connections Price of 1 st Connection plus for each additional connection (per site*)	£A + £B/ connection	£C + £D/ connection	£E+ £F/ connection
Domestic connections (1–4 dwellings) Price for 1 dwelling Price for 2 dwellings Price for 3 dwellings Price for 4 dwellings	£G £J £M £P	£H £K £N £Q	£I £L £O £R
Domestic connections (5–1000 dwellings) Price for 5 dwellings plus for each additional connection (per site*)	£S + £T/ connection	£U + £V/ connection	£W + £X/ connection
Industrial or commercial connections up to 70kVA (per site*)	£Y	£Z	£AA
Industrial or commercial connection(s) (71–8000kVA) For first 70 kVA plus for each additional kVA (per site*)	£AB + £AC/kVA	£AD + £AE/kVA	£AF + £AG/kVA
Establish maximum capacity of an existing connection (where a site visit is required)	-	£AH	-

* - A 'site' consists of either single or adjacent Premises and is that included within one Connection Offer.

For projects involving the following connections:

- domestic connections of over 1,000 dwellings;
- industrial or commercial connection(s) over 8000kVA; or
- where EHV works are required.

site specific assessment and design charges will apply.

Unmetered connections, landlord's connections for communal areas in flats and connections for pumping stations and temporary builders' supplies up to 70kVA, which form part of a housing development, will each be charged at the rate for an additional domestic connection.

Multi-connection industrial or commercial developments will be charged in accordance with the same methodology as for a single connection with the sum of the requested individual maximum power requirements.

In all cases Licensed Distribution Networks will be charged by kVA capacity requirement (i.e. as for Industrial or Commercial connections).

Redesign of the original scheme will be charged at 50% of the above rates.

Additional design charges are shown in the table below. These charges will be made in circumstances where costs additional to those represented in the assessment and design table will be incurred. This is likely to apply in respect of premises remote from the existing network, where reinforcement of the existing network is required, where bespoke civil works designs are required, or where legal negotiations are required. Additional design charges will be included within the Connection Offer.

Table 2 - Additional Design Charges (all areas)	Charge (£)
<p>Non-standard substation civil works design (per 11kV/LV substation)</p> <p>Premises remote from the point of connection to the existing Distribution System (> 1km - straight line)</p> <p>Special engineering requirements for crossing of bridges, railways, waterways, major roads etc.</p> <p>Requirement to reinforce existing assets</p> <p>Land Rights required from third party landowners</p> <p>Section 37 consent under the Act, required for overhead line</p>	Price on application

4.3 Other Charges

Table 3 - Additional Charges (all areas)	Charge (£)
Inspection of substation civil works (per 11kV/LV substation)	Price on application
Additional site visit at your request or where otherwise reasonably required	£BA
Abortive field team site visit due to your programme failure	£BB

Glossary of Terms

Abbreviation	Full Description
Act	The Electricity Act 1989 (as amended).
Agreement	The agreement resulting from your acceptance of the Company's offer to connect you to its Distribution System.
Application Date	The date and time the Company receives the complete set of data which it considers necessary to deal with the connection application, together with (where applicable) the payment for the associated design work.
Approved Contractor	A contractor having a current approval from the Company and Lloyds Register to carry out the Contestable Works.
Authorised Distributor	An electricity distributor authorised by licence or exemption under the Act to distribute electricity.
Authorised Electricity Operator	Any person (other than the licensee) who is authorised to generate, participate in the transmission of, distribute or supply electricity.
Authorised Supplier	An electricity supplier authorised by licence or exemption under the Act to supply electricity.
Authority	The Gas and Electricity Markets Authority established under Section 1 of the Utilities Act 2000.
Balancing and Settlement Code (BSC)	The Balancing and Settlement Code which is required to be in place pursuant to the transmission licence granted to the system operator.
Connection Agreement	An agreement that sets out the terms upon which you will be and remain connected to the Company's Distribution System.
Connection and Use of System Code (CUSC)	The Connection and Use of System Code which is required to be in place pursuant to the transmission licence granted to the system operator.
Connection Charge	The charge the Company will make for providing a connection to its Distribution System.
Connection Offer	The offer containing terms, conditions and charges upon which the Company will make the connection to its Company's Distribution System.

Abbreviation	Full Description
Connection Process	The interaction between the applicant and the Company necessary for a new connection to be made.
Construction Agreement	An agreement to set out the terms, conditions and charges for the physical connection to the Company's Distribution System.
Construction and Adoption Agreement	An agreement between the applicant and the Company under which, subject to the satisfaction of certain conditions, the Company will adopt assets that have been constructed by an Approved Contractor on behalf of a developer or other party under the Company's provisions for competition in connections.
Contestable Work	Works for the provision of a new connection that the Company has agreed can be procured from an Approved Contractor.
Design	For the purposes of this publication, Design means planning, designing and specifying activities.
Distribution Code	A code prepared by the Company pursuant to Condition 921 of the Licence.
Distribution System	The system consisting (wholly or mainly) of Electric Lines owned or operated by the Company and used for the distribution of electricity between grid supply points or generation sets or other entry point to the points of delivery to customers or authorised electricity operators and includes any remote transmission assets operated by the Company and any Electrical Plant meters and metering equipment owned or operated by the Company in connection with the distribution of electricity but shall not include any part of a transmission system.

