

**Statement of Basis of Charges and Charging  
Methodology for Connection to Laing O'Rourke  
Energy's Electricity Distribution System**

**(Effective from 1<sup>st</sup> October 2007)**



*This statement has been prepared in a form approved by Ofgem*

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# 1. Introduction

## 1.1. The Laing O'Rourke Energy Electricity Distribution Business

Laing O'Rourke Energy (LOE) is an independent electricity distribution business, licensed to design, build, adopt, operate and maintain electricity distribution networks in Great Britain.

This statement has been approved by the Office of Gas and Electricity Markets (Ofgem). Any future modifications to this statement will require approval from Ofgem.

## 1.2. Licence Obligations

This statement sets out LOE's charges and methodology for connection to a LOE Distribution System. It is prepared in accordance with the requirements of LOE's Distribution Licence.

LOE is required by Licence Condition 4B to prepare a statement approved by the Authority setting out the charges and methodology upon which providing a connection to a LOE distribution network will be made. LOE is also required to review this statement annually to ensure that the objectives of the licence condition continue to be achieved.

## 1.3. Purpose of this Statement

This statement describes the terms and conditions for obtaining a new connection via LOE in Great Britain. It is prepared in accordance with the requirements of LOE's Distribution Licence.

This statement describes the process for obtaining a connection, obtaining a quotation and explains the areas of work that are open to competition so that the person seeking a connection may seek competitive quotations for that "contestable" work.

This statement also contains indicative costs for common works associated with a connection and the methodology used. These costs are a guide and are provided for illustrative purposes only.

## 2. Charging Methodology

### 2.1. Methodology – New Networks

LOE is an Independent Distribution Network Operator (IDNO) and is licensed to be able to build networks within a Host Distribution Network Operators (DNO) licensed service area. LOE connects to a DNO network at a suitable point and then extends the network to supply customers. Effectively we can provide a competitive alternative connection to the host DNO.

Our connection charges are arrived at by taking into account the following:

- a) **Host DNO Design Fees** – these are charges that LOE will be levied by the host DNO for the up-front design work necessary to provide a point of connection.
- b) **LOE Design Fees** – these are charges for the cost of works associated with design of the new network.
- c) **Host DNO Connection Charges (non-contestable works)** – these are charges that LOE will be levied by the host DNO for providing equipment at the point of connection and any charges for upstream Reinforcement of the network.
- d) **Connection Charges (contestable works)** – These are charges for providing the new network, normally carried out by LOE. Alternatively, these works may be carried out by an Approved Contractor on behalf of the person seeking a connection. Please refer to section 4 “Competition in Connections” for further information.

### 2.2. Methodology – Connection to Existing LOE Networks

Where a customer requests a new connection to an existing LOE network, or a modification to an existing connection, our charges are arrived at by taking into account the following:

- a) **LOE Design Fees** – these are charges for the cost of works associated with design of the new or modified connection.
- b) **LOE Connection Charges (non-contestable works)** – these are charges that LOE incur in providing the connection for work that can not be carried out by anyone else. Please refer to section 4 “Competition in Connections” for further information.
- c) **Connection Charges (contestable works)** – These are charges for works that can be carried out by LOE, or alternatively may be carried out by an Approved Contractor on behalf of the person seeking a connection. Please refer to section 4 “Competition in Connections” for further information.

- d) **Network Reinforcement Charges** – if the new or modified connection necessitates Reinforcement of the existing LOE and / or HDNO networks then there will be charges associated with this work. Please see section 2.3 below for more information on how these charges are calculated.

### 2.3. Reinforcement of LOE's and Third Party's Distribution Systems

The cost apportionment rules in this section refer to Reinforcement of LOE's existing networks only. Examples of this are where an existing customer requests an increased supply capacity or where a new customer requests connection to one of the LOE's existing network.

In the event that a request requires that a new network is needed and this will be for the sole use of the Customer then the costs of provision of the connection will be charged in full.

There are two areas of cost that may result from Reinforcement: costs associated with Reinforcement of LOE's existing networks, and costs associated with Reinforcement of third party systems such as the Host DNO's network. These are dealt with differently, as described below.

#### a) Reinforcement of LOE's Existing Networks

Charges for Reinforcement of LOE's existing networks will be subject to the application of the following cost apportionment factors (CAF): a security cost apportionment factor and a fault level cost apportionment factor.

- Security CAF

This factor is to determine the proportion of Reinforcement costs that will be charged, with Reinforcement works driven either by thermal capacity, voltage or both and assessed against the relevant security standards.

The security CAF is calculated as follows:

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

The 'required capacity' is the new capacity that has been requested. The 'new network capacity' is the secure capacity of the network following Reinforcement, as determined by LOE and taking into account the relevant security of supply standards.

- Fault Level CAF

This factor is to determine the proportion of Reinforcement costs that will be charged, with Reinforcement works driven by fault level restrictions.

The fault level CAF is calculated as follows:

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

The 'fault level contribution from connection' is LOE's assessment of the fault level contribution from the equipment to be connected, at the ownership boundary between LOE and the Customer.

The 'New Equipment Fault Level Capacity' is the fault level rating of LOE's network following Reinforcement.

- Application of CAFs

On some projects there may be both fault level and security CAFs. In this instance the security CAF will be applied to those elements of Reinforcement driven by compliance with security requirements, and the fault level CAF applied to the remaining works that are associated with maintaining the required fault levels.

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

Where a customer requests an increase in capacity within 5 years of their original connection LOE reserves the right to consider the new and existing capacity in total when calculating the CAF. Similarly, if a customer requests an increase in capacity within 5 years of previous increase(s) in capacity we reserve the right to consider the new and previous increase(s) in capacity in total when calculating the CAF.

Where the application of CAFs result in some of the costs being met by LOE, subsequent customers who make use of the capacity created will also be charged an appropriate proportion of the initial costs using the CAFs, which will be applied on the same basis.

Where Reinforcement works result in existing equipment being recovered from site, no credit will be given regardless of whether the items have a probability of re-use.

Any reinforcement costs for the distribution system at more than one voltage level above the voltage of connection (eg EHV and above for an LV connection) will not be passed through to the customer.

#### b) Reinforcement of the Third Party Networks

Where the addition of the required capacity to LOE's existing network necessitates Reinforcement of a third party network ie a DNO or another IDNO network, the costs of providing the third party reinforcement that we incur will already have been subject to the relevant cost apportionment factors by the third party network operator. These costs, including any third party charges that are payable by ourselves, will therefore be charged in full. This situation would most often apply if the increased capacity of our network due to the required capacity exceeds the existing capacity of the connection to the Host DNO, and the Host DNO needed to carry out Reinforcement work to their network to provide the new total capacity.

