



ESP Electricity Ltd.
Connection
Charging
Statement



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1. Introduction



INTRODUCTION

This document comprises the Connection Charging Methodology and the Connection Charging Statement of ESP Electricity Limited (ESPE).

The Connection Charging Methodology describes the methodology that ESPE uses to determine the charges for making a connection to its electricity distribution systems. The Connection Charging Statement sets out the charges which are made for the provision of connections to ESPE's distribution system.

This document has been prepared in accordance with the requirements of ESPE's Electricity Distribution Licence (the Licence) issued under the Electricity Act 1989 (as amended).

At ESPE's discretion, ESPE may charge a fee of £10 (plus VAT) for each hard copy of this document provided in accordance with a request. An electronic copy of this document is available free of charge from the ESP Utilities Group website at:

[Licences & Regulatory Statements – ESP Utilities Group \(espug.com\)](https://www.espug.com)

Structure of this Document and Further Information

The document is divided into a number of Sections.

- **Section 2** provides a list of the defined terms used throughout the document.
- **Section 3** provides general information regarding ESPE, the market, services provided etc.
- **Section 4** outlines the high level process for applying for a connection to ESPE's Distribution System when either ESPE, or an appropriately accredited ICP, carry out the Contestable Works.
- **Section 5** provides further information specific to ESPE regarding obtaining a connection.
- **Section 6** describes the elements of the Connection Charging Methodology that have analogous paragraphs in the Common Connection Charging Methodology which ESPE use to calculate Connection Charges.
- **Section 7** contains worked examples of the Connection Charging Methodology and how they are applied in particular circumstances.
- **Section 8** contains the parts of ESPE's specific Connection Charging Methodology which do not have a counterpart paragraph in the Common Connection Charging methodology but are also used in calculating the Connection Charges.
- **Section 9** contains the Connection Charging Statement which, when used in conjunction with Section 6, enables reasonable estimates of the charges liable for connection to be made.

For further information about this document or to request any of the services (including advice on getting a connection) listed in this Electricity Charging Statement, please contact ESPE's Electricity Operations Department using the contact details below.

ESP Electricity
1st Floor, Bluebird House
Mole Business Park
Leatherhead
Surrey
KT22 7BA

Tel: 01372 587 500

especontrol@espug.com

2. Definitions

Act	The Electricity Act 1989 (as amended).
Affected Parties	All customers whose Connection Offer(s)/ Point of Connection Offer(s) have been identified by us as being interactive.
Application Date	The date upon which ESPE have received all the information required in respect of an application. A list of the information required can be found in paragraph 2.7.
Asset Adoption Agreement	The agreement for us to adopt the Contestable Work, subject to the satisfaction of certain conditions.
Bilateral Connection Agreement	The agreement between ESPE and another LDNO setting out the terms and conditions under which an embedded network shall be entitled to be, and remain, connected to the Distribution System.
Budget Estimate	An indication of the charge for providing a connection to ESPE's Distribution System. This does not include detailed design work and are a result of preliminary assessment only. A Budget Estimate does not constitute a formal Connection Offer and the price may differ considerably between any Budget Estimate and a formal Connection Offer.
CIC Charges	Competition in Connections charges. See Section 7.
Committed Network	Assets that are not yet installed and commissioned on ESPE's Distribution System, but which are planned to be so as a result of other Connection Offer(s)/ Point of Connection Offer(s) which have been made by us and accepted by other Customer(s).
Common Connection Charging Methodology	The Common Connection Charging Methodology set out in Schedule 22 of the DCUSA, as amended from time to time, required by all Distribution Services Providers to form part of their Connection Charging Methodology.
Competition in Connections (CIC)	The term attributed to the opening up of the market for the design, procurement and installation of new assets necessary to accommodate a new or modified electricity connection.
Connection Agreement	The agreement between ESPE and the Customer which sets out the terms by which the Customer becomes, and remains, connected to ESPE's Distribution System.
Connection Charge	The payment to be made by the Customer to ESPE for the provision of the connection.
Connection Offer	ESPE's formal written offer to the Customer to provide a connection to ESPE's Distribution System.
Contestable Work	Work that may be carried on, or in connection to, ESPE's Distribution System by an accredited ICP. See paragraph 3.3.
Curtailed Connection	A connection where the Required Capacity can be reduced by ESPE.
CUSC	The Connection and Use of System Code which constitutes the contractual framework for connection to, and use of, the GB Transmission System.
Customer	The person or persons requesting the connection.
DCUSA	The "Distribution Connection and Use of System Agreement" designated as such by the Authority under condition 22 of the Licence.

De-energise	To deliberately prevent the flow of electricity to or from an Exit/Entry Point for any purpose other than a system outage on ESPE's Distribution System (and cognate expressions shall be construed accordingly).
Development Phase	The five year period, unless otherwise agreed with us, commencing on the date of Energisation of an embedded network over which the development is constructed.
Disconnect	To permanently De-energise an Exit/ Entry Point by the removal of all or part of ESPE's equipment (and cognate expressions shall be construed accordingly).
Distributed Generation Connections Guide	The guide produced by ESPE as part of the Licence's requirements which provides guidance on the connection process for distributed generation.
Distribution Code	The code that covers the material technical aspects relating to the connection to, and operation of, ESPE's Distribution System in accordance with Condition 21 of the Licence.
Distribution Network Operator (DNO)	A company licensed to distribute electricity in Great Britain by Ofgem. There are fourteen licensed geographically defined areas, based on the former area electricity board boundaries, where the distribution network operator distributes electricity from the transmission grid to homes and businesses.
Distribution System	The system (as defined in the Licence) consisting (wholly or mainly) of electric lines owned or operated by us and used for the distribution of electricity. Electricity meters and meter boxes do not form part of ESPE's Distribution System.
ECCR Prescribed Period	The relevant period from the date on which a connection is made as prescribed by the ECCR, being either (a) five years, for connections made prior to 6 April 2017: or (b) ten years, for connections made on or after 6 April 2017
Electric Lines	<p>Any line which is used for carrying electricity to or from an Exit/Entry Point and includes, unless the context otherwise requires;</p> <p>(a) any support for such line, that is to say, any structure, pole or other thing in, on, by or from which any such line is or may be supported, carried or suspended;</p> <p>(b) any apparatus connected to such line for the purpose of carrying electricity; and</p> <p>(c) any wire, cable, tube, pipe or other similar thing (including its casing or coating) which surrounds or supports, or is surrounded or supported by, or is installed in close proximity to, or is supported, carried or suspended in association with, any such line.</p>
Electric Plant	Any plant, equipment, apparatus or appliance used for or for purposes connected with the distribution of electricity (including any metering equipment) other than an Electric Line.
Energise	To deliberately allow the flow of electricity to or from an Exit/ Entry Point where such a flow of electricity has never previously existed (and cognate expressions shall be construed accordingly).

Enhanced Scheme	<p>A scheme which has been designed to include one of more of the following;</p> <ul style="list-style-type: none"> ■ Additional assets not required as part of the minimum scheme; ■ Assets of a larger capacity than required by the Minimum Scheme; ■ Assets of a different specification than required by the Minimum Scheme.
Entry/ Exit Point	A point at which electricity, whether metered or unmetered, enters or exits a Distribution System.
Existing Capacity	<p>For existing customers;</p> <p>a) the Maximum Capacity used in the calculation of their use of system charges; or b) for customers who are not charged for use of system on the basis of their Maximum Capacity the lower of;</p> <ul style="list-style-type: none"> i. No. of phases x nominal phase neutral voltage (kV) x fuse rating (A); and ii. The rating of the service equipment.
Existing Network	ESPE's currently installed and commissioned Distribution System.
Extension Assets	Assets installed to connect a party or parties to the existing distribution network but which exclude Reinforcement assets.
Extra High Voltage (EHV)	Voltage levels greater than 22kV but less than 132kV.
Fault Level	The maximum prospective current or power that flows into a short circuit at a point on the network, usually expressed in MVA or kVA.
Fault Level Contribution from Connection	The assessment of the fault level contribution from the equipment to be connected taking account of its impact at the appropriate point on the Distribution System. Where an existing Customer requests a change to a connection then the Fault Level Contribution from Connection is defined as the incremental increase in Fault Level caused by the Customer.
Feasibility Study	A study to consider a number of different options for providing the Customer's connection and provides estimated costs for each option as appropriate. A Feasibility Study does not constitute a formal connection offer.
GB Transmission System	The system consisting (wholly or mainly) of high voltage electric cables owned or operated by transmission licensees within Great Britain.
Guaranteed Standards of Performance	Standards of service backed by a guarantee and set out in the Electricity (Standards of Performance) Regulations 2005 (as amended).
High Voltage (HV)	Voltage levels more than 1kV but not more than 22kV.
Independent Connections Provider (ICP)	A person with sufficient accreditation to carry out all or part of the Contestable Work.
Independent Distribution Network Operator (IDNO)	A company licensed to distribute electricity in Great Britain by the Office of Gas and Electricity Markets. IDNOs own and operate electricity distribution networks which are predominantly network extensions connected to the existing distribution network.

Interactive Connection Applications	When ESPE receive two or more applications for a connection which could individually make use of the same part of the Distribution System, but where there is insufficient spare capacity or other network constraints on ESPE's Distribution System that prevents both/all being connected.
Interactive Connection Offers	Connection Offers / Point of Connection Offers made in respect of Interactive Connection Applications.
Interactive Queue	The queue into which Affected Parties' interactive Connection Applications is placed according to the Application Date.
Interruptions Incentive Scheme	The scheme which provides incentives on ESPE to deliver a good level of performance in respect of customer interruptions and customer minutes lost.
Land Rights	All such rights in, under or over Land as are necessary for the construction, installation, operation, repair, maintenance, renewal or use of the Contestable Work or Non-Contestable Work.
Licence Exempt System	A distribution system operated by a person or persons who has been granted an exemption (including class exemptions) from the requirement to hold a distribution licence by the Secretary of State.
Licensed Distribution Network Operator (LDNO)	The holder of a licence to distribute electricity.
Local Authority	A universal term for county, parish and town councils. Local Authorities provide and maintain a wide variety of local services including housing and commercial development planning, street lighting, bus shelters, car parks, and traffic calming measures.
Low Voltage (LV)	Voltage levels no more than 1kV.
Maximum Capacity	In relation to any connection the maximum amount of electricity, as agreed with ESPE, and expressed in kW or kVA that can be imported from or exported onto ESPE's Distribution System.
Meter Point Administration Number (MPAN)	A 21 digit unique identifier of those Entry/Exit Points on the Distribution System which are used for the purposes of either taking a supply of electricity or for the connection of a distributed generator, and which forms the basis of the metering point record on the Company's registration system. It may also be called a Supply Number.
Minimum Scheme	The Scheme with the lowest overall capital cost (as estimated by us), solely to provide the Required Capacity. The Minimum Scheme is subject to engineering policy and standards as described in 4.3
National Electricity Registration Scheme (NERS)	A national registration system for accrediting ICPs to enable them to carry out contestable work, as administered by Lloyds Register.
National Grid Electricity Transmission plc (NGET)	A subsidiary of National Grid plc (National Grid), that owns and operates the regulated electricity transmission network in England and Wales and is the system operator for the high-voltage electricity transmission networks in Scotland.
National Terms of Connection (NTCs)	Sets out the terms and conditions that the network operator requires an electricity customer to accept in return for maintaining the connection of the premises to its network. The NTCs are governed under Schedule 2B of the Distribution Connection and Use of System Agreement (DCUSA).

Non-Contestable Work	Work on, or in relation to a connection to ESPE’s distribution system that cannot be undertaken by an ICP and must be carried out by us or ESPE’s appointed agents. A list of Non-Contestable work can be found in paragraph 3.7-3.8.
Notice of Interactivity	A notice provided by ESPE, in writing, stating that the Customer’s connection application is interactive with another application that ESPE has received. The validity period of any current Connection Offer is reduced to thirty days from the date of the notification where more than thirty days are still outstanding.
Ofgem	The Office of Gas and Electricity Markets. The independent authority responsible for the regulation of the onshore gas and electricity markets in Great Britain.
Point of Connection (POC)	The point (or points) of physical connection to ESPE’s existing Distribution System.
Point of Connection Offer	The offer that ESPE makes to the Customer to carry out the Non-Contestable work only to allow connection to ESPE’s Distribution System which, if accepted, creates a legally binding contract between the Customer and ESPE.
Premises	Any land, building or structure.
Reinforcement	Assets that add capacity (network or fault level) to the existing shared use Distribution System.
Relevant Section of Network (RSN)	<p>The part (or parts) of the Distribution System which require(s) reinforcement. Normally this is comprised of:</p> <ul style="list-style-type: none"> ■ the existing assets, at the voltage level that is being reinforced, that would have been used to supply the Customer (so far as they have not been replaced) has sufficient capacity been available to connect the Customer without reinforcement; and/or ■ the new assets, at the same voltage level, that are to be provided by way of Reinforcement. <p>Where it is unclear what assets would supply the Customer in the event that sufficient capacity is available, the existing individual assets with the closest rating to the new assets are used. There may be more than one RSN.</p>
Rent-a-Jointer Services	The service relating to hiring of resource from ESPE to facilitate the provision of unmetered connections.
Required Capacity	The Maximum Capacity agreed with the Customer. In the case of multiple connections (e.g. a housing development) it may be adjusted after consideration of the effects of diversity. Where an existing Customer requests an increase in capacity then it is an increase above their Existing Capacity.
Scheme	ESPE’s network design to provide the connection.
Service Line	A low-voltage electric line or any part of that line that, at the time it is provided, is used only for supplying single premises, excluding any part of the line that, at the time it is provided, is intended by the distributor to enable it to provide a connection to other premises in respect of which the distributor has received, or would reasonably expect within the following 12 months to receive, a notice under section 16A(1) of the Act.

Single LV Service Demand Connection	An LV demand connection to single Premises, involving a single-phase connection and no significant work other than the provision of a service line and the electricity distributor's fuses.
Small Project Demand Connection	<p>A connection (other than a load that could be reasonably expected to cause disruption to other customers, via low-voltage circuits fused at 100 amperes or less per phase with whole current metering), where the highest voltage of the assets involved in providing such connection and any associated works, is low voltage to:</p> <p>a) a development scheme requiring more than one but fewer than five single-phase connections at domestic premises and involving only the provision of a service line and the electricity distributor's fuses; or</p> <p>b) a development scheme requiring fewer than five single-phase or two-phase connections at domestic premises and involving an extension of the existing low voltage network; or</p> <p>c) a single premises requiring a two-phase or three-phase connection and involving only the provision of a service line and the electricity distributor's fuses.</p>
Small Scale Embedded Generation (SSEG)	A source of electrical energy rated up to and including 16 Amperes per phase, single or multi-phase, LV and designed to operate in parallel with ESPE's Distribution System.
Speculative Developments	Developments which have one or more of the characteristics set out in paragraph 6.48.
Supplier	A person who holds a Supply Licence.
Supply Licence	A licence granted under section 6(1)(d) of the Act.
Temporary Connections	Connections that are only required for a period of up to five years, but exclude connections to provide the initial connection to a development, where the Reinforcement is subsequently required for the permanent connection.
The Electricity Connection Charges Regulations (ECCR)	Electricity (Connection Charges) Regulations 2002 (SI 2002/93) as amended from time to time or the Electricity (Connection Charges) Regulations 2017 (SI 2017/106) as amended from time to time, as applicable.
Transmission System Operator (TSO)	TSOs are responsible for operating ensuring the maintenance of the transmission system in a given area and, where applicable, its interconnections with other systems. They are licensed by the Office of Gas and Electricity Markets.
Unmetered Supply (UMS)	A supply of electricity the quantity of which the distribution network operator has authorised not to be measured by physical metering equipment, as governed by the Balancing and Settlement Code and BSC Procedure BSCP 520.
Validity Period	The period for which a Connection Offer or Point of Connection Offer is open for acceptance.
Voltage of Connection	The voltage at the Point of Connection between the existing distribution network and the assets used to provide the connection. For clarity, this is not necessarily the voltage of supply to the Customer.
Working Day	Any day other than a Saturday, a Sunday, Christmas Day, Good Friday or a day which is a bank holiday within the meaning of the Banking and Financial Dealings Act 1971.

3. General Information

- 3.1 ESP Electricity Limited (ESPE) is a licensed Independent Distribution Network Operator (IDNO). ESPE owns, operates and maintains electricity distribution networks throughout Great Britain. Typically, ESPE's electricity networks connect to the distribution systems of licensed Distribution Network Operators (DNOs) operating within their defined distribution services area.
- 3.2 The provision of a connection to ESPE's Distribution System may be undertaken by ESPE, or by one of ESPE's agents. Alternatively, certain connection activities may be undertaken by an Independent Connections Provider (ICP) which the Customer may appoint.
- 3.3 This document describes ESPE's Connection Charging Methodology i.e., the methodology that ESPE applies in determining the charges that are issued where connections to ESPE's Distribution System are provided and makes available details of illustrative costs. The document also describes how a new or altered connection to ESPE's Distribution System can be obtained.
- 3.4 ESPE will review this document at least once a year to ensure that the information continues to be accurate in all respects. Any changes ESPE makes to this document are made in accordance with its Licence obligations. Costs shown in the Connection Charging Statement are current at the time of publication and are subject to change without notice except as otherwise provided.
- 3.5 Certain words in this document are capitalised, e.g. Distribution System. These words have a specific meaning which is set out in the Definitions (Section 2).

Competition in Connections

- 3.6 Customers may choose to have some of the connection works (described as Contestable Work) carried out by an Independent Connections Provider (ICP). The elements of work that an ICP may undertake include the design, procurement and installation of new assets necessary to provide the electricity connection.
- 3.7 Section 5 of this document contains details of the elements of work which are Contestable and Non-Contestable, and the arrangements which apply if an ICP is appointed to carry out Contestable Work.
- 3.8 Non-Contestable Work can only be carried out by ESPE or by ESPE's appointed agents.
- 3.9 Should a Customer choose to appoint an ICP to carry out Contestable Work, and for ESPE to adopt the Contestable Work after it is completed, the appointed ICP must enter into an Adoption Agreement with ESPE before the ICP commences any of the Contestable Work. Contestable Work undertaken by an ICP and subsequently adopted by ESPE pursuant to an Adoption Agreement are outside the scope of this document.
- 3.10 ESPE works closely with a number of ICPs who are accredited under NERS, facilitated by Lloyds Register. These ICPs have access to the ESPE design standards and are able to provide a fully compliant quotation for new connection works. Further information describing the process and options available is provided in Section 4.

Contractual Framework

3.11 Dependent on the size and type of the connection required and whether ESPE or an ICP is required to undertake any Contestable Work, a Customer must enter into a set of contractual arrangements with ESPE. Unless the Customer is a licensed distributor, the Customer must also appoint a Supplier that is party to various industry agreements and codes.

Offer to Connect Premises and to Construct the Connection (Connection Offer)

3.12 A Connection Offer is the offer that ESPE makes to the Customer where the Customer has requested ESPE to carry out the connection works (both Non-Contestable and Contestable Work) to ESPE's Distribution System and which, if accepted, creates a legally binding contract between ESPE and the Customer. The terms of the Connection Offer depend, amongst other things, on the complexity and value of the work to be carried out.

Offer to undertake Non-Contestable Work only (Point of Connection Offer)

3.13 A Point of Connection Offer is the offer that ESPE makes where the Customer has requested ESPE to carry out the Non-Contestable Work to provide a Point of Connection to ESPE's Distribution System that the Contestable Work provided by an ICP can connect. The terms of the Point of Connection Offer, if accepted, creates a legally binding contract between ESPE and the Customer. The terms depend, amongst other things, on the complexity and value of the work to be carried out.

Asset Adoption Agreement

3.14 As set out in paragraph 3.9, if an ICP is to undertake Contestable Works and ESPE is requested to adopt the Contestable Works after they have been completed, an Asset Adoption Agreement must be completed prior to the commencement of the Contestable Works. The agreement sets out the terms under which ESPE takes ownership of and responsibility for the assets provided in the Contestable Works. The agreement includes, among other things:

- the transfer of title from the asset owner (normally the Customer) to ESPE;
- the quality and safety requirements of the asset to be adopted, based on ESPE's G81 documents;
- any required sureties;
- the transfer of Land Rights;
- the procedure for ESPE to Energise the assets installed by the ICP during the works;
- the payment of any residual Connection Charges or fees;
- planning permissions and compliance with street works legislation; and,
- defect correction processes, where applicable. ESPE shall only enter into an Asset Adoption Agreement with ICPs that are accredited under NERS.

Connection Agreement

- 3.15 For most sites the Connection Agreement is comprised of the National Terms of Connection put in place on ESPE's behalf by the appointed Supplier. In some circumstances ESPE may require a Customer to enter into a separate Connection Agreement covering the specific connection characteristics of the site. This only takes effect upon completion of the connection and sets out, in more detail, the respective rights and obligations of ESPE and of the owner/ occupier. Additionally, the Connection Agreement may contain technical details of the installation being connected to the Distribution System and requires the owner/occupier of the Premises to comply with the provisions of the Distribution Code.
- 3.16 The Distribution Code covers, amongst other matters, all material technical aspects relating to:
- the connection to, the operation, and the use of an LDNO's Distribution System; and
 - the operation of electrical lines and electrical plan or apparatus connected to an LDNO's Distribution System.

A copy of the Distribution Code can be downloaded from the Distribution Code website at www.dcode.org.uk.

Appointment of a Supplier

- 3.17 In order to receive a supply of electricity, a Customer must appoint and enter into an agreement with a Supplier. Where it is required, the metering equipment must be installed, and registered against the issued MPAN, before a supply of electricity can be provided to a Premises. Where the connection meets the criteria for an Unmetered Supply, an MPAN is still required and has to be registered with the chosen Supplier.
- 3.18 In order to obtain a supply of electricity, a Customer needs an MPAN for each connection. ESPE issues the MPAN after the design has been approved for the connection, upon receipt of the plot address.

Please note that ESPE is unable to give advice with regards to the choice of Supplier.

Ofgem and the Citizens Advice Bureau's websites maintain a list of Suppliers. The link to these sites can be found in Appendix A.

- 3.19 Energisation of the connection to any Premises will not take place unless a Supply Number (also called a Metering Point Administration Number or MPAN and hereafter referred to as such) has been allocated, a Supplier has been appointed and the appropriate metering equipment where required, has been installed.
- 3.20 Suppliers must be party to a number of industry codes and agreements which allow it to use the GB Transmission System, ESPE's Distribution System and also allow it to purchase and trade energy on behalf of its customers.

Disputes

- 3.21 ESPE works constantly to ensure that the service provided by our staff is of a high standard. Should you require further information on services listed in this statement, please contact us using the details below:

Telephone: 01372 587 500

Email: especontrol@espug.com

Any disputes that have been raised should be resolved in the first instance between the disputing party and ESPE's Operations Department; these will be escalated internally as required. In the event a dispute cannot be resolved, then the procedures laid out under Schedule 4 of the DCUSA apply.

