



Central Networks West

CONNECTION CHARGING METHODOLOGY

This statement is effective from 1st December 2006

This statement has been approved by the Gas
and Electricity Markets Authority (GEMA)

plc

Central Networks West

Registered in
England and Wales
No. 3600574

Park

Registered office:
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Contents

SECTION 1 – GENERAL INTRODUCTION 3

- Who we are 3
- Licence Obligations 3
- Statutory Obligations 4
- Regulatory Obligations 4
- Aims of This Statement 4
- Persons Entitled to Apply For Connection 4
- Connection and Use of System Boundary 5
- Works For The Provision of a Connection 5
- Procedure For Getting a Connection 7

SECTION 2 – METHODOLOGY 8

- Introduction to the Connection Charging Methodology 8
- Outline Quotations and Firm Quotations 10
- Payment Policy 11
- The Electricity (Connection Charges) Regulations 2002 11
- Charging Policy 11
- Charges 12
- Temporary Connections 12
- Changes in Connection Capacity 12
- Terms and Conditions 13
- “High Cost” Generator Projects 13

SECTION 3 – ESSENTIAL INFORMATION 15

- Your Initial Request – Information We Require 15
- What to Expect in the Quotation 15
- Outline Quotations and Firm Quotations 15
- Helpful Advice for Reducing Your Connection Charge 16
- Quotation Validity 17
- Non-contestable Quotation - where your Approved Contractor completes the Contestable works 17
- Contestable Quotation 17
- Interactive Connection Applications 17
- Definitions 18
- Principles 18
- Wayleaves and Easements Policy 19
- What to Expect After the Quotation 20
- Provision of Information on How to Appoint a Supplier 20

SECTION 4 – WORK THAT MUST BE CARRIED OUT BY US 22

- Establish Point of Connection 22
- What Work Must be Carried Out by us 22

SECTION 5 – WORK THAT WE OR YOUR CONTRACTOR MAY DO 24

- General 24
- Who Can do What Work 24
- Contestable Works (Which can only be carried out by an Approved Contractor) 24
- Points to Note Regarding Adoption of Networks 25
- Construction and Adoption Agreements 25

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Deleted: 10
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Deleted: 11
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Reinforcement and Diversions26

SECTION 6 - CONNECTION ISSUES AND SPECIFIC EXCLUSIONS....28

Unmetered Connections28

Circumstances Permitting Unmetered Supply28

Temporary Disconnection and Reconnection.....29

Termination of Connections at the end of Their Life -
Disconnection29

De-Energisation/Re-Energisation30

Capacity of Domestic Connections30

Land Speculation Enquiries.....31

Large Low Voltage Connections31

Standards of Security31

Generator Connections32

The Distribution Code.....32

Small and Medium Embedded Power Stations34

SECTION 7 – SCHEDULES AND TABLES OF CHARGES.....35

Schedule A – Indicative Charges35

Schedule B – Rent a Jointer Hire Charges.....64

SECTION 8 - DISPUTES.....65

Dispute and Determination Procedure65

SECTION 9 - GENERAL66

Contact Details.....66

Connection Agreements66

Glossary of Terms67

Other Publications70

SECTION 10 – MAP OF OUR DISTRIBUTION SERVICES AREA.....72

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SECTION 1 – GENERAL INTRODUCTION

Who we are

1.1 Central Networks is the electricity distribution business covering central England. Central Networks holds two Distribution Licences covering the East and the West of the region. This statement is prepared by Central Networks West plc the licensed electricity distribution business serving the west part of the West Midlands Conurbation, the majority of the counties of Gloucestershire, Worcestershire, Herefordshire and Shropshire, the west part of Staffordshire including the Stoke conurbation and small parts of Oxfordshire (Banbury), Warwickshire (Stratford) and Cheshire (Congleton). Our service area is shown on the map in Section 10. Our Distribution Licence is issued under the Electricity Act 1989 as amended by the Utilities Act (2000). In this statement Central Networks West plc is referred to as 'Central Networks', although certain of the responsibilities may be undertaken by associated companies or agents.

Licence Obligations

1.2 Central Networks is regulated by Ofgem under primary legislation of the Electricity Act 1989 as amended by the Utilities Act 2000 (the Act), the Competition Act 1998 and through the granting of an Electricity Distribution Licence.

1.3 This statement is produced in accordance with our Electricity Distribution Licence and we will review the statement at least once in every year to ensure that the information continues to be accurate in all respects. Costs shown in this statement are current at the time of publication and are subject to change without notice except as otherwise provided by agreement.

1.4 This statement describes the terms and conditions under which any person entitled to apply may apply for a new, increased or reduced connection to Central Networks' Distribution System.

1.5 This statement also describes the Connection Charging Methodology under which a person applying for a connection will be charged for that connection to Central Networks' electricity Distribution System.

1.6 Words and expressions used in this statement have the meanings given to them in the Act, or as set out in the Glossary of Terms. In this statement the words "you", "your", and "yourself" refer to you, your company or agent and "we", "us", "our" and "ourselves" refer to Central Networks or our agents.

Statutory Obligations

1.7 Where a person requires a connection to our Distribution System, pursuant to section 16(1) of the Act, the provisions of this statement are without prejudice to the provisions of sections 16 to 24 of the Act.

Regulatory Obligations

1.8 Our response time to any person seeking a new, increased or reduced capacity connection will be in accordance with our Licence, the Electricity (Standards of Performance) Regulations 2005. In our response we will specify the proposed point of connection to our existing Distribution System and offer terms for the connection works.

Aims of This Statement

1.9 The aims of this statement are

- a. To provide a clear and understandable guide to those areas of connections open for competition, and allow a reasonable estimate of charges for those works if they are carried out by us; and
- b. To provide sufficient information on the cost of standard items of plant which are commonly used when we are providing the connection to allow a reasonable estimate of charges to be made once the point of connection has been decided.

Persons Entitled to Apply For Connection

1.10 Application for a connection to our Distribution System can be made by: -

- (i) the owner or occupier of the premises; or
- (ii) an Approved Contractor acting with the consent of the customer; or
- (iii) an authorised Supplier or agent acting with the consent of the owner or occupier, for the purpose of conveying electricity to or from the premises; or
- (iv) an authorised distributor wishing to connect a Distribution System for the purpose of conveying electricity to or from that system.

1.11 For the avoidance of doubt the premises or Distribution System must be metered or, if appropriate unmetered, the Electricity (Unmetered Supply) Regulations 2001 describe the circumstances

under which an unmetered supply may be given) to allow a flow of electricity to pass across the point of connection. Any metering issues you may have should be referred to your Supplier.

- 1.12 Please note: If you intend to use an Approved Contractor to carry out the Contestable Works for the provision of your connection, we will require formal evidence that he has been appointed by you to act on your behalf. You will need to ensure that your Approved Contractor is accredited to carry out all the works associated with the Contestable Works.

Connection and Use of System Boundary

- 1.13 Central Networks splits the recovery of costs between connection to the Distribution System and on-going Use of System Charges for utilisation of the network. The boundary point at which this split occurs is common for both demand and generation customers. This statement details the charging methodology that is applied for the calculation of the charge for the connection to the Distribution System. In addition the statement details the connection charging methodology used to calculate the connection charges whilst the 'Use of System Charging Statement' details the use of system charges that are applied. The former statement also contains indicative charges and examples to aid understanding of Connection charges. Copies of these statements can be obtained via our website, www.central-networks.co.uk. Alternatively a hard copy can be supplied with subsequent copies at a charge of £5.00.

Works For The Provision of a Connection

- 1.14 Our New Connections business can provide upon request a connection solution to meet your requirements from initial discussions through to the final installation works. However, Instead of asking us to offer/carry out connection works on the terms described in this statement, you may choose to appoint an Approved Contractor to carry out certain connection works which are open to competition. These connection works are called Contestable Works and are more fully described in Section 5 of this statement.
- 1.15 Certain competitive work may be carried out by you or a person acting on your behalf. Such a person does not require Approved Contractor status to carry out these works. Please refer to Section 5 for a list of these works.
- 1.16 Works which must be carried out by us are called Non-contestable Works. These works are more fully described in Section 4 of this statement.

1.17 Non-contestable charges will be levied by us regardless of who undertakes the Contestable Works and these charges will be quoted accordingly.

Procedure For Getting a Connection

1.18 This paragraph details the information contained within each section of the document.

- Section 2 details our Connection Charging Methodology
- Section 3 outlines essential information.
 - refer to page 13 for the minimum information we require from you before we can give any assistance.
 - refer to page 13 for what to expect from a quotation.
 - refer to page 13 for the difference between a outline quotation and a firm quotation.
 - refer to page 18 for what to expect after you accept the quotation.
- Section 4 outlines certain things we have to do.
 - refer to page 20 for the procedure for getting point of connection information.
 - refer to page 20 for what works are non-contestable.
- Section 5 outlines your choices regarding the connection works.
 - refer to page 21 for information on who can do what work
- Section 6 outlines other connection services available to you.
- Section 7 outlines a broad range of indicative charges to allow a reasonable estimate of charges for connection works undertaken by us.
- Section 8 outlines your rights. Refer to page 58 for the procedure for any complaints and disputes relating to an outline price/quotation or works undertaken by us.
- Section 9 outlines general information relating to connections services, this document and other document references, together with a glossary of terms.
- Section 10 Map showing Central Networks' Distribution Services Area.