This applies for both security and fault level requirements, and applies to both demand and generation connections. However, any reinforcement costs for the distribution system at more than one voltage level above the voltage of connection (eg EHV and above for an LV connection) will not be passed through to the customer.

Some examples of how cost apportionment will work in practice in a number of different scenarios are given in section 2.7 below.

#### **2.4. Minimum Scheme Costs**

LOE will design a minimum scheme to meet the Required Capacity for the connection (for the import or export of energy) for the sole benefit of the party being connected subject to design specifications, sound engineering practices and standard sizes/ratings of approved equipment available.

Where LOE wishes to provide a scheme of greater capacity than is necessary then LOE will bear the excess costs of the increased capacity.

Where the person seeking a connection wishes to increase the capacity or enhance the scheme to provide greater security of supply or other additional features then the person seeking the connection shall bear the full additional cost of the enhanced scheme. The costs equivalent to the minimum scheme costs will be charged as described in sections 2.1 to 2.3 above, with only the additional costs associated with the increased security or other features charged in full.

Where more than one party wishes to connect to a LOE network at the same time, the costs to each party will be apportioned accordingly.

#### **2.5. Electricity (Connection Charges) Regulations 2002**

Our Connection Charges reflect the cost of the assets installed. In certain circumstances customers will be required to make a payment in respect of assets that have been installed previously but which are to be used for the purpose of providing their connection. These circumstances include those in The Electricity (Connection Charges) Regulations 2002 as amended, a copy of which can be obtained at [www.opsi.gov.uk](http://www.opsi.gov.uk). An example of this is where previous installation costs were apportioned as described in Section 2.3 above and the new connection makes use of the additional capacity installed at the time.

In a certain set of circumstances the charges paid by a new customer for previously installed assets may be refunded to the customer who originally paid for the assets. This would only apply for customers with sole use assets, ie those with installations where cost apportionment did not apply as they were the only customer for the network, and then only where the new additional customer was connected within 5 years of the original connection. This may occur if capacity was originally requested by the first customer on a sole use basis but then not fully used, with the resulting headroom available for other customers to use. The portion of the connection costs charged to the new customer relating to the apportionment of the cost of providing the original network would therefore be refunded to the original customer.

#### **2.6. Adoption Payments**



It is not LOE's current practice to offer payments for the adoption of distribution networks installed by others. It is also not LOE's current practice to offer adoption payments to new connections customers to offset future use of system charges.

## **2.7. Cost Apportionment Examples**

### 2.7.1 Medium LV Customers

- a) A customer requests a 150kVA LV connection to an existing network. The existing network has a nominal design capacity of 800kVA, of which 600kVA is committed to other customers.

In this instance no reinforcement will be required (it is assumed that there are no fault level issues) and so cost apportionment factors will not apply as there are no reinforcement costs.

- b) Three years after their initial connection the same customer as in (a) requests an increase to their supply capacity of an additional 100kVA.

This will put the required load up to 850kVA and so reinforcement of the network will be required. The 800kVA substation will be replaced by a 1000kVA substation and the security CAF will be applied as described in section 2.3 above, as follows.

- Required capacity = 150 + 100 kVA (as the request for an increased supply was within 5 years of the initial connection then the new and initial requests are totalled)
- New network capacity = 1000 kVA
- Therefore the security CAF that will be applied is  $(250 \times 100) / 1000$  ie 25% of the cost of the reinforcement will be charged to the customer.

If this increase in capacity results in network reinforcement being required by the DNO to support LOE's increased network, then the costs charged to LOE will be apportioned by the DNO in a similar fashion to that described in 2.3 above. These costs will therefore be passed on to the customer.

- c) Instead of requesting an increased supply after three years, the same customer as in (a) requests an increase to their supply capacity of an additional 100kVA six years after the initial connection.

Again this will put the required load up to 850kVA and so reinforcement of the network will be required. The 800kVA substation will be replaced by a 1000kVA substation and the security CAF will be applied as described in section 2.3 above, as follows.

- Required capacity = 100 kVA (as the request for an increased supply was outside 5 years of the initial connection then the customer's initial capacity is not taken into account).
- New network capacity = 1000 kVA
- Therefore the security CAF that will be applied is  $(100 \times 100) / 1000$  ie 10% of the cost of the reinforcement will be charged to the customer.

Again, if this increase in capacity results in network reinforcement being required by the DNO to support LOE's increased network, then the costs charged to LOE will be apportioned by the DNO in a similar fashion to that described in 2.3 above. These costs will therefore be passed on to the customer.

### 2.7.2 Large HV Customers

- a) LOE provides a customer with a new 2 MVA network, connected direct to a DNO network.  
As the customer has sole use of the network it is classed as a sole use asset and as such cost apportionment factors will not apply. The full cost of providing the network will therefore be charged to the customer.  
The new supply may result in network reinforcement being required by the DNO, in addition to the work required to provide the connection. In this case the reinforcement costs charged to LOE will be apportioned by the DNO in a similar fashion to that described in 2.3 above. These costs will therefore be passed on to the customer.
- b) The customer in (a) above requests an additional 1 MVA of capacity for their network.  
In this case cost apportionment factors will not be applicable as the customer's network is classed as a sole use network, and so the full cost of reinforcing the network to provide the increased supply will be charged to the customer.  
Again, if this increase in capacity results in network reinforcement being required by the DNO to support LOE's increased network, then the costs charged to LOE will be apportioned by the DNO in a similar fashion to that described in 2.3 above. These costs will therefore be passed on to the customer.
- c) Where a large HV customer is connected to an existing LOE network and their network is therefore not a sole use asset, any required reinforcement costs due to an increase in required load capacity will be apportioned similar to the examples in 2.7.1 above.

## 3. Procedure for Obtaining a New Connection

### 3.1 Simple new connections to non LOE networks

If you require a new connection to your development and it is;

- for less than 200kVA or approximate 100 domestic units
- close to an existing electricity network

It will be classed as **a simple new connection**.

For economic and commercial reasons it is highly unlikely that LOE will be competitive when quoting for this type of connection. We suggest that you contact your local Host Distribution Network Operator (HDNO) for a quotation.