- 3.22 If a disputing party is still not satisfied with ESPE's actions and has followed ESPE's complaints procedure, then domestic and small business customers have the right to contact the Energy Ombudsman. This is a free and independent dispute resolution service. The details of which can be found in Appendix A.
- 3.23 If the Energy Ombudsman is unable to deal with or resolve the dispute, then either party may request a determination of the matter by the Office of Gas and Electricity Markets Authority (the Authority). The details of which can be found in Appendix A.

4. Applying For A Connection to ESPE's Distribution System

INTRODUCTION

This section sets out the process for applying for a connection to ESPE's Distribution System. As explained in paragraphs 3.6 – 3.10, an ICP can be appointed to carry out the Contestable Works relating to the provision of the connection. The principles and processes contained in this section are relevant to all connections to ESPE's Distribution System.

Persons Entitled to Apply for a Connection

- 4.1. Any Customer may apply in their own right for a connection to ESPE's Distribution System.
- 4.2. Any Customer may appoint an agent to apply for a connection on their behalf.
- 4.3. Agents that are appointed to apply for connections on behalf of Customers shall be required to provide written evidence of their appointment on application e.g. a Letter of Authority.
- 4.4. Persons entitled to seek connection to ESPE's Distribution System for the purpose of generating, supplying or distributing electricity are those who are authorised by licence or by exemption under the Act to generate, supply or distribute electricity.

Procedure for getting a connection

- 4.5. A person seeking to become a Customer for a new or modified connection should contact ESPE as detailed below:

ESP Electricity
1st Floor, Bluebird House
Mole Business Park
Leatherhead
Surrey
KT22 7BA
Tel: 01372 547 500
Email: especontrol@espug.com

- 4.6. Once ESPE has received a completed application, ESPE will process the request and provide the Customer with a Connection Offer as soon as reasonably practicable. This is (subject to ESPE receiving all the information ESPE requires to prepare the offer from the distributor to whose Distribution System ESPE's network connects) no longer than three months.

The connection offer specifies the proposed Point of Connection to ESPE's Distribution System; the location of the Entry/Exit Point to the Premises or distribution system to be connected; details of the work to be carried out by ESPE; the terms under which ESPE provides the connection; and the characteristics of the connection which may include a curtailable connection. The link below takes you to ESPE's website where further information is available:

www.espug.com

Information ESPE Requires from Customers

- 4.7. All Customers must provide ESPE with details about the requirements for the connection. The information ESPE requires, as a minimum, is set out below. Sometimes ESPE may require additional information. If this is the case, ESPE will contact the Customer and make them aware of the additional information requirements.
- 4.8. The information ESPE requires varies depending on the nature of the connection request. Typically, ESPE requires the following details:
- The name and correspondence address and other contact details of the Customer.
 - The address where the connection is required.
 - Whether a Budget Estimate or a formal Connection Offer is required, a formal Connection Offer is a contractual document and more appropriate once a Customer is in a position to decide whether the project can proceed to the construction phase.
 - A site location plan showing the site boundary and proposed meter locations.
 - The Required Capacity (the maximum power requirement).
 - The date by which you require the connection to be made.
 - Whether the connection is required for a fixed period or indefinitely.
 - The type of connection(s) required, e.g. demand, generator or for a licensed, embedded network.
 - Any information in respect of equipment that may be installed, and which may interfere with ESPE's Distribution System or the supply of Electricity to others (e.g. apparatus which can cause voltage fluctuations, such as large motors associated with air conditioning system, lifts, cranes, hoists and other similar plant; or apparatus which can produce harmonics, such as uninterruptible power supplies or electronic control systems).

4.9. Further information that ESPE may typically require if it is intended for ESPE to undertake all the works is as follows:

- A site layout plan, drawn to a suitable scale, indicating where the connection(s) are required.
- The number of connections required.
- The capacity for each connection required.

An application form can be obtained by emailing:

especontrol@espug.com

4.10. If ESPE is not provided with the information required, it will prevent ESPE from dealing with the enquiry quickly; so please provide all information indicated on ESPE's application form wherever possible.

Budget Estimates

4.11. If an enquiry is made that is of a provisional nature, ESPE will provide a Budget Estimate to give an indication of what ESPE believes the charge for providing the connection may be. In providing this estimate, ESPE carries out a desk top exercise using broad based assumptions to assess the likely works ESPE will need to undertake; ESPE does not carry out any detailed analysis specific to the site. It should be noted that the estimate ESPE provides at this stage may vary considerably from any further Budget Estimates or the price in any formal Connection Offer. A Budget Estimate is not a formal offer for connection and cannot be accepted by the Customer. See Section 9, Part A for charges associated with the provision of Budget Estimates.

Feasibility Studies

4.12. On request, ESPE will undertake a Feasibility Study to consider a number of options for connection and provide estimated costs for each option as appropriate. Generally, this is for more complex connections. A Feasibility Study is not a formal offer for connection and cannot be accepted. Any estimated cost in such study is purely indicative and not binding. The price in any subsequent Connection Offer may differ from it. See Section 9, Part B for charges associated with the provision of Feasibility Studies.

Cost Breakdown

4.13. Where ESPE makes a Connection Offer for providing a connection to ESPE's distribution system, ESPE provides a breakdown of charges so that they can be referenced to the tables in Section 9. As a minimum, this breakdown includes:

- a description of the works ESPE will undertake, including whether it is an Enhanced Scheme;
- the length of underground cable required;
- information of any reinforcement works that are required; and
- legal and professional charges associated with the securing of Land Rights.

- 4.14. ESPE's Connection Offer is normally based on the Minimum Scheme required to provide the connection. Sometimes ESPE may undertake works that are in addition to those required by the Minimum Scheme (i.e. an Enhanced Scheme). This may be:
- where ESPE proposes to undertake works that are over and above those required by the Minimum Scheme; or,
 - where ESPE is required to undertake additional works, (for example, to provide enhanced system security).

Where the additional works in the Enhanced Scheme are at ESPE's request, the Connection Charge is based on the Minimum Scheme. ESPE provides a breakdown of the costs for both the Minimum Scheme and the Enhanced Scheme. Where the Enhanced Scheme comprises of additional works requested by the Customer, the Connection Charge is based on the Enhanced Scheme and ESPE provides a cost breakdown for the Enhanced Scheme.

Interactive Connection Applications

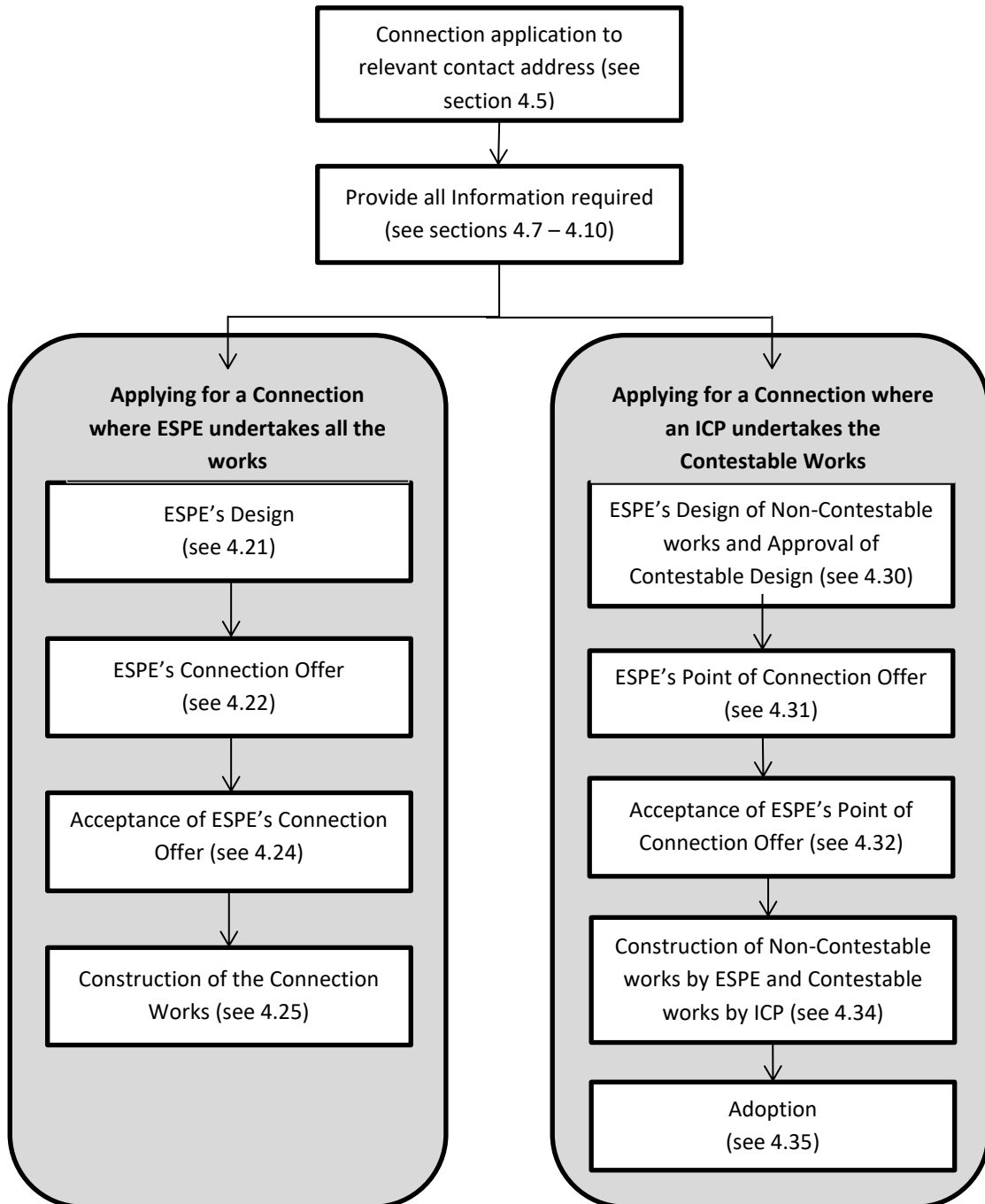
- 4.15. ESPE may receive connection applications from more than one party for connections to the same part of the Distribution System, and whilst each connection application could be accommodated on an individual basis, there may be insufficient spare capacity or other network constraints to accommodate more than one of the connection applications. Networks are designed and constructed based upon the load information that is available at the time, and therefore large levels of spare capacity are generally not available. Where ESPE receives multiple applications for connection to the same part of ESPE's Distribution System, ESPE applies an Interactive Connection Application process in order to prioritise connection applications fairly. ESPE applies this process for all applications for connection to ESPE's Distribution System where the requested Maximum Capacity (the maximum power requirement) is stated as being in excess of 1MVA.
- 4.16. The Application Date (please refer to the Connection Process section below) is used to sequence Connection Offers in time order such that the first Connection Offer is made to the first Customer to reach the 'application' stage of the process, and so on. All parties shall be notified in writing if their application is interactive or becomes interactive with others. Where a current Connection Offer is open for acceptance, the Validity Period set out in the terms of such Connection Offer is reduced to thirty (30) days from the date of any such notification, where more than thirty (30) days are still outstanding.

Transitional Arrangements

- 4.17. The Connection Charge quoted in a Connection Offer shall be calculated in accordance with ESPE's Connection Charging Methodology that is current at the time the offer is provided. If ESPE's Connection Offer is accepted, and the connection works are carried out within the prescribed time set out in it, the quoted Connection Charge is the charge that shall apply even if there is a subsequent change to ESPE's Connection Charging Methodology.

Connection Applications Process

4.18. The flow chart below illustrates how applications for connection to ESPE’s Distribution System are processed, dependent on whether ESPE carries out all the works or an ICP is appointed by the Customer to carry out the Contestable Works. Further information explaining each stage of the process is available in paragraphs 4.19 to 4.35.



Application Process where ESPE completes all the works

4.19. A Budget Estimate is not a pre-requisite in order to request a Connection Offer. When a request for connection to ESPE's Distribution System is made, ESPE processes the request using the following method.

Stage 1 – Making an Application

4.20. When an application is made, it is important that all the information listed in paragraph 4.8 is provided so that ESPE can process the enquiry. Occasionally ESPE may require additional information before the enquiry can be processed. ESPE will notify the Customer where this is the case.

Stage 2 – ESPE's Design

4.21. ESPE designs the connection, taking into account the location of the Premises for which the connection is required, its proximity to the existing Distribution System and the available capacity in the Distribution System to provide the connection required. Additionally, ESPE's design specifies any reinforcement that is required on ESPE's existing Distribution System (or on the distribution system to which ESPE's Distribution System connects) in order to accommodate the connection.

Stage 3 – ESPE's Connection Offer

4.22. When ESPE has completed the design, a Connection Offer is made to the Customer. This sets out the work ESPE must undertake to provide a connection between the premises and ESPE's Distribution System. Also, the Connection Offer sets out ESPE's Connection Charge and the terms and conditions for making the connection. The price in the Connection Offer may vary considerably from any previous Budget Estimate or Connection Offer.

4.23. The Connection Offer sets out how long it is open for acceptance (the Validity Period). The Validity Period is subject to the Connection Offer not becoming an Interactive Connections Offer as described in section 4.15. If the Connection Offer is not accepted, the Customer must complete a new application from Step 1.

Stage 4 – Acceptance of ESPE's Connection Offer

4.24. If the Customer chooses to accept ESPE's Connection Offer to the Distribution System, the Customer must:

- accept that offer in accordance with its terms within the Validity Period; and
- make any required payment in accordance with the requirements in ESPE's Connection Offer.

Stage 5 – Construction of the Connection Works

4.25. ESPE carries out the construction work to provide the new connection in accordance with the provisions to the terms of the Connection Offer the Customer has accepted. ESPE liaises with the Customer during the planning and execution of the works.

- 4.26. MPANs must be issued before the connection works are completed, so that the Customer can make arrangements with the Supplier for the supply of electricity to the Premises. On completion of this stage, the work required to provide the connection has already been undertaken and is available for the Supplier to arrange for the installation of metering equipment, or where agreed with ESPE, for use as an Unmetered Supply.

Application Process when an ICP carries out the Contestable Works but the Customer still requires ESPE to adopt the Contestable Work

- 4.27. The Customer may appoint an ICP to undertake some or all of the Contestable Work. ESPE can be requested to adopt the Contestable Work, or the Customer may choose to have the Contestable Work adopted by someone else. If the Customer decides to have the Contestable Work adopted by someone else, this constitutes an Embedded Network requiring a Bilateral Connection Agreement as discussed in paragraphs 4.40 to 4.42. If the Customer requires that ESPE be appointed to adopt Contestable Work constructed by an ICP, the ICP may make a request on the Customer's behalf and the request for a Point of Connection Offer shall be processed in the following way:

Stage 1 – The Application

- 4.28. ESPE can only progress a connection application once ESPE is provided with the information required (see paragraph 4.8). ESPE will notify the Customer within five Working Days if any additional information is required in order to process the application.
- 4.29. If an ICP is appointed by the Customer to carry out the Contestable Work, then the Point of Connection shall be determined by ESPE based on the information provided by the ICP, taking into account the ICP's requirements and ESPE's wider obligations. For larger demand and generator connections, more than one Point of Connection may need to be assessed. A table showing ESPE's indicative charges for assessing the Point of Connection is given in paragraph 9.17 and are included within the Point of Connection Offer. If an assessment of the Point of Connection is required, then ESPE will provide all the necessary information in order for the ICP to undertake the assessment. The ICP must be suitably accredited in order to undertake this assessment.

Stage 2 – ESPE's Design

- 4.30. ESPE's design of the Non-Contestable Work and the identification of the Point of Connection will take into account the location of the Premises for which a connection is required, its proximity to ESPE's Distribution System, and the available capacity in ESPE's Distribution System to provide the connection required. Additionally, ESPE's design specifies any reinforcement that is required on ESPE's existing Distribution System and/or on the Distribution System to which ESPE's Distribution System connects in order to accommodate the connection.

Stage 3 – ESPE’s Point of Connection Offer and the Asset Adoption Agreement

4.31. This is ESPE’s formal written offer to the Customer to provide the connection to ESPE’s Distribution System. The Point Of Connection Offer sets out the terms and the price upon which ESPE makes that connection, whilst the Asset Adoption Agreement sets out the terms under which ESPE adopts assets installed by the ICP. The Point of Connection Offer that ESPE makes, may be accepted by the Customer in accordance with its terms at any time within the Validity Period set out in ESPE’s Point of Connection Offer. The price in ESPE’s Point of Connection Offer may be different from any previous Budget Estimates.

Stage 4 – Acceptance of ESPE’s Point of Connection Offer

4.32. If the Customer decides to accept ESPE’s Point of Connection Offer, the Customer must:

- accept the Point of Connection Offer in accordance with its terms within the Validity Period;
- obtain design approval from ESPE for the Contestable Work in the timescales specified;
- make any required payment by the date and means specified in ESPE’s Point of Connection Offer; and
- return the signed Point of Connection Offer in the timescale specified. This may be carried out by the appointed ICP, provided the Customer has given them authority to do so.

4.33. A valid acceptance of ESPE’s Point of Connection Offer creates a legally binding agreement between ESPE and the Customer. Where the terms of the Asset Adoption Agreement have been unaltered, ESPE will sign the Asset Adoption Agreement and return a copy to the relevant parties.

Stage 5 – Construction by ESPE and the ICP

4.34. At this stage ESPE carries out construction of the Non-Contestable Works and the ICP carries out construction of the Contestable Works. ESPE may carry out routine inspections of the Contestable Works as it is installed. Such inspections are on the same basis as those ESPE carries out in respect of ESPE’s own connections work. 10 working days before the Contestable Works are ready for connection to ESPE’s Distribution System, the ICP must contact ESPE so that ESPE can confirm a date for connection. Subject to the provision of any required documentation and the satisfactory completion of any required tests, ESPE will connect the Contestable Works to ESPE’s Distribution System and, where agreed, adopt the assets. MPANs are issued before the Connection Works are completed, so that arrangements can be made with the Supplier. On completion of this stage, the Extension Assets and Entry/ Exit Point(s), as appropriate, have been commissioned and are available for meters to be installed or, in the case of Unmetered Supplies, are ready for use.

Stage 6 – Adoption of the Contestable Works by ESPE

4.35. Adoption is in accordance with provisions of the Asset Adoption Agreement described in paragraph 3.14.

Standards of performance for Point of Connection Applications

4.36. Appendix 1 of Standard Licence Condition 15 of ESPE's Distribution Licence sets out the standards of performance for ESPE. ESPE must take all reasonable steps to comply with the standards of performance when providing Point of Connection Offers, design approval, connections, and Energisation of the connections. These standards apply where the Customer has provided ESPE with the necessary information needed to undertake the work and, where relevant, ESPE receives the required information from the relevant distributor (to whose distribution system ESPE's Distribution System connects). These standards are set out in the table below:

Provision of Point of Connection Offers	Performance
(a) Low voltage demand: for a new demand connection to ESPE's Distribution System where the highest voltage of the assets at the Point of Connection and any associated works is not more than one kV.	Within fifteen Working Days of receiving the request.
(b) Low voltage generation: for a new generation connection to ESPE's Distribution System where the highest voltage of the assets at the Point of Connection and any associated works is not more than one kV.	Within thirty Working Days of receiving the request.
(c) High voltage demand: for a new demand connection to ESPE's Distribution System where the highest voltage of the assets at the Point of Connection and any associated works is more than one kV but less than 22 kV.	Within twenty Working Days of receiving the request.
(d) High voltage generation: for a new generation connection to ESPE's Distribution System where the highest voltage of the assets at the Point of Connection and any associated works is more than one kV but less than 22 kV.	Within fifty Working Days of receiving the request.
(e) Extra high voltage demand: for a new demand connection to ESPE's Distribution System where the highest voltage of the assets at the Point of Connection and associated works is more than 22 kV but not more than 132 kV.	Within fifty Working Days of receiving the request.
(f) Other connections: for a new demand connection or generation connection to ESPE's Distribution System that is not included within the preceding subparagraphs.	Within sixty-five Working Days of receiving the request.

Further information on these standards of performance can be found on ESPE's website at [Resources – ESP Utilities Group \(espug.com\) \[https://espug.com/utility-contractors/resources/\]](https://espug.com/utility-contractors/resources/)

Small Scale Embedded Generation

- 4.37. Small Scale Embedded Generation (SSEG) is defined as a source of electrical energy with a rating up to and including 16 Amperes per phase, single or multi-phase LV, and designed to operate in parallel with ESPE's Distribution System. If a SSEG unit (typically domestic combined heat and power units, domestic photovoltaic and domestic wind turbines) is installed, the Customer must, in accordance with statutory requirements, advise ESPE of their intention to utilise the SSEG installation no later than 28 days (inclusive of the day of commissioning), after its commissioning.
- 4.38. Engineering Recommendation (EREC) G83/1-1 entitled "Recommendations for the Connection of Small-Scale Embedded Generators (Up to 16A per phase) in Parallel with Public Low-Voltage Distribution Networks" is published by the Energy Networks Association (ENA) and is in effect until 16th May 2019. These recommendations will be superseded by EREC G98 and G99 which come into effect in 17th May 2019. These recommendations set out the technical requirements for the connection of SSEG units. For further information visit the ENA website. (www.energynetworks.org).
- 4.39. For the connection of other types of generation, the Customer will need to follow the process above so ESPE can make an offer to connect the Generator. Further information can be found in ESPE's Distributed Generation Connections Guide which can be accessed from ESPE's website:
[Electricity Generation – ESP Utilities Group \(espug.com\) \[https://espug.com/electricity-generation/\]](https://espug.com/electricity-generation/)

Embedded Networks

- 4.40. Any person wishing to build a distribution network requiring a connection to ESPE's Distribution System should apply to ESPE using the processes set out in this Section.
- 4.41. ESPE accept and shall work to Engineering Recommendation G88 entitled; "Principles for the planning, connection and operation of electricity distribution networks at the interface between Distribution Network Operators (DNOs) and Independent Distribution Network Operators (IDNOs)", published by the ENA.
- 4.42. A Bilateral Connection Agreement shall be required between ESPE and the connected party, setting out the specific terms and conditions that govern the connection of the distribution network to ESPE's Distribution System, once the connection works are completed. While such terms and conditions are consistent with ESPE's Connection Charging Methodology, the Bilateral Connection Agreement takes precedence.

5. INFORMATION ON CONNECTION APPLICATIONS

INTRODUCTION

This section sets out further information with regards to obtaining a connection to ESPE's Distribution System.

Connection Offer and Point of Connection Offer Validity Periods

5.1. Any Connection Offer given is normally open for acceptance for ninety days from the date on the letter. This is the Validity Period. After that period the Connection Offer expires and is no longer open for acceptance. The Connection Offer is also provided on the understanding that the connection works are started and completed within a determined period of time. This period varies depending on the type and complexity of the connection works required. If, following acceptance of the Connection Offer, the connection works are not completed within the determined period of time or progressed in accordance with agreed milestones, and such failure to complete or progress the connection works is due to any act of default or omission by the Customer or the Customer's agents, ESPE reserves the right to withdraw the Connection/Point of Connection Offer and make a new Connection/Point of Connection Offer under such terms and conditions as are appropriate at the time.