Abbreviation	Full Description
Electric Lines	<p>Any line which is used for carrying electricity for any purpose and includes, unless the context otherwise requires:</p> <ul style="list-style-type: none"> i) any support for any such line, that is to say, any structure, pole or other thing in, on, by or from which any such line is or may be supported, carried or suspended; ii) any apparatus connected to any such line for the purpose of carrying electricity; and iii) any wire, cable, tube, pipe or other similar thing (including its casing or coating) which surrounds or supports, or is surrounded or supported by, or is installed in close proximity to, or is supported, carried or suspended in association with such line.
Electrical Plant	<p>Any plant, equipment, apparatus or appliance used for or for purposes connected with the generation, transmission, distribution or supply of electricity other than:</p> <ul style="list-style-type: none"> i) an Electric Line; ii) Metering Equipment; iii) an electrical appliance under the control of the consumer.
Engineering Recommendation P2/6	<p>The planning standard, cited within Standard Condition 524 of the Company's Licence, against which all assessments of network security must be undertaken.</p>
Exit Point	<p>The point at which a customer's installation or another distributor's system connects to the company's Distribution System such that electricity may flow from or to the Distribution System.</p>

Abbreviation	Full Description
Export Capacity	<p>The maximum export capacity of electricity expressed in kVA (kilovoltamperes) to;</p> <ul style="list-style-type: none"> • flow through the Point of Connection as specified in the relevant terms of construction, and • flow through each distinct Exit Point to the Distribution System from a Customer's Installation or another distributor's system as specified in the relevant terms of construction, OR • flow through each distinct Exit Point to the Distribution System from a Customer's Installation or another distributor's system as specified in the relevant terms of use of connection.
Extra High Voltage (EHV)	A voltage level at or higher than 22kV, or at a substation with a primary voltage of 66kV or above.
Energisation	Means the operation of any switchgear, the insertion of any fuse, the making of any joint or the taking of any other step so as to enable an electrical current to flow to or from the Distribution System.
Grid Code	The Grid Code which a transmission licensee is required to have in place pursuant to its transmission licence.
High Voltage (HV)	A voltage exceeding 1000 volts alternating current.
Import Capacity	<p>The maximum import capacity of electricity expressed in kVA (kilovoltamperes) to;</p> <ul style="list-style-type: none"> • flow through the Point of Connection as specified in the relevant terms of construction, and • flow through each distinct Exit Point from the Distribution System to a Customer's Installation or another distributor's system as specified in the relevant terms of construction, OR • flow through each distinct Exit Point from the Distribution System to a Customer's Installation or another distributor's system as specified in the relevant terms of use of connection.

Abbreviation	Full Description
Interactive Connection Application	Two or more applications for connection which individually could make use of the same part of the Distribution System but where there is insufficient spare capacity or other constraints of the Company's Distribution System that will prevent both being connected.
Land Rights	<p>A conveyance or transfer to the Company with full title guarantee of the freehold interest in the land on which is to be sited its substation with appurtenant easements in perpetuity; or</p> <p>the grant to the Company with full title guarantee of a 99 year lease of such land and any appurtenant easements; or</p> <p>the grant to the Company with full title guarantee of an easement in perpetuity; or</p> <p>the grant to the Company of a wayleave.</p> <p>The form of document and choice of Land Rights to be acquired in any particular case shall be at the absolute discretion of the Company.</p>
Licence	The Company's distribution licence granted under Section 6(1)(c) of the Act.
Low Voltage (LV)	A voltage not exceeding 1000 volts alternating current.
Metering Equipment	Equipment to measure electrical quantities at entry and exit points on the Company's Distribution System.
Metering Point Administration Number (MPAN)	Unique identifier of those entry or exit points on the Distribution System which are used for the purposes of either taking a supply of electricity or for the connection of a distributed generator, and which forms the basis of the metering point record on the Company's registration system.
National Grid	National Grid Electricity Transmission PLC
Network Extension	An extension to the existing Distribution System.
Non-Contestable Work	Work for the provision of a new connection which can only be carried out by the Company.
Ofgem	Office of Gas and Electricity Markets.
Premises	Includes any land, building or structure.
Point of Connection	The point at which the Network Extension is to be connected to the existing Distribution System
Statement	Section 2 of this document.

Abbreviation	Full Description
Supply Number	Unique identifier of those entry or exit points on the Distribution System which are used for the purposes of either taking a supply of electricity or for the connection of an embedded generator and which forms the basis of the metering point record on the Company's registration system.
Use of System Charges	Charges made by the Company to electricity suppliers for use of its Distribution System.
Unmetered Connections	Connections for some street lighting and other installations which the Company may allow to be connected to its Distribution System without a meter, subject to the equipment having a low and predictable pattern of consumption and its owner maintaining an accurate and up-to-date auditable inventory.
Voltage Connection	of This is the voltage at the Point of Connection.