### 3.2 Simple new connections to an existing LOE network

If you require a new connection to your development and it is;

- for less than 200kVA or approximate 100 domestic units
- close to an existing electricity network

It will be classed as **a simple new connection**.

### 3.3 Complex new connections

If you require connections for;

- 100 or more domestic units or similar premises, or
- if there is no existing low voltage network in the immediate area, or
- if the connection requires a capacity of more than 200 kVA,

it will be classed as either a complex or a complicated new connection, the difference being that a complicated connection requires more Reinforcement of the existing distribution system.

For complex new connections we usually need to carry out a design study before we can accurately assess the costs. We will try to give you a budgetary estimate after we receive all the required information from you, if required.

The detailed Connection Offer may take up to 3 months to prepare (subject to the complexity of the scheme), particularly if we need to obtain project-specific costs from our supply chain or the HDNO.

Once you have accepted the Connection Offer and paid the contribution charge, we will finalise the design, obtain any necessary wayleaves and agree an installation schedule with you.

In addition to accepting our Connection Offer, you must appoint an electricity supplier who will arrange for the electricity meter(s) to be installed, and for your service connections to be energised.

### 3.4 How to proceed

For complex new connections please ring our Connections Centre in the first instance outlining your requirements prior to completing the application form contained in our Application Pack. For a copy of the pack, please contact us at:

### 3.5 Step-by-step guide

A step-by-step guide to the process is shown in the following table:

Step No.	Step Description	Comments
1	<p><b>Initial Enquiry</b> Send us a covering letter with details introducing the proposed development, your timescales and any special site specific information.</p>	<p><b>Within 10 days</b> We will maintain contact with you to ensure we respond with the appropriate levels of information as the planning process progresses.</p>
2	<p><b>Budgetary Estimate</b> Once your Development is at the stage where a budgetary cost is required, send us a letter requesting a budgetary estimate.</p> <p>Once we have clarified the basic technical details with you we will usually provide a budgetary estimate as soon as possible, which will also identify the cost for developing the design to be able to provide you with a Connection Offer.</p> <p>In some cases it may be more appropriate and subject to timescales to commence at the Connection Offer stage.</p> <p><b>NB: Due to the number of assumptions that will need to be made, the estimate we provide at this stage may vary considerably from later budget estimates or the price of the final connection offer.</b></p>	<p><b>Within 20 days</b> To give you a budget cost we will need the following information with your covering letter:</p> <ul style="list-style-type: none"> <li>▪ Details of the maximum load required</li> <li>▪ A land use schedule</li> <li>▪ An accurate location plan, scale 1:2500</li> <li>▪ A site development or master plan 1:500</li> <li>▪ Development timescales</li> <li>▪ Please ensure all drawings are to scale</li> </ul>
3	<p><b>Formal Connection Offer</b> If the budgetary cost is acceptable to you, we can prepare a detailed design for the new connection &amp; network subject to receiving your instruction.</p> <p><b>Return a duly completed Connections Application Form, letter of authorisation, land registry drawing and title details to us.</b></p> <p>There will be a cost for preparing this detailed design and fixed quotation, which will be payable with your Application. When you accept the Connection Offer the design fee will be deducted from the Offer value.</p>	<p><b>Within three months</b></p>

Step No.	Step Description	Comments
4	<p>In some cases we may need additional information or may need a site visit before we can provide a firm quote</p> <p>We will write to you with a Connection Offer as soon as the design is finalised and fully costed. This offer will define the technical aspects of the connection and shows the contribution charge that is required and the associated terms and conditions.</p> <p><b>Acceptance of Connection Offer</b> Please sign the acceptance form and return it to us accompanied by a cheque for the requested amount.</p>	<p>It may take up to 3 months to fully design and cost a scheme, particularly if we need to wait for project-specific costs from our supply chain or the HDNO.</p> <p>Remember to appoint a supplier, who will arrange for the meters to be installed and for the connections to be energised. If required, we would be willing to provide guidance and assistance with the appointment of an energy supplier.</p>
5	<p><b>Scheduling of the work</b> We will issue a work instruction to our field team as soon as we have processed your acceptance form.</p> <p>Our Programme Manager, in the first instance, will contact you to arrange a date for a site meeting, to discuss the installation schedule with you.</p>	<p>Complex jobs will be scheduled following discussions with you.</p>

## 4. Competition in Connections

### 4.1 General information

We are continually working with the energy industry regulator, Ofgem, to facilitate competition in connections, which is particularly applicable to new housing and light commercial developments.

Under these arrangements, we or the Host Distribution Network Operator are required to carry out certain non-contestable activities which are detailed in 4.2 below.

Developers may wish to appoint independent connection providers (ICPs) to carry out contestable activities, such as cable laying, jointing and plant installation, as discussed in 4.3 below.

We are willing to adopt these networks provided they meet LOE quality standards. The parties carrying out the contestable activities must be fully qualified and accredited with Lloyd's Register under the National Electricity Registration Scheme (NERS), or individually accredited by ourselves pending the full implementation of NERS. Please see Section 6 of this document or visit the Lloyds Register website ([www.LR.org](http://www.LR.org)) for details of NERS.

If you would like a quotation for us to carry out only the non-contestable activities please ring or make contact with our Connections Centre.

*Laing O'Rourke Energy; Tel: 01480 402640 [info@laingorourkeenergy.com](mailto:info@laingorourkeenergy.com)*

### 4.2 Non-contestable activities

For safety and operational reasons, and to enable us to comply with our duty under the Act to develop and maintain an efficient, co-ordinated and economical system of electricity distribution, certain works can only be carried out by a licensed Distribution Network Operator (DNO), such as ourselves or the Host Distribution Network Operator. These are called the non-contestable activities and include the following items.

In respect of the Distribution System:

- Processing your application and network planning for the connection.
- Deciding upon the point of connection to the Distribution System.
- Connection of the extension or diverted assets to the Distribution System and their energisation.
- Designing (meaning planning, designing and specifying) of any works for reinforcement of the Distribution System.
- Carrying out of any works for reinforcement of the Distribution System where the conditions for such activity being contestable work are not met (see section 4.4 below).
- Planning, designing, specifying and carrying out of any works for diversion of the Distribution System where the conditions for such activity being contestable work are not met (see section 4.4 below).

- Removal or repositioning of existing Electrical Plant and Electric Lines.