Contestable Work

5.2. ESPE considers the following work to be Contestable with regards to ESPE's Distribution System and as such the work may be carried out in its entirety by a suitably accredited ICP:

- assessment of a point of connection;
- design of the Contestable Work;
- the procurement and provision of equipment and materials to ESPE's current specification for the Contestable Work;
- trenching and other preparation of the site, including the circuit routes between the development and the Point of Connection;
- construction of the Contestable Work;
- determining the Point of Connection to ESPE's Distribution System at LV and HV unless expressly considered non-contestable;
- connection of Contestable Works to the Distribution System and their Energisation at LV and HV only;
- recording of work done and of the location of cable routes and other equipment on site or elsewhere (where those assets are installed by the ICP), and the provision of this information to ESPE;
- Provision and installation of HV switchgear, including any plant or equipment required for the automation of ESPE's networks, in accordance with ESPE's technical specifications.
- reinstatement (both temporary, if appropriate, and permanent);

- making provision for the installation of metering equipment; and
- Land Rights negotiations to ESPE's standard terms.

Under certain circumstances and at ESPE's sole discretion, ESPE may agree that the Customer undertake part of the Contestable Works whilst ESPE carry out the remainder where it is practical to do so.

- 5.3. The Contestable design element must comply with the appropriate part of Engineering Recommendation G81 and any of ESPE's specific requirements. Following receipt of the design of the Contestable Work ESPE shall either provide written confirmation of approval or explanation for rejection. Such approval shall not be unreasonably withheld. A charge is not made for approval of any design work undertaken by an ICP. Where the Contestable design has been undertaken by a suitably accredited ICP ESPE shall not be required to approve the design.
- 5.4. ESPE may, on occasion, request the ICP to include additional features in the design to assist ESPE. Such requests shall be made in writing and as soon as is reasonably practicable. Where the ICP accepts this request ESPE will meet the agreed additional cost. Where the additional features should have been included to comply with ESPE's G81 documents, then these costs shall be met by the ICP/Customer.
- 5.5. The specification for design, materials, installation, and recording, is governed by Engineering Recommendation G81, a seven-part national framework document administered by the Energy Networks Association that is designed to be supplemented by ESPE's specific appendices. Any ICP carrying out such Contestable Work must comply with the specification. The seven parts comprise:

For green field and brown field housing estates:

Part 1: Framework for Design and Planning

Part 2: Framework for Materials Specification

Part 3: Framework for Installation and Records

For industrial and commercial connections:

Part 4: Framework for Design and Planning

Part 5: Framework for Materials Specification

Part 6: Framework for Installation and Records

All of the above must be read in conjunction with ESPE's corresponding suite of appendices that supplement Engineering Recommendation G81.

For diversionary and Reinforcement works:

Part 7: Framework for contestable diversionary and Reinforcement underground and overhead works not exceeding 33kV and HV/LV distribution substations.

These documents are available to view on the ENA website at:

<http://www.energynetworks.org/>

A copy of ESPE's supplementary documents can be requested from:

especontrol@espug.com

Non-Contestable Work

5.6. ESPE considers that the following works in respect of ESPE's Distribution System are deemed to be Non-Contestable and as such, can only be carried out by ESPE or ESPE's appointed agents:

- Processing the application and Distribution System planning for the connection;
- Deciding upon the Point of Connection to the Distribution System in exceptional circumstances as may be published from time to time;
- Connection of the Contestable Work to the Distribution System other than at LV or HV;
- Design, planning and specification of any works for Reinforcement of ESPE's Distribution System;
- Carrying out of any works for Reinforcement of ESPE's Distribution System where the conditions for such work being Contestable Work are not met. Reinforcement (other than design and specification) and diversionary works may be contested when associated with the provision of a connection and subject to the circumstances in paragraph 5.8; and
- Removal and/or the diversion of existing Electrical Plant and Electric Lines when they are not related to the contestable works.

5.7. The following works in respect of Contestable Works are deemed to be Non-Contestable:

- Specification of the design and installation criteria and materials to be used for Contestable Works;
- Concluding any Land Rights and consents that ESPE require;
- Approval of the ICP's design where the ICP does not have the necessary accreditation or does not wish to self-approve the design;
- Operational activity associated with the connection of Extension Assets or diverted assets to the Distribution System;
- Operation, repair and maintenance of the Electrical Plant and the Electric Lines following adoption by ESPE; and
- Inspection, monitoring and testing of any contestable work.

Contestable Reinforcement and Diversionary Work

5.8. Certain types of Reinforcement and diversionary work on ESPE's Distribution System may also be carried out by suitably accredited ICPs for adoption by ESPE. 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 ESPE's existing Distribution System;

- do not require access to ESPE's existing operational areas;
- are fully funded by the single third party who is seeking the connection; and
- are restricted to works to install underground cables at voltage levels not exceeding 33kV and works to install HV/LV distribution substations.

In the circumstances above a suitably accredited ICP may also carry out the connection of diverted assets to the Distribution System and their Energisation where the connection is made at LV or HV by live jointing to an underground cable section of the Distribution System (in areas where the LV Distribution System is operated on an interconnected basis ESPE will need to carry out operational activity before the live jointing may commence).

- 5.9. The design of Reinforcement works can require a large volume of information that would need to be made available to allow the ICP to carry out such design works which is likely to outweigh the benefits of including design work within the scope of contestability. The design of connection Reinforcement remains Non-Contestable.
- 5.10. Where Reinforcement or diversionary work is required on the Distribution System of another LDNO, then the Customer or the ICP is required to liaise directly with the relevant LDNO.

Increase or Decrease in Required Capacity

- 5.11. If the Customer wishes to increase or decrease the Required Capacity of an existing connection, a request can be made by submitting an Application to ESPE at the address given in paragraph 4.5.
- 5.12. Any request to increase the Required Capacity shall be considered by ESPE and the Customer shall be informed whether the additional load is immediately available or whether Reinforcement work must first be carried out. Any costs for reinforcing ESPE's Distribution System shall be charged for in accordance with Section 6 of this document.
- 5.13. Any increase or decrease in Required Capacity shall normally be formally agreed by the implementation or variation of a Connection Agreement or agreed in writing by ESPE.
- 5.14. No decrease in Required Capacity for import shall take effect earlier than twelve months from the date of original connection, or twelve months from the last variation made to the Required Capacity.

Temporary De-energisation

5.15. An electrical installer may request that ESPE temporarily De-energises and subsequently Re-energises ESPE's Distribution System to enable that person to work on wiring and equipment safely. ESPE typically requires notice of at least 10 working days to provide this service and a charge will apply.

Capacity of Domestic Connections

5.16. All new domestic connections for non-electrically heated dwellings have the ability to deliver a maximum demand capacity of 15kW, unless agreed otherwise with the Customer. (This does not imply that a generator with a rated output of 15kW can be accepted on that connection).

Large Low Voltage Connections

5.17. ESPE normally provides connections with a maximum demand capacity of up to 1000kVA at low voltage. However, ESPE will take into account the Customers particular requirements for a connection at high voltage and any disturbing loads (such as large motors or welding equipment) to be connected, together with the possibility of any future load increase in determining the voltage at which the connection is given.

Available Capacity

5.18. The capacity available on ESPE's existing Distribution System is determined on the basis of capacity that is currently available and which is not currently covered under any existing Connection Agreement, Asset Adoption Agreement or other commercial contract or agreement as may be considered to have reserved capacity.

Advice for Reducing the Connection Charge

5.19. The Connection Charge is normally based on the estimated costs of the Minimum Scheme. However, ESPE is happy to discuss ways of reducing the connection charge. The list below identifies some of these methods.

- If full details of the maximum power requirements are provided when an application is made, the time required in designing and producing a Connection Offer is minimised. The Customer has a legal obligation to provide all relevant information regarding the existing and/or proposed load details.
- Connection Offers are provided subject to the availability of any necessary legal consent; however, if the Customer is able to provide assistance in these matters, it may help to reduce the connection charge. Legal consents may be easier to obtain if all the equipment required for the connection is situated within the Customer's land.
- Customers may wish to consider carrying their own excavation works on their land, for instance the provision and installation of suitable ducts together with any road crossing ducts as necessary.

- Accepting a service position as close to the distribution system as possible results in the service cable length being kept to a minimum which in turn reduces the amount charged by ESPE.
- If a substation is required for the connection(s), the Customer may wish to consider the following:
 - a) Can the substation site/land be provided at no cost to ESPE?
 - b) Is the substation site to be provided in the optimum position? (This must be in agreement with ESPE)
 - c) Can the Customer construct a substation base and building? (These must be in accordance with ESPE's specifications)
 - d) Can the Customer provide suitable routes for any cables across the property?

Curtable Connections

- 5.20. Connection applications may require ESPE to assess the eligibility of Curtable Connections, particularly where reinforcement costs are incurred. ESPE is only obligated to provide a connection offer for a Curtable Connection where the relevant criteria are met. All connection applications will be assessed on an individual basis for this purpose.
- 5.21. Details of the eligibility criteria, the methodology for curtailing the connection, and general terms and conditions for a Curtable Connection can be found in DCUSA Schedule 2D.

INTRODUCTION

This section sets out the parts of ESPE's Connection Charging Methodology where there are analogous paragraphs contained within the Common Connection Charging Methodology. The parts of the methodology specific to ESPE are contained in Section 8. Adherence to this section, and Section 8, ensures a consistent approach in the way that Connection Charges are calculated.

Payment Terms

6.1. The Connection Charge is normally payable in full, and in advance of Energisation of the Connection Works. For simple service connections, where work is minimal, ESPE recommends that payment is made at the same time as acceptance of ESPE's Connection/Point of Connection Offer as this expedites the programming of the work. The Connection Charge is payable in stages, in the case of a phased development, or connections requiring major electrical infrastructure; e.g. a housing estate, large commercial development, or large generator. An initial payment may be required at the time of acceptance of the Connection/Point of Connection Offer and further payment shall be required by instalment to coincide with ESPE's incidences of expenditure. This shall be reviewed and agreed on a case-by-case basis.

Minimum Scheme

6.2. The Minimum Scheme is the scheme with the lowest overall capital cost (as estimated by ESPE), solely to provide the Required Capacity. The Minimum Scheme shall be subject to:

- accepted industry standards, including the requirements of the Distribution Code;
- the status and configuration of the Relevant Section of the Network (RSN);
- the standard sizes and types of equipment currently used by ESPE on ESPE's Distribution System which shall be reasonable in all the circumstances;
- maintaining ESPE's ability to minimise regulatory penalties associated with the Guaranteed Standards of Performance; and
- where the Customer is an LDNO, maintains the Customer's ability to minimise regulatory penalties associated with the Guaranteed Standards of Performance.

The Minimum Scheme shall also be consistent with ESPE's statutory and licence obligations including the requirement to develop, maintain and operate an efficient, co-ordinated, and economical electricity Distribution System.

6.3. ESPE will make available ESPE's design policies and standards as appropriate.

6.4. Subject to paragraphs 6.5 to 6.8 below, ESPE will calculate the Connection Charge based on the estimated costs of the Enhanced Scheme.

Enhanced Scheme

- 6.5. In certain circumstances ESPE may decide to design an Enhanced Scheme. This may include one or more of the following:
- additional assets not required as part of the Minimum Scheme;
 - assets of a larger capacity than required by the Minimum Scheme; and
 - assets of a different specification than required by the Minimum Scheme.
- 6.6. The Connection Charge associated with the Enhanced Scheme is calculated subject to the exclusion of the costs of any additional assets that are not necessary for the provision of the connection.
- 6.7. If ESPE decide to design an Enhanced Scheme, then the Connection Charge that ESPE applies shall be the lower of the Enhanced Scheme and the Minimum Scheme.
- 6.8. There may be certain circumstances, such as where ESPE is required to undertake work that is over and above that of the Minimum Scheme, where ESPE may require the Customer to contribute to, or pay in full, the costs of the Enhanced Scheme. These circumstances are detailed further in paragraphs 6.12 to 6.19.

Costs

- 6.9. ESPE may recover the reasonable costs incurred, both direct and indirect, in providing a connection and may, where permitted by our Licence, apply a margin on some of those costs. The factors taken into account by ESPE to calculate the Connection Charge include, but are not limited to:
- industry standards governing the Distribution System;
 - the Required Capacity;
 - available capacity of the existing Distribution System;
 - whether any necessary extension or Reinforcement of the existing Distribution System is by underground cable or overhead lines;
 - whether any diversionary works are required as a result of the development and required disconnection of any assets;
 - the length of cable or line required;
 - type of ground requiring excavation, the type and extent of the reinstatement necessary (including New Roads and Street Works Act requirements and any other relevant legislation), and the need for road, bridge crossings etc.;
 - any Electrical Plant and civil costs required, allowing for any civil works undertaken by the Customer with ESPE's agreement;
 - the costs of installing communication equipment;
 - the costs of installing system management equipment;
 - the requirement to work outside of normal working hours;
 - the costs of undertaking the design;

- the costs of securing wayleaves/easements for plant, cables or lines including any consents;
- the costs of securing suitable substation sites including any necessary Land Rights;
- any overhead line surveys required;
- the costs of public enquiries and environmental impact studies; charges for any other costs associate with the work on Sites of Special Scientific Interest (SSSI), railway lines etc.;
- any variations in respect of the actual costs that were reasonably incurred as specified in the Connection Offer;
- costs associated with NRSWA noticing.

Cost Allocation

6.10. The costs charged to the Customer as a connection charge may be split into three categories:

- Costs for providing the connection which are to be paid in full by the Customer (see 6.12 to 6.19).
- Costs to be paid by the Customer in respect of works that have previously been constructed (see 6.36).
- Cost for providing the connection which are to be apportioned between the Customer and ESPE (see 6.21 - 6.35).

6.11. Some costs may be borne in full by ESPE and are not be included in the Connection Charge (see paragraphs 6.37 – 6.41).

Costs to be paid in full by the Customer

6.12. The costs of providing Extension Assets shall be charged in full to the Customer.

6.13. Where there is a requirement for additional security or the characteristics of the load requires ESPE to install assets in excess of the Minimum Scheme then the Customer is required to pay the costs that are in excess of the Minimum Scheme in full. Where a three-phase connection and/or a supply voltage is requested that is not necessary to meet the Required Capacity and the local Distribution System is not of the requested number of phases and/or voltage, then the Customer shall be required to pay in full the cost of Reinforcement of the Distribution System to the specified number of phases/and/or voltage.

6.14. The costs of the future operation and maintenance of any additional assets requested (i.e. assets provided over and above those associated with the Minimum Scheme) may be payable in full by the Customer. This is normally levied as a one-off charge representing the net present value of the future operation and maintenance costs as calculated as a percentage specified in paragraph 8.1 of the additional capital cost of the Scheme.

6.15. Work required to reconfigure the Distribution System to meet the Customer's requirements where no additional Network or Fault Level Capacity is made available shall be charged in full to the Customer.

6.16. Where the Extension Assets would normally require the extension of existing switchgear equipment and this is not possible, the costs of the full replacement of the switchgear (using the nearest

standard size) shall be charged to the Customer, provided that there is no Reinforcement of the Distribution System.

- 6.17. If your development is considered to be speculative then the Reinforcement costs will be charged to you in full.
- 6.18. Reinforcement costs for the Minimum Scheme in excess of the High-Cost Project Threshold, shall be charged to you in full as a Connection Charge. The calculation of this charge will include all costs for Reinforcement carried out at the same Voltage Level and one Voltage Level above the Point of Connection to the existing Distribution System. For Generation Connections the threshold is £200/kW; for Demand Connections the threshold is £1,720/kVA. Reinforcement costs below the High-Cost Project Threshold will follow the methodology outlined under paragraphs 6.21 to 6.28. The table below illustrates the application of the High-Cost Project Threshold.

England and Wales

Voltage of Scheme Assets	Voltage at the POC			
	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)	132kV
132kV Network	Excluded from assessment ¹	Excluded from assessment ¹	Included in assessment	Included in assessment
132kV/ EHV Substation	Excluded from assessment ²	EHV CBs only included in assessment	Included in assessment	Not applicable
EHV Network	Excluded from assessment ¹	Included in assessment	Included in assessment	
132kV/ HV Substation	HV CBs only included in assessment	Included in assessment	Not applicable	
EHV/HV Substation	HV CBs only included in assessment	Included in assessment		
EHV/LV substation	Included in assessment	Not applicable	Not applicable	

HV Network	Included in assessment	Included in assessment		
HV/ LV Substation	Included in assessment	Not applicable		
LV Network	Included in assessment			

¹ Except where there is direct transformation from 132kV to HV or EHV to LV when the higher voltage costs are included.

² Except where there is direct transformation from 132kV to HV or EHV to LV when the higher voltage circuit breaker costs are included.

NB: The above table may not accommodate every possible set of circumstances, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

Scotland

	Voltage at the POC		
Voltage of Scheme Assets	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)
EHV Network	Excluded from assessment ¹	Included in assessment	Included in assessment
EHV/HV Substation	HV CBs only included in assessment	Included in assessment	Not applicable
EHV/LV substation	Included in assessment	Not applicable	
HV Network	Included in assessment	Included in assessment	
HV/ LV Substation	Included in assessment	Not applicable	
LV Network	Included in assessment		

¹ Except where there is direct transformation from EHV to LV when the higher voltage costs are included.

NB: The above table may not accommodate every possible set of circumstances, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

- 6.19. To facilitate the Maximum Capacity requested by the Customer in the connection application, ESPE may be required to pay additional charges to the operator of the Distribution System to which ESPE's network connects. The upstream network operator shall be required to calculate these charges in accordance with their connection charging methodology. Where ESPE receive charges from the upstream network operator ESPE passes such charges on to the Customer as part of the overall Connection Charge. The rules for apportionment described in paragraphs 6.21 to 6.35 below do not apply. See Example 12.
- 6.20. At the time of publication of this document ESPE does not have any connections to the Transmission System. However, should the connection result in any works being undertaken on the Transmission System then these costs shall be calculated according to the Transmission System Operator's methodology and included in the Connection Charge.

Costs to be apportioned between the Customer and ESPE

- 6.21. For Demand Connections, the costs of Reinforcement will be paid in full by us, unless other exceptions apply which take precedence.
- 6.22. For generation connections where ESPE needs to undertake Reinforcement of ESPE's Distribution System to facilitate the connection, the costs of such work shall be apportioned between the Customer and ESPE. The methods used to apportion the costs of Reinforcement are set out in paragraphs 6.31 – 6.35. There are six exceptions to this rule. Where an exception applies, Reinforcement shall be treated as Extension Assets and costs are not apportioned. These exceptions are described below.
- 6.23. **Exception 1:** Where the Reinforcement is:
- downstream of the POC; and
 - over and above the Minimum Scheme; and
 - provided at ESPE's request; and
- provided by connecting two points on the existing Distribution System; then the apportionment rules do not apply. The Customer shall be required to pay the costs associated with the Minimum Scheme and ESPE shall pay the costs over and above the Minimum Scheme. See Example 2B.
- 6.24. **Exception 2:** Where the Reinforcement is in excess of the Minimum Scheme and is at the Customer's request, the Reinforcement shall be treated as Extension Assets and the apportionment rules do not apply. The costs in excess of the Minimum Scheme shall be borne in full by the Customer (see paragraphs 6.12 to 6.18 above).
- 6.25. **Exception 3:** Where the Reinforcement is provided to accommodate a Temporary Connection, the Reinforcement shall be treated as Extension Assets and the apportionment rules do not apply. The costs associated with the Temporary Connection shall be borne in full by the Customer. Temporary Connections are defined as connections that are only required for a period of up to five years but exclude connections to provide the initial connection to a development, where the Reinforcement is subsequently required for the permanent connection.

6.26. **Exception 4:** Where the replacement of switchgear results in an increase in fault level capacity and:

- that increase is solely as a result of the fault level rating of the standard switchgear equipment used by ESPE being higher than that of the existing switchgear; and
- that increase in fault level capacity is not needed to accommodate the connection.

then, unless the switchgear adds network capacity and the Security CAF applies, the switchgear replacement is treated as Extension Assets and the apportionment rules do not apply. The Customer shall be required to pay the full cost of the switchgear replacement.

6.27. **Exception 5:** Where the Minimum Scheme requires Reinforcement that is provided by connecting two points on the existing Distribution System to provide connectivity to your Premises, then the lowest cost feeder shall be treated as an Extension Asset and all other feeders required to connect your Premises shall be treated as Reinforcement.

6.28. **Exception 6:** Where the Reinforcement:

- is provided by connecting two points on the existing distribution system; and
- is providing connection to a development with a number of Entry/ Exit Points,

then the additional network length (measured from suitable points close to the site boundaries which would allow for a clear demarcation of Contestable and Non-Contestable Work) required to provide connectivity within the development shall be considered to be Extension Assets and the apportionment rules shall not apply. The Customer shall pay the full cost of the additional network length.

6.29. For avoidance of doubt, where Reinforcement costs are borne by the Customer and any capacity created is used to accommodate new or increased connections within the ECCR Prescribed Period, then the provisions of the ECCR applies (see paragraphs 6.44 - 6.47).

6.30. The costs of Reinforcement shall be apportioned using one of two Cost Apportionment Factors (CAFs), dependent upon which factor is driving the requirement for Reinforcement:

- The 'Security CAF'; and
- The 'Fault Level CAF'.

6.31. The following definitions are used in the application of the CAFs.

Existing Capacity	<p>For existing Customers their Existing Capacity is either:-</p> <p>a) the Chargeable Capacity used in the calculation of their use of system charges; or</p> <p>b) for Customers who are not charged for use of system on the basis of their Chargeable Capacity the lower of:</p> <ul style="list-style-type: none"> ■ No. of phases x nominal phase-neutral voltage (kV) x fuse rating (A); and ■ The rating of the service equipment.
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<p>Fault Level Contribution from Connection</p>	<p>The assessment of the Fault Level contribution from the equipment to be connected taking account of its impact at the appropriate point on the Distribution System. Where an existing Customer requests a change to a connection then the “Fault Level Contribution from Connection” is defined as the incremental increase in Fault Level caused by the Customer.</p>
<p>New Fault Level Capacity</p>	<p>The Fault Level rating, following Reinforcement, of the equipment installed after taking account of any restrictions imposed by the local network Fault Level capacity. For the avoidance of doubt this rule is used for all equipment types and voltages.</p>
<p>New Network Capacity</p>	<p>The secure or non-secure capacity of the Relevant Section of Network (RSN) following Reinforcement. Whether secure or non-secure capacity is applicable depends upon the type of capacity that can be provided from the RSN. For example, if the capacity provided to the Customer by the RSN is secure, but the capacity requested by the Customer at the point of connection is non-secure, the secure capacity is used. See Example 10.</p> <p>The capacity to be used is based on ESPE’s assessment of the thermal ratings, voltage change and upstream restrictions and compliance with ESPE’s relevant design, planning and security of supply policies. The equipment ratings to be used are the appropriate operational rating at the time of the most onerous operational conditions taking account of seasonal ratings and demand.</p>
<p>Relevant Section of Network (RSN)</p>	<p>The part or parts of the Distribution System which require(s) Reinforcement. Normally this comprises of:</p> <ul style="list-style-type: none"> ■ the existing assets, at the voltage level that is being reinforced, that would have been used to supply the Customer (so far as they have not been replaced) had sufficient capacity been available to connect the Customer without Reinforcement; and/or ■ the new assets, at the same voltage level, that are to be provided by way of Reinforcement. <p>Where it is unclear what assets would have supplied the Customer in the event that sufficient capacity had been available, the existing individual assets with the closest rating to the new assets are used. See Example 10.</p> <p>There may be more than one RSN (e.g. at different voltage levels).</p>
<p>Required Capacity</p>	<p>The Maximum Capacity agreed with the Customer. In the case of multiple connections (e.g. a housing development) it may be</p>

adjusted after consideration of the effects of diversity. Where an existing Customer requests an increase in capacity then it is the increase above their Existing Capacity.