SECTION 2 – METHODOLOGY

Introduction to the Connection Charging Methodology

- 2.1 A connection means either a single connection or a multiple connection, such as a housing development, requested by a party and any request for increased capacity in respect of an existing connection. The details contained within this Statement apply to both load and generator connections.
- 2.2 A connection charge will be levied by us for the provision of assets installed to connect the party or parties to the existing Distribution System.
- 2.3 The connection charging methodology, as approved by GEMA, sets out the basis upon which charges will be made for connection to the Distribution System on a shallowish connection policy basis. This interim arrangement essentially moves away from a deep charging regime for distributed generation to a more equitable treatment with demand connections. This statement is in a form and in such detail as to enable a person to make a reasonable estimate of his connection charge. The methodology will be reviewed at least once a year, to ensure that it continues to best meet the relevant objectives as depicted in paragraph 3 of standard condition 4B of our Electricity Distribution Licence. The methodology will apply to both demand and generation schemes e.g. there will now be a common connection charging boundary, and the methodology will apply to all distribution voltages including EHV (i.e. up to 132kV).
- 2.4 We will design the minimum network solution to allow the connection of the relevant party and to meet his Required Capacity. The Required Capacity means the design capacity of the Connection at the ownership boundary, as agreed between the connecting party and Central Networks, and laid down in the Connection Agreement. For multiple connections this may be after taking account of demand diversity and appropriate design standards. Capacity may be for either imports from or exports to the Distribution System and subject to variation in power factor.
- 2.5 On the above basis the costs of any assets required to connect a party to the existing Distribution System are chargeable in full within the Connection Charge. The assets may include extension works, e.g. new overhead lines or cable, along with a contribution to the costs associated with the reinforcement (if any) of the existing Distribution System as determined by the Apportionment Rules. There may also be a requirement for other charges to be included within the connection charge such as connection to the Distribution System in the case of an Independent Connections Provider. This will include such works as joining the Independent Connections Provider's network onto our Distribution System and provision of termination equipment at the boundary. There will be no additional charge for ongoing Repair and Maintenance (R+M) of the minimum connection assets. However,

where there are additional requirements specific to a particular connection which require the installation of assets above and beyond the normal, capitalised R&M will be included in the connection charge. Charges for capitalised R&M reflect average costs associated with various classes of asset, and range between 10% for underground cables to 20% for overhead lines. In determining the connection charge consideration has also to be given to charges as a second or subsequent comer. Under the connection charges regulations, at present, if a new connectee (the second comer) uses assets that have already been paid for by a previous connectee (first comer) then, with certain restrictions, we are required to charge the second comer a proportion of the costs and rebate these to the first comer. With the interim arrangements this will continue for new connection assets but for reinforcement assets the first comer will only have paid a proportionate share of the reinforcement costs so would not have 'over-paid' and would not need or merit a repayment. However, in this case it is important that the second comer is still charged a proportionate share of these reinforcement assets to ensure that they are not free loading on the original investment. The connection charge normally would be a one off charge at time of connection.

2.6 Reinforcement costs will be limited to one voltage level above the voltage of the point of connection. The "25% Rule" for allocation of reinforcement costs has now been removed and replaced with a more proportionate method (the Apportionment Rules) which means that connecting parties (both demand and generation) are required to contribute to reinforcement costs on a sliding scale basis. Apportionment rules provide sufficient locational signals within the connection charge but equally recognise the benefit that other users will get from the assets installed. In the case of network reinforcements the existing assets will be removed and in some cases will be old or not reusable but in other cases will have some residual value and this value (asset) will be retained by us on behalf of customers in general for future use on the system where appropriate. The costs associated with the reinforcement of existing distribution network assets will be split with a share attributed to the connecting party based on their requirements as part of their Connection Charge and the remainder nominally recovered through use of system tariffs.

However if another party subsequently connects to the network and utilises some or all of the remaining capacity, a proportion of the reinforcement costs will be charged to the second comer within the prescribed five year period of when the network was reinforced. Apportionment rules for reinforcement are split between an effective network capacity rule and a fault level rule. It is expected that these will cover most scenarios and there may be interactions between the rules on more complex schemes. The rules are to be applied in a consistent manner, which means the security rule will apply to reinforcement works driven by compliance with the security requirement while any other costs (not already apportioned according to the security rule) associated with any reinforcement of assets to ensure the network fault levels remain within rating will be apportioned according to the fault level rule.

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2.7. The Required Capacity is the capacity requested by a connecting party, or for multiple connections (e.g. a housing development) the total capacity required after we have taken into account diversity of demand. Where an existing customer requests an increase in capacity then the Required Capacity is defined as the incremental capacity required by the customer.

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2.8 The Apportionment Rules provide the following set of cost apportionment factors (CAF) which apply to the reinforcement cost to determine its component within the connection charge. These factors apply to all equipment types and recognise the granularity of their size. Example 6 of Section 7 demonstrates the application of these rules.

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$$\text{Security CAF} = \frac{\text{Required capacity} \times 100}{\text{New Network Capacity}}, \quad \text{maximum 100\%}$$

2.9 The reinforcement here will be driven by either thermal capacity or voltage or both and will be assessed against the relevant security standard (e.g. ER p2/5). We will determine what the effective (secure) capacity of the existing Distribution System is prior to the connection and then the necessary upgrade to ensure the network is secure following the connection of the party. The New Network Capacity is the secure network capacity following the reinforcement of the relevant assets.

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$$\text{Fault Level CAF} = \frac{3 \times \text{fault level contribution from Connection} \times 100}{\text{New Equipment fault Level Capacity}}, \quad \text{max 100\%}$$

2.10 The reinforcement will be driven by fault level restrictions. This rule recognises that the existing network fault levels are predominantly driven by the system connections (transformer impedance) and therefore the capacity is limited to the remaining headroom. It uses the New Equipment fault Level Capacity which is the equipment rating following the replacement of assets.

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Outline Quotations and Firm Quotations

2.11 The charges payable in relation to the provision of a new, increased or reduced capacity connection will be calculated in accordance with the principles set out below. Such principles will also be incorporated to the extent appropriate in the terms and conditions set out in the Connection Agreement.

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2.12 We reserve the right to decide the terms applicable in cases where the normal criteria may not apply following consultation with you, or where we have reasonable grounds for concluding that the proposed

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connection would reduce the security of the Distribution System to a level below the standard required by the Act.

Payment Policy

2.13 We operate a policy of up front payment for all minor projects, usually this is a one-off payment. However, we operate a policy of phased payments geared to key milestones for projects where the project can be broken down into key phases. In these circumstances, we will always remain cash positive.

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The Electricity (Connection Charges) Regulations 2002

2.14 As indicated in this statement, connection charges are based upon the costs of the assets installed for the benefit of the party seeking the connection. In certain circumstances, however, the party seeking the connection will be required to make a payment in respect of assets that are already installed and are to be used for the purpose of giving the supply to that party. The circumstances are laid down in detail in The Electricity (Connection Charges) Regulations 2002 and The Electricity (Connection Charges) (Amendment) Regulations 2002. A copy of these regulations can be found on the HMSO website @ <http://www.hmso.gov.uk/cgi-bin/dialogserver.exe?DB=hmso-new>

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Charging Policy

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2.15 The connection charge will be derived from the estimated costs of the minimum scheme, which would be designed to meet the requirements of the connection for the party to be connected, consistent with sound engineering practices and subject to the specifications and standard sizes of equipment used by us. Where we carry out work and install assets of greater size and capacity than the practicable minimum scheme required for that connection, the costs in excess of that minimum scheme normally would be borne by us. These may include such items as the following:

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- Provision of larger cable sizes and link boxes to allow inter-connection of substations; Inter-connection of HV rings provided that they are not required under Engineering Recommendation P.2/5 in that the new load itself necessitates an alternative connection.

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- Where the minimum scheme is capable of accommodating additional connections and the relevant parties agree at the time of application to pay a share of the connection costs then the costs of the scheme will be apportioned accordingly.

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Charges

2.16 The connection charge payable will reflect the following: -

- cost of equipment and installation (where installed by us)
- provision of Wayleaves/easements associated with the Non-contestable works
- reinforcement if required, (refer to Section 2)
- Diversions of the existing Distribution System if required
- cost of the closing connection to the Distribution System
- diversions (if necessary)
- administrative charges
- any additional live working
- inspections of the Contestable Works.

Please refer to Section 7 for details of these charges.

Temporary Connections

2.17 Where we are asked to provide a Temporary Connection, we will charge the full cost for the work to be done and the assets to be installed for the purpose of making the connection. It is our normal policy to refund a portion of the connection charge in respect of assets used for the connection provided these can be recovered in a cost effective manner by us at the termination of the connection.

Changes in Connection Capacity

2.18 Where, during the lifetime of a connection, you require an increase in your connection capacity, an application should be made to us. Details of where to apply can be found in Section 9 of this statement. Where the increase cannot be accommodated on the existing equipment, reinforcement to the connection equipment and/or the Distribution System will be required, which may result in a connection charge being levied. Where the terms of the connection are provided through a Connection Agreement other than those procured through a supply contract with your supplier, a variation notice is to be signed by both parties before implementation. On application for a new connection, or reinforcement to an existing connection which necessitates asset work being done, to meet the customer's load requirements the customer's ASC will be held at its revised level for a minimum period of 3 years.

~~**2.19** Where, during the lifetime of a connection, you require a reduction in your connection capacity, this will take effect from the next billing period subject to the expiry of any initial term for the Authorised Supply Capacity in your Connection Agreement. However, if you require your connection to be at a lower voltage then a modification to the connection equipment and Distribution System will be required which may result in a connection charge being levied. Where the terms of the connection are provided through a non-standard Connection~~

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Agreement a variation notice is to be signed by both parties before implementation.

~~2.20~~ Any subsequent increase in capacity following a decrease in capacity may result in reinforcement to the connection equipment and/or the Distribution System for which there will be a cost.

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Terms and Conditions

~~2.21~~ The work to be done and the connection charge payable will depend on your requirements and the ability of the Distribution System at the time of application to meet those requirements at the point of connection. The charge payable will also be dependent on other characteristics relevant to the connection, including the effective capacity and voltage level at the relevant part of the network.

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~~2.22~~ Our Condition 25 Long Term Development Statement shows circuit capacity and loading on specified parts of the Distribution System and other relevant information. A summary of this Statement can be found on our website <http://www.central-networks.co.uk/>. However a full version of the Statement can be obtained by e-mailing your request using the e-mail address on our website.

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~~2.23~~ We reserve the right to decide the terms applicable in cases where the normal criteria may not apply following consultation with you, or where we have reasonable grounds for concluding that the proposed connection would reduce the security of the Distribution System to a level below the standard required by the Act.

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“High Cost” Generator Projects

~~2.24~~ There may be certain projects which, because they are such unusually high cost, cannot be incentivised under the main Distributed Generation incentive scheme. In these circumstances, the generator seeking connection (and giving rise to such costs) will be required to fund the additional investment via connection charges. The above will apply to projects where the total reinforcement costs (i.e. the total connection costs less the costs of sole user assets) are in excess of £200 per kW of generation capacity connected. In these circumstances the generator seeking connection will bear all costs in excess of the £200 per kW as part of the connection charge.

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~~2.25~~ Where generators connection requirements are in excess of our design standards (where a particularly high level of security is required for example), the generator will bear all costs in excess of the costs that would be met by Central Networks if the connection was in line with our normal design standards. For the avoidance of doubt Central Networks normal design standards for generator connections generally follow the requirements of Engineering Recommendation P2/5, except that this is deemed to apply to single connections in the case of generation.

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SECTION 3 – ESSENTIAL INFORMATION

Your Initial Request – Information We Require

3.1 You should provide as much information as possible on your requirements, including such detail as loadings, ground conditions, land ownership, scaled drawings, timing, whether the development is to be constructed in phases and if so, timing of the phases, etc. We will base our design/quotation on this information.

3.2 In order for us to provide a quotation, the following information to identify the point of connection and assess the scope of the connection works: -

- A location plan showing the connection point of each property requiring a supply;
- The capacity required for each property given in terms of kVA;
- The date when the connection is required;
- The length of time over which the connection to each property is required, normally referred to as a temporary or permanent connection.