In respect of a new extension to an existing LOE Distribution System:

- Planning, designing (or approving the design where the Approved Contractor is to carry out the design) and specifying any Contestable Work and the materials to be used;
- Operation, repair and maintenance of the electrical plant and the electric lines; and
- Inspection, monitoring and testing of any Contestable Work.

### **4.3 Contestable activities**

Work that can be undertaken by someone other than a licensed DNO is known as contestable work and this includes the provision of materials to form the connection, trenching, other site preparation work and the construction of the connection in accordance with the approved design and specification, as follows

- The procurement and provision of equipment and materials to the Company's current specification for the extension;
- Trenching and other preparation of the site, including the circuit routes between the development and the point of connection;
- Construction of the Network Extension;
- Recording of work done and of the location of cable routes and other equipment on site or elsewhere, and the provision of this information to the Company;
- Reinstatement (both temporary, if appropriate, and permanent) of the site, including the circuit routes; and
- Making provision for the installation of metering equipment.
- Obtaining any land rights and other consents that we require;

In addition, the design of the Network Extension may also be carried out by an Approved Contractor where this work is to be carried out by an Approved Contractor together with all the other elements of Contestable Work. While the Company will consider design options by an Approved Contractor, it retains the right to approve the design before the work can proceed. A charge will be made for this service, as indicated in Section 11.

Please refer to section 5 of this document for information on Approved Contractors, section 6 for information on the technical standards that must be followed, section 7 for information on design checking, testing and inspections, and section 8 for information on adoption of networks.

### **4.4 Contestable Reinforcement and Diversions Work**

Certain types of reinforcement and diversionary work normally may also be carried out by Approved Contractors for adoption by ourselves. The scope of such work is limited to reinforcement and diversionary works associated with a connection which:

- are new works that are physically and electrically separate from existing LOE or HDNO infrastructure;
- do not require access to existing LOE or HDNO operational areas;
- are fully funded by the single third party who is seeking the connection; and
- are restricted to works to install overhead lines and underground cables at voltage levels not exceeding 33 kV and HV/LV distribution substations.

For operational reasons, and to enable us to comply with its obligations under the Act and the Licence, there will be site specific circumstances where the works referred to in this section are deemed non-contestable.

#### 4.5 Contestable / Non Contestable Works Summary Table

The following table categorises elements of the work as either 'contestable' or 'non-contestable' and the types of company that can complete the works.

	Activity	Contestable (C)/ Non-Contestable (N)	LOE	Approved Contractor	Applicant or Developer
1	Determine point of connection to Distribution System	N	Yes	No	No
2	Design Network Extension	C	Yes	Yes	No
3	Design upstream reinforcement works associated with new connections	N	Yes	No	No
4	Design diversionary works associated with new connections	C	Yes	Yes	No
5	Design approval	N	Yes	No	No
6	Plant and materials specifications	N	Yes	No	No
7	Procure materials for own works	C	Yes	Yes	No
8	Land rights negotiations with third party landowners	C	Yes	Yes	Yes
9	Produce wayleave / easement documentation and enter into agreements with third party landowners	C	Yes	Yes	Yes
10	Trench excavation and duct installation – on site	C	Yes	Yes	Yes
11	Trench excavation and duct installation – on public highway	C	Yes	Yes	No
12	Construction of substation buildings and other civil works – on site	C	Yes	Yes	Yes
13	Cable laying for own works	C	Yes	Yes	No



14	Substation plant installation for own works	C	Yes	Yes	No
15	Excavation for jointing bay – on site	C	Yes	Yes	Yes
16	Excavation for own works jointing bay – public highway	C	Yes	Yes	No
17	Jointing (dead) of cables within Network Extension	C	Yes	Yes	No
18	Jointing (live) to connect Network Extension to Distribution System (closing joints)	N	Yes	No	No
19	Excavation for joints to connect Network Extension to Distribution System (closing joints)	C	Yes	Yes	No
20	Testing of Network Extension installed by Approved Contractor	C	Yes	Yes	No
21	Commissioning and connection of Network Extension to the Distribution System	N	Yes	No	No

## 5. Approved Contractors - National Electricity Registration Scheme (NERS)

Prior to 1st July 2003, any contractor wishing to operate in the competitive connections market was required to be accredited, on an individual basis, by each distribution company in whose area they planned to work.

From 1st July 2003 a new National Electricity Registration Scheme (NERS) has been introduced, which will mean that contractors will no longer need to be separately accredited by individual Distribution Companies, once they have obtained national registration.

NERS is operated by Lloyd's Register, on behalf of the Distribution Network Operators. The following is an extract from their website:

"The scheme represents part of an ongoing process to introduce competition into the electrical services market.

Under the scheme Lloyd's Register perform technical assessment of the Service Providers who elect to be assessed for accreditation for contestable works associated with the installation of electrical connections.

The scopes of registration are as follows:

- design
- project management
- cable laying (LV, 11kV, 33kV, 132kV)
- cable jointing (dead LV, live LV, 11kV, 33kV, 132kV)
- overhead lines (wooden pole/steel tower)
- substation installation (up to 11kV/415V)
- substation installation (132/32kV, 66/11kV, 33/11kV)
- all associated civil engineering works including excavation, cable laying, backfilling and permanent reinstatement.

Accreditation under the scheme will provide the service provider with the following benefits:

- accreditation recognised by all UK DNOs and IDNOs
- independent assessment and registration process
- assignment of an accreditation mark which will represent the achievement of a high technical, quality and safety standard
- Lloyd's Register website listing of registered service providers".

When accepting a Connection Offer where you propose to use an independent connections provider to carry out some or all of the contestable work, we will ask you to confirm exactly which contractors and sub-contractors you intend to use, so that we can check that they are indeed accredited with Lloyds Register for the activities that you have indicated that they will be carrying out.

Lloyd's Register currently publishes a list of accredited companies, together with the relevant activities for which they have been accredited on their website:

<http://www.lr.org/Industries/Utilities/Standards/Schemes/>

Visit the above website and click on the NERS hyperlink for further details.

## 6. Technical Specifications

This section is relevant to all types of developments.

### 6.1 Technical framework documents

The networks equipment that we install, any network installation that you carry out as part of contestable work and your electricity distribution system on your site all need to be in accordance with consistent technical standards.

A suite of generic technical framework documents have been prepared for the electricity distribution industry by the Ofgem Electricity Connections Steering Group (ECSG), to give some consistency in technical standards across the industry. The documents set out the minimum requirements for design of high voltage and low voltage electricity networks, including any associated HV/LV distribution substations. They have been given the EA reference number G81, and are administered by the Energy Networks Association.