6.32. The 'Security CAF' is applied, where the costs are driven by either thermal capacity or voltage (or both) as assessed against the relevant standard. This rule determines the proportion of the Reinforcement costs that should be paid by the Customer as detailed below.

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

6.33. The 'Fault Level CAF' is applied, where the costs are driven by Fault Level restrictions. This rule determines the proportion of the Reinforcement costs that should be paid by the Customer as detailed below.

$$\text{Fault Level CAF} = 3 \times \frac{\text{Fault Level Contribution from Connection}}{\text{New Fault Level Capacity}} \times 100\% \quad (\text{max } 100\%)$$

6.34. For clarity, where the Customer requires an augmentation to an existing connection, both the Security and Fault Level CAFs are based on the increase in Required Capacity and increase in Fault Level Contribution from the connection respectively. Any related increases within the previous three-year period are taken into account in determining the increase in the Required Capacity or increase in the Fault Level Contribution from the connection to be applied within the CAF.

6.35. On some Schemes there may be interaction between the two rules. In such cases, the 'Security' CAF shall be applied to costs that are driven by the security requirement. The 'Fault Level CAF' shall be applied to costs that are driven by Fault Level requirements. See the Examples for illustrations on the application of the CAFs.

Recovery of costs for previous works

6.36. Where, in order to provide the connection:

- ESPE proposes to utilise existing Distribution System assets that were previously installed to provide a connection to another Customer; and
- the other Customer has paid ESPE (either in part or in full) a Connection Charge for those assets or paid an ICP for those assets which were then adopted by ESPE; then,

the Customer may be required to make a payment towards them. The ECCR prescribes the circumstances where such payment is required. Charges for such works only apply where the new connection is provided within the ECCR Prescribed Period.

Costs to be paid in full by ESPE

6.37. Where assets are installed at ESPE's request that are above the cost of the Minimum Scheme then the Customer shall be required to pay the costs associated with the Minimum Scheme and ESPE shall pay the costs over and above the Minimum Scheme.

- 6.38. For Demand Connections we will fully fund all Reinforcement. For Generation Connections, we will fully fund Reinforcement carried out at a Voltage Level higher than the Voltage Level at the POC to the existing Distribution System. However, there are exceptions to these two approaches, as set out elsewhere in this methodology.
- 6.39. ESPE fully fund Reinforcement carried out to allow the installation of all equipment at an existing premises which remain connected via an existing low-voltage single, two or three phase service fused at 100 amperes or less per phase which is metered with whole-current metering; provided that (to the extent where it is relevant):
- the Reinforcement is carried out to allow the installation of equipment as part a single application for a single or multiple installations;
 - any and all electricity generation equipment installed has a rated output not greater than 16 amperes per phase (or not greater than 16 amperes per phase at any single premises if a single application for multiple installations);
 - any and all equipment installed which does not constitute a modification to the existing service conforms with the technical requirements of the following standards (notwithstanding that the equipment may have an input current that is more than 16 amperes per phase):
 - BS EN 61000-3-2 Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase); and
 - BS EN 61000-3-3 Electromagnetic compatibility (EMC). Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
- 6.40. Where it is necessary to modify a low-voltage single phase looped service for an existing premises, this shall be considered to have remained connected under paragraph 6.39 above.
- 6.41. The tables below illustrate the application of the voltage rules in relation to Reinforcement for Demand Connections and Generation Connections. For Generation Connections, you will be required to contribute towards the cost of any Reinforcement provided at the Voltage Level of the POC, up to and including the cost of circuit breakers provided at that voltage.

England and Wales

Demand Connections				
	Voltage at the POC			
Voltage of Scheme Assets	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)	132kV
132kV Network	We fund	We fund	We fund	We fund
132kV/ EHV Substation	We fund	We fund	We fund	Not applicable
EHV Network	We fund	We fund	We fund	Not applicable
132kV/ HV Substation	We fund	We fund	Not applicable	Not applicable
EHV/HV Substation	We fund	We fund	Not applicable	Not applicable
EHV/LV substation	We fund	Not applicable	Not applicable	Not applicable
HV Network	We fund	We fund	Not applicable	Not applicable
HV/ LV Substation	We fund	Not applicable	Not applicable	Not applicable
LV Network	We fund	Not applicable	Not applicable	Not applicable

NB: The above table may not accommodate every possible circumstance, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

Generation Connections				
	Voltage at the POC			
Voltage of Scheme Assets	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)	132kV
132kV Network	We fund	We fund ¹	We fund	Apportioned
132kV/ EHV Substation	We fund	We fund	EHV circuit breakers only Apportioned	Not applicable
EHV Network	We fund	We fund	Apportioned	Not applicable
132kV/ HV Substation	We fund	HV circuit breakers only Apportioned	Not applicable	Not applicable
EHV/HV Substation	We fund	HV circuit breakers only Apportioned	Not applicable	Not applicable
EHV/LV Substation	LV board only Apportioned	Not applicable	Not applicable	Not applicable
HV Network	We fund	Apportioned	Not applicable	Not applicable
HV/ LV Substation	LV board only Apportioned	Not applicable	Not applicable	Not applicable
LV Network	Apportioned	Not applicable	Not applicable	Not applicable

1 Except where there is direct transformation from 132kV to HV when the costs are apportioned.

NB: The above table may not accommodate every possible circumstance, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

Scotland

Demand Connections	Voltage at the POC		
	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)
EHV Network	We fund	We fund	We fund
EHV/HV Substation	We fund	We fund	Not applicable
EHV/LV substation	We fund	Not applicable	Not applicable
HV Network	We fund	We fund	Not applicable
HV/ LV Substation	We fund	Not applicable	Not applicable
LV Network	We fund	Not applicable	Not applicable

NB: The above table may not accommodate every possible circumstance, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

Generation Connections			
	Voltage at the POC		
	LV (at or below 1000V)	HV (above 1kV but not more than 22kV)	EHV (above 22kV but not more than 72kV)
EHV Network	We fund	We fund	Apportioned
EHV/HV Substation	We fund	HV circuit breakers only Apportioned	Not applicable
EHV/LV Substation	LV board only Apportioned	Not applicable	Not applicable
HV Network	We fund	Apportioned	Not applicable
HV/ LV Substation	LV board only Apportioned	Not applicable	Not applicable

LV Network	Apportioned	Not applicable	Not applicable
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NB: The above table may not accommodate every possible circumstance, where this is the case, the Voltage Level (as defined in the Glossary) shall be applied.

Recovered Equipment and Deferral of Asset Replacement

6.42. Normally, the Customer does not receive any credit for the value of any equipment recovered by ESPE a result of the connection. However, where a Temporary Connection is to be disconnected, ESPE shall determine the value of recovered equipment that ESPE can subsequently re-use (net of depreciation and removal and refurbishment costs). Where there is a net value in the recovered equipment that can be re-used, ESPE shall pay the Customer the amount of such net value subject to a de-minimis level of £100. The value shall be based on the reasonable costs of:

- Determining whether the equipment can be re-used;
- Calculating the refund; and
- Processing any credit.

6.43. The Customer shall not receive any credit for the value of any deferral of asset renewal expenditure by ESPE.

Rebates

6.44. For Distribution System assets where the Customer has paid in full, then the Customer may be entitled to a future rebate of charges should another Customer connect to those assets. These circumstances are detailed in the ECCR.

6.45. For Distribution System assets where the Customer has paid in proportion to the Required Capacity, then the Customer is not entitled to a future rebate of charges should another Customer connect to those assets.

6.46. The entitlement to receive payments under the ECCR only applies to connections made within the ECCR Prescribed Period from the first provision of the connection.

6.47. These provisions do not apply where the connection was made before 6th April 2017 and ESPE have adopted the assets from an ICP. However, for connections made on or after 6th April 2017, these provisions do apply to assets ESPE have adopted from an ICP (as further described in the ECCR).

Speculative Developments

6.48. Developments which have one or more of the following characteristics may be considered as speculative:

- their detailed electrical load requirements are not known;
- the development is phased over a period of time and the timing of the phases is unclear;
- the capacity requested caters for future expansion rather than immediate requirements of (an) end user(s);

- the capacity requested caters for future speculative phases of a development rather than the initial known phase(s) of the development; or
 - only infrastructure is provided and where limited or no connections are provided to the premises of end users (e.g. high or low voltage mains being provided along a spine road).
- 6.49. Where ESPE is asked to provide a connection to a Speculative Development then the cost of the work is charged in full. Additional charges to reflect ongoing operation, repair and maintenance costs may also be levied.
- 6.50. ESPE may, at its sole discretion, allow capacity to be reserved on the infrastructure provided to service the Speculative Development on commercial terms agreed between the Customer and ESPE in respect of the of development.

Connection Alterations

- 6.51. Where the Customer requests an alteration to the connection arrangements, including a change in the supply voltage, the costs are charged in full to the Customer. For the avoidance of doubt, increases in the Required Capacity are dealt with in accordance with previous sections.

Capacity Ramping for LDNOs

- 6.52. For an LDNO the Required Capacity (expressed in kVA) is the Maximum Capacity to be provided at the boundary between the LDNO's distribution Network and ESPE's Distribution System. This value shall be agreed with ESPE and stated in the Bilateral Connection Agreement for the relevant embedded network.
- 6.53. When a connection is provided to an LDNO the take-up of capacity may grow over a period of time as the site develops and individual customers are connected. In such circumstances the Bilateral Connection Agreement may include a phased Required Capacity based on the Development Phase.
- 6.54. During the Development Phase a review may be undertaken annually on the anniversary of the Energisation of the embedded network. Any unused capacity identified in such review may be released for use by other customers and the Maximum Capacity reduced to an agreed level within the Bilateral Connection Agreement.
- 6.55. Should additional capacity subsequently be required, the LDNO may incur additional Connection Charges for any Reinforcement based on the increase in capacity.

Competition in Connection Charges

- 6.56. Should the Customer choose to have any Contestable Work undertaken by an ICP, ESPE shall not levy Competition in Connection Charges associated with design approval, inspection and adoption of the Contestable works.

Land Rights

- 6.57. Where Land rights are required from a third party, the costs of acquiring those rights are included in either the Connection Charge to the Customer or through a separate mechanism agreed between the Customer and ESPE.

- 6.58. If the land rights that ESPE require cannot be obtained by negotiation, ESPE may, following discussion with the Customer, exercise ESPE's powers of compulsory purchase (Section 10 and Schedule 3 of the Act) or apply to the Secretary of State or the Scottish Government in Scotland for a 'necessary wayleave' (paragraphs 6-8 of Schedule 4 of the Act). If ESPE do so, the costs that ESPE incur, including those of the Lands Tribunal/Lands Tribunal for Scotland (which determine issues of compensation) are charged to the Customer. The Lands Tribunal may award compensation to the landowner and/or anyone who holds an interest in the land and this shall be included in the Connection Charge or through a separate mechanism agreed between the Customer and ESPE.
- 6.59. ESPE require the transfer of the freehold or alternatively the grant of long leasehold of any substation site which forms part of the Contestable or Non-Contestable Works.
- 6.60. ESPE require the grant of a permanent easement (deed of grant) for any Electric Line cable that forms part of the Contestable or Non-Contestable Works which does not fall within land deemed adopted highway.

Unmetered Supplies

- 6.61. For some street lighting and other installations, ESPE may allow items of equipment to be connected to ESPE's Distribution System without a meter. This is subject to the equipment having a low and predictable pattern of consumption and meeting the requirements of The Electricity (Unmetered Supply) Regulations 2001.
- 6.62. Where ESPE agrees that a meter is not required the provision of such a connection is dependent on the owner entering into an unmetered Connection Agreement and providing and maintaining an auditable inventory, in a format agreed with ESPE, so that an accurate estimate of the consumption can be produced.
- 6.63. Where certain criteria are met the provision of services for unmetered connections may be made via time-based connection service charge, e.g. Rent-a-Jointer Services. This is subject to ESPE entering into a contract with the Customer for the provision of such services.
- 6.64. The Customer may elect an accredited ICP to carry out the Contestable Work for unmetered connections. The ICP shall be allowed to carry out live jointing on low voltage underground cables. Where the Customer uses an ICP, arrangements must first be established as follows:
- the Customer shall enter into an agreement with the ICP to carry out and complete the Contestable Work; and
 - ESPE shall enter into an agreement with the Local Authority.

Disconnection and De-Energisation

- 6.65. If ESPE Disconnect the Entry/Exit point either
- at the request of your Supplier; or
 - due to the failure of your Supplier to comply with the terms of the DCUSA,
- then the cost of such disconnection shall be borne by your Supplier.
- 6.66. If ESPE Disconnect the Entry/Exit point either

- at the Customer's request; or
- due to the failure by the Customer to comply with the terms of the connection agreement,

then the cost of such disconnection shall be borne by the Customer.

6.67. If the Customer terminates the Connection Agreement, ESPE retain the right to remove its Electrical Plant and Electrical Lines and charge the Customer should ESPE do so. Apparatus which is not cost effective for ESPE to recover (e.g. Electric Lines laid underground) are normally made safe and left at the Premises, but if the Customer requires ESPE to remove any remaining equipment, the cost of removal shall be payable by the Customer. All such apparatus remains ESPE's property unless otherwise agreed in writing.

7. EXAMPLES ILLUSTRATING THE APPLICATION OF THE CHARGING METHODOLOGY

The following Examples are to illustrate the application of the Connection Charging Methodology and are not intended to provide an accurate estimate of the charges which a person would become liable in respect of the provision of a connection. The Examples do not necessarily represent the Minimum Scheme for a specific connection application or how we would classify a connection between what is a Demand Connection or Generation Connection. Where an example only applies to either Demand or Generation Connections, then this is identified in the Example title, otherwise the examples apply to both.

The figures quoted in the examples are illustrative. Section 9 of this statement provides ESPE's charges and indicative costs to undertake various activities. Actual costs are confirmed within the connection offer.

The examples illustrate where the network operator undertakes both the Contestable and Non-Contestable Work. These costs shall include the determination of the Point of Connection and assessment and design costs, though these may not be explicitly identified in the examples.

Where Contestable Work is undertaken by an ICP, ESPE shall not apply CIC Charges for services associated with the Contestable Works which would cover activities including design approval, inspection, and monitoring. For the avoidance of doubt, in each example, where an ICP undertakes the Contestable Work, ESPE's Connection Charge shall include the cost of the Non-Contestable Work but exclude the cost of Contestable Work.

The examples are generic and standard for all LDNOs, but they do not represent the network analysis and subsequent design solutions that would be completed for an actual connection scheme. The actual designs are subject to ESPE's design policies.




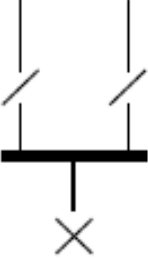




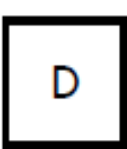

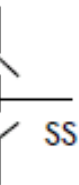
For illustrative purposes only, the rated capacities of the Examples use 'kVA, MVA' and 'kW, MW' interchangeably.

Index of Examples

Example	Description	Purpose
1	A new connection at LV	To show extension assets are charged in full to the connecting customer.
2	New connections at HV	To show LV and HV extension assets are fully charged to the connecting customer.
3	A new connection where the Minimum Scheme is a new substation teed onto the existing HV network.	Simple example of a commercial connection, extension assets only, so full cost to Customer.
4	A new connection where the Minimum Scheme is a new substation looped into existing HV network.	Simple example of looped connection, extension assets only so full cost to Customer.
5	A new connection where the Minimum Scheme is as for Example 5 but the Customer requests an enhanced connection arrangement where the substation is looped into existing HV network.	Shows that for a customer requested Enhanced Scheme that the Customer pays costs above the Minimum Scheme plus O&M.
6	A new connection where the Minimum Scheme is as for Example 5 but we request an Enhanced Scheme where the substation is looped into the existing HV network.	Shows that for a DNO requested Enhanced Scheme that the DNO pays for all costs above Minimum Scheme.
7	Additional load application requiring a new connection from the HV network and reinforcement.	To demonstrate the treatment of reinforcement cost for a Demand Connection that drives reinforcement.
8	A new connection that results in a Point of Connection further away than the nearest network.	To show that the Minimum Scheme may result in a Point of Connection that is further away than the nearest network and may result in increased extension assets costs that are fully chargeable to the Customer.
9	A new Generation Connection with capacity triggered Reinforcement.	To demonstrate the treatment of reinforcement cost for a Generation Connection which drives reinforcement using the security CAF.
10	A new Generation Connection with Fault Level-Triggered Reinforcement.	To demonstrate how the Fault Level CAF calculation is applied.
11	A new Generation Connection that requires Reinforcement involving both Security and Fault Level CAFs	To demonstrate reinforcement charging principles for a Generation Connection where both security CAF and Fault Level CAF are applicable.

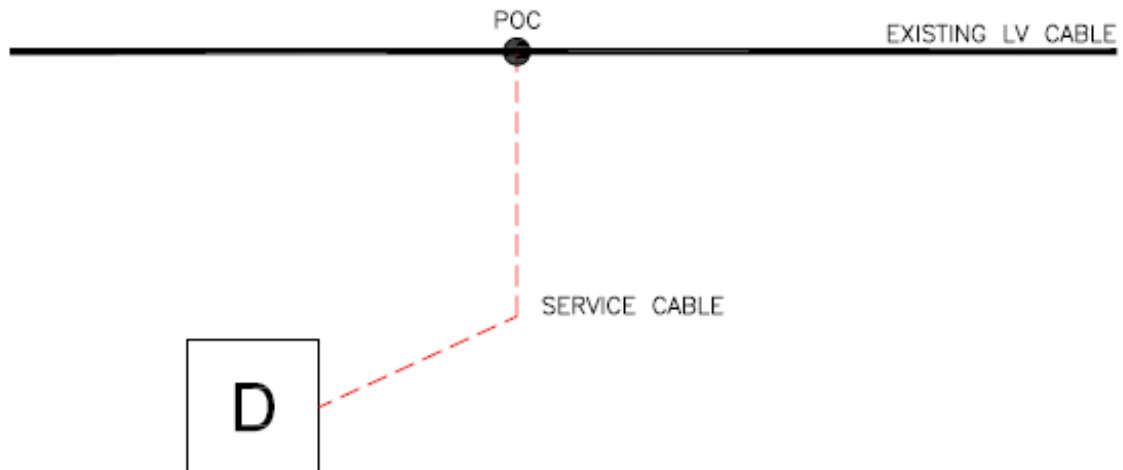
12	A Generation Connection with reinforcement at a voltage above that of the Point of Connection.	To illustrate that a Generation Connection does not contribute to reinforcement costs at a voltage level above the connection voltage.
13	A new Generation Connection with an Enhanced Scheme at the DNO's request.	To show how the Security CAF calculation is applied where the DNO requests an Enhanced Scheme.
14	A non-secure Generation Connection with non-secure Reinforcement.	To show that a contribution is required where reinforcement is carried out at the same voltage as the point of connection for a Generation Connection in relation to a non-secure system.
15	A new non-secure Generation Connection with secure Reinforcement.	To show the application of the apportionment rule where secure Reinforcement is provided but the connection for a Generation Connection is non-secure.
16	A new Generation Connection with voltage rise triggered Reinforcement.	To show that a Generation Connection pays for reinforcement at the voltage level of connection based on the CAF.
17	A new Generation Connection with voltage rise triggered Reinforcement.	To show that if voltage rise reinforcement is tailored so that just the amount of network is upgraded to meet the customer requirements, the CAF is 100% for a Generation Connection.
18	A new Demand Connection that has reinforcement above the high-cost project threshold.	To show how the Demand high-cost project threshold is applied.
19	A new Generation Connection that has reinforcement above the high-cost project threshold.	To show how a Generation Connection that triggers the Generation high-cost project threshold is charged when the reinforcement required is at the same voltage of connection.

Key to Illustrations

X	Circuit Breaker (any voltage)
	Switch
	Transformer
	Joint on cable
	High voltage ring main unit
	Existing cable
	Proposed cable
	Normal Open Point (NOP)
	Generator Customer
	Demand Customer
	Point of Connection (POC)
	Sub Station

Example 1: A new connection at LV

A Customer requests an LV single phase connection to a new house. The Premises can be connected to an existing LV main cable in the street.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:

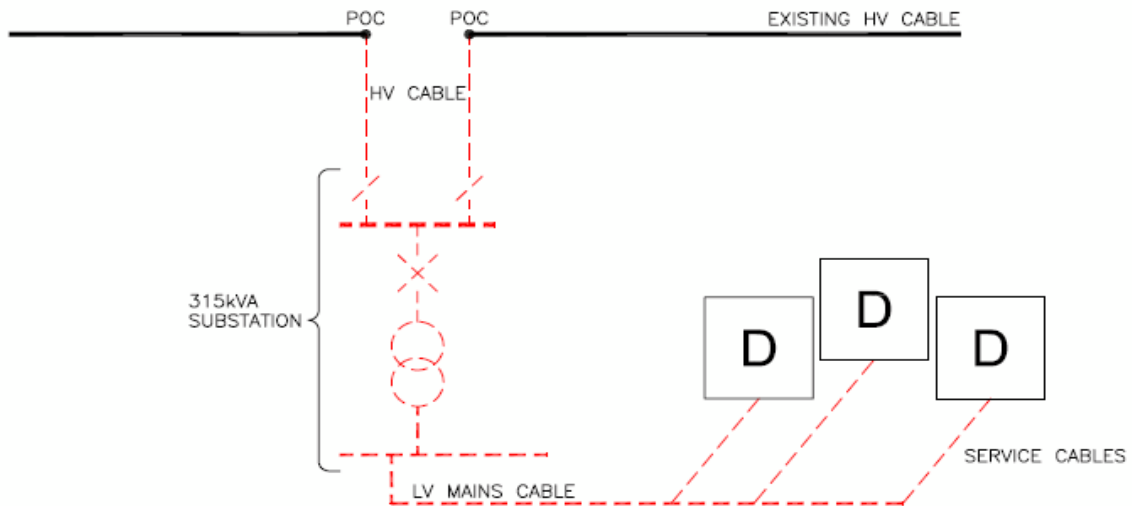
	Cost	Apportionment	Customer Contribution
15m service cable, excavation in footpath for joint hole to Customer laid duct, backfill and termination	£1,600	n/a	£1,600
Single service breach joint	£300	n/a	£300
Total Extension Asset Cost	£1,900		£1,900

Total cost of the work = £1,900

Total Connection Charge to Customer = £1,900

Example 2: New connections at HV

A housing developer requests connections for 200 domestic Premises. The Required Capacity to supply the 200 homes is 250kVA. A new distribution substation shall be established to provide the Required Capacity of the site. The Minimum Scheme requires the substation to be looped into the existing 11kV network.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation 100m 11kV cable	£30,000	n/a	£30,000
315kVA substation	£60,000	n/a	£60,000
LV mains, service cables and terminations	£200,000	n/a	£200,000
Two 11KV cable joints	£6,000	n/a	£6,000
Total Extension Asset Cost	£296,000		£296,000

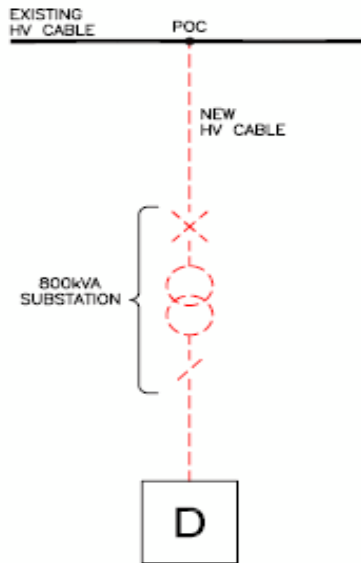
Total cost of the work = £296,000

Total Connection Charge to Customer = £296,000

Example 3: A new connection where the Minimum Scheme is a new substation teed onto the existing HV network.