3.3 You may wish to use our standard application form for the purposes of providing the above information, a copy of which can be obtained from our office at the following address or alternatively from our website: -

Address details:

Herald Way
Pegasus Business Park
Castle Donington
Derbyshire
DE74 2TU
Tel. 01332 393393

Website details:

www.central-networks.co.uk

What to Expect in the Quotation

Outline Quotations and Firm Quotations

3.4 Items of significant cost are identified in Section 7. For larger more complex connections, if requested at feasibility study stage, we could provide an outline price for the connection identifying those items of significant cost consistent with the information in Section 7. Where a detailed study is required prior to design of the scheme we will agree with you the relevant study costs.

3.5 Outline price, for the purposes of this document means:

A basic desktop assessment using the items of significant costs in Section 7 which assumes the following criteria;

- no calculations of a technical nature at this stage;
- the voltage that it is likely to be connected to;
- the point of connection, assuming the shortest viable route (using a straight line method), measured from a plan;
- that all third party consents are forthcoming at reasonable cost;
- ground conditions will not be taken into account unless known;
- excavation and reinstatement will be based on standard cable laying depths and relative to the surfaces indicated on the plans.

3.6 An outline price does not constitute an offer to carry out works.

3.7 The formal connection charge will be provided in the form of a quotation and will reflect (subject to the principles set out below):

- our estimated cost of the work to be done and of the assets to be installed by us for the specific benefit of the party seeking the connection.
- the cost of providing cables/lines or plant to meet any abnormal features or special supply requirements of the connection. An illustrative list of such features is contained in Section 7.

3.8 The work to be done and the connection charge payable will depend on your requirements and the ability of the Distribution System to meet those requirements at the point of connection. The charge payable will also be dependent on other characteristics relevant to the connection, including the effective capacity and voltage level at the relevant part of the network. A statement showing circuit capacity and loading on specified parts of the Distribution System and other relevant information will be provided on request, subject to a charge dependent on the amount of work involved in providing this information.

Helpful Advice for Reducing Your Connection Charge

3.9 Our quotation will be based on the minimum connection cost subject to your requirements, However we are happy to discuss with you ways of reducing your connection charge. The list below identifies some of these, which you may wish to consider.

- If you can provide full details of your load requirements when you make your application this will keep the time to a minimum in designing and producing a quotation. Please remember that you have a statutory obligation to provide all relevant information regarding your existing and/or proposed load details.

- Quotations are offered subject to the availability of any necessary legal consents, however, if you are able to provide assistance in these matters, this may help to reduce your connection charge.
- You may wish to consider carrying out the excavation works on your land, for instance the provision and installing of suitable ducts together with any road crossing ducts as necessary. See Section 3 for further details.
- Accepting a service position as close to the distribution system as possible will result in the service cable length being kept to a minimum which in turn will reduce the amount charged by us.
- If a substation is required for your connection(s) you may wish to consider the following: -
 - a Can the substation site/land be provided at no cost to us?
 - b Is the substation site to be provided in the optimum position? (this will be in agreement with us)
 - c Can you construct a substation base and building? (these will be in accordance with our specifications)
 - d Can you provide suitable routes for any cables/overhead lines across your property?

Quotation Validity

3.10 Each quotation we issue will state the length of validity; this is normally for a period of 30 days. However, we reserve the right to withdraw the quotation at any time within this period.

Non-contestable Quotation - where your Approved Contractor completes the Contestable works

3.11 The non-contestable quotation will describe the work which must be carried out by us together with the cost of the works and ongoing maintenance charges if applicable. The quotation will provide the estimated time to complete after the quotation has been accepted.

Contestable Quotation

3.12 The contestable quotation will describe the work that may be carried out by us for the provision of the connection together with the cost of the works. The quotation will provide the estimated time to complete after the quotation has been accepted.

Interactive Connection Applications

3.13 The principles for managing two or more "Interactive Connection Applications" will be in accordance with paragraphs (i) to (xvii) below of this statement.

- i) These principles will normally be used for applications to connect demand of more than 1MVA and generators in excess of 1MW, connected at 11kV and above. However, the Company will also apply the principles in other cases where it is appropriate to do so.

Definitions

- ii) **“Interactive Connection Applications”** are defined as those where offers of connection to two or more applications are made which make use of the same part of the “Existing Network” or “Committed Network” or otherwise have an operational effect on that network such that there is a material impact on the terms and conditions for each connection if it is assumed that one or more of the other connection offers had been accepted.
- iii) **“The Application Date”** for a request for connection is the date on which the Company receives an agreed set of data necessary to progress the connection application and, where applicable, receives the payment for the associated study work.
- iv) **“The Offer Date”** is the date on which the Company sends to the applicant the connection offer.
- v) **“The Acceptance Date”** is the date on which the Company receives from the applicant the signed Connection Offer and, where applicable, any payment.
- vi) **“Existing Network”** means the distribution system that is currently installed and commissioned.
- vii) **“Committed Network”** means assets that are not yet installed and commissioned but which are planned to be so as a result of other connection offers which have been made and accepted and with any applicable charges paid.

Principles

- viii) The Application Date signifies the start date of the formal application for connection process. The data requirements for a customer connection application are specified in the Company’s Distribution Code and are reproduced in the Company’s standard application forms. The cost of the application process and other relevant information are specified in the Company’s Long Term Development Statement (Licence Condition 25) available on our website at www.central-networks.co.uk
- ix) The company will make a Connection Offer on the Offer Date. This will be no later than 90 days after the Application Date, except in cases where the Authority has agreed with the Company for a longer period.
- x) If, in respect of any connection, the Company receives between the Application and Offer Dates one or more connection

applications that meet the definition of Interactive Connection Applications in paragraph ii above, then the Company will inform all parties in writing that the applications are interactive with each other. In addition the terms for connection in each case will also specify that the connection offers are interactive with other applications. (See paragraph xiv below)

- xi) With such interactive requests, the Application Date and time will be used to sequence the offers in time order such that the first offer will be made to the first applicant and so on.
- xii) If after the Offer Date, the Company receives one or more connection applications that meet the definition of Interactive Connection Applications in paragraph ii above, then the Company will inform all the parties in writing that the applications are interactive with other applications.
- xiii) The applicant has 30 days to accept the Connection Offer. The first applicant will, in this period, have priority over subsequent applicants who may receive offers during this time. The offer to the first applicant will explain this. The offers to subsequent applicants will indicate that for some of the period the offer is conditional on the response of the first applicant. The offers will indicate the date at which they become unconditional.
- xiv) In cases where there are multiple applications this prioritisation process will continue in line with the relevant Application Dates and times.
- xv) In making an offer for terms of connection, the Company will take into account the Existing Network and the Committed Network at the time of the application. Any cables, overhead lines or plant specified in an offer are not themselves regarded as part of the committed system until that offer has actually been accepted.
- xvi) The Company will notify all recipients of interactive offers when an acceptance has been received. This notification will state as appropriate either; that their acceptance is acknowledged and they have been successful in their application, or that the connection offer has been withdrawn. On withdrawal of the connection offer, the applicant may wish to re-apply, in which case the Company will issue a revised Connection Offer to the applicant.
- xvii) If, at the request of the first applicant, the Company is required to suspend work on the formal offer, its Application Date will be suspended forthwith. The second applicant will then take priority, be advised accordingly, and a revised offer made."

Wayleaves and Easements Policy

3.14 Where we provide all the connection works and in the event that part or the entire cable route is not in public highway, we will

negotiate a Wayleave or cable easement with the landowner accordingly. If the connection works is carried out by your Approved Contractor, we will require that all Wayleaves or easements necessary will be obtained by him. These will be subject to our prior approval and capable of being transferred to us on adoption of the network.

What to Expect After the Quotation

3.15 You may be required to enter into a Connection Agreement with us. Domestic and small non-domestic connections are normally given under a set of standard terms which are procured on our behalf by your Supplier. Larger connections are normally given under the terms of a Connection Agreement. We will send to you a copy of the agreement (if appropriate) after the quotation has been accepted and you will need to sign and return this before the completion of the connection works.

Please refer to Section 9 for further details on Connection Agreements.

Provision of Information on How to Appoint a Supplier

3.16 Following receipt of your acceptance of the formal offer, we will inform you in writing of the "Supply Number" for the new connection which your chosen electricity Supplier will need to confirm in an Electricity Supply Contract.

3.17 In order to keep timescales to a minimum, you are advised to contact your chosen Supplier ahead of the completion of the connection works to provide him with the "Supply Number" details.

3.18 Your chosen Supplier will need to know when the connection works will be completed in order to arrange for the metering to be installed. **You should note that we are not an electricity Supplier and we cannot make these arrangements on your behalf.**

3.19 We would recommend that once a date for completion of the connection works is confirmed you should advise your chosen Supplier so they can arrange timely provision of the metering.

3.20 You should satisfy yourself that your chosen Supplier has appropriate contracts in place to allow them to trade in our area. **Please note that we are unable to give advice on a choice of Supplier.**

3.21 You will need to decide if your chosen Supplier is able to arrange for your connection to be made live. If he is unable to do this you will need to choose an alternative Supplier who can carry out this work.

3.22 You may wish to visit the Ofgem or energywatch websites for details of Suppliers operating in the UK.

Ofgem website address: <http://www.ofgem.gov.uk>

Energywatch website address:

<http://www.energywatch.org.uk>

3.23 Once you have chosen your Supplier, he will then nominate a Meter Operator. We will need to know who these are as we have to provide them, in certain cases, with information regarding your connection equipment. We also need to know the identity of the Supplier and Meter Operator in order to set up their details in the industry's registration services system. This system facilitates both energy trading and supply competition.

Please note that the connection will not be made live until you have provided this essential information.

SECTION 4 – WORK THAT MUST BE CARRIED OUT BY US

Establish Point of Connection

4.1 You or your Approved Contractor can apply for point of connection information (the point where the new works will connect onto the existing Distribution System) to Network Strategy and Regulation at the following address.

Central Networks plc,
Network Strategy and Regulation,
Herald Way,
Pegasus Business Park,
Castle Donington, DE74 2TU.
Telephone Number 01332 393490
Web site address <http://www.central-networks.co.uk>

What Work Must be Carried Out by us

4.2 For reasons of safety, and to enable us to comply with our duty under the Act to develop and maintain an efficient, co-ordinated and economical system of electricity distribution, the following works in relation to the existing network must remain our responsibility. These works are called non-contestable works.