Due to different technical and environmental differences in different areas of the country, each of the documents is accompanied by appendices which are specific to the relevant Distribution Network Operator.

The suite of document is as follows:

- G81 Part 1: Design and Planning for Low Voltage Housing Development Installations and Associated New HV / LV Distribution Substations
- G81 Part 2: Materials Specification for Low Voltage Housing Development Installations and Associated New HV / LV Distribution Substations
- G81 Part 3: Installation and Records for Low Voltage Housing Development Installations and Associated New HV / LV Distribution Substations
- G81 Part 4: Design and Planning for Industrial and Commercial Underground Connected Loads up to and Including 11kV
- G81 Part 5: Materials Specification for Industrial and Commercial Underground Connected Loads up to and Including 11kV
- G81 Part 6: Installation and Records for Industrial and Commercial Underground Connected Loads up to and Including 11kV

The G81 documents can be downloaded from the Energy Networks Association website at:

<http://www.energynetworks.org/spring/engineering/cms01/index.aspx>

LOE have produced specific appendices to the G81 documents and these are available on request, as follows:

- Parts 1 and 4      Appendix A – Design information required from applicant  
                                 Appendix B – Planning technical specification
- Parts 2 and 5      Appendix A – List of approved materials
- Parts 3 and 6      Appendix A – Test requirements  
                                 Appendix B – Installation and Asset Recording requirements

The documents, together with the appendices, define the technical standards that need to be complied with when installing HV and LV networks, to ensure that both ourselves and the Host Distribution Network Operator will connect to the new systems. These standards need to be complied with, both for contestable work carried out by the Customer that we adopt, and any installation that we connect to.

It should be noted that the LOE specific appendices may vary dependent on which HDNO area the connection is in.

The suite of documents does not make provision for any requirements in respect of generator connections. If generator connections are required, please contact ourselves for further information.

## **6.2 Security of Supply**

Any new network, or modification / extension to an existing network, must comply with the requirements of Engineering Recommendation P2/6, produced by the Energy Networks Association. This standard relates mainly to ensuring that networks are developed with a suitable security of supply.

## 7. Design Checking, Inspection and Testing Prior to Energisation

In order to ensure compliance with the Electricity Safety, Quality and Continuity Regulations and the Distribution Code we need to check that a consumer's installation complies with relevant standards prior to energising a connection. This applies to both customer's installations and contestable works installed by an Approved Contractor for adoption by ourselves.

We will therefore need to check the design of your electrical system prior to installation to ensure that it complies with standards referred to in clause 1 above, such that we can demonstrate we have complied with our statutory obligations.

Following completion of your installation, the designated point of connection to the Host Distribution Network Operator's system can only be energised when:

- A valid connection agreement and land agreement is in place;
- You can demonstrate that appropriate tests and inspections have been carried out and your installation has met the relevant criteria;
- We are satisfied that your installation has been installed correctly and complies with all the relevant technical standards including LOE standard technical requirements;
- Our inspectors have, where appropriate, inspected your installation;
- The requirements of the Electricity Safety Quality and Continuity Regulations 2002 have been met;

The following points will be applicable when we have been asked to adopt assets installed by others as part of contestable works:

- (a) We will adopt assets only when:
  - The ownership of the assets prior to adoption has been clearly identified;
  - The owner of the assets has entered into an Adoption Agreement and a Connection Agreement (where applicable);
  - We are satisfied that all assets have been installed correctly and comply with all the relevant technical standards including LOE standard technical requirements;
  - Our inspectors have, where appropriate, inspected the new assets;
  - The contractor has provided all the information requested by us relating to the type and location of assets installed;
  - All necessary wayleaves and consents for the assets have been obtained and are granted in our name.
- (b) The designated point of connection to the Host Distribution Network Operator's system can only be energised when:
  - Valid adoption, land and connection agreements are in place;
  - Appropriate tests and inspections have been carried out and the installation has met the relevant criteria;
  - The requirements of the Electricity Safety Quality and Continuity Regulations 2002 have been met;

- You have provided as-laid drawings in a form suitable for us to add to our Mains Records for the area concerned.

## **8. Adoption of Networks**

If you wish to organise some or all of the contestable work yourself, and want us to take responsibility for the distribution network on an ongoing basis, you will be required to enter into an Adoption Agreement before the network can be connected and energised. On satisfactory final testing and connection, the ownership of relevant assets will be transferred to ourselves and we will become responsible for the ongoing operation, repair and maintenance of those assets. An Adoption Agreement is not required for trenching or certain civil works undertaken by the customer.

We will prepare the Adoption Agreement for you to review at an early stage in the process. In the case of housing developers where multiple sites are involved, we may suggest the use of one agreement with an associated set of schedules for the individual sites.



## **9. Contribution Charges**

When making a Formal Connection Offer, we will indicate the contribution that we require from you towards the cost of us carrying out the work. For most schemes we will usually agree a phased payment schedule with you.

Where you engage an independent connections provider to carry out some or all of the contestable activities, you will be responsible for paying their bill, in addition to our contribution charge for the non-contestable activities that we carry out.

Further information on our pricing methodology for producing new connection offers, including indicative charges, is given in Section 11 of this document.

## **10. Agreements**

Laing O'Rourke Energy will require you to enter into agreements 1 and 2 (if applicable) on acceptance of our Connection Offer and prior to any works commencing on the project. Agreements 3, 4 (if applicable) and 5 will be required to be completed prior to the power on date.

### **Agreement 1 Infrastructure Agreement**

The above agreement will be a legally binding contract that facilitates the engineering, procurement and construction works required to install a new distribution network, this will be included within our Connection Offer to you.

### **Agreement 2 Adoption Agreement**

This agreement will be implemented where you have chosen to use an Approved Contractor to carry out the contestable construction works required to establish a new distribution network and will be included within our Connection Offer to you where applicable.

### **Agreement 3 Connection Agreement**

This agreement will deal with the connection to the Laing O'Rourke Energy Ltd distribution system. It also requires you to comply with the provisions of the Distribution Code, a copy of which can be made available on request.

### **Agreement 4 Operation Agreement**

This Agreement enables us to connect our distribution network to your LV supply system within a building, and operate the LV system up to each individual meter on your behalf. This is typically only required in large high rise blocks of flats or commercial premises such as offices. You will need to demonstrate that your LV system has been installed in accordance with the appropriate technical standards. The agreement outlines that we will distribute electricity through your distribution system, as you are not a licensed distributor, but that your system will still be owned and maintained by yourselves.