Appendix – Standard Licence Condition 13

Charging Methodologies for Use of System and connection

Requirements for Charging Methodology

13.1 The licensee must at all times have in force:

(a) a Use of System Charging Methodology which the Authority has approved on the basis that it achieves the Relevant Objectives; and

(b) a Connection Charging Methodology which the Authority has approved on the basis that it achieves the Relevant Objectives

(each, separately, “the Charging Methodology”).

and, except with the consent of the Authority, must comply with the Charging Methodology as modified from time to time in accordance with this condition.

13.2 The licensee must, for the purpose of ensuring that the Charging Methodology continues to achieve the Relevant Objectives:

(a) review the methodology at least once every year; and

(b) subject to paragraph 13.4, make such modifications (if any) of the methodology as are necessary for the purpose of better achieving the Relevant Objectives.

The Relevant Objectives

13.3 The Relevant Objectives in relation to the Charging Methodology are:

(a) that compliance with the methodology facilitates the discharge by the licensee of the obligations imposed on it under the Act and by this licence;

(b) that compliance with the methodology facilitates competition in the generation and supply of electricity, and does not restrict, distort, or prevent competition in the transmission or distribution of electricity;

(c) that compliance with the methodology results in charges which reflect, as

far as is reasonably practicable (taking account of implementation costs),

the costs incurred by the licensee in its Distribution Business; and

(d) that, so far as is consistent with sub-paragraphs (a), (b), and (c), the methodology, as far as is reasonably practicable, properly takes account of developments in the licensee's Distribution Business.

Procedure for modifications

13.4 Unless otherwise directed by the Authority under sub-paragraph (b), before making a modification of the Charging Methodology the licensee must:

(a) give the Authority a report which sets out:

(i) the terms proposed for the modification,

(ii) how the modification would better achieve the Relevant Objectives, and

(iii) a timetable for implementing the modification and the date with effect from which the modification (if made) is to take effect (which must not be a date earlier than the date on which the period referred to in paragraph 13.6 will end); and

(b) if the Authority has directed that sub-paragraph (a) should not apply, comply with such other requirements (if any) as the Authority may specify in its direction.

13.5 Subject to paragraph 13.6, where the licensee has complied with the requirements of paragraph 13.4 it must, before making the modification:

(a) revise the relevant statement of the Charging Methodology (or the most recent version of that statement) published in accordance with paragraph 13.13 so that it sets out the changed methodology and specifies the date from which that is to have effect; and

(b) give the Authority a copy of the revised statement.

13.6 The licensee may not make a modification of the Charging Methodology if, within 28 days of receiving the licensee's report under paragraph 13.4, the Authority has either:

(a) directed the licensee not to make the modification; or

(b) notified the licensee that it intends to consult and then within three months

of giving that notification has directed the licensee not to make the modification.

13.7 A direction given by the Authority under paragraph 13.6(a) or (b) must include:

(a) a decision that the licensee's proposed modification would not better achieve the Relevant Objectives; and

(b) the Authority's reasons for that decision.

Requirements for reports

13.8 The licensee must give or send a copy of any report under paragraph 13.4 or statement under paragraph 13.13 to any person who requests it.

13.9 The licensee may make a charge for any report or statement given or sent under paragraph 13.8 but this must not exceed the amount specified in directions issued by the Authority for the purposes of this condition generally, based on its estimate of the licensee's reasonable costs of providing the report or statement.

Approvals process

13.10 An approval by the Authority under paragraph 13.1 may only be withheld where the Authority has decided that the Charging Methodology does not achieve the Relevant Objectives and by Notice given to the licensee has set out its reasons for that decision.

13.11 Subject to paragraph 13.12, an approval by the Authority under paragraph 13.1 may be granted subject to such conditions as the Authority considers appropriate, having regard, in particular, to:

(a) the need for any further action to be undertaken by the licensee to ensure that the Charging Methodology would better achieve the Relevant Objectives; and

(b) the time by which such action must be completed.

13.12 No condition imposed under paragraph 13.11 is effective unless, before granting the relevant approval, the Authority has informed the licensee of its intention to impose the condition in a Notice which:

(a) sets out the nature and contents of the condition; and

(b) specifies a period of at least 28 days within which representations or objections with respect to the condition may be made, and has considered any representations or objections duly made by the licensee and not withdrawn.

Publication of Charging Methodology

13.13 The licensee must ensure that each Charging Methodology that is in force under this condition is set out in a statement (which must be combined, in the case of the Connection Charging Methodology, with the Connection Charging Statement issued under paragraph 1 of standard condition 14) that is published in such manner as the licensee believes will ensure adequate publicity for it (including on the licensee's Website, if it has one).

Interpretation

13.14 For the purposes of this condition:

Charging Methodology means a complete and documented explanation, presented in a coherent and consistent manner, of the methods, principles, and assumptions that apply:

(a) in relation to Use of System, for determining the licensee's Use of System Charges; and

(b) in relation to connections, for determining the licensee's Connection Charges.