- a. Processing the application.
- b. Design, specification and carrying out of any work for reinforcement of our existing Distribution System (which for this purpose means works occasioned by the new or increased connection, but not for its sole use).
- c. Determination of the relevant point of connection to the existing Distribution System.
- d. The removal or movement of existing connection assets.
- e. Confirmation of the design, specification and method of installation of an extension which is to be adopted, with inspection, monitoring and testing of Contestable Works prior to connection to the Distribution System. An indicative list of charges for work associated with adoption is set out in 7 of this statement.
- f. Connection of the extension to the Distribution System, the energisation of the connection and any subsequent live connections to that extension.
- g. Compulsory purchase powers.

h. Diversion of our network.

SECTION 5 – WORK THAT WE OR YOUR CONTRACTOR MAY DO

General

5.1 Central Networks is the distribution licence holder and for the purposes of the connections work will use its agent E.ON UK Energy Services Limited. Ltd to undertake all connections to its Distribution System. Their address and contact details can be found on Page 58

Who Can do What Work

5.2 We can provide a complete connections service to meet your requirements. Alternatively the following works (Contestable Works) may, at the option of the person seeking the connection, be carried out by that person (only if he is approved) or an Approved Contractor on his behalf, in accordance with the design and specification prepared, or approved for adoption, by us.

5.3 Certain elements of Contestable Works can be carried out by you or a person acting on your behalf. Such a person does not require Approved Contractor status to carry out these works. These elements include the following:

- a. on site trenching;
- b. install ducting for cabling in certain conditions within the confines of the development;
- c. carry out the building and civil works for a substation.

Contestable Works (Which can only be carried out by an Approved Contractor)

5.4 The following details the contestable works which can only be carried out by an approved contractor.

- a. Planning, design and selection of materials in accordance with our specifications.
- b. The obtaining of any necessary Consents and Wayleaves in a form allowing for assignment to us on adoption of the extension.
- c. The procurement and provision of materials for the extension.
- d. Carrying out trenching and other preparation of the site, including the circuit routes between the development and the point of connection to the Distribution System.

- e. The recording of work and location of cable routes and equipment on site and the provision of this information to us.
- f. The reinstatement (both temporary, if appropriate, and permanent) of the site, including the circuit routes.

Points to Note Regarding Adoption of Networks

5.5 In order to ensure the successful adoption of any Contestable Works, which have been carried out by your contractor, we would draw your attention to the following: -

- Contestable Works must be carried out by an Approved Contractor.
- When you have appointed a contractor, you should provide his details to us.
- It will be your responsibility to manage your contractor who will work for you and not us.
- We will provide to you information on the point of connection to our existing Distribution System for use by your contractor.
- Your contractor's design must be approved by us if we are to adopt his works.
- Once we have approved the contractor's design, we will deal directly with your nominated contractor regarding technical details.
- We will not supervise your contractor's site works, but we will monitor in accordance with the Adoption Agreement, (see below re Adoption Agreements).
- We will inform you of:
 - any quality issues regarding your contractor's work;
 - any health and safety issues regarding your contractor's work that we encounter. (Please note that we are not responsible for these health and safety issues)
- Your contractor must meet all the statutory obligations/responsibilities regarding his site works.
- We will provide details of the charges to you for the Non-Contestable Works.

Construction and Adoption Agreements

5.6 The applicant seeking the connection will be required to enter into a Construction and Adoption Agreement with us. This agreement will deal with such things as:-

- a. The obligation of the applicant seeking the connection to appoint an Approved Contractor to carry out the construction works;
- b. The design and specification of the works, also the materials to be used and method of installation;

- c. Safety rules and procedures;
- d. The extent and timing of the works and equipment;
- e. Rights for circuits and substations;
- f. Recording of work and location of cable routes and equipment on site and the provision of this information to us;
- g. The provision of any abnormal standard of security or additional network capacity for the applicant, where relevant;
- h. Any additional works which are to be carried out at our request for the benefit of other customers. The additional works will be agreed by us with your Approved Contractor. We will pay all reasonable charges for any additional works we require;
- i. The arrangements for reinstatement (both temporary, if appropriate, and permanent) of the site, including the circuit routes;
- j. The procedure for us to energise the assets installed during the works;
- k. Liability to us for any defects in the works or assets and indemnification of us for any loss or liability arising out of the works or assets;
- l. The payment of any residual connection charges or fees;
- m. Any required sureties.

Reinforcement and Diversions

5.7 Certain types of reinforcement and diversionary work may be carried out by suitably accredited Independent Connections Providers (ICP) for adoption by Central Networks. The scope of such work is limited to reinforcement and diversionary works associated with a connection which:

- are new works that are physically and electrically separate from existing DNO infrastructure;
- do not require access to existing DNO operational areas;
- are fully funded by the single third party who is seeking the connection; and

- are restricted to works to install overhead lines and underground cables at voltage levels not exceeding 33 kV and HV/LV distribution substations.

5.8 The design of reinforcement works can require a large volume of information about the distribution network. The level and complexity of information that would need to be made available to allow the ICP to carry out such design works is likely to outweigh the benefits of including design work within the scope of contestability. The design of connection reinforcements therefore remains non-contestable.

5.9 The design of the majority of diversion projects associated with connection projects is likely to be less complex than the design of reinforcement schemes. The design of diversionary works can be considered contestable for overhead lines and underground cables not exceeding 33 kV and for HV/LV distribution substations. The dismantlement and disposal of existing DNO assets remains non-contestable because it would require access to existing DNO assets and/or areas.

SECTION 6 - CONNECTION ISSUES AND SPECIFIC EXCLUSIONS

Unmetered Connections

- 6.1 We are working with Ofgem, together with other industry participants and interested parties, to produce nationally agreed principles and processes for allowing Approved Contractors to provide a complete service of unmetered connection installations to the Distribution System.
- 6.2 In the meantime, and in accordance with our commitments to Ofgem's initiative for assisting local authorities and other persons permitted to receive unmetered connections to the Distribution System, we are able to offer a "rent a jointer" service.
- 6.3 This scheme enables Approved Contractors and local authorities to hire a cable jointer (subject to availability) from us for a set period of time to carry out work associated with the connecting of unmetered connections to the Distribution System.
- 6.4 Please refer to Section 7 Schedule B for rent a jointer charges. Further information will be made available on request.

Circumstances Permitting Unmetered Supply

- 6.5 The following wording is an extract from the Electricity (Unmetered Supply) Regulations 2001 and describes the circumstances where an unmetered connection may be given.
- (1) An unmetered supply may be given where -
- (a) the electrical load is of a predictable nature, and
 - (b) either -
 - (i) the electrical load is less than 500W; or
 - (ii) it is not practical for a supply of electricity to be given through an appropriate meter at the premises due to -
 - (aa) the anticipated metering costs in the particular case being significantly higher than the usual metering costs associated with that size of electrical load;
 - (bb) technical difficulties associated with providing such a meter in the particular case; or
 - (cc) operation of law so as to prohibit or make excessively difficult the provision of such a meter in

the particular case.

- (2) An unmetered supply shall only be given where the authorised distributor, authorised supplier and the customer have agreed to such a supply.

6.6 Any existing unmetered connections which are altered will be subject to the above.

Temporary Disconnection and Reconnection

6.7 Temporary Disconnection and reconnection at your request will be carried out at your expense.

Termination of Connections at the end of Their Life - Disconnection

6.8 If you require the connection to be disconnected, your request should be in writing and sent to your Supplier in the first instance. On receipt of such a request your Supplier will contact us and, if we agree that there is no reasonably foreseeable use of the connection, we will take steps to remove the equipment in accordance with your reasonable requirements. It is our normal policy to retain the value of any connection assets.

6.9 On termination of the connection, the Connection Agreement will be terminated and we retain the right to remove our equipment. For non-domestic connections, we reserve the right to charge you for such removal. On occasions where it is cost effective to do so, we will remove such equipment at no charge to you. Assets which are not cost effective to recover (e.g. buried cables) will normally be made safe and left on site but if you require us to remove them, the cost of removal will be payable by you. All such equipment will remain our property until we otherwise agree in writing.

6.10 Charges will be made to recover any payments outstanding in first providing that connection if applicable. Charges will also be made to recover any direct or indirect costs incurred in carrying out the disconnection after taking into consideration the value of any assets which can be recovered in a cost effective manner.

6.11 Low Voltage service termination equipment would normally be removed within 15 days but up to 3 months' notice may be required to remove High Voltage substation plant. In the case of EHV connections we should be consulted at an early stage and a programme for the removal of equipment will be subject to individual assessment.

6.12 Any Supplier who wishes to request a disconnection must submit a Disconnection Notice in accordance with their Use of System Agreement.

De-Energisation/Re-Energisation

- 6.13 *De-energisation at your request* is usually to allow your electrician to work safely on your electrical installation.
- 6.14 Your installation will be controlled by a main fuse, and in some domestic situations, also by an isolator. Where an isolator is fitted, a qualified electrician will be able to isolate (de-energise) your electrical installation for him to work safely.
- 6.15 If your installation is not controlled by an isolator, and where you wish your connection to be de-energised, you should in the first instance contact your Supplier. Where you ask for your connection to be de-energised, a minimum of 5 working days' notice should be provided or such other period as may be specified in your agreement between us to that effect. We will arrange the de-energisation and charge you or your Supplier in accordance with the prices specified in our Statement of Charges for the Use of Central Networks' Distribution System. Any subsequent re-energisation will also be charged to either you or your Supplier.
- 6.16 Where the configuration of our equipment in your premises allows for an isolator to be fitted, you can opt to pay for such a device, this should be arranged through your Supplier. The benefit of an isolator being that it is cheaper than arranging a de-energisation through your Supplier and also allows for any future de-energisations without cost.
- 6.17 *De-energisation at your Supplier's request* is usually in accordance with contractual arrangements.
- 6.18 Where a Supplier wishes a supply to be de-energised by us, he should provide a minimum of 5 working days' notice, or such other period as may be specified in his agreement with us to that effect. We will then arrange to de-energise the supply in accordance with the Use of System Agreement and charge the Supplier in accordance with the prices specified in our Statement of Charges for the Use of Central Networks' Distribution System.
- 6.19 Temporary de-energisation and subsequent re-energisation resulting from you or your Supplier's failure to comply with the terms of the use of System or Connection Agreement, as the case may be, or carried out at the request of a Supplier or yourself, will be at your or your Supplier's expense.

Capacity of Domestic Connections

- 6.20 All new domestic connections for non-electrically heated dwellings, will have the ability to deliver a maximum capacity of 12kW, unless agreed otherwise with the applicant. (This does not imply that a

generator with a rated output of 12kW can be accepted on that connection).