### **Agreement 5 Land Agreements**

The land agreements with Laing O'Rourke Energy will establish rights of access for cable routes and occupation of the sub-station(s) where the distribution equipment will be located for operational requirements to carry out both planned and reactive work. A standard form of lease can be located in section 10 of this document.

You will also need to appoint a supplier for each connection because an individual connection cannot be energised unless a supplier has been appointed. The supplier is also responsible for arranging for the meters to be installed. We strongly recommend that you appoint a supplier as soon as you accept the Connection Offer in order to avoid any delays during the final stages. If required, we would be willing to provide guidance and assistance with the appointment of an energy supplier.

# 11. Design Fee Schedule and Pricing Methodology

## 11.1 Indicative charges

The following table sets out a range of indicative charges for typical activities associated with the provision of new connections. This includes activities such as Network Assessment (when connecting to an existing LOE network), connection design, obtaining wayleaves and non-contestable charges.

The examples of typical connections in this section are intended to be indicative only and you should bear in mind that the actual cost will depend on specific details of the scheme. You should assume that all civil works including ducts, meter cabinets or boards and substation building are your responsibility, unless otherwise stated and so are not covered within these figures.

<b>Table A of Indicative Charges</b>		
<b>Work Item</b>	<b>Description</b>	<b>Indicative Cost</b>
1. Ground Mounted 11kV substation up to 1MVA	Comprises 11kV Ring Main Unit, transformer up to 1000kVA and low voltage take off cabinet with up to 6 fuse-ways within a housing.	£40,000 per substation
2. 11kV connection at a host primary substation	Comprises 1 x additional 11kV circuit breaker at a remote 11kV primary substation (networks will normally require 2 connections)	£30,000 per connection
3. Installation of HV underground cables (11kV)	Including excavation, cable laying, backfilling, reinstatement and traffic management; In unmade ground In footpath In normal road In city centre road	£125 per metre £150 per metre £180 per metre £200 per metre
4. Installation of LV underground cables	Including excavation, cable laying, backfilling, reinstatement and traffic management; In unmade ground In footpath In normal road In city centre road	£50 per metre £90 per metre £100 per metre £180 per metre
5. HV joint	11kV High voltage joint including excavation of a joint hole, backfilling and reinstatement	£1000 per joint
6. LV joint	Low voltage joint including excavation of a joint hole, backfilling and reinstatement	£650 per joint

<b>Table A of Indicative Charges</b>		
<b>Work Item</b>	<b>Description</b>	<b>Indicative Cost</b>
7 Single-phase 100 amp service	Including 100 amp fusible cut-out, up to 40 metres of service cable on customer's premises in trench or duct provided by others, connection to LV main cable including excavation for joint in public footpath, jointing, permanent reinstatement and liaison with highway authority.	£1000 per service
8 Three-phase 300 amp service	Including 300 amp fusible cut-out, metering current transformer chamber, up to 10 metres of service cable on customer's premises in trench or duct provided by others, connection to LV main cable including excavation for joint in public footpath, jointing, permanent reinstatement and liaison with highway authority.	£2500 per service

## 11.2 Factors influencing costs

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

- the length of cable required from the point of connection to the existing network;
- standards and policies governing our system design;
- whether any extension or Reinforcement of the existing system is by underground cable or overhead line;
- the size of your demand in relation to available capacity of the existing system, including the age of the assets and the condition of the existing system;
- the type of ground requiring excavation; the type and extent of reinstatement necessary (including New Roads and Street Works Act requirements);
- the need for road crossings;
- the availability of wayleaves / easement for cables (or lines) including consents;
- the availability of suitable substations sites including any necessary consents; and
- the necessity for overtime working or restricted hours working.

## 11.3 Items included in costs

The provision and installation of all electrical lines, electrical plant and equipment required to make a connection will be included in cost quoted. By way of example this will generally include our providing, the equipment, labour,

materials, installation and transport, plus all other overheads including the cost of design and specification of the connection scheme requirements.

#### **11.4 Complex and Complicated High Voltage (HV) Connections**

Complex and Complicated HV connections are designed on a project-specific basis and are often customised. To allow us to provide a cost effective and realistic offer we would welcome close dialogue with you from early in the development phase to jointly develop an appropriate scheme. If the scheme needs significant development, including a number of options or design iterations, ongoing design costs would be covered under a design and assessment Memorandum of Understanding, where our actual costs are recovered up to an agreed maximum ceiling. A draft Memorandum of Understanding is available on request.

Where your requirements for a connection are well defined it is unlikely we would need to enter into such a Memorandum of Understanding to provide you with a connection offer.

#### **11.5 Design work for budget estimates**

In general, design work for budget estimates is free of charge for the first connection option you request for each scheme, and are chargeable at full cost for subsequent connection quotes for the same scheme. Please refer to the Table B below for the appropriate indicative charges.

#### **11.6 Design work for formal connection offers**

In general, we levy a design and assessment charge for the production of all Connection Offers; however should you accept our offer this charge is refunded against our connection charge. The design and assessment charge will consist of costs applied by the HDNO to investigate the non-contestable works associated with their network and our costs associated with designing the connection, cable routes, substations etc. Please refer to the Table B below for the appropriate indicative charges.

#### **11.7 Significant design studies**

Where network studies are significant either for ourselves or the host network operator, including for speculative projects, multiple sites, multiple technical options, adverse load characteristics and generators, we may require charges to be paid for each option and in advance. Alternatively, ongoing design costs may be covered under a design and assessment Memorandum of Understanding as described in 11.5 above

#### **11.8 Redesign**

This will be applicable where it is necessary to recalculate conductor sizes or amend cable routes, substation positions, and change upstream designs from the Host Distribution Network Operator or connection proposals. The second and each subsequent option you request for the same site may result in additional charges to cover any additional design work that we need to carry out as a result of the change.

## 11.9 Indicative charges

Table B and C, below, provide indicative charges for Network Assessment (when connecting to an existing LOE network), connection design fees; obtaining necessary wayleaves, easements and consents excluding any compensation and third party costs; and inspection costs where LOE are adopting Contestable Works installed by and Approved Contractor.