A Customer requests a new LV three phase 600kVA connection to commercial Premises. Four scenarios for connection are considered below. The Minimum Scheme is dependent on the specific circumstances as set out in paragraphs 6.2 to 6.4.

In this example, the Minimum Scheme is a new 800kVA substation teed onto the existing 11kV network.



The Connection Charge for this Scheme is calculated as follows:

The Connection Charge for this Scheme is calculated as follows:

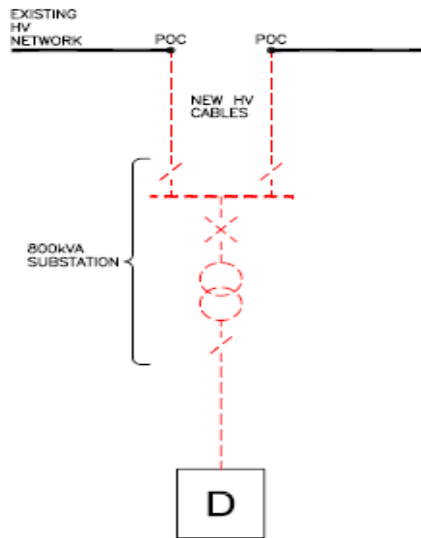
Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 150m of 11KV cable	£45,000	n/a	£45,000
800kVA substation	£75,000	n/a	£75,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11KV joint to network	£3,000	n/a	£3,000
Total Extension Asset Cost	£133,000		£133,000

Total cost of the work = £133,000

Total Connection Charge to Customer = £133,000

Example 4: A new connection where the Minimum Scheme is a new substation looped into existing HV network.

In this variation to Example 3, the Customer is connected with a looped connection, as illustrated in the following diagram. The Minimum Scheme is a new 800kVA substation looped into existing 11KV network.



The Connection Charge for this Scheme is calculated as follows:

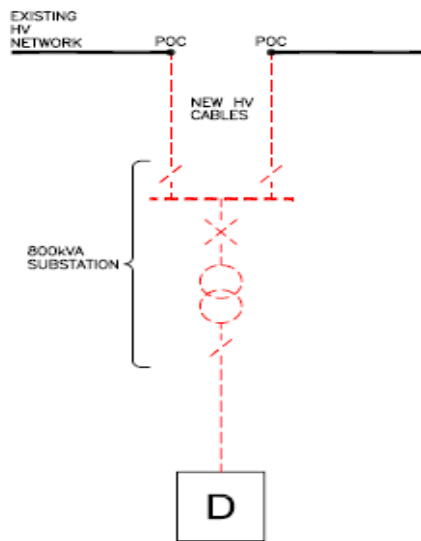
Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 300m of 11KV cable looped to network,	£90,000	n/a	£90,000
800kVA substation	£75,000	n/a	£75,000
Ring Main Unit	£25,000	n/a	£25,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11KV joints to network	£6,000	n/a	£6,000
Total Extension Asset Cost	£206,000		£206,000

Total cost of the work = £206,000

Total Connection Charge to Customer = £206,000

Example 5: A new connection where the Minimum Scheme is as for Example 3 but the Customer requests an enhanced connection arrangement where the substation is looped into existing HV network.

In this variation to Example 3, the Customer requests an enhanced connection arrangement where the substation is looped into existing 11KV network, as illustrated in the following diagram. The Minimum Scheme is as for Example 3.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 300m of 11KV cable looped to network	£90,000	n/a	£90,000
800kVA substation	£75,000	n/a	£75,000
Ring Main Unit	£25,000	n/a	£25,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11KV joints to network	£6,000	n/a	£6,000
Total Extension Asset Cost	£206,000		£206,000
Difference between Minimum and the actual Scheme is £73,000. Operation & Maintenance @20%* of £73,000		20%* of £73,000	£14,600
Total Extension Asset Cost incl O&M			£220,600

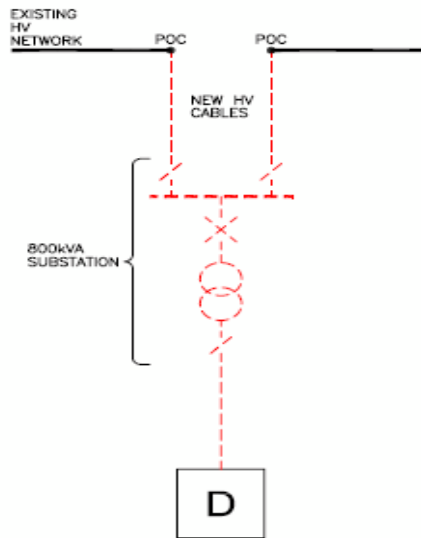
*Note, the 20% Operation and Maintenance percentage has been used for illustrative purposes only

Total cost of the work = £206,000

Total Connection Charge to Customer = £206,000 + £14,600 = £220,600

Example 6: A new connection where the Minimum Scheme is as for Example 3 but we request an Enhanced Scheme where the substation is looped into the existing HV network.

In this variation to Example 3, the Customer is connected with a looped connection, as illustrated in the following diagram. The Minimum Scheme is as for Example 3 but we request an Enhanced Scheme where the substation is looped into the existing 11KV network.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 300m of 11KV cable	£90,000	Minimum Scheme	£45,000
800kVA transformer	£75,000	n/a	£75,000
Ring Main Unit	£25,000	Minimum Scheme	0
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11KV joints to network	£6,000	Minimum Scheme	£3,000
Total Extension Asset Cost	£206,000		£133,000

Total cost of the work = £206,000

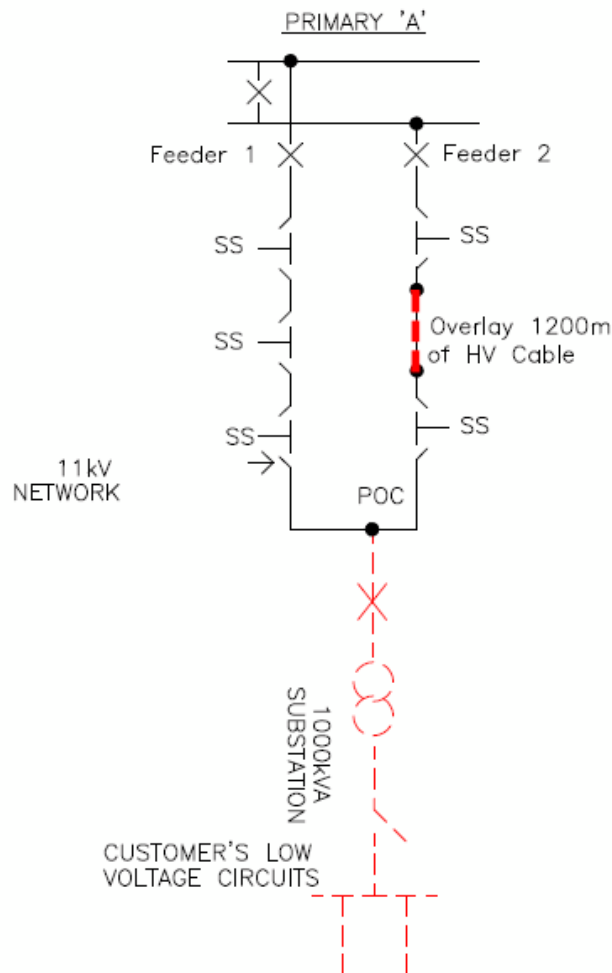
Total Connection Charge to Customer = £133,000

Example 7: Additional load application requiring a new connection from the HV network and reinforcement.

A Customer requests to increase the Maximum Capacity of their existing LV connection from 200kVA to 850kVA; an increase of 650kVA (the Required Capacity). The connection is a demand connection.

As the Customer's existing LV connection is unable to deliver the Required Capacity a new connection is required from the local 11kV network. This is a non-secure connection to a secure network. The Minimum Scheme is to overlay part of the nearest 11kV circuit (Feeder 2) which only has spare capacity of 200kVA. The Reinforcement to make the capacity available requires 1200m of existing 11kV cable to be overlaid with a larger capacity cable.

Following the Reinforcement the New Network Capacity is 8000kVA (i.e. after Reinforcement, in this particular case, the section of cable with the lowest rating in the ring represented by Feeder 1 and Feeder 2 is rated at 8000kVA).



Reinforcement

The RSN is the two feeder ring comprising Feeder 1 and Feeder 2.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement	Cost	Apportionment	Customer Contribution
Overlay 1200m of 11KV cable	£360,000	0%	£0
11KV Jointing	£6,000	0%	£0
Total Reinforcement Cost	£366,000		£0

Extension Assets	Cost	Apportionment	Customer Contribution
Provision and installation 11KV cable	£60,000	n/a	£60,000
1000kVA substation	£80,000	n/a	£80,000
Termination of Customer's LV cables	£4,000	n/a	£4,000
LV Metering panel	£4,000	n/a	£4,000
11KV Jointing	£3,000	n/a	£3,000
Total Extension Asset Cost	£151,000		£151,000

Total Cost of the Work = £366,000 + £151,000 = **£517,000**

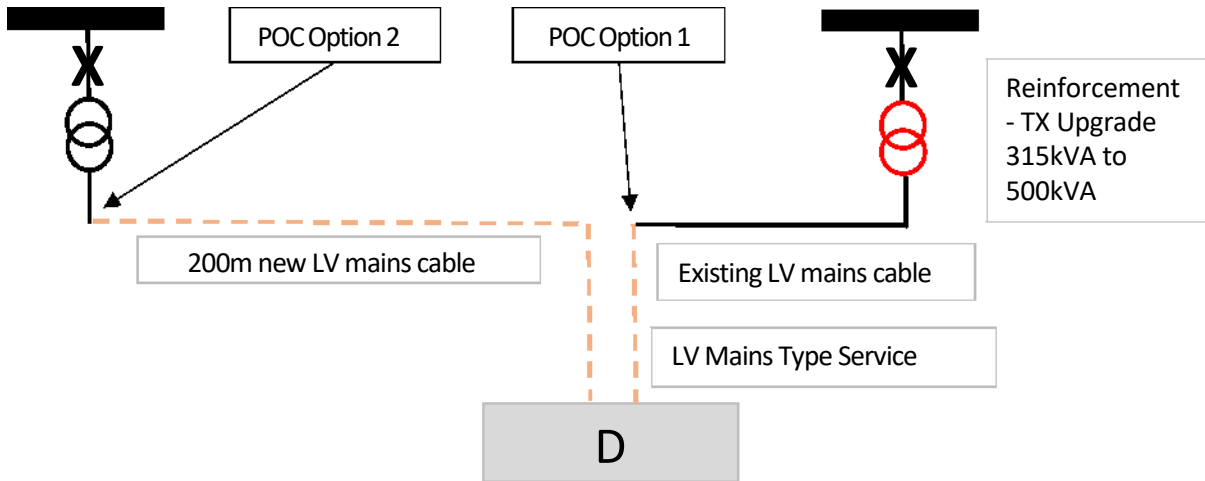
Total Connection Charge to Customer = **£151,000**

Example 8: A new connection that results in a Point of Connection further away than the nearest network.

A Customer applies for a new connection with a Maximum Capacity of 100kVA.

Assessment of the local network identifies that there is an existing LV cable to the front of the development, which is fed from a 315kVA transformer. The LV cable has sufficient spare capacity for the connection; however the transformer is at full capacity and would therefore require reinforcement work to upgrade it from a 315kVA to 500kVA transformer.

Two design options are considered. For the first option, the cost of this work is estimated to be £70,000, and the cost of the LV extension assets is estimated to be £5,000.



The Connection Charge for this Option 1 would be calculated as follows:

Reinforcement Assets:	Cost	Apportionment	Customer Contribution
Upgrade 315kVA transformer to 500kVA	£70,000	0%	£0
Total Reinforcement Asset Cost	£70,000		£0

Extension Assets:	Cost	Apportionment	Customer Contribution
LV extension assets	£5,000	n/a	£5,000
Total Extension Asset Cost	£5,000		£5,000

Total cost of the work = £70,000 + £5,000 = **£75,000**
Total Connection Charge to Customer = **£5,000**

For the second option, there is a large cross-sectional LV cable 200m from the development which is fed from a 1000kVA transformer, and both the LV cable and transformer have sufficient spare capacity to provide a connection to the development without reinforcement work. This design requires extension assets involving 200m of LV Cable estimated to cost £40,000 and a mains type service; the cost of the LV extension assets is £5,000 consistent with the first option.

The Connection Charge for Option 2 would be calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
200m of LV mains cable	£40,000	n/a	£40,000
LV extension assets	£5,000	n/a	£5,000
Total Extension Asset Cost	£45,000		£45,000

Total cost of the work = £45,000

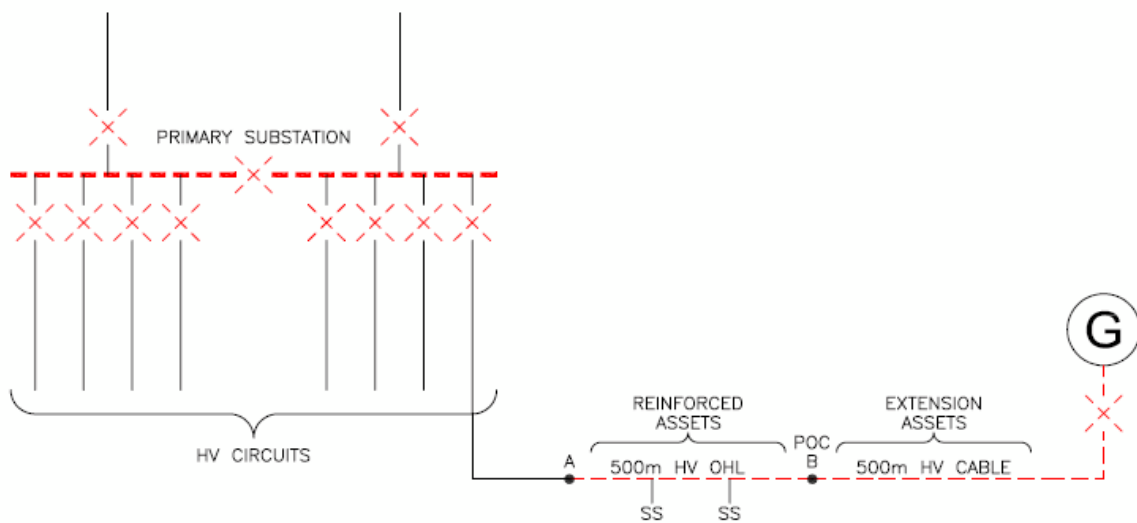
Total Connection Charge to Customer =£45,000

Option 2 has the lower overall capital cost of £45,000 (compared to £75,000 for Option 1) and therefore represents the Minimum Scheme. Whilst Option 2 results in a higher charge to the customer, it is the overall capital cost that is used to determine the Minimum Scheme. The connection offer to the Customer would therefore be based on Option 2.

Example 9: A new Generation Connection with capacity triggered Reinforcement

A Customer requests a Generation Connection with a Required Capacity for export purposes of 3MVA. The Minimum Scheme requires the Reinforcement of 500m of 11KV overhead line between points A and B to provide 7.6MVA of capacity.

The Point of Connection is to the existing 11kV network at point B and it is proposed to install 500m of 11kV underground cable from the Point of Connection to the Customer’s installation. This is a non-secure connection that requires reinforcement of a non-secure network.



Reinforcement:

The Relevant Section of Network is the 11KV OHL between points A and B

Security CAF calculation: The numerator in the CAF calculation is based upon the Required Capacity of the new generation, i.e. 3MW. The denominator in the CAF calculation is based upon the Required Capacity of the Customer, i.e. 3MVA and the denominator is based on the New Network Capacity following Reinforcement, i.e. 7.6MVA.

Fault Level CAF calculation: This Scheme does not have any significant Fault Level contribution to the existing shared use distribution network and Fault Level CAF is therefore not applicable here.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Re-conductor 500m of 11KV overhead line at a higher capacity (7.6MVA)	£60,000	$\frac{3}{7.6} \times 100\%$ = 39.5%	£23,700
Total Reinforcement Cost	£60,000		£23,700

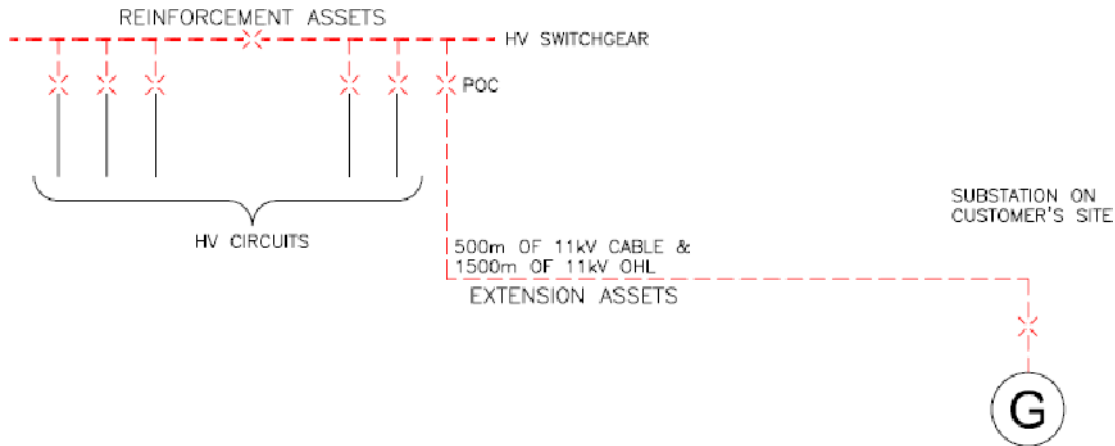
Extension Assets:	Cost	Apportionment	Customer Contribution
Installation of 500m 11KV cable	£45,000	n/a	£45,000
11KV circuit breaker at Customer's substation	£25,000	n/a	£25,000
Total Extension Asset Cost	£70,000		£70,000

Total cost of the work = £60,000 + £70,000 = **£130,000**

Total Connection Charge to Customer = £23,700 + £70,000 = **£93,700**

Example 10: A new Generation Connection with Fault Level-Triggered Reinforcement.

A Customer wishes to connect a new generator with a Required Capacity for export purposes of 6MVA. The connection of the generator requires the installation of 500m of 11kV cable and 1500m of overhead line between a new circuit breaker, added to the 11kV extensible switchgear panel at an existing primary substation and a new substation at the Customer’s Premises. The 24MVA Fault Level contribution from the generator necessitates Reinforcement works to replace the 11kV switchgear at the existing primary substation with switchgear of a higher fault level rating.



Reinforcement:

Fault Level CAF calculation: The numerator in the CAF calculation is based upon the Fault Level contribution from the Customer’s new generator connection, in this Example 24MVA. The denominator is based upon the New Fault Level Capacity; in this Example the Fault Level capacity of the new 11kV switchboard, 315MVA.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Replacement 11KV switchboard (excluding Customer’s sole use circuit breaker)	£800,000	3x (24/315) x 100% = 22.9%	£182,857
Total Reinforcement Cost	£800,000		£182,857

Extension Assets:	Cost	Apportionment	Customer Contribution
11KV circuit breaker at primary substation	£30,000	n/a	£30,000
Installation of a 500m 11KV cable	£150,000	n/a	£150,000
Installation of a 1500m 11KV overhead line	£120,000	n/a	£120,000
11KV circuit breaker at Customer substation	£25,000	n/a	£25,000
Total Extension Asset Cost	£325,000		£325,000

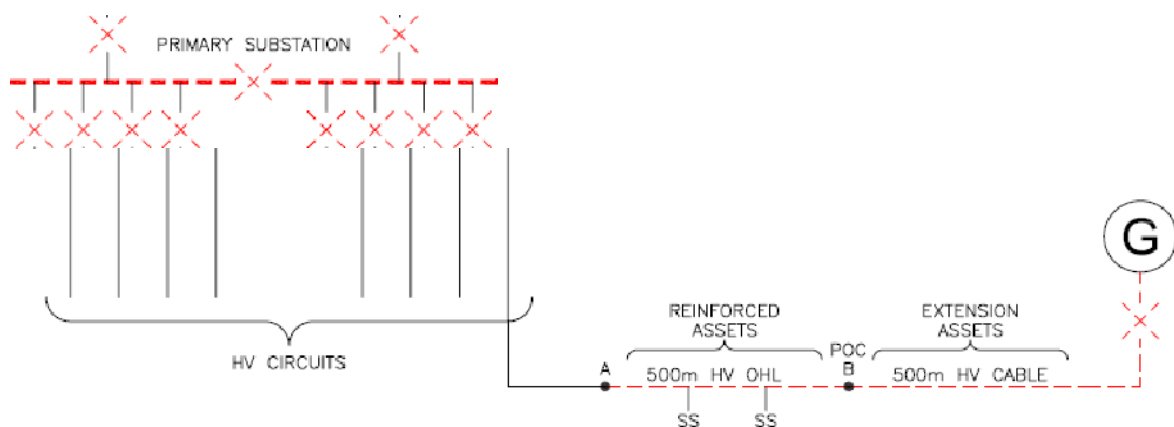
Total cost of the work	= £800,000 + £325,000	= £1,125,000
Total Connection Charge to Customer	= £182,857 + £325,000	= £507,857

Example 11: A new Generation Connection that requires Reinforcement involving both Security and Fault Level CAFs.

A Customer requests a connection to a generator with a Required Capacity for export purposes of 6MW. The Fault Level contribution at the primary substation from the generation connection is 10MW.

The POC is to the existing 11KV network at point B and it is proposed to install 500m of 11KV underground cable from the POC to the Customer’s installation. This is a non-secure connection that requires reinforcement of a non-secure network.

The connection requires the Reinforcement of 500m of 11KV overhead line between points A and B for a thermal capacity requirement and replacement of the existing 11 panel 11KV switchboard at the primary substation in order to increase its fault level rating from 150MVA to 350MVA. However, the new fault level will be limited by the fault level rating of the local network of 250MVA.