Land Speculation Enquiries

- 6.21 Enquiries which fall into this category relate to developments where we have been asked by a land developer to extend the Distribution System for the purpose of facilitating future connections/Distribution System extensions for other developers or end users who make an application for connection in their own right.
- 6.22 We are prepared to consider enquiries of this nature without prejudice to your rights under Section 16 of the Act, thereby offering a choice as to the way in which we treat your enquiry.
- 6.23 Applicants will be expected to enter into a contractual arrangement for the provision of infrastructure extensions to our Distribution System based upon the information provided at the time of their initial enquiry. The cost of this Distribution System extension will be charged in full
- 6.24 There may be certain advantages to the developer in proceeding with infrastructure works ahead of Section 16 applications in order to ensure the phasing of our works is in harmony with the phasing of the development. However, we would always work with the developer/land speculator assessing each development on an individual basis thus identifying the most appropriate option for the provision of infrastructure and connections.

Large Low Voltage Connections

- 6.25 We will normally provide connections up to 1000kVA at low voltage. However we will take into account your particular requirements for a connection at high voltage and any disturbing loads (such as large motors or welding equipment) you wish to connect, together with the possibility of any future load increase in determining the voltage at which the connection is given.

Standards of Security

- 6.26 Where, on request, a connection is made to a standard of security different from that normally provided by us, the terms described in this statement are not a reliable guide to the charges which will apply. Persons seeking such a connection should contact our Connections Provider namely E.ON UK Energy Services Ltd. The approval of Ofgem is required for connections which do not meet our minimum standard of security.

Reinforcement Apportionment Rule

6.27 If the person seeking the connection requests a higher level of security than that which is required to meet the minimum standard of security described in P.2/5, then for the avoidance of doubt, the Apportionment Rules will not be applied to the reinforcement associated with the provision of the additional security. In this instance, the full cost will be applied together with an element of R+M.

Generator Connections

6.28 Where you are seeking connection for the purpose of connecting a generator including Small Scale Embedded Generators (as defined in Engineering Recommendation G8/3), reference should be made to the Distribution Code.

6.29 Where the party seeking connection has installed or intends to install on-site generation capacity and seeks connection to the Distribution System for the purposes of taking a supply from the Distribution System at any time (either intermittent or continuous), the principles for determining the charge for connection will be in accordance with this statement. Such persons should contact us to discuss the prevailing requirements of the Distribution Code and the Grid Code which relate to on-site generation.

6.30 In addition to the charges for connection, charges generally will be payable also for use of our Distribution System. Details of these charges are contained in our Use of System Charging Statement. Single copies of this statement will be provided free of charge. This statement can also be found on our web site <http://www.central-networks.co.uk/>.

The Distribution Code

6.31 Condition 9 of our Electricity Distribution Licence requires a Distribution Network Operator (DNO) to have in force, implement and comply with a Distribution Code which covers all material technical aspects relating to:

- Connection to, and the operation and use of the DNO's Distribution System.
- The operation of electrical lines and electrical plant or apparatus connected to the DNO's Distribution System.

6.32 The Distribution Code is designed so as to:

- Permit the development, maintenance and operation of an efficient, coordinated and economical system for the distribution of electricity.
- Facilitate competition in the generation and supply of electricity.

6.33 The DNO and potential and existing generators, suppliers and customers connected to (or seeking connection to) the DNO's Distribution System must comply with the Distribution Code.

6.34 A copy of the Distribution Code can be obtained from the Distribution Code Website @ <http://www.energynetworks.org/dcode/dcrp.html>

Small and Medium Embedded Power Stations

- 6.35** As a result of a change to the CUSC in July 2006, the cost of connecting certain sized generators to our Distribution System may now include charges incurred by Central Networks in establishing the impact that the generator may have on National Grid's (NG) Transmission System.
- 6.36** The change to the CUSC requires Distribution Network Operators (DNOs) to submit to NG a request for a Statement of Works when a small or medium sized generator intends to connect to the Distribution System of that DNO, or where (in our reasonable opinion) a smaller exempt generator is likely to have a significant effect on the Transmission System.
- 6.37** Such Statement of Works enables NG to assess the impact on the Transmission System the connecting generator will have in order to determine whether or not any reinforcement to their system is required.
- 6.38** In the event that a modification is required to the Transmission System as a consequence of the connection of the generator to the Distribution System, then all reinforcement costs to the Transmission System will be borne by the generator.
- 6.39** The link below will take you to the relevant page on NG's website where you can find details relating to the Statement of Works, section 6.5.5 of the CUSC refers. together with exhibit S of the CUSC which is a blank copy of the Statement of Works This will provide you with the detail we will require in order to submit such a statement to NG.
- 6.40** Charges levied by NG to Central Networks for study works to assess the impact of the generator on the Transmission System will be passed on to that generator together with all other charges associated with any modification works necessary to the Transmission System.
- 6.41** We will provide you with a formal offer for the connection to our Distribution System within the prescribed timescales of 90 days as laid down in our licence. However, you should note that should it be necessary to submit a Statement of Works to NG, we will inform you accordingly and of the likely timescales involved..
- 6.42** For details as to whether or not your generator is eligible to be exempt from a licence, please follow the link below which will take you to the HMSO website where you will find the Statutory Instrument 2001 No. 3270 entitled The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001, please note there is a subsequent amendment to this Order.
- i.** <http://www.opsi.gov.uk/si/si2001/20013270.htm>
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SECTION 7 – SCHEDULES AND TABLES OF CHARGES

Schedule A – Indicative Charges

A1 Indicative Charges

Application for Connection

There is normally no charge for network assessment and design associated with an initial application for connection to our network for the purpose of receiving an electricity supply. However we do reserve the right to charge a fee that reflects the additional work involved if your application is an initial application containing multiple criteria, e.g. more than one maximum load requirement; or your application is a follow up/amendment to the initial application and requires further assessment or design.

A network assessment and design fee will be charged for all applications to connect electricity generation plant and all enquiries that do not constitute formal applications for connection e.g. enquiries for an “outline price” or a “feasibility study”. The network assessment and design fee would be assessed upon receipt of your application/enquiry.

All network assessment and design fees are payable in advance of any design work being carried out.

Factors Influencing Costs

When we design your connection there may be factors that are outside of our control and which can have an effect on the final price of the scheme. The following list is not intended to be exhaustive rather provide an indication of elements that we will try to give consideration to at the design stage.

- Standards governing our Distribution System;
- The length of cable or line required from our existing Distribution System;
- The size of your demand in relation to available capacity of our existing Distribution System, including the age of the assets and the condition of our Distribution System;
- Whether any extensions or Reinforcement of our existing Distribution System is by underground cable or overhead lines;
- The type of ground requiring excavation; the type and extent of reinstatement necessary (including New Roads & Street Works Act requirements); the need for road crossings;
- The availability of Wayleaves/Easements for cables or lines including any Consents;

- The availability of suitable substation sites including any necessary Consents;
- The necessity for overtime working;

In some cases you may be able to negotiate with us to carry out some of those works (for example, trenching) yourself.

Other Circumstances Which our Charges May Take Into Account

The following is a list for illustrative purposes only of abnormal services which may be reflected in the connection charge where we are asked to provide the connection works: -

- Service termination where you fail to provide and/or install ducts to facilitate the installation of services into the premises;
- Progression of work required other than in an orderly fashion in accordance with normal engineering policies and practices thus imposing additional costs;
- Transformer/substation sites not provided to us in suitable locations at normal prices or rents, taking account both of cable access and access by personnel;
- Multiple occupancy premises where the developer fails to provide all necessary civil work including ducts, access ways, chases and covers etc;
- Loads with abnormal characteristics which affect the security and standard of service on the Distribution System, for example arc welders and large motors. We may ask you to pay additional costs which could not have reasonably been foreseen at the time of providing a quotation. You would be advised as soon as they became apparent and in any event at the end of the construction period of any additional cost incurred in providing the connection.

Administration Fees

- Network assessment and design fees if applicable would be assessed upon receipt of your application/enquiry.
- Providing quotations and amending Connection Agreements to permit a reduction in Agreed Supply Capacity during the initial ("Agreement") period.

The minimum charge is: -

Low Voltage - £140
High Voltage - £195

A2 Items of Significant Cost Required for Connection or Reinforcement

The following table represents a range of indicative charges for typical activities associated with the provision of new connections or associated network reinforcement. The actual cost will vary depending upon the specific details of the scheme.

You should assume that all civil works on the site are your responsibility unless otherwise indicated and that all costs are exclusive of VAT.

Activity	Description	Costs
Low Voltage service line and terminations	Single phase 100 amp connection (1 to 4 plots) (10m in footpath)	£895
	(10m in unsurfaced)	£560
	Single phase 100 amp connection (5 plots and above)	£280 per plot (exc. Excavation & Ducting)
	Three phase 100 amp Connection (10m in footpath) (10m in unsurfaced)	£785 £1125
	Industrial/Commercial heavy duty connection up to 300KVA	£2730 (exc. Excavation & Ducting)
Extension of Low Voltage mains and terminations	Section of main laid in good ground conditions, inc. excavation & reinstatement	£33 per metre (minimum charge £2500)
	Section of main laid in typical tarmac footpath, inc. excavation & reinstatement	£65per metre (minimum charge £2500)

Extension of High Voltage mains and terminations	Overhead line extensions	£24per metre (minimum charge £5500)
	Underground Cable section of main laid in typical tarmac footpath, inc. excavation & reinstatement	£81 per metre (minimum charge £4000)
	N.B. If two cables are laid together in a common trench	Allow 1.5 x the value of one cable (minimum charge £5500)

Activity	Description	Costs
New High Voltage substation for Domestic applications. New High Voltage substation	50 KVA Pad mount in Rural location exc. Terminations	£9700 <i>(Exc. substation housing)</i>
	100 KVA Pad mount in Rural location exc. Terminations	£11200 <i>(Exc. substation housing)</i>
	100 KVA Pad mount in Urban location exc. Terminations	£14750
	315 KVA Package substation. inc. Plinth & substation housing exc. Terminations	£23000
	1000 KVA Package substation. inc. Plinth & substation housing exc. Terminations	£27000
Change High Voltage free-standing Transformer	315KVA to a 500KVA inc. HV & LV Transformer connections.	£11200
New High Voltage substation for Commercial applications.	Standard 500KVA Ring-main unit with associated Large LV metering unit. inc. Transformer, Plinth & substation housing exc. Terminations	£28000

Activity	Description	Costs
New High Voltage substation for Commercial applications.	Standard Ring-main unit with associated HV metering unit Exc. Transformers, all civil works & terminations	£13500
	Extendable HV Switch Board with 2 circuit breakers and associated HV metering circuit breaker Exc. Transformers, all civil works & terminations	£24500
	Additional HV circuit breaker at an existing Primary Substation. Exc. All civil works & Terminations	£32000
	N.B. Additional charges for sites with Generation for the additional protection required. Less than 3000kVA	£3300
	More than 3000kVA	Price given on application
For projects at 33kV and above it is difficult to provide accurate guidance because the individual nature and variable complexity of the work results in a wide price range. The figures given in the adjacent columns should be taken with the previous statement in mind.	33kV/11kV Primary Substation up to 19MW	£1.5m
	33kV Underground Cable	£0.1m per km
	33kV Overhead Line	£20000 per km

A3 Non Contestable Indicative Charges.