**Table B – Indicative charges for network assessment and design fees**

Activity	Illustrative Charges
Housing (LV Connection for below 100 units)	£1000
Housing (LV Connection for 101 to 400 units)	£1500
Housing (HV Connection for 100 to 800 units)	£2500
Housing (HV Connection for 801 to 1500 units)	£3500
Housing (HV Connection for more than 1500 units)	Individually Assessed/MOU
Commercial/Industrial (HV Connections up to 3MVA)	£3500
Housing, Commercial/Industrial (over 3MVA) or mixed use	Individually Assessed / MOU
Adoption Only Networks – Point of Connection assessment	At the HDNO Rate
Adoption Only networks – Design Approval	Individually assessed

**Table C – Indicative charges for obtaining individual wayleaves, easements and consents, and inspection charges**

Please note that these charges do not include compensation payments or other third party costs.

Activity	Illustrative Charges
Housing (Urban)	£1250
Housing (Rural)	£1250
Commercial/Industrial (customer-owned substation)	£1500
Commercial/Industrial (HV Connection)	£2000
Inspection of 11kV / 400V single substation	£500
Domestic or LV commercial connection up to 70 kVA	£10 per connection
HV connection or LV commercial connection above 70 kVA	£100 per connection

## 11.10 Additional design, assessment and / or investigation charges

There are design issues that may cause an increase in the above indicative charges which will be charged at actual cost. Examples include:

- Wayleaves;
- CDM Regulations;
- Environmental issues;
- Remote connections;
- Other significant planning issues; and
- Listed buildings.
- HDNO costs associated with their non-contestable works
- Consultation with planners

## **12. Connections for Generation**

Where the party seeking connection has installed or intends to install on-site generation capacity and seeks connection to the Distribution System the principles for determining the Connection Charge will be in accordance with this statement, based on the maximum import and / or export capacity required. Such persons should contact us to discuss the prevailing requirements of the Distribution Code and the Grid Code which relate to onsite generation.

### 13. Unmetered Supply Connections

For some street lighting and other installation we may allow items of equipment to be connected to our Distribution System without a meter. This is subject to the equipment having a low and predictable pattern of consumption and the owner maintaining an auditable inventory so that an accurate estimate of consumption can be produced and the arrangement meeting the requirement of The Electricity (Unmetered Supply) Regulations 2001.

According to The Electricity (Unmetered Supply) Regulations 2001, an unmetered supply may be given where:

- the electrical load is of a predictable nature, and
- either
  - the electrical load is less than 500W, or
  - it is not practical for a supply of electricity to be given through an appropriate meter at the premises due to:

- The anticipated metering costs in the particular case being significantly higher than the usual metering costs associated with that size of electrical load;

- Technical difficulties associated with providing such a meter in the particular case, or

- Operation of law so as to prohibit or make excessively difficult the provision of such a meter in the particular case.

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

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



## 14. Temporary Connections

We treat as temporary a connection to our Distribution System which is required for a period of five years or less. Where we are asked to provide a Temporary Connection, we will charge the full cost for the work to be done and the assets to be installed for the purpose of making the connection.

Where the connection is provided using LV assets only, then the full costs of the work to be carried out and of the assets provided for the purposes of making the connection together with the final disconnection costs will be charged in advance. Where the connection includes use of HV or EHV assets, our charges will be made separately for connection and final disconnection.

In all cases the costs of any Reinforcement works will be charge in full. It is our normal policy to refund a portion of the connection charge in respect of assets used for the connection provided these can be recovered in a cost effective manner by us at the termination of the connection.

## 15. De-energisation and Disconnection

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

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

If we do have to de-energise your connection at your electricity supplier's request or at your request or due to your failure to comply with the terms of your Connection Agreement or due to a failure by your supplier of electricity to comply with the terms of its Use of System Agreement (known as DCUSA post 5<sup>th</sup> October 2006), the de-energisation and any subsequent re-energisation will be at your expense.

If it is necessary to disconnect you (that is, to remove our assets from the Premises) for any reason, any element of the Connection Charge not yet paid will become due immediately.

Normally, service termination equipment will be removed within 28 days, but a long notice period will be required to remove high voltage substation plant. In the case of the EHV supplies, we should be consulted at an early stage and a programme for the removal of the equipment will be subject to individual assessment.

On termination of the Connection Agreement, we retain the right to remove our assets and charge you if we do so. Apparatus which it is not cost effective to recover (e.g. electric lines laid underground) will normally be made safe and left at the premises but you require us to remove them, the cost of removal will be payable by you. All such apparatus equipment will remain our property until otherwise agreed in writing by us.

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

## **16. Speculative Schemes**

A speculative project is where the end user of the connection is unknown at the time our Connection Offer is made. An infrastructure only project is where advanced infrastructure is to be provided in order to facilitate connections to be made at a later date. In both of these cases it will not be possible for an end user customer to enter into a Connection Agreement when our Connection Offer is made.

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

We may also require the applicant to enter into an Infrastructure Agreement for the project.

## **17. Standard of Security for a Supply of Electricity**

LOE is required by the Act to develop and maintain an efficient, co-ordinated and economical Distribution System. It is also required by the Licence to meet supply of electricity quality standards.

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

## 18. Contacts

For all new connections work where you wish us to carry out all the work or wish to undertake the contestable element please contact;

The Connections Centre  
Laing O'Rourke Energy,  
Barford Road  
Little Barford  
St Neots PE19 6WB

Phone: 01480402640  
Fax: 01480 402572  
Email: [assets@laingorourkeenergy.com](mailto:assets@laingorourkeenergy.com)

If you are not satisfied with the service that you receive, please refer the matter in the first place to the person named on the quotation letter.

If they are unable to resolve the problem to your satisfaction, please refer the matter to our Customer Services Section on the following number:

Laing O'Rourke Energy Customer Services – Tel: 01480 402640

We will do our best to resolve any complaint that you make as soon as possible. Either you or ourselves may within a reasonable time of you making your complaint refer the matter in dispute between us to energywatch (formerly the Gas and Electricity Consumers Council), who will attempt to resolve the dispute. energywatch can be contacted at:

Phone: 08459 06 07 08  
Fax: 02076 54 94 99  
Email: [enquiries@energywatch.org.uk](mailto:enquiries@energywatch.org.uk)  
Post: energywatch  
Artillery House  
Artillery Row  
London  
SW1P 1RT

If energywatch is unable to resolve the dispute then either party may request a determination of the matter by the Gas and Electricity Markets Authority (Ofgem), whose details are:

Phone: 020 7901 7000  
Fax: 020 7901 7066  
Website: [www.ofgem.gov.uk](http://www.ofgem.gov.uk)  
Post The Office of Gas and Electricity Markets (Ofgem)  
9 Millbank  
London  
SW1P 3GE

## 19. Frequently Asked Questions and Answers

It is not everyday that you need the services of a company like Laing O'Rourke Energy Ltd, so this information sheet helps to explain what we do.