Reinforcement:

The Relevant Section of Network is the 11KV network from the primary substation to Point B.

Security CAF calculation: the numerator in the CAF calculation is based upon the Required Capacity of the Customer, ie 6MW. The denominator is based on the New Network Capacity following Reinforcement, which is 7.6MVA, ie after Reinforcement, in this particular case, the section of cable with the lowest rating.

The Relevant Section of Network is the 11kV switchboard at the primary substation.

Fault Level CAF calculation: The numerator in the CAF calculation is based upon the Fault Level contribution from the Customer’s new generator connection, in this Example 10MVA. The denominator is based upon the New Fault Level Capacity, which is the lower of the Fault Level capacity of the new 11KV switchboard, 350MVA or of the local system, 250MVA in this Example.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement	Cost	Apportionment	Customer Contribution
Re-conductor of 500m of 11KV overhead line	£20,000	6/7.6 x 100% = 78.9%	£15,789
Replacement 11KV switchboard	£800,000	3x (10/250) x 100% = 12.0% Fault Level CAF	£96,000
Total Reinforcement Cost	£820,000		£111,789

Extension Assets	Cost	Apportionment	Customer Contribution
Installation of 500m 11KV cable	£150,000	n/a	£150,000
11KV circuit breaker at Customer's substation	£12,000	n/a	£12,000
11KV pole top termination	£2,500	n/a	£2,500
Total Extension Asset Cost	£164,500		£164,500

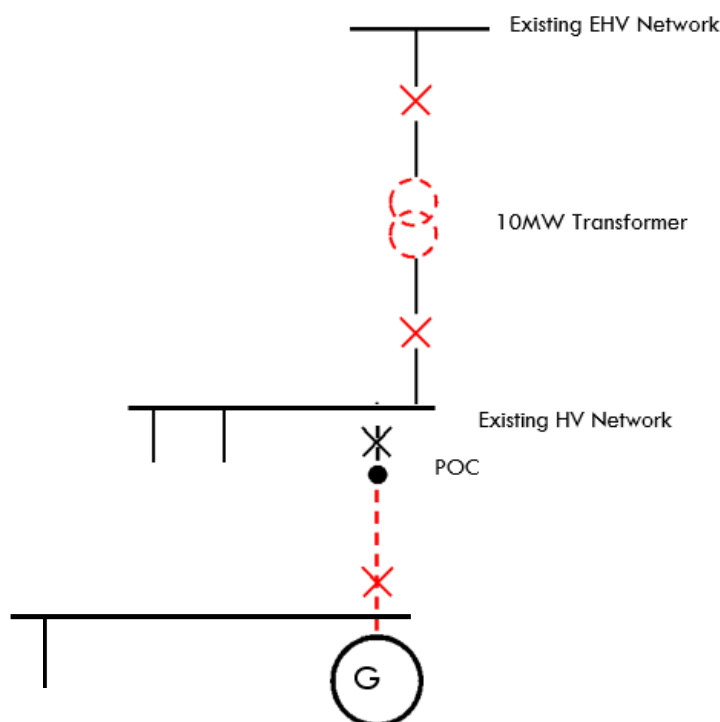
Total cost of the work: = £820,000 + £164,500 = **£984,500**

Total Connection Charge to Customer = £111,789 + £164,500 = **£276,289**

Example 12: A Generation Connection with reinforcement at a voltage above that of the point of connection.

A Customer requests a Generation Connection with a Required Capacity for export purposes of 3, MW. A new single circuit cable will be required to connect the customer to the existing 11KV network. There is sufficient spare capacity on the existing 11KV network main but the existing 7.5MW transformer at the local 11KV/33KV substation is fully loaded.

The Minimum Scheme is to provide a new 250m 11KV cable from the POC and to replace the 7.5MW transformer at the local substation with a 10MW transformer. 11KV and 33KV switchgear either side of the transformer also requires replacement due to exceedance of its thermal capacity.



Reinforcement:

Security CAF calculation: The numerator in the CAF calculation is based upon the Required Capacity of the Customer, which is 3MW. The denominator is based on the New Network Capacity following Reinforcement, which is 10MW.

Reinforcement is required at both the 11KV and 33KV levels, however the CAF is only required at the same voltage of connection, which in this case is 11KV.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
11KV Jointing	£3,000	3/10 x 100% = 30% Security CAF	£900
11KV circuit breaker	£30,000	3/10 x 100% = 30% Security CAF	£9,000
33KV circuit breaker	£80,000	0%	£0
Transformer replacement	£1,500,000	0%	£0
Total Reinforcement Cost	£1,613,000		£9,900

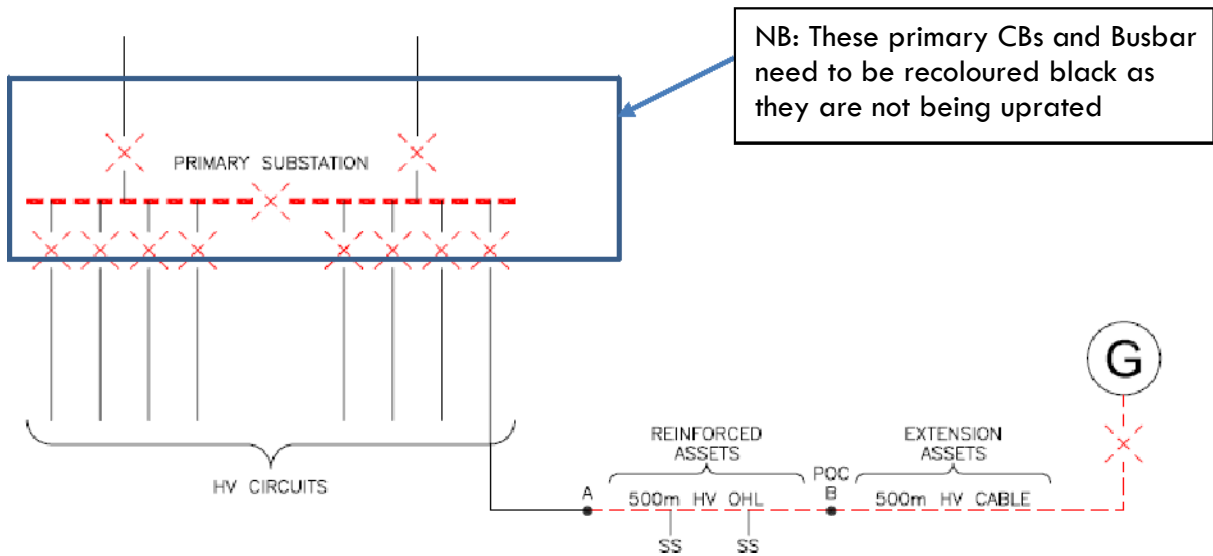
Extension Assets:	Cost	Apportionment	Customer Contribution
Install 200m of 11KV cable	£60,000	n/a	£60,000
11KV circuit breaker at Customer's substation	£25,000	n/a	£25,000
11KV Jointing	£3,000	n/a	£3,000
Total Extension Asset Cost	£88,000		£88,000

Total cost of the work = £1,613,000 + £88,000 = **£1,701,000**
Total Connection Charge to Customer = £9,900 + £88,000 = **£97,900**

Example 13: New Generation Connection with an Enhanced Scheme at the DNO’s request

Please refer to Example 9, which is the Minimum Scheme for this project. In this example, a Customer requests a Generation Connection with a Required Capacity for export purposes of 3MW. The Minimum Scheme requires the Reinforcement of 500m of 11KV overhead line between points A and B to provide 7.6MVA of capacity. However, the DNO has decided to install an Enhanced Scheme by increasing the capacity of the 11KV overhead line to 13MVA.

The POC is to the existing 11KV network at point B and it is proposed to install 500m of 11KV underground cable from the POC to the Customer’s installation.



Reinforcement:

The Relevant Section of Network is the 11KV OHL between points A and B

Security CAF calculation: The numerator in the CAF calculation is based upon the Required Capacity of the new generation, i.e. 3MW. In this example the DNO has decided to install an Enhanced Scheme and the Connection Charge that will apply will be the lower of the Connection Charge associated with the Minimum Scheme (see Example 11) and the Enhanced Scheme. The numerator in the CAF calculation is based upon the Required Capacity of the Customer, i.e. 3MW and the denominator is based on the Enhanced Scheme New Network Capacity following Reinforcement, i.e. 13MVA.

Fault Level CAF calculation: This Scheme does not have any significant Fault Level contribution to the existing shared use distribution network so the Fault Level CAF is therefore not applicable here.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Re-conductor 500m of 11KV overhead line at a higher capacity (13MVA)	£70,000	$3/13 \times 100\%$ = 23.1%	£16,170

Total Reinforcement Cost	£70,000		£16,170
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Extension Assets:	Cost	Apportionment	Customer Contribution
Installation of 500m 11KV cable	£45,000	n/a	£45,000
11KV circuit breaker at Customer's substation	£25,000	n/a	£25,000
Total Extension Asset Cost	£70,000		£70,000

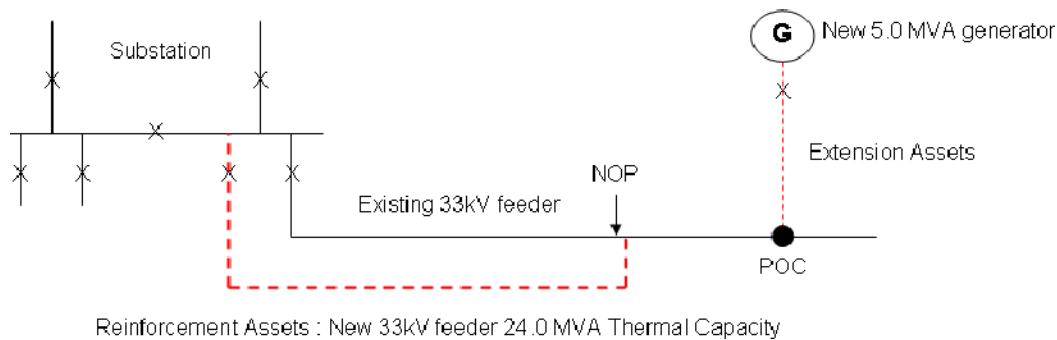
Total cost of the work = £70,000 + £70,000 = **£140,000**

Total Connection Charge to Customer = £16,170 + £70,000 = **£86,170**

Example 14: A non-secure Generation Connection with non-secure Reinforcement

A Customer wishes to connect a new generator (a Generation Connection) with a Required Capacity for export purposes of 5 MVA. The connection of the generator requires the installation of 1,000m of 33KV cable and an 33KV metering circuit breaker, these being Extension Assets. An existing spare circuit breaker at the substation is utilised which, in this case, is not chargeable to the Customer.

As there is insufficient capacity in the existing 24.0 MVA thermal capacity rated 33KV feeder for the new generation due to the presence of existing generation, the connection also requires the installation of a new 33KV feeder, which also has a thermal capacity of 24.0 MVA, as Reinforcement. This is the Minimum Scheme as it is cheaper to do this, to the extent as shown in the diagram below, rather than upgrade the existing 33KV feeder to the same point along it.



Reinforcement:

The numerator in the CAF calculation is the Required Capacity of the new generator, which is 5.0 MVA.

The RSN in this case is the existing 33KV feeder and the new 33KV feeder. The New Network Capacity is calculated using the non-secure capacity and is therefore the sum of the thermal capacities of the two feeders, which is 48.0 MVA. This is the denominator in the CAF calculation.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:

Reinforcement:	Cost	Apportionment	Customer Contribution
Installation of new 33KV feeder	£ 500,000	5.0 / 48.0 x 100% = 10.4%	£ 52,000
Total Reinforcement Cost	£500,000		£ 52,000

Extension Assets:	Cost	Apportionment	Customer Contribution
Installation of 1,000m 33KV cable	£ 400,000	n/a	£ 400,000
Installation of 33KV metering circuit breaker	£ 80,000	n/a	£ 80,000
11KV Jointing x2	£6,000	n/a	£6,000
Total Extension Asset Cost	£486,000		£486,000

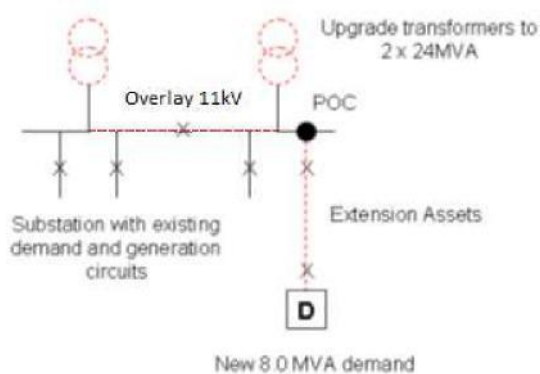
Total cost of the work = £500,000 + £486,000 = **£986,000**

Total Connection Charge to Customer = £52,000 + £486,000 = **£538,000**

Example 15: A non-secure Generation Connection with secure Reinforcement

A Customer applies for a new generator (a Generation Connection) requiring an 8 MW metered connection. In this case, the Customer has exercised their option to request non-secure Extension Assets in the provision of the connection.

The existing network comprises a substation which has 2 x 15 MVA transformers. The Minimum Scheme to provide the connection is to install 750m of 11KV cable from the substation to the industrial premises, as Extension Assets. As there is insufficient capacity available from the existing 2 x 15 MVA transformers and the existing 11KV cable between the substations to provide the new connection, it will be necessary to upgrade the transformers to 2 x 24 MVA units and upgrade the 11KV cable. The reinforcement is required to ensure the 11KV network load can be maintained during planned or unplanned outages of one of the transformers. Although the Customer wishes to accept a non-secure connection, the substation must provide secure capacity to its Group Demand (which includes the Customer) to comply with the requirements of Engineering Recommendation P2. As the Extension Assets will be provided solely for the Customer, these can be provided on the basis of a single circuit to provide a non-secure connection, at the Customer's request.



Reinforcement:

As the substation reinforcement is a voltage above, the generator will not contribute towards this part of the works.

The numerator in the CAF calculation for the 11KV cable overlay is the Required Capacity, which is 8.0 MVA.

The Relevant Section of Network in this case is the 11KV cable overlay. The New Network Capacity is the secure capacity of the 11KV cable, which is 24 MVA. This is the denominator in the CAF calculation.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Installation of 2 x 24MVA 33/11KV transformers	£6,500,000	0%	£0
Overlay 2km 33KV cable	£600,000	8 / 24 x 100% = 33.3%	£198,000
Total Reinforcement Cost	£7,100,000		£198,000

Extension Assets:	Cost	Apportionment	Customer Contribution
750m 11KV cable	£225,000	n/a	£225,000
11KV metering circuit breaker	£30,000	n/a	£30,000
11KV joints x2	£6,000	n/a	£6,000
Total Extension Asset Cost	£261,000		£261,000

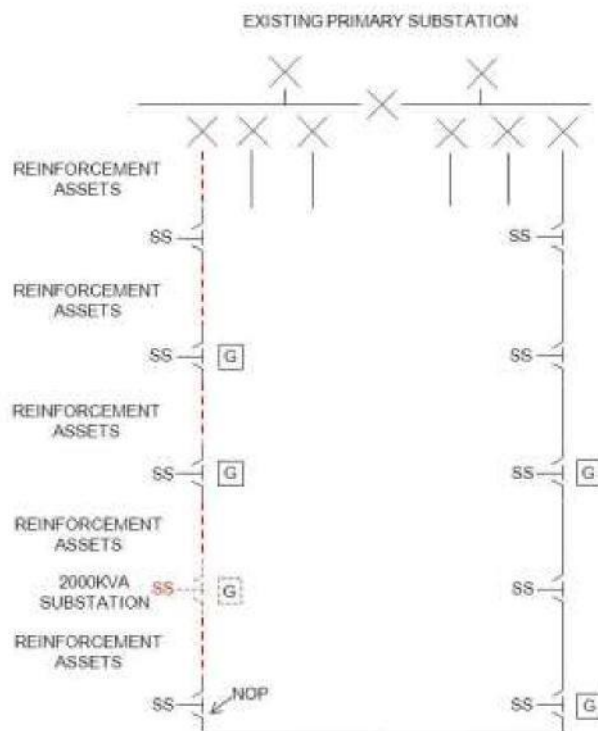
Total cost of the work = £7,100,000 + £261,000 = **£7,361,000**
Total Connection Charge to Customer = £198,000 + £261,000 = **£459,000**

Example 16: A new Generation Connection with voltage rise triggered Reinforcement.

A Customer wishes to connect a new generator (a Generation Connection) with a Required Capacity for export purposes of 2MVA.

The local 11kV feeder has a large amount of generation already connected and will need to be reinforced in order to keep voltage rise within acceptable limits.

The Minimum Scheme requires Reinforcement of the existing 185mm² 11kV underground cable with 300mm² underground cable and installation of a new substation for connection of the 2MW export capacity. The total length of the reinforced cable is 2km. The thermal rating of the 300mm² underground cable is 8MVA. The 11kV underground cable on the other side of the normal open point is already 300mm² and does not require to be reinforced.



Reinforcement:

The Relevant Section of Network for the Reinforcement is the 11kV feeder.

Security CAF calculation: the numerator in the CAF calculation is the Required Capacity of the Customer, i.e. 2MW. The denominator is the New Network Capacity following Reinforcement, this being the maximum generation that could be connected whilst keeping the voltage rise within acceptable limits, i.e. 8MVA in this case.

Fault Level CAF calculation: this scheme does not have any significant Fault Level contribution to the existing shared use distribution network and Fault Level CAF is therefore not applicable here.

The connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
2km 300mm 11kV Cable	£600,000	2 / 8 x 100% = 25%	£150,000
Total Reinforcement Cost	£600,000		£150,000

Extension Assets:	Cost	Apportionment	Customer Contribution
2MVA 11kV Substation	£160,000	n/a	£160,000
2 by 11kV Closing Joints	£6,000	n/a	£6,000
Total Extension Asset Cost	£166,000		£166,000

Total cost of the work = £600,000 + £166,000 = **£766,000**

Total Connection Charge to Customer = £150,000 + £166,000 = **£316,000**

Example 17: A new Generation Connection with voltage rise triggered Reinforcement (type 2)

A Customer wishes to connect a new generator (a Generation Connection) with a Required Capacity for export of 250kW. The Minimum Scheme for connection of the generator requires the local 11kV overhead line to be reinforced with 100mm² conductor over part of its length in order to keep voltage rise within acceptable limits. The thermal capacity of the 100mm² overhead line is 5MVA. The thermal capacity of the original 50mm² overhead line is 3MVA. A new 315kVA ground mounted substation requires to be installed at the premises. The overhead line is 1km in length but only 500m is required to be reinforced in order to keep voltage rise within acceptable limits.



Reinforcement:

The Relevant Section of Network for the Reinforcement is the 11kV overhead line

Security CAF calculation: the numerator in the CAF calculation is the Required Capacity of the Customer, i.e. 250kW. The denominator is the New Network Capacity following Reinforcement, this being the maximum generation that could be connected whilst keeping the voltage rise within acceptable limits. As the length of overhead line to be reinforced has been determined to accommodate the 250kW requirement only, then this is also 250kW in this case.

Fault Level CAF calculation: this scheme does not have any significant Fault Level contribution to the existing shared use distribution network and Fault Level CAF is therefore not applicable here.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Replacement 11kV overhead line conductor	£40,000	250 / 250 x 100% = 100%	£40,000
Total Reinforcement Cost	£40,000		£40,000

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 315kV substation	£60,000	n/a	£60,000
11kV joint to network	£3,000	n/a	£3,000
Total Extension Asset Cost	£63,000		£63,000

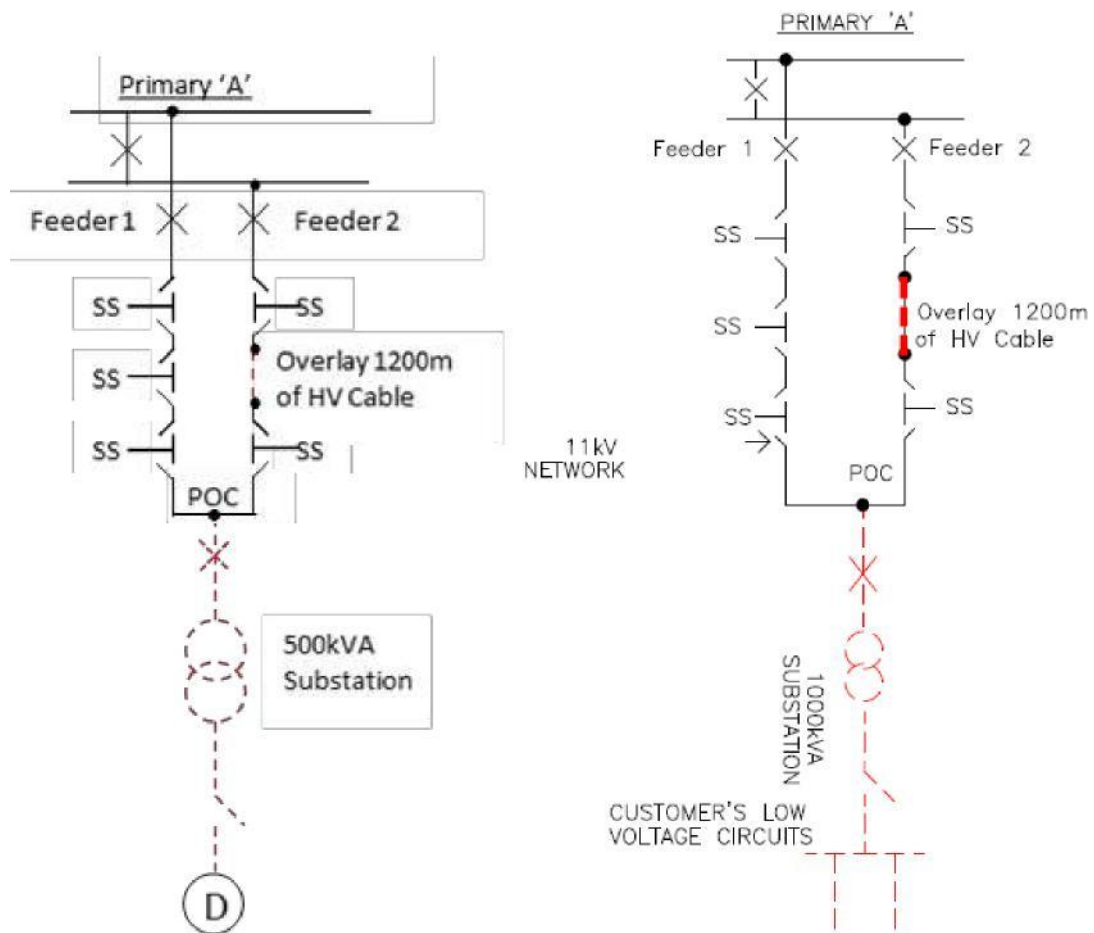
Total cost of the work = £40,000 + £63,000 = **£103,000**
Total Connection Charge to Customer = £40,000 + £63,000 = **£103,000**

Example 18: A new Demand Connection that has reinforcement above the high-cost project threshold.

A Customer wishes to connect a new supply to a commercial premise for 70kVA (the Required Capacity). This will be a non-secure Demand Connection to a secure network.