The following table and examples represent a range of indicative non-contestable charges for typical activities associated with the provision of new connections. The actual cost will vary depending upon the specific details of the scheme.

You should assume that all civil works on the site are your responsibility unless otherwise indicated and that all costs are exclusive of VAT.

Table of Non Contestable Indicative Charges Associated with the Adoption of Connection Assets

Activity	Description	Costs
Simple Scheme	Administration.	£60 per Scheme.
	Point of Connection (POC).	£150 per Scheme.
	Construction & Adoption Agreement.	£140 per Scheme.
Complex Scheme	Administration.	£80 per Scheme.
	Point of Connection (POC).	£225 per Scheme.
	Construction & Adoption Agreement.	£175 per Scheme.
Complicated Scheme	Administration.	£100 per Scheme.
	Point of Connection (POC).	£450 per Scheme.
	Construction & Adoption Agreement.	£175 per Scheme.
On-Site Inspection	Site Visits.	£160 per visit.
Network connection charges (excludes excavation).	Low Voltage network connection (Tee).	£742 per connection.
	High Voltage network connection (Tee).	£2,831 per connection
	High Voltage network connection (Loop).	£3,818 per connection
	EHV/Other	Price on application

Non Contestable Design Approval Indicative Charges for Domestic and Non-domestic Connections

Domestic: -

- For a development of up to 10 plots, an assessment charge of £195 will be levied.
- For a development of greater than 10 plots and up to 250 plots, an assessment charge of £310 will be levied.

- For developments greater than 250 plots, an assessment charge of £310 plus £2.00/plot will be levied.

Non-Domestic: -

HV Point of Connection

- | 1. Infrastructure schemes an assessment charge of £85 will be levied.
- | 2. Single LV consumer or one or more HV consumers an assessment charge of £195 will be levied.
- | 3. Multiple LV consumers the following assessment charges will apply.
 - For a total connection capacity up to 100kVA, an assessment charge of £195 will be levied.
 - For a total connection capacity of between 101kVA and up to 200kVA, an assessment charge of £195 + £55 will be levied.
 - For a total connection capacity of between 201kVA and up to 300kVA an assessment charge of £195 + £110 will be levied.
 - For a total connection capacity of between 301kVA and 400kVA, an assessment charge of £195 + £165 will be levied – and so on up to 1500kVA.
 - For a total connection capacity of greater than 1500kVA, the assessment charge will be given on application.

LV Point of Connection

An assessment charge of £195 will be levied.

Domestic/Non-Domestic - Re-Assessment of Design Acceptance






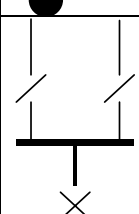
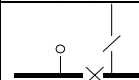


A further re-assessment charge of £85 will be levied for all schemes that require amendment by the Customer, after the initial Design Acceptance has been processed.

Calculating Site Visits for Monitoring of Contestable Schemes

Item	Calculation	Value	Comments
Mains			
LV Mains	50% of mains cable installed.	1 Site Visit for each 100m of mains cable installed.	Round up to nearest 100 m of mains cable installed.
HV Mains	50% of mains cable installed.	1 Site Visit for each 100m of mains cable installed.	Round up to nearest 100m of mains cable installed.
Trenchless Installation	-	1 Site Visit per 50m mains cable installed.	Round up to nearest 50m of mains cable installed.
LV Joints	50% of joints.	5 joints = 1 Visit.	Estimate 1 joint per 100m of mains cable installed.
HV Joints	100% of substations on site.	1 Site Visit per substation.	Estimate all joints and switchgear end boxes.
Service (Multiple)			
Service Cable Installation	10% of Plots.	5 Installations = 1 Site Visit.	Minimum 1 Site Visit.
Service Joints	20% of Plots.	5 Joints = 1 Site Visit.	Minimum 1 Site Visit.
Service Terminations	20% of Plots	10 Plots = 1 Site Visit.	Minimum 1 Site Visit.
Polarity & Loop Impedance Checks	20% of Plots	10 plots = 1 Site Visit.	Minimum 1 Site Visit.
Service (Individual)			
Service Cable Installation	100% of cable and trench.	1 Site Visit	Minimum 1 Site Visit
Service Termination	100% of Termination	1 Site Visit	Minimum 1 Site Visit
Note: For the inspection of the wiring installation associated with HV and LV CT Metering, a separate charge will be levied where applicable.			
Substations			

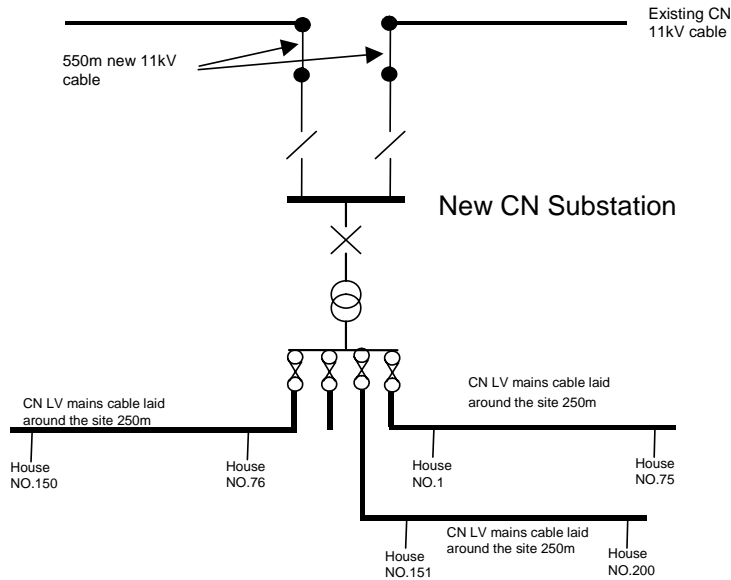
Substation Commissioning	100% of substations on site.	1 Site Visit to witness general testing per substation.	Estimate 1 additional Site Visit for protection testing where applicable.
Foundations	100% of substations on site.	1 Visit per substation.	Minimum 1 Site Visit
Transformer & Switchgear	100% of substations on site.	1 Visit per substation.	Minimum 1 Site Visit

Key to Illustrations

	Circuit Breaker (High or low voltage)
	Switch
	Transformer
	Low voltage feeder fuse
	Joint on cable
	High voltage ring main unit
	High voltage extensible switchgear
	Metering voltage transformer
	Unmetered street furniture

Example 1 - This illustrates an average cost to provide a connection for up to 200 new dwellings with normal domestic loads such as gas space and water heating. The scheme would involve establishing a new distribution substation on your site, laying 550 metres of high voltage

mains cable from our high voltage network to the new substation. From this substation 750 metres of low voltage mains cable will be installed around the site. Approximately 20 metres of service cable would then be laid from this mains cable to each dwelling terminating in an external meter cabinet. All civil works on site would be the responsibility of the developer and no allowance is made for street lighting.



Total Charges

Applicable if our Connections Provider Completes all the Works

Your contribution would be calculated as follows:

Item	Cost (£)
High Voltage cable	£27300 100m laid on-site and 450m laid in a 225m common
Network Substation	£23000
Low voltage mains cable	£23000
Service terminations	£53500
Administration Charges	£110
Legal Charges	£600 (Project Dependent)
Total connected assets	£127,510

Connection Cost £127,510

Connection cost per plot £637.55

The following are the Non-Contestable Charges for the connection as detailed in the above example and are in addition to the charges levied by your contractor who carries out the contestable works

Cost Breakdown	Cost	Basis of charge
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Administration	£80	Complex Scheme
Point of Connection	£225	Complex Scheme
Design Approval	£310	Refer to "Domestic" Page 34
Construction & Adoption Agreement	£175	Complex Scheme
Legal Deeds	£600	Project Dependent e.g. Substation Lease
Inspection of Contestable Works	£4,640	29 Visits @ £160 Page 36
Final Connection Charge	£3,818	Looped HV connection
Diversion Works	£0.00	If applicable
Upstream Reinforcement Works	£0.00	If applicable
Total	£9,848	

The following are the Non-Contestable Charges for the connection as detailed in the above example and are in addition to the charges levied by your contractor who carries out the contestable works

Cost Breakdown	Cost	Basis of charge
Administration	£80	Complex Scheme
Point of Connection	£225	Complex Scheme
Design Approval	£195	Refer to "Non-Domestic" HV Points of Connection Item 2 - Page 34
Construction & Adoption Agreement	£175	Complex Scheme
Legal Deeds	£600	Project Dependent e.g. Cable Easement
Inspection of Contestable Works	£640	4 Visits @ £160 Page 36?
Final Connection Charge	£3,818	Looped HV connection.
Diversion Works	£0.00	If applicable
Upstream Reinforcement Works	£0.00	If applicable
Total	£ 5,733	

The following are the Non-Contestable Charges for the connection as detailed in the above example and are in addition to the charges levied by your contractor who carries out the contestable works

Cost Breakdown	Cost	Basis of charge
Administration	£80	Complex Scheme
Point of Connection	£225	Complex Scheme
Design Approval	£195	Refer to "Non-Domestic" HV Points of Connection Item 2 - Page 34
Construction & Adoption Agreement	£175	Complex Scheme
Legal Deeds	£600	Project Dependent e.g. Cable Easement
Inspection of Contestable Works	£640	4 Visits @ £160 Page 36
Final Connection Charge	£3,818	Looped HV connection
Diversion Works	£0.00	If applicable
Upstream Reinforcement Works	£0.00	If applicable
Total	£5,733	

The following are the Non-Contestable Charges for the connection as detailed in the above example and are in addition to the charges levied by your contractor who carries out the contestable works

Cost Breakdown	Cost	Basis of charge
Administration	£60	Simple Scheme
Point of Connection	£150	Simple Scheme
Design Approval	£195	Refer to "Non-Domestic" LV Points of Connection Page 34
Construction & Adoption Agreement	£140	Simple Scheme
Legal Deeds	£600	Project Dependent e.g. Cable Easement
Inspection of Contestable Works	£320	2 Visits @ £160 Page 36
Final Connection Charge	£742	LV connection
Diversion Works	£0.00	If applicable
Upstream Reinforcement Works	£0.00	If applicable
Total	£2,207	

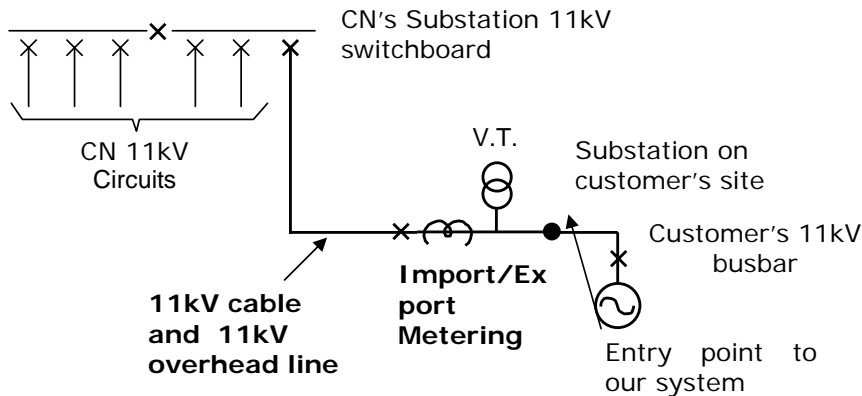
The following are the Non-Contestable Charges for the connection as detailed in the above example and are in addition to the charges levied by your contractor who carries out the contestable works

Cost Breakdown	Cost	Basis of charge
Administration	£100	Complicated Scheme
Point of Connection	£450	Complicated Scheme
Design Approval	£195	Refer to "Non-Domestic" HV Points of Connection Item 2 - Page 34
Construction & Adoption Agreement	£175	Complicated Scheme
Legal Deeds	£600	Project Dependent e.g. Cable Easement
Inspection of Contestable Works	£640	4 Site Visits @ £160 Page 36
Final Connection Charge	£3,818	Looped HV connection
Diversion Works	£0.00	If applicable
Upstream Reinforcement Works	£0.00	If applicable
Total	£5,978	

This illustrates an indicative cost to provide a connection for a generator involving reinforcement. The example shows the application of the cost apportionment rule for fault level. The costs of the dedicated connection assets are shown in example 6.

This example assumes that our substation 11 kV switchboard needs reinforcing. Calculation 6a sets out the apportionment charge for reinforcement necessary to increase fault level capacity. The apportionment charge would be added to the charge for the dedicated assets to determine the total connection charge.

This example assumes that the existing 11kV switchboard has a fault level capacity of 250,000 KVA. The new 11kV switchboard will have a fault level capacity of 315,000KVA.



Calculation 6a Fault level capacity

Existing network fault level capacity	= 250,000kVA
Requested fault level capacity	= 24,000kVA
New network security capacity	= 315,000kVA
Cost of new Switchboard	= £200,000

Fault Level CAF = $\frac{3 \times \text{fault level contribution from Connection} \times 100 \%}{\text{New Equipment fault Level Capacity}}$,
(max 100%)

Fault Level CAF = $\frac{3 \times 24,000 \times 100\%}{315,000} = 22.9\%$

Fault level reinforcement charge = 22.9% of £200,000 =
£45,800

This would be added to the cost of the dedicated assets in example 6 to determine the total connection charge.

Example 6b Generation Connection Including Capacity Reinforcement

This illustrates an indicative cost to provide a connection where a capacity reinforcement is required. This example shows the connection of a generator to an existing 11kV circuit where the circuit has insufficient

capacity to carry the generator current. The calculation sets out the apportionment charge for reinforcement necessary to increase the capacity of the circuit.

The existing 11kV circuit to which the generator is to be connected has a rating of 3.0 MVA while the export capacity of the generator is 4.0 MVA. The circuit is to be replaced with one rated at 8.0 MVA.

Calculation of Security Capacity

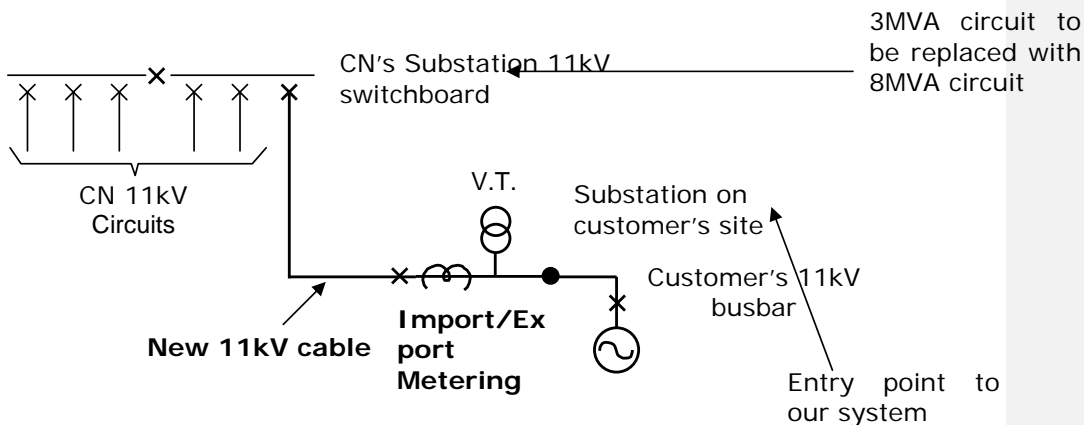
Existing network security capacity = 3,000 kVA (demand)
 Requested capacity = 4,000 kVA
 New network security capacity = 8,000 kVA
 Cost of new circuit = £8,100 (based on 1km - see table on page 32)

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

$$\text{Security CAF} = \frac{4,000 \times 100\%}{8,000} = 50\%$$

Security reinforcement charge = 50% of £81,000 = £40,500

This would be added to the cost of the dedicated assets i.e. the cable tee connection and the metering circuit breaker etc to determine the total charge.

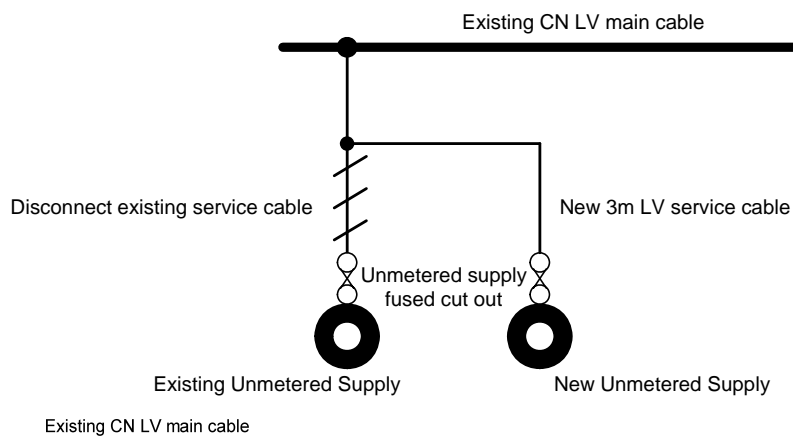


A4 Illustrative Charges for Service Transfer Work/New Connection for Unmetered Supplies

The following examples represent indicative charges for typical activities associated with the provision of a new connection to street furniture and also the transfer of a service cable from an existing item of street

furniture to a new item of street furniture. The actual cost will vary depending upon the specific details of the scheme.

Example 1 - This illustrates the average cost to transfer an unmetered service to a new position within 3 metres of its current position. This would involve connection to the existing service cable, 3 metres of excavation, removal of the existing and installation of a new unmetered supply cut out. Installation of the new service cable and reinstatement would be carried out by us.



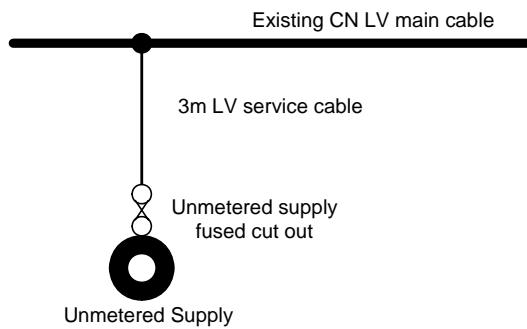
The indicative cost for this work would be £339 exc. VAT

Your contribution would be calculated as follows:

Connection cost

£339 plus VAT

Example 2 - This illustrates the average cost to install a new unmetered service within 3 metres of an existing LV main cable. This would involve connection to the existing LV main cable, 3metres of excavation and reinstatement carried out by us, installation of the new service cable and new unmetered supply cut out.



The indicative cost for this work would be £352 exc. VAT

Your contribution would be calculated as follows:

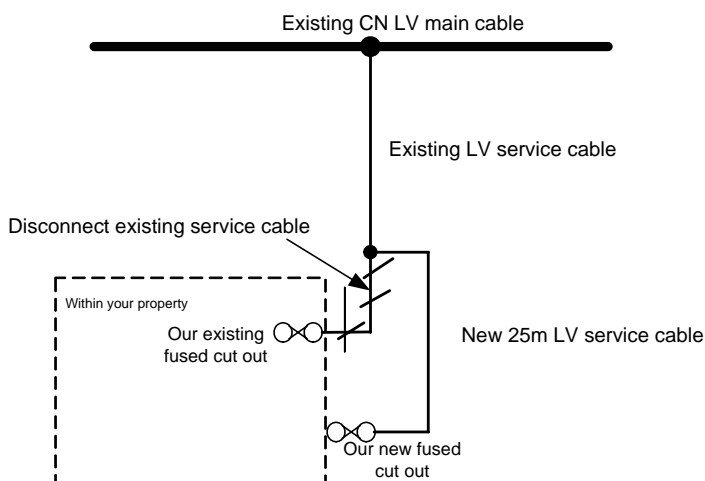
Connection cost	£352 plus VAT
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A5 Illustrative Charges for Service Alterations to Domestic Properties

The following examples represent indicative charges for service alteration work associated with an underground service and also an overhead service. The actual cost will vary depending upon the specific details of the scheme.

You should assume that all civil works on the site are your responsibility unless otherwise indicated and that all costs are exclusive of VAT.

Example 1 - This illustrates an average cost to move an existing underground domestic service from the inside of a building to the outside of the building 25m away from the original position. This would involve removing the fused cut out, a connection to the existing service cable and the installation of a new fused cut out on the exterior of the building.