The Minimum Scheme is to overlay part of the nearest 11KV circuit (Feeder 2) which only has spare capacity of 50kVA. The Reinforcement to make the capacity available requires 1200m of existing 11KV cable to be overlaid with a larger capacity cable.

Following the Reinforcement the New Network Capacity will be 8000kVA. (i.e. after Reinforcement, in this particular case, the section of cable with the lowest rating in the ring represented by Feeder 1 and Feeder 2 is rated at 8000kVA).



Reinforcement:

The Relevant Section of Network is the two-feeder ring comprising Feeder 1 and Feeder 2. As this is a Demand Connection, no CAF contribution is required.

The High-Cost Project Threshold (HCPT) applied is the Required Capacity x HCPT of £1,720 per kVA. In this instance;

$70 \times £1,720 = £120,400$. The customer will pay the costs in excess of £120,400 for works up to one voltage above the point of connection, therefore £363,000 (i.e. total Reinforcement cost - £120,400 = £242,600).

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
Overlay 1200m of 11KV cable	£360,000	Total cost exceeding HCPT £363,000- £120,400	£242,600
11KV Jointing	£3,000		
Total Reinforcement Cost	£363,000		£242,600

Extension Assets:	Cost	Apportionment	Customer Contribution
500m 11KV cable	£150,000	n/a	£150,000
500kVA substation	£70,000	n/a	£70,000
Termination of Customer's LV cable	£2,000	n/a	£2,000
LV Metering panel	£4,000	n/a	£4,000
11KV Jointing x2	£6,000	n/a	£6,000
Total Extension Asset Cost	£232,000		£232,000

Total cost of the work = £363,000 + £232,000 = **£595,000**

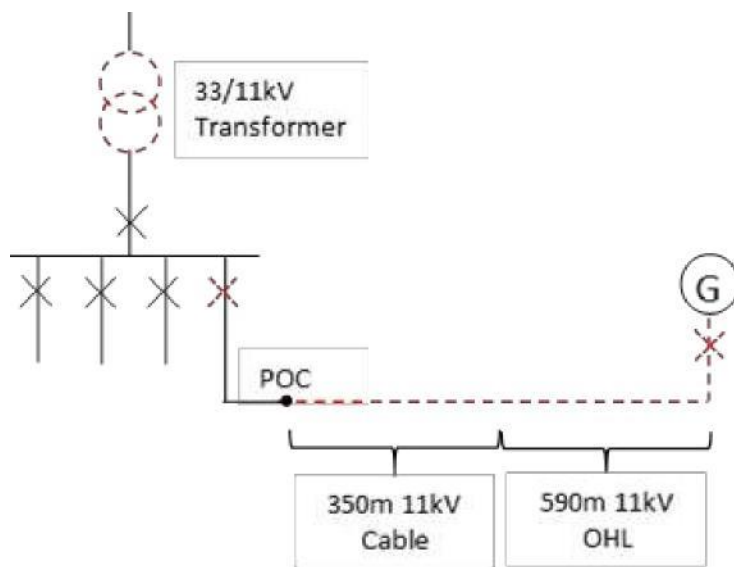
Total Connection Charge to Customer = £242,600 + £232,000 = **£474,600**

Example 19: A new Generation Connection that has reinforcement above the high-cost project threshold.

A customer wishes to connect a 225kVA wind farm (a Generation Connection).

In order to connect the wind farm the following works will be required: install 590m of 11kV overhead line; install 350m of 11kV cable and carry out associated jointing and install switchgear into the substation. In addition, the reinforcement required is to replace the 33/11kV transformer to facilitate reverse power flow. The New Network Capacity following reinforcement is 19,700 kVA. The total cost of the reinforcement is £475,400.

The High-Cost Project Threshold (HCPT) applies to this connection. The HCPT is £200/kVA and costs in excess of this threshold will be charged in full to the customer.



Reinforcement:

The Relevant Section of Network for the Reinforcement is the 33/11kV transformer

$$\text{HCPT: } £200 \times 225 = £45,000$$

$$£475,400 - £45,000 = £430,400$$

Security CAF calculation: the numerator in the CAF calculation is the Required Capacity of the Customer, i.e. 225kVA. The denominator is the New Network Capacity following Reinforcement, this being the maximum generation that could be connected whilst keeping the voltage rise within acceptable limits. This is 19,700kVA.

Fault Level CAF calculation: this scheme does not have any significant Fault Level contribution to the existing shared use distribution network and Fault Level CAF is therefore not applicable here.

The Connection Charge for this Scheme is calculated as follows:

Reinforcement:	Cost	Apportionment	Customer Contribution
33/11kV Transformer Replacement	£475,400	Total cost exceeding HCPT	£430,400
		£475,400 - £45,000	
		225/19700 x 100% = 1.14% x Costs up to HCPT	1.14% x £45,000 = £513
Total Reinforcement Cost	£475,400		£430,913

Extension Assets:	Cost	Apportionment	Customer Contribution
Electrical substation works	£34,500	n/a	£34,500
Install 590m of 11kV Overhead Line	£53,500	n/a	£53,500
Install 350m of 11kV XLPE cable	£14,000	n/a	£14,000
Total Extension Asset Cost	£102,000		£102,000

Total cost of the work = £475,400 + £102,000 = **£577,400**
Total Connection Charge to Customer = £423,400 + £102,000 = **£525,400**

8. ESPE's Specific Connection Charging Methodology

Introduction

This section contains the elements of ESPE's Connection Charging Methodology which do not have analogous paragraphs in the Common Connection Charging Methodology. The methodology in this section applies equally alongside the methodology in Section 6 of this document.

Capitalised Operation and Maintenance Charges

8.1. The Operation and Maintenance Percentage referred to in paragraph 6.14 is 24%.

Projects

8.2. Where ESPE has reason to believe that an application for a connection forms part of a larger project, then ESPE shall use the aggregate capacity of the projects to determine the appropriate Connection Charge.

Non-Standard Substation Buildings

8.3. Where the Customer requires ESPE to locate substation plant and equipment within a non-standard building or enclosure e.g. where the substation is to form an integral part of a building also to be used for other purposes, then other charges normally apply for building and design work and on-site inspections. Charges for this type of work are consistent with those ESPE make where ESPE adopt networks from an ICP.

Charges for assessment and design

8.4. Where permitted under relevant legislation, charges for Assessment and Design may be applied. This may be by way of a standard charge based on the type, voltage and maximum required capacity of the connection, as indicated in section 9 of this document. Where the Customer changes its requirements or requests multiple quotes in respect of the same or a similar connection to the premises, additional Assessment and Design work, not covered in the standard charge, may be required to update the original design. Where this is the case, the customer's charge in respect of Assessment and Design shall be equal to the standard charge associated with the original Assessment and Design work, plus a charge in respect of the additional work applied by way of an hourly rate.

Reservation of Import Capacity

8.5. ESPE may, on occasion, be required to pay charges for reserving capacity on another LDNO's network at the boundary between ESPE's network and theirs. On such occasions these charges are passed through to the Customer and form part of the Connection Charge.

8.6. Any costs relating to the reservation of import capacity are calculated in accordance with the upstream LDNO's own connection charging methodology and shall be passed through to the Customer as they are charged to ESPE.

8.7. ESPE shall not make charges relating to the reservation of import capacity where the capacity being reserved relates directly to capacity available on ESPE's networks and an equivalent capacity charge has not been levied on ESPE.

Contestable and Non-Contestable works

- 8.8. A list of the works that ESPE deem to be contestable and the works that ESPE deem to be non-contestable can be found in paragraphs 5.2 - 5.10.

INTRODUCTION

- 9.1. This section sets out ESPE's Connection Charging Statement and is prepared in accordance with Standard Condition 14 of the Licence.
- 9.2. The purpose of this statement is to enable any person to make a reasonable estimate of the charges for which they may become liable for the provision of a connection to ESPE's Distribution System.
- 9.3. The minimum and maximum values of charges shown in the following tables are designed to provide the Customer with an indication of the range of charges that would normally apply to a particular activity. Therefore, they are not absolute limits on either the minimum or the maximum value of charges that may be levied. The actual charge for each activity shall be calculated based upon the project's specific circumstances which will take account of factors that influence the value of the charge payable to the Customer.
- 9.4. All indicative charges in the table below are exclusive of VAT.
- 9.5. All indicative charges are applicable to connections to the Distribution System owned by ESPE.
- 9.6. Connection Charges may contain some or all of the cost elements indicated in the following table. The Customer need not have requested a Budget Estimate or Feasibility Study before a formal Connection Offer is requested.

	Charge Element	Explanation
A	Budget Estimates	To identify the budget costs for connection to the existing Distribution System in advance of a formal application.
B	Feasibility Studies	To identify options for connection to the existing Distribution System in advance of a formal application.
C	Assessment and Design for all relevant work	To identify the most appropriate point on the existing Distribution System for connection of the Extension Assets, the design of the Extension Assets, any required Reinforcement, and prepare the Connection Offer.
D	CIC Assessment and Design of the Non-Contestable Work	To identify the most appropriate point on the existing Distribution System for connection of the Extension Assets, the design of any required Reinforcement, and prepare the Point of Connection Offer.

	Charge Element	Explanation
E	CIC Design Approval of the Contestable Work	For CIC, the approval of an Extension Assets design produced by an ICP.
F	Construction	Electric Lines and Electrical Plant forming part of the Extension Assets and Reinforcement (both Contestable and Non-Contestable Assets).
G	CIC Final Works and Phased Energisation	<p>Final Works means the installation of the connection equipment in such a way that, subject to Energisation, the Premises are physically able to receive a supply of electricity from ESPE's Distribution System or (as the case may be) ESPE's Distribution System is physically able to receive a supply of electricity from the Premises.</p> <p>Phased Energisation, in relation to a part only of the Premises, means the physical ability, subject to the completion of Final Works, to allow an electrical current to flow from (or to) ESPE's Distribution System by means of the insertion of a fuse or as a result of a switching operation.</p>
H	CIC Inspection and Monitoring	Inspection and Monitoring by ESPE of the Contestable Work constructed by an ICP.
I	Land Rights	The costs of securing Land Rights in respect of Extension Assets and Reinforcement.
J	Other	Other miscellaneous charges associated with the provision of the connection.

9.7. The following definitions are used in this section.

Single LV Service Demand Connection	An LV demand connection to single Premises, involving a single-phase connection and no significant work other than the provision of a service line and the electricity distributor's fuses.
Service Line	An LV electric line or any part of that line that, at the time it is provided, is used only for supplying single Premises, excluding any part of the line that, at the time it is provided, is intended by the distributor to be used to enable it to provide a connection to other Premises in respect of which the distributor has received, or would reasonably expect within the following 12 months to receive, a notice under section 16A(1) of the Act.
Small Project Demand Connection	<p>A connection (other than of a load that could reasonably be expected to cause disruption to other customers) via LV circuits fused at 100 amperes or less per phase (with whole-current metering), and where the highest voltage of the assets involved in providing such connection, and any associated works, is LV, to:</p> <ul style="list-style-type: none"> (a) a development Scheme requiring more than one but fewer than five single-phase connections at domestic Premises and involving only the provision of a service line and the electricity distributor's fuses; or (b) a development Scheme requiring fewer than five single-phase or two-phase connections at domestic Premises and involving an extension of the existing LV network; or (c) a single Premises requiring a two-phase or three-phase connection and involving only the provision of a service line and the electricity distributor's fuses.

Quotation Accuracy Scheme

9.8. ESPE is required under the Licence to submit, from time to time, to the Authority for approval a Quotation Accuracy Scheme (QAS). The QAS is intended to provide the Customer with the means to assess whether the specific Connection Charge included with ESPE's Connection Offer is accurate in terms of consistency with ESPE's Connection Charging Statement.

9.9. The QAS only applies to Single LV Service Demand Connections and Small Project Demand Connections. The cost tables for these projects are given in tables F1 and F2.

9.10. The principles of the QAS are as follows:

- The QAS is not intended to be a mechanism for the Customer to challenge the absolute cost of the Connection Charge.
- If the Connection Offer is such that the Connection Charge is outside the bands of indicative costs, then the Customer would be eligible to challenge the accuracy of the Connection Offer.
- Absence of information in the Connection Offer does not in itself mean that the Connection Charge is inaccurate but does allow the Customer to challenge the Connection Offer under the QAS. This acts as an incentive for ESPE to include additional information to the Customer to limit the number of customers eligible to utilise the QAS.
- Where ESPE review the Connection Offer and accept that ESPE cannot provide enough information to justify the Connection Charge being outside the bands of indicative costs, the Connection Charge shall be deemed to be inaccurate, a penalty payment shall be paid to the Customer and a new Connection Offer issued. The revised Connection Charge may in fact be for the same value but with additional information provided.
- If ESPE can provide adequate information in support of ESPE's Connection Charge then no penalty payment shall be made.
- Where ESPE reviews the Connection Offer and accepts that it has made an error, for example in estimating quantities, the Connection Charge shall be deemed inaccurate. In these circumstances, a penalty payment shall be paid and a new Connection Offer issued.
- The accuracy assessment works both ways, i.e. any error may be an omission and a re-issued Connection Offer could be higher or lower than the original Connection Charge.
- The following tolerances for the error will apply; within 5% or £150 (whichever is greater). This prevents a disproportionate effect for assets such as small lengths of cable if ESPE's view and the Customer's view of the required length differ.
- The QAS is not intended to introduce standard charges for Connections Customers.
- The QAS has specified a limited time in which the Customer can challenge the Connection Charge but does not preclude the Customer from accepting the Connection Charge. Customers may challenge a Connection Offer within 60 calendar days from the date of issue or 10 calendar days from the date of acceptance, whichever is earlier.

9.11. Where the Customer believes the Connection Offer provided by ESPE is outside the "bandwidth" in the indicative charges table contained in this statement then the Customer can utilise the QAS.

9.12. The compensation amount due to the Customer upon a successful challenge through the QAS is listed in the table below:

Quotation	Compensation
Single LV Service Demand Connection	£250
Small Project Demand Connection	£500

9.13. The Customer can utilise the QAS by contacting ESPE at the address given in paragraph 4.5.

PART A Budget Estimates

9.14. If the Customer is unable to make a formal Application because certain information that ESPE requires to make a Connection Offer is not available or if the Customer is not in a position to progress to the construction phase, ESPE can provide an indication of the charge for making the connection by means of a Budget Estimate (see paragraph 4.11 for further details). The estimated charges associated with the provision of Budget Estimates in advance of a formal Application are set out in the table below. Actual charges will be provided upon request.

Category	
Demand	
Single LV Service Demand Connection	£800
2 to 4 services single phase LV, no extension to LV network	£800
1-4 Premises, single phase LV, extension to the LV network required	£800
1 three phase LV service with whole current metering to a single Premises	£1000
Other LV connection(s) with a total load up to 100kVA LV	£1000
Other LV connection(s) with a total load greater than 100kVA and up to 250kVA LV not covered by the above	£1200
Connection greater than 250kVA and up to 1MVA at LV	£1200
Connection up to 250kVA at HV	£1500
Connection greater than 250kVA and up to 1MVA at HV	£2000
Connection greater than 1MVA and up to 3MVA at HV	£2000
Connection greater than 3MVA and up to 10MVA at HV	£2000
Connection greater than 3MVA and up to 10MVA at EHV	£2000
Connection greater than 10MVA and up to 50MVA	£2000
Connection greater than 50MVA	£2000
Generation	
Connection of a single Small Scale Embedded Generator	£400
Connection of other generation at LV up to 20kVA not covered by the above	£600
Connection of other generation at LV greater than 20kVA and up to 50kVA	£1000
Connection of other generation at LV greater than 50kVA	£1000
Connection of generation at HV up to 250kVA	£1500
Connection of generation at HV greater than 250kVA and up to 1MVA	£2000
Connection of generation at HV greater than 1MVA	£2000
Connection of generation at EHV up to 10MVA	£2000
Connection of generation at EHV greater than 10MVA	£2000

Connection of generation greater than 50MVA	£2000
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PART B Feasibility Studies

- 9.15. Prior to making a formal Application for a Connection Offer, the Customer may request ESPE undertake a Feasibility Study to establish the viability of making a connection to ESPE's Distribution System. ESPE shall carry out preliminary network analysis and provide an indicative connection assessment which shall include the results of the network analysis and an outline of the engineering scheme to allow the connection. ESPE require payment in advance of the study being made and shall notify the Customer of the relevant study charges prior to commencing work.
- 9.16. The estimated charges associated with the provision of Feasibility Studies involving design in advance of a formal Connection Application are set out in the table below. Actual charges will be provided upon request. Charges for any other activities, such as excavation works, are individually assessed and agreed with the Customer before the work is undertaken. Additional charges are only applicable where the Customer amends their connection requirements, and this necessitates ESPE carrying out further analysis or assessment:

Category	Charge		Additional Charge	
	Min	Max	Min	Max
Demand				
Single LV Service Demand Connection	£400	£1000	£80	£150
2 to 4 services single phase LV, no extension to LV network	£400	£1000	£80	£150
1-4 Premises, single phase LV, extension to the LV network required	£400	£1000	£80	£150
1 three phase LV service with while current metering to a single Premises	£400	£1000	£80	£150
Other LV connection(s) with a total load up to 100kVA	£400	£1000	£80	£150
Other LV connection(s) with a total load greater than 100kVA and up to 250kVA not covered by the above	£480	£1000	£80	£150
Connection greater than 250kVA and up to 1MVA at LV	£540	£1000	£90	£150
Connection up to 250kVA at HV	£720	£1000	£90	£150
Connection greater than 250kVA and up to 1MVA at HV	£720	£1000	£90	£150
Connection greater than 1MVA and up to 3 MVA at HV	£720	£1500	£90	£150

Category	Charge		Additional Charge	
	Min	Max	Min	Max
Connection greater than 3MVA and up to 10MVA at HV	£1080	£2400	£90	£150
Connection greater than 3MVA and up to 10 MVA at EHV	£2000	£4000	£150	£170
Connection greater than 10MVA and up to 50MVA	£2000	£6500	£150	£170
Connection greater than 50MVA	£2000	£13000	£150	£170
Generation				
Connection of a single Small Scale Embedded Generator	£240	£400	£120	£130
Connection of other generation at LV up to 20kVA not covered by the above	£320	£800	£80	£130
Connection of other generation at LV greater than 20kVA and up to 50kVA	£320	£1040	£80	£130
Connection of other generation at LV greater than 50kVA	£600	£1440	£90	£150
Connection of generation at HV up to 250kVA	£1000	£1660	£90	£150
Connection of generation at HV greater than 250kVA and up to 1MVA	£1000	£2060	£90	£150
Connection of generation at HV greater than 1MVA	£1000	£4100	£90	£150
Connection of generation at EHV up to 10MVA	£2000	£6600	£150	£170
Connection of generation at EHV greater than 10MVA	£2000	£6600	£150	£170
Connection of generation greater than 50MVA	£2000	£13000	£150	£170

Note 1: "LV", "HV", or "EHV" in the table above denotes the highest voltage of assets installed including any associated Reinforcement or diversionary works.

PART C Assessment and Design for all relevant work

9.17. For applications received where the Customer requires ESPE to undertake all the works, estimated charges associated with the identification of the most appropriate point on the existing Distribution System for connection and the design of any Extension Assets and/or Reinforcement are set out in the table below. Actual charges will be provided upon request. ESPE may levy additional assessment and design charges where the work undertaken exceeds the costs included in the minimum charge:

Category	Charge		Additional Charge/hr	
	Min	Max	Min	Max
Demand				
Single LV Service Demand Connection	£0	£400	£0	£150
2 to 4 services single phase LV, no extension to LV network	£0	£920	£0	£150
1-4 Premises, single phase LV, extension to the LV network required	£0	£920	£0	£150
1 three phase LV service with while current metering to a single Premises	£0	£400	£0	£150
Other LV connection(s) with a total load up to 100kVA	£0	£960	£0	£150
Other LV connection(s) with a total load greater than 100kVA and up to 250kVA not covered by the above	£0	£1260	£0	£150
Connection greater than 250kVA and up to 1MVA at LV	£1080	£4660	£0	£150
Connection up to 250kVA at HV	£1260	£2500	£0	£150
Connection greater than 250kVA and up to 1MVA at HV	£1260	£9460	£0	£150
Connection greater than 1MVA and up to 3 MVA at HV	£1620	£13280	£0	£150
Connection greater than 3MVA and up to 10MVA at HV	£2160	£15400	£45	£170
Connection greater than 3MVA and up to 10 MVA at EHV	£15400	POA	£75	£170
Connection greater than 10MVA and up to 50MVA	£15000	POA	£150	£210

Category	Charge		Additional Charge/hr	
	Min	Max	Min	Max
Connection greater than 50MVA	£15000	POA	£150	£210
Generation				
Connection of a single Small Scale Embedded Generator	£0	£400	£0	£150
Connection of other generation at LV up to 20kVA not covered by the above	£500	£1160	£0	£150
Connection of other generation at LV greater than 20kVA and up to 50kVA	£1000	£1460	£0	£150
Connection of other generation at LV greater than 50kVA	£1000	£2270	£0	£150
Connection of generation at HV up to 250kVA	£2160	£11440	£0	£150
Connection of generation at HV greater than 250kVA and up to 1MVA	£2400	£11030	£0	£150
Connection of generation at HV greater than 1MVA	POA	£19480	£0	£150
Connection of generation at EHV up to 10MVA	POA	£18900	POA	£170
Connection of generation at EHV greater than 10MVA	POA	£18900	POA	£170
Connection of generation greater than 50MVA	POA	£25200	POA	£170

Note 1: "LV", "HV", or "EHV" in the table above denotes the highest voltage of assets installed including any associated Reinforcement or diversionary works.

PART D CIC Assessment and Design of the Non-Contestable Work

9.18. For applications received where the Customer has requested an ICP to carry out the Contestable Works, estimated charges associated with the identification of the most appropriate point on the existing Distribution System for connection of the Extension Assets and the design of any Network Reinforcement are set out in the table below. Actual charges will be provided upon request.

Category	Charge
Demand	
Single LV Service Demand Connection	£400
2 to 4 services single phase LV, no extension to LV network	£400
1-4 Premises, single phase LV, extension to the LV network required	£400
1 three phase LV service with while current metering to a single Premises	£800
Other LV connection(s) with a total load up to 100kVA	£800
Other LV connection(s) with a total load greater than 100kVA and up to 250kVA not covered by the above	£1000
Connection greater than 250kVA and up to 1MVA at LV	£1500
Connection up to 250kVA at HV	£1500
Connection greater than 250kVA and up to 1MVA at HV	£1500
Connection greater than 1MVA and up to 3 MVA at HV	£1500
Connection greater than 3MVA and up to 10MVA at HV	£1500
Connection greater than 3MVA and up to 10 MVA at EHV	£1500
Connection greater than 10MVA and up to 50MVA	£1500
Connection greater than 50MVA	£1500
Generation	
Connection of a single Small Scale Embedded Generator	£400
Connection of other generation at LV up to 20kVA not covered by the above	£400
Connection of other generation at LV greater than 20kVA and up to 50kVA	£600

Category	Charge
Connection of other generation at LV greater than 50kVA	£1000
Connection of generation at HV up to 250kVA	£1500
Connection of generation at HV greater than 250kVA and up to 1MVA	£1500

PART E CIC Design Approval of the Contestable Work

9.19. For applications received where the Customer has elected an ICP to undertake the Contestable Work, estimated charges associated with the approval of an Extension Asset design produced by an ICP are set out in the table below. Actual charges will be provided upon request.