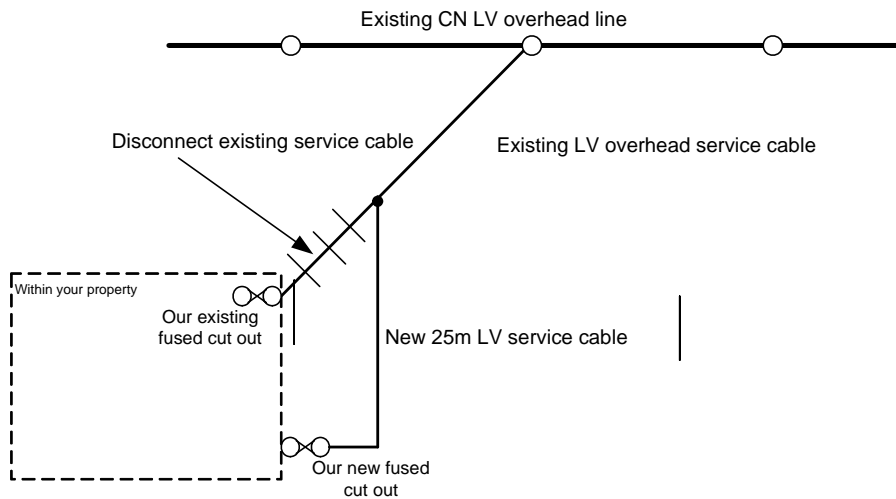


The indicative cost for this work would be £348.50 exc. VAT

Your contribution would be calculated as follows:

New service and excavation (based on 15m unsurfaced)	£348.50 ex. VAT
Connection cost	£409.50

Example 2 - This illustrates an average cost to move an existing overhead domestic service from the inside of a building to the outside of the building. This would involve removing the existing fused cut out, a connection to the existing service cable and the installation of a new fused cut out on the exterior of the building within 25m of the original position



The indicative cost for this work would be £563 exc. VAT

Your contribution would be calculated as follows:

Service removal	£180 plus VAT
New service	£383 plus VAT
Connection cost	£563 plus VAT

Schedule B – Rent a Joints Hire Charges

Further details will be made available on request from our Connections Provider for Rent a Joints hire charges for the provision of unmetered connection work.

Section 8 - Disputes

Dispute and Determination Procedure

- 8.1 If you are not satisfied with the level of service you receive from us, we would like the opportunity to put it right and we would therefore ask that you to contact either our Connections Provider namely Energy Services or our Network Strategy and Regulation depending upon who provided the quotation at the appropriate address given in Section 9.
- 8.2 If you are still not satisfied with the terms offered by us and agreement with us cannot be reached within a reasonable time, disputes can be referred to energywatch (the Gas and Electricity Consumers Council). They are able to investigate complaints and disputes on your behalf. If in the event energywatch are unable to resolve the dispute, either of us may request settlement by the Gas and Electricity Markets Authority.
- 8.3 Contact details of both energywatch and Ofgem can be found in Section 9 of this document.

Section 9 - General

Contact Details

9.1 Central Networks agent E.ON UK Energy Services Limited. for Contestable works contact details : -

E.ON UK Energy Services Limited.
Toll End Road
Tipton
West Midlands
DY4 0HH
Web site address – <http://www.eon-uk.com>

9.2 Central Networks Network Strategy and Regulation for Point of connection/Non-contestable works contact details: -

Central Networks West plc,
Network Strategy and Regulation,
Herald Way,
Pegasus Business Park,
Castle Donnington, DE74 2TU.
Telephone Number 01332 393443
Web site address - <http://www.central-networks.co.uk/>

9.3 energywatch contact details: -

Since there are a number of energywatch local offices covering our Distribution Services Areas you may wish to obtain the appropriate address details from their website.

Web site address - <http://www.energywatch.org.uk/>

9.4 The Gas and Electricity Markets Authority contact details: -

Ofgem
9 Millbank
London SW1P 3GE
Tel. 020 7901 7000
Web site address – <http://www.ofgem.gov.uk/>

Connection Agreements

9.5 You may be required to enter into a Connection Agreement with us. The agreement sets down the specific terms and conditions for the long term. While such terms and conditions will be consistent with this

statement, the agreement will take precedence. The Connection Agreement will set out our obligations regarding the connection, and will require the connected party to pay all and any charges due in respect of the connection as described in this statement; also to comply with the provisions of the Distribution Code.

9.6 Where you are not satisfied with the terms of the proposed agreement, and agreement with us cannot be reached within a reasonable time, either party may request settlement by Ofgem. Please refer to Section 8 on disputes.

9.7 The use of generation equipment may require you to enter into National Grid's Connection and Use of System Code (CUSC), we can supply more details if appropriate.

Glossary of Terms

ASC (Authorised Supply Capacity)	Means the agreed maximum capacity measured in kilo volt-amperes you are allowed to take from the Distribution System through your point of connection.
Act	The Electricity Act 1989 as amended by the Utilities Act 2000.
Approved Contractor	A person who after independent assessment is Lloyds registered and has been approved in the appropriate modules to install new assets to our Distribution System, which will subsequently be adopted as part of our Distribution System.
Authorised Electricity Operator	Means any person who is authorised by licence or exemption to generate, transmit or supply electricity.
Civil Works	All those works to allow for the extension of our Distribution System such as; trench work - excavating and backfilling together with reinstatement works, the erection of substation buildings and steel structures to house or support the Distribution System.
Connection Agreement	An agreement between you and us setting out terms and conditions with which we are each bound concerning the provision and use of the connection.
Connection Offer	A formal offer issued by us for the provision of a new, increased or reduced connection to our Distribution System.
Construction and Adoption Agreement	An agreement between you and us setting out the terms and conditions to allow the adoption of the works carried out by the Approved Contractor as part of our Distribution System.
CUSC	Means the Connection and Use of System Code governing connection to and use of NG's transmission system.
Consents	Permissions which we need in accordance with various statutes before we can build or modify an overhead line.
Contestable Works	Work than can be undertaken by an Approved

	Contractor.
Customer With Own Generator (CWOOG)	Means a customer who has his own generation and which is capable of being paralleled to the Distribution System
De-energisation	Means the movement of any switch, the removal of any fuse, or the taking of any other step to deliberately prevent the flow of electricity from the Distribution System to the connection.
Disconnection	Our action intended to permanently break the connection between our Distribution System and your equipment, possibly including the removal of our equipment from your premises.
Disconnection Notice	A notice sent by a Supplier to us requesting the permanent disconnection of the connection to a premise.
Distributed Generator	A generator with a direct connection to a Distributors Distribution System, rather than NG's transmission system.
Distribution Code	The Distribution Code of the Distributors of England and Wales; the document produced by each Distributor in accordance with Condition 9 of its Licence and approved by Ofgem to define the technical aspects and planning criteria of the working relationship between the Distributor and all those connected to its Distribution System.
Distribution System	The whole of our interconnected distribution equipment, including such items as; cables, overhead lines and substations, which we operate in accordance with our Licence.
Easement	A perpetual right negotiated by and granted to us which allows us to install and maintain that equipment under or over private land, normally without restriction.
Effective Capacity	Means the maximum capacity under normal operating conditions of a distribution asset (existing) assuming voltage and frequency parameters are met.
Electricity Supply Contract	A contract between you and your Supplier for the provision of an electricity supply to your premises
Energisation	Means the movement of any switch or the addition of any fuse to deliberately allow the flow of electricity from the Distribution System to the connection.
energywatch	energywatch is the independent gas and electricity watchdog. They were set up in November 2000 through the Utility Act to protect and promote the interests of all gas and electricity consumers.
Export Capacity	Means the export of a supply of electricity into the Distribution System through the point of connection and is measured in kilo volt-amperes.
Extra High Voltage or EHV	a voltage level at or higher than 22kV
Gema	Please refer to the definition of Ofgem
Grid Code	The document produced by NG in accordance with its

	transmission Licence and approved by Ofgem to define the technical aspects and planning criteria of the working relationships between NG and all those connected to its transmission system and including, in certain aspects, Distributed Generators.
High Voltage or HV	Means a voltage between 1000 volts and 22,000 volts. In the case of our Distribution System, this means 6,600 volts or 11000 volts plus or minus 6% measured between any two phase conductors.
Import Capacity	Means the import of a supply of electricity from the Distribution System through the point of connection and is measured in kilo volt-amperes.
Licence	The Electricity Distribution Licence granted to Central Networks pursuant to section 6(1) (c) of the Act.
Low Voltage or LV	230 volts plus 10% or minus 6% measured between the neutral conductor and any phase conductor, or 400 volts plus 10% or minus 6% measured between any two phase conductors.
Network Assessment	Means an assessment of both the existing Distribution System and the effect of your proposals imposed on the Distribution System.
New Roads and Street Works Act (NRSWA)	The New Roads and Street Works Act 1991, under which work in roads and streets is controlled.
Ofgem	Ofgem is the Office of Gas and Electricity Markets, regulating gas and electricity industries in Great Britain. Ofgem operate under the governance of the Gas and Electricity Markets Authority (sometimes referred to as the Authority or GEMA) which sets all major decisions and policy priorities.
Re-energisation	Means the movement of any switch, the replacement of any fuse, or the taking of any other step to deliberately allow the flow of electricity from the Distribution System where such flow of electricity was previously prevented by a De-energisation action.
Reinforcement	Any alteration to our existing Distribution System designed to enable the Distribution System to distribute an increased amount of electricity.
Standards of Performance	Standards laid down by Ofgem against which our average overall performance of certain duties is measured and compared.
Substation	A building or enclosure including the equipment within it, where electricity is controlled, converted or transformed at High Voltage or Extra high Voltage.
Supplier	The company from whom you purchase electricity.
Supply Number	A unique identification number allocated by us to a connection of the Distribution System which allows for the accurate trading of energy by your Supplier and for us to bill your Supplier use of system charges.
Temporary Connection	A connection to the Distribution System which is likely to have a finite life span.

Wayleave	A legal agreement which allows us to install our Distribution System over third party property. A Wayleave is for a limited duration only as opposed to a cable easement which is in perpetuity.
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Other Publications

- Central Networks Licence Condition 25 Statement, a summary of this Statement is available on our website. However a full version of the Statement can be obtained by e-mailing your request using the e-mail address on our website.

- Central Networks Use of System Charging Statement –
A hard copy will be made available on request; alternatively the document can be obtained from our web site
<http://www.central-networks.co.uk/>

- The Distribution Code –
A copy of this code may be consulted at any of our offices during office hours, alternatively a copy can be obtained from the Ofgem web site
<http://www.ofgem.gov.uk/dso/index.htm>

- The Connection and Use of System Code and the Grid Code -
Copies of these codes can be obtained from the National Grid web site
<http://www.nationalgrid.com/uk/>

- Copies of the following publications can be obtained from the HMSO web site <http://www.legislation.hmso.gov.uk/>
 - The Electricity Act 1989
 - The Utilities Act 2000
 - The Electricity (Connection Charges) Regulations 2002
 - The Electricity (Connection Charges) (Amendment) Regulations 2002
 - The Electricity (Unmetered Supply) Regulations 2001
 - The Electricity (Standards of Performance) Regulations 2005

- A Copy of Engineering Recommendation P2/5 can be obtained from the Energy Networks Association.

Their web site address is <http://www.energynetworks.org.uk/>

Their postal address is 18 Stanhope Place London W2 2HH.

Section 10 – Map of our Distribution Services Area