Category	Charge
Demand	
Single LV Service Demand Connection	£400
2 to 4 services single phase LV, no extension to LV network	£400
1-4 Premises, single phase LV, extension to the LV network required	£400
1 three phase LV service with whole current metering to a single Premises	£800
Other LV connection(s) with a total load up to 100kVA LV	£800
Other LV connection(s) with a total load greater than 100kVA and up to 250kVA LV not covered by the above	£1000
Connection greater than 250kVA and up to 1MVA at LV	£1000
Connection up to 250kVA at HV	£1000
Connection greater than 250kVA and up to 1MVA at HV	£1000
Connection greater than 1MVA and up to 3MVA at HV	£1000
Connection greater than 3MVA and up to 10MVA at HV	£1000
Connection greater than 3MVA and up to 10MVA at EHV	£1000
Connection greater than 10MVA and up to 50MVA	£1000
Connection greater than 50MVA	£1000
Generation	
Connection of a single Small Scale Embedded Generator	£400
Connection of other generation at LV up to 20kVA not covered by the above	£400
Connection of other generation at LV greater than 20kVA and up to 50kVA	£600
Connection of other generation at LV greater than 50kVA	£1000
Connection of generation at HV up to 250kVA	£1500
Connection of generation at HV greater than 250kVA and up to 1MVA	£1500
Connection of generation at HV greater than 1MVA	£2000
Connection of generation at EHV up to 10MVA	£2000
Connection of generation at EHV greater than 10MVA	£2000

Connection of generation greater than 50MVA	£2000
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PART F CONSTRUCTION

F1 Services covered by the Quotation Accuracy Scheme

- 9.20. ESPE’s estimated charges associated with the construction of small services (1-4 single phase connections or a single three phase connection up to 60kVA) are set out in the table below. Actual charges will be provided upon request.
- 9.21. Charges cover both the Contestable Work and Non-Contestable Work; however, these are identified separately on the Customer’s Connection Offer. Note that the Connection Offer will also include charges for Assessment and Design as outlined in paragraph 9.16 and may include other charges.
- 9.22. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting and guarding. These charges exclude traffic management costs e.g. temporary traffic lights, road closures etc. and Traffic Management Act costs. Where these additional charges are relevant, these are included in the connection charge.
- 9.23. These Charges exclude charges for any easement, wayleaves or land transfers that are required and these are detailed in part I, Land Rights.
- 9.24. These charges are covered by the Quotation Accuracy Scheme outlined under paragraphs 9.8 - 9.12 of this section.

Activity	Description	Factors	Unit	Min	Max
Single phase service	Single phase service, from a passing main, including cable, mains service joint hole, (excavate to site boundary), and termination. Service cable length up to 5 metres. Duct within site boundary installed by third party	Same side service in typical tarmac footpath	1	£2350	£3620
		Same side service in typical grass verge	1	£1280	£1940
		Cross road service in typical carriageway	1	£3400	£5150
	Additional metres of service cable	In typical tarmac footpath	m	£270	£400
		In typical grass verge	m	£55	£80
		In typical carriageway	m	£340	£500
	Duct laid by ESPE		m	£15	£20

Activity	Description	Factors	Unit	Min	Max
Three phase service (60kVA)	Single phase service, from a passing main, including cable, mains service joint hole, (excavate to site boundary), and termination. Service cable length up to 5 metres. Duct within site boundary installed by third party	Same side service in typical tarmac footpath	1	£2530	£3800
		Same side service in typical grass verge	1	£2100	£3150
		Cross road service in typical carriageway	1	£3600	£5400
	Additional metres of service cable	In typical tarmac footpath	m	£180	£260
		In typical grass verge	m	£90	£140
		In typical carriageway	m	£370	£560
	Duct laid by ESPE		m	£15	£20
Three Phase Service (60kVA)	Low voltage mains cable. Excavate 10 metres of ground and install LV mains cable and re-instate to match existing surface, includes straight joint onto main and bottle end	Trench or duct by others (including backfill and reinstatement)	1	£1600	£2400
		In typical tarmac footpath	1	£4800	£7320
		In typical grass verge	1	£3360	£5040
		In typical carriageway	1	£6200	£9200
	Additional metres of LV mains cable	Trench or duct by others (including backfill and reinstatement)	m	£40	£60
		In typical tarmac footpath	m	£190	£280
		In typical grass verge	m	£110	£160
		In typical carriageway	m	£390	£580
	Duct laid by ESPE		m	£15	£20

F2 Service Alterations

- 9.25. ESPE's estimated charges associated with changes to the service positions for single services (single phase connection or three phase connections up to 60kVA) are set out in the table below. Actual charges will be provided upon request.
- 9.26. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting and guarding. These charges exclude traffic management costs e.g. temporary traffic lights, road closures etc. and Traffic Management Act costs. Where these additional charges are relevant, these are included in the connection charge.
- 9.27. These charges exclude charges for any easement, wayleaves or land transfers that are required and these are detailed in part I, Land Rights.
- 9.28. These charges are subject to the Quotation Accuracy Scheme outlined under paragraphs 9.8 - 9.12 of this Section.

Activity	Description	Factors	Unit	Min	Max
Single phase service alteration	Single phase service, from a passing main, including cable, mains service joint hole, (excavate to site boundary), and termination. Service cable length up to 5 metres. Duct within site boundary installed by third party	Service alteration in customer land	1	£2600	£3900
		Same side service alteration in typical grass verge including excavation, backfill and reinstatement to site boundary and joint hole	1	£1900	£2860
		Same side service alteration in typical tarmac footpath including excavation, backfill and reinstatement to site boundary and joint hole	1	£2600	£3900
		Cross road service alteration in typical carriageway including excavation, backfill and reinstatement to the site boundary and joint hole	1	£3660	£5480
	Additional metres of service cable	Customers Land	m	£40	£60
		In typical grass verge (including excavation, installation, backfilling and reinstatement)	m	£90	£140
		In typical tarmac footpath (including excavation, installation, backfilling and reinstatement)	m	£180	£260

Activity	Description	Factors	Unit	Min	Max
		In typical carriageway (including excavation, installation, backfilling and reinstatement)	m	£380	£560
Three phase service alteration (60kVA)	Three phase service including service cable, joint and termination. Service cable length up to 5 metres, Duct installed by third party	Service alteration in customer land	1	£2850	£4280
		Same side service alteration in typical grass verge including excavation, backfill and reinstatement to site boundary and joint hole	1	£2350	£3520
		Same side service alteration in typical tarmac footpath including excavation, backfill and reinstatement to site boundary and joint hole	1	£2780	£4170
		Cross road service alteration in typical carriageway including excavation, backfill and reinstatement to the site boundary and joint hole	1	£3840	£5800
	Additional metres of service cable	Customers Land	m	£90	£140
		In typical grass verge (including excavation, installation, backfilling and reinstatement)	m	£90	£140
		In typical tarmac footpath (including excavation, installation, backfilling and reinstatement)	m	£180	£260
		In typical carriageway (including excavation, installation, backfilling and reinstatement)	m	£370	£560

F3 Other Services not covered by the QAS

9.29. ESPE's estimated charges associated with construction of services to the Entry/Exit Point that are not covered by the Quotation Accuracy Scheme are given in the table below. Actual charges will be provided upon request. These charges are for the connection of service cable only.

9.30. Charges below cover both the Contestable Work and Non-Contestable Work; however these are identified separately on the Connection Offer or Point of Connection Offer. Note that the Connection Offer also includes charges for Assessment and Design.

9.31. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting and guarding. These charges exclude Traffic Management Act costs. Where these are additional charges that are relevant, these are included in the Connection Charge.

9.32. These charges exclude charges for any easement, wayleaves or land transfers that are required, and these are detailed in part I, Land Rights.

Activity	Description	Unit	Min	Max
Single phase service, up to 100A (20kVA)	One single phase service, from a passing or extended main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£970	£1460
	Multiple single phase service, from an extended main, including service cable. Mains service joints and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	POA	POA
	Excavation and backfill of joint hole	1	£1060	£1590
	Additional metres of service cable	m	£26	£40
Three phase service up to 100A per phase (60kVA)	A single three phase service, from a passing main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£1450	£2180
	Excavation and backfill of joint hole	1	£1420	£2130
	Additional metres of three phase service cable	m	£34	£50
Three phase service up to 200A per phase (120kVA)	A single three phase service, from a passing main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£3300	£4950
	Excavation and backfill of joint hole	1	£1420	£2120
	Additional metres of three phase service cable	m	£34	£50
Three phase service	A single three phase service, from a passing main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per	1	£2160	£5410

Activity	Description	Unit	Min	Max
up to 300A per phase (180kVA)	service. Duct installation, excavation and backfill joint hole undertaken by third party			
	Excavation and backfill of joint hole	1	£1420	£2120
	Additional metres of three phase service cable	m	£34	£50
Three phase service up to 300A per phase (240kVA)	A single three phase service, from a passing main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£3610	£5410
	Excavation and backfill of joint hole	1	£1420	£2120
	Additional metres of three phase service cable	m	£34	£50
Three phase service over 240kVA	A single three phase service, from a passing main, including service cable, mains service joint, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£3550	£5330
	Excavation and backfill of joint hole	1	£1420	£2120
	Additional metres of three phase service cable	m	£34	£50
Services to Multi-occupied Premises	Installation of a multi-way cut-out up to 10 way from a passing or extended main, including cables for adjacent communal metering, mains service join, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£2710	£4060
	Installation of a multi-way cut-out of greater than 10 way from a passing or extended main, including cables for adjacent communal metering, mains service join, and termination. Service cable length up to 5 metres per service. Duct installation, excavation and backfill joint hole undertaken by third party	1	£5550	£8330
	Installation of rising mains and laterals excluding civils and containment work	1	POA	POA
	Excavation and backfill of joint hole	1	£1420	£2120
	Additional metres of three phase service cable	m	£34	£50

F4 Unmetered Supplies

9.33. ESPE’s estimated charges associated with construction activities in respect of unmetered supplies are given in the table below. Actual charges will be provided upon request.

9.34. Charges below cover both the Contestable and Non-Contestable Work; however, these are identified separately on the Connection Offer or Point of Connection Offer. Note that the Connection Offer may also include charges for Assessment and Design as outlined in paragraph 9.16 and may include other charges.

9.35. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting and guarding. These charges exclude Traffic Management Act costs. Where these charges are relevant, these are included in the Connection Charge.

9.36. These charges exclude charges for any easement, wayleave or land transfers that are required, and these are detailed in part I, Land Rights.

Activity	Description	Unit	Min	Max
Unmetered Supplies	New connection up to 5 metres excluding excavation and reinstatement	1	£500	£740
	Disconnection excluding excavation and reinstatement	1	£215	£320
	Transfer or reconnection up to 5 metres excluding excavation and reinstatement	1	£215	£320
	Additional metres of service cable including excavation and reinstatement	m	£38	£56
Unmetered Supplies	New connection on same side of road including excavation and reinstatement	1	£2600	£3900
	New connection up to 10 metres on other side of road including excavation and reinstatement	1	£5270	£7900
	Disconnection excluding excavation and reinstatement	1	£215	£320
	Transfer or reconnection up to 5 metres including excavation and reinstatement	1	£2600	£3900
	Additional metres of service cable including excavation and reinstatement	m	£370	£560
Unmetered Supplies	Rent-a-Jointer team (excluding materials)	Per day	POA	POA
Unmetered Supplies	Administrative charge for ICP work	Per lamp	POA	POA

F5 Mains Cables

- 9.37. ESPE's estimated charges associated with cables are given in the table below. Actual charges will be provided upon request.
- 9.38. Charges below cover both the Contestable and Non-Contestable Work; however, these are identified separately on the Connection Offer or Point of Connection Offer. Note that the Connection Offer also includes other charges for Assessment and Design as outlined in paragraph 9.17 and may include other charges.
- 9.39. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting and guarding. These charges exclude traffic management e.g., temporary traffic lights, road closures etc. and Traffic Management Act costs. Where these additional charges are relevant, these are included in the connection charge.
- 9.40. These charges exclude charges for any easement, wayleaves, or land transfers that are required, and these are detailed in part I, Land Rights.
- 9.41. Where the cable charges are associated with the connection there may be an additional charge for the Final Connection to ESPE's existing Distribution System. These are covered in 9.46 of this section.

Activity	Description	Unit	Min	Max
Extension of LV mains cable of 95mm ² or less	Lay 10m cable or less including jointing onto existing main in prepared trench or pulling through duct installed by others. All backfill and reinstatement by others	1	£1000	£1500
	Additional metres of mains cable	m	£44	£66
	Lay 10m cable or less in typical footpath or carriageway, including excavation and reinstatement to match the existing surface	1	£1835	£2750
	Additional metres of mains cable	m	£44	£66
	Lay 10m cable or less in unmade ground, including excavation and reinstatement to match the existing service	1	£977	£1460
	Additional metres of mains cable	m	£44	£66
Extension of LV mains cable of between	Lay 10m cable or less including jointing onto existing main in prepared trench or pulling through duct installed by others. All backfill and reinstatement by others	1	£1250	£1880
	Additional metres of mains cable	m	£60	£90

Activity	Description	Unit	Min	Max
95mm ² and 185mm ²	Lay 10m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	£1990	£2980
	Additional metres of mains cable	m	£60	£90
	Lay 10m cable or less in unmade ground, including excavation and reinstate to match the existing service	1	£1130	£1696
	Additional metres of mains cable	m	£60	£90
Extension of LV mains cable of greater than 185mm ²	Lay 10m cable or less including jointing onto existing main in prepared trench or pulling through duct installed by others. All backfill and reinstatement by others	1	£7575	£11365
	Additional metres of mains cable	m	£70	£102
	Lay 10m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	£2070	£3100
	Additional metres of mains cable	m	£70	£102
	Lay 10m cable or less in unmade ground, including excavation and reinstate to match the existing service	1	£1210	£1815
	Additional metres of mains cable	m	£70	£102
Extension of HV mains cable	Lay 20 metres cable or less in prepared trench by pulling through duct installed by others. All backfill and reinstatement by others including jointing onto existing main	1	£1905	£2860
	Additional metres of mains cable	m	£95	£143
	Lay 20m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	£4892	£7338
	Additional metres of mains cable	m	£95	£143
	Lay 20m cable or less in unmade ground, including excavation and reinstate to match the existing surface	1	£2865	£4297
	Additional metres of mains cable	m	£95	£143

Activity	Description	Unit	Min	Max
Extension of 33kV mains cable	Lay 30m cable or less in prepared trench or pulling through duct installed by others. All backfill reinstatement by others including jointing onto existing main	1	POA	POA
	Additional metres of mains cable	m	POA	POA
	Lay 30m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	POA	POA
	Additional metres of mains cable	m	POA	POA
	Lay 30m cable or less in unmade ground, including excavation and reinstate to match the existing surface	1	POA	POA
	Additional metres of mains cable	m	POA	POA
Extension of 66kV mains cable	Lay 30m cable or less in prepared trench or pulling through duct installed by others. All backfill and reinstatement by others including jointing onto existing main	1	POA	POA
	Additional metres of mains cable	m	POA	POA
	Lay 30m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	POA	POA
	Additional metres of mains cable	m	POA	POA
	Lay 30m cable or less in unmade ground, including excavation and reinstate to match the existing surface	1	POA	POA
	Additional metres of mains cable	m	POA	POA
Extension of 132kV mains cable	Lay 40m cable or less in prepared trench or pulling through duct installed by others. All backfill and reinstatement by others including jointing onto existing main	1	POA	POA
	Additional metres of mains cable	m	POA	POA
	Lay 40m cable or less in typical footpath or carriageway, including excavation and reinstate to match the existing surface	1	POA	POA

Activity	Description	Unit	Min	Max
	Additional metres of mains cable	m	POA	POA
	Lay 40m cable or less in unmade ground, including excavation and reinstate to match the existing surface	1	POA	POA
	Additional metres of mains cable	m	POA	POA

F6 Substations

- 9.42. ESPE's estimated charges associated with substations are given in the table below. Actual charges will be provided upon request.
- 9.43. Charges below cover both the Contestable and Non-Contestable Work; however, these are identified separately on the Connection Offer or Point of Connection Offer. Note that the Connection Offer also includes charges for Assessment and Design as outlined in paragraph 9.17 and may include other charges.
- 9.44. The charges in the table below are inclusive of liaison with highway authorities, sending street works notices and signing, lighting, and guarding. These charges exclude Traffic Management Act costs. Where these additional charges are relevant, these are included in the connection charge.
- 9.45. These charges exclude charges for any easement, wayleaves or land transfers that are required, and these are detailed in part I, Land Rights.

Activity	Description	Unit	Min	Max
HV/LV substation ground mounted transformer	Install ground mounted transformer up to and including 315kVA including RMU and LV fuse board or circuit breaker.	1	£73292	POA
	Install ground mounted transformer greater than 315kVA and up to and including 500kVA including RMU and LV fuse board/cabinet or circuit breaker.	1	£73292	POA
	Install ground mounted transformer greater than 500kVA and up to and including 800kVA including RMU and LV fuse board/cabinet or circuit breaker.	1	£149292	POA
	Install ground mounted transformer greater than 800kVA and up to 1000kVA including RMU and LV fuse board/cabinet or circuit breaker.	1	£149292	POA
	Install ground mounted transformer greater than 1000kVA including RUM and LV fuse board/cabinet or circuit breaker	1	POA	POA

Activity	Description	Unit	Min	Max
	Transformer change.	1	POA	POA
HV only substation (customer owned HV/LV transformer)	Install an internal HV switchgear (e.g. RMU) and metered circuit breaker	1	POA	POA
	Install an external HV switchgear (e.g. RMU) and metered circuit breaker	1	POA	POA
EHV/HV primary substation	New indoor single transformer substation	1	POA	POA
	New indoor double transformer substation	1	POA	POA
	New outdoor single transformer substation	1	POA	POA
	New outdoor double transformer substation	1	POA	POA
	Add an additional transformer at existing indoor substation	1	POA	POA
	Add an additional transformer at existing outdoor substation	1	POA	POA
	Change transformer	1	POA	POA
	Change HV switchgear	1	POA	POA
132kV/EHV substation	New indoor single transformer substation	1	POA	POA
	New indoor double transformer substation	1	POA	POA
	New outdoor single transformer substation	1	POA	POA
	New outdoor double transformer substation	1	POA	POA
	Add an additional transformer at existing indoor substation	1	POA	POA
	Add an additional transformer at existing outdoor substation	1	POA	POA
	Change transformer	1	POA	POA
	Change HV switchgear	1	POA	POA

PART G CIC Final Works and Energisation

9.46. The table below sets out the estimated charges for the final connections to ESPE's network. Actual charges will be provided upon request.

- 9.47. The charges below cover Non-Contestable work or where ESPE are asked to under-take live jointing on Contestable Assets, and are identified separately on the Connection Offer. Note that the Connection Offer also includes charges for Assessment and Design as outlined in paragraph 9.17 and may include other charges.
- 9.48. These charges exclude charges for any easement, wayleaves or land transfers that are required, and these are detailed in part I, Land Rights.
- 9.49. The charges below are exclusive of all cable laying or substation installation costs and all joint hold excavation and reinstatement. These are covered by separate charges or are carried out by the ICP.

Activity	Description	Unit	Cost
Service Connections	LV service joint to all sizes of LV main inclusive of service polarity and earth loop impedance test at the service position	1	POA
LV Mains Energisation	LV mains Energisation of all sizes by a mains joint to an existing cable of any size	1	POA
	LV bottle end to mains cable, any size	1	POA
	LV mains Energisation of all sizes by terminating to an existing piece of LV switchgear, including all associated operating costs	1	POA
HV Mains Energisation	HV cable Energisation of all sizes by a joint to an existing cable of any size including all associated operational costs	1	POA
	HV cable Energisation of all sizes by connection to existing overhead line including all associated operational costs	1	POA
	HV cable Energisation of all sizes by termination to an existing piece of switchgear including all associated operational costs	1	POA
Operational Work	LV operation work including identification of cables requiring LV operations only	1	POA
	LV commissioning work including switching to commission LV assets installed by ICPs	1	POA
	HV operational work including for identification of cables requiring HV operations	1	POA
	HV commissioning work including all operational work required to isolate network and commission HV assets installed and jointed by ICPs	1	POA

Activity	Description	Unit	Cost
Generation	Witness Testing of LV Connections	1	£1050
	Witness Testing of HV Connections	1	£1505

PART H CIC Inspections and Monitoring of Contestable Works

9.50. ESPE's charges associated with site visits to inspect and monitor the construction of the Extension Asset by ICPs will be levied on a case-by-case basis for the following:

- LV Network
- HV Network
- EHV Network
- 132kV Network
- HV/LV Substation
- EHV/HV Substation
- HV/LV Civils
- EHV/HV Civils

PART I Land Rights

9.51. ESPE's estimated charges associated with Land Rights are set out in the table below. Actual charges will be provided upon request. These charges exclude the cost of any compensation or consideration payable to third parties.

Category	Min	Max
Residential Development substation site from developer (including easements from developer)	£750	POA
Commercial/industrial development substation from developer (including easements from developer)	£750	POA
Residential /commercial/industrial development substation site from third party owner(s) (including easements from same third-party owner(s))	£750	POA
Wayleave(s)/easements(s) only on a residential site from Developer	£750	POA
Wayleave(s)/easements(s) only on a commercial/industrial site from Developer	£750	POA
Wayleave(s)/easement(s) from third party owner(s)	£750	POA

PART J Other

9.52. ESPE's miscellaneous charges associated with the provision of the connection are priced on application of the events set out below:

- Negotiation of special terms.
- Meetings not covered by other charges.
- Abortive visits.
- Planning approval.
- Traffic management costs e.g., temporary traffic lights, road closures etc.

10. Appendix A: Useful Contacts and Addresses

Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

Tel: (0207) 901 7000
Fax: (0207) 901 7066

Website: <https://www.ofgem.gov.uk/>

Health and Safety Executive
Rose Court
2 Southwark Bridge
London
SE1 9HS

Tel: (0845) 345 0055

Website: <http://www.hse.gov.uk/>

Ombudsman Services
PO Box 966
Warrington
WA4 9DF

Telephone: 0330 440 1624
Textphone: 0330 440 1600
Fax: 0330 440 1625

E-mail: osenquiries@os-energy.org
Website: www.ombudsman-services.org/energy

Citizens Advice
3rd Floor North
200 Aldersgate Street
London
EC1A 4HD

Telephone (England): 03444 111 444
Telephone (Wales): 03444 77 20 20

Website: www.citizensadvice.org.uk



For more information on the content of this document please contact us at the following address:

ESP Utilities Group
Bluebird House
Mole Business Park
Leatherhead
Surrey
KT22 7BA

Tel: 01372 587 500
Fax: 01372 377 996
Email: Regulation@espug.com