**Q. How can I get a 'budget' cost?**

A. Simply send us a request for an indicative or budget estimate. Please complete the Budget Estimate Application Form, available on request.

**Q. How can LOE produce a budget estimate without visiting the site?**

A. We use cable records obtained from the Host Distribution Network Operator and the information you provide to produce a budgetary price quickly in order to give you an early idea of the cost.

**Q. How long does it take to get a budget cost?**

A. We will provide a budget estimate in a short a period as possible. We would expect to be able to provide a budget quote within 20 days.

**Q. I've got a budget quote and want to proceed, or I want to go straight to getting a formal connection offer. What information do I need to send in?**

A. To provide a quote for the installation of new or increased supplies, we will require a site location plan, a drawing of your proposals, showing site boundaries and the existing road layout, a completed connection application form, available on request, including with the electricity supply in kVA required for each unit, and the development timescales.

**Q. Why do I need to send plans?**

A. To offer you an accurate quotation we need to know the exact location of the development to be connected. We can then determine whether there is any constraints on our installation, how and where to connect to the electricity distribution network etc.

**Q. How do I know what electricity supply I will need?**

A. You will need to contact your consultants who should be able to advise you of your requirements (i.e. appliance requirements, starting method/current /power of machinery on any motors on site). LOE can only produce a design and estimate when you provide us with details on the loads that you think you'll have, as listed on the LOE Connection Application Form.

**Q. What happens to my application when I have returned it to you?**

A. The application will be processed and issued with a reference number. The project requirements will be investigated by a Design Engineer, who will consider the scheme necessary to give you the supply you have requested. The design will then be passed to an Estimator to complete the project file and send you the formal offer letter.

**Q. How long does it take to get a formal connection offer?**

A. We will provide a quotation in a short a period as possible. Sometimes we need to have discussions with the Host Distribution Network Operator about making alterations to their network in order to provide the supply requested, and these quotations can take up to three months, more in exceptional circumstances.

- Q. How long is my quotation valid?**
- A. The quotation for the section of the work that will be carried out by ourselves will be valid for 90 days from the date on the quote. In most circumstances we would be willing to re-validate our quotation upon request following a review. For the non contestable work that will be carried out by the Host Distribution Network Operator, we will state what the validation period is. In some circumstances this may be shorter than 90 days, and if exceeded we would need to obtain a reviewed quote from the HDNO before confirmation. The cost of our work and the HDNO non-contestable work will both be clearly itemised in our Connection Offer.
- Q. How do I accept my formal offer?**
- A. At the end of your formal offer letter there will be some acceptance documents to complete and return with your cheque for the required amount. You can be invoiced for the cost of the works, but please be aware that no work will commence on site until payment has been received. Where appropriate we will agree a payment schedule with yourselves, based on payment when key milestones are reached through the development and delivery period.
- Q. What happens after I have sent in my acceptance?**
- A. The acceptance and the project file will be processed by LOE who will obtain all necessary information in order for the project to be carried out. In the first instance our Programme Manager will contact you to commence site planning and programming.
- Q. How long does the process take?**
- A. The whole process from accepting our quotation to installation is project specific and will be reflected within the LOE connection offer. This can vary depending on size and complexity of the scheme and access requirements on third party land (where applicable).
- Q. Who will be doing the work?**
- A. We have Service Providers who carry out works on behalf of LOE. You will be notified of the Service Provider and their contact number when you accept the quotation and meet with our Programme Manager.
- Q. What legal land requirements may be involved?**
- A. We will need a legal land agreement with yourselves for access to our cables and substation equipment that are on your site. A draft land agreement is available on request for your information. Also if, for example, your new supply cables have to be laid along an access road / corridor from the public highway to your site that is not owned by yourself, legal agreements will have to be completed before work can start on site. If legal agreements are necessary, you will be asked to complete a form within your formal offer letter to inform us of the land owner's details and your solicitor's details. Any legal agreements required for the rest of the supply cable route to the point of connection onto the HDNO's distribution system will be dealt with by ourselves.
- Q. Who should I contact if I have a query regarding a project?**
- A. Before you have accepted the formal offer, your contact will be the Design Engineer or the Estimator who is dealing with your project. Their contact details will be on the quotation letter. Alternatively, you can call our Customer

Operations Manager on Tel. 01480 402640 to find out who is working on your file. After you have accepted the formal offer, the Programme Manager who has been allocated your project will contact you and will be able to assist you until the project is completed

**Q. How can I find location details for existing cables, etc?**

A. Record information of existing electrical infrastructure on site can be obtained from the Host Distribution Network Operator for the area in which your proposed development resides.

**Q. How do I arrange the disconnection of existing services?**

A. Contact your host/local distribution network operator directly. All works on existing distribution networks will be undertaken by the respective operator of those assets.



## 20. GLOSSARY

<b>Act</b>	The Electricity Act 1989 as amended from time to time.
<b>Adoption Agreement</b>	An agreement between you and us setting out the terms and conditions to allow the adoption of the works carried out by the Approved Contractor as part of our Distribution System.
<b>Approved Contractor</b>	A person who after independent assessment is Lloyds registered and now has been approved in the appropriate modules to install new assets to our Distribution System, which will subsequently be adopted as part of our Distribution System.
<b>Available Capacity</b>	The agreed maximum (import/export) capacity measured in kVA that the connectee may take from or put into the Distribution System.
<b>Civil Works</b>	All those works to allow for the extension of our Distribution System such as; trench work – excavating and backfilling together with reinstatement works, the erection of substation buildings and steel structures to house or support the Distribution System.
<b>Connection Agreement</b>	An agreement between you and us setting out terms and conditions with which we are bound concerning the provision and use of the connection.
<b>Connection Offer</b>	A formal offer issued by us for the provision of a new, increased or reduced connection to our Distribution System.
<b>Consents</b>	Permissions which we need in accordance with various statutes before we can build or modify an overhead line.
<b>Contestable Works</b>	Work that can be undertaken by an Approved Contractor.
<b>De-energisation</b>	The removal of supply for a Metering System such that the Metering System is considered to be temporarily “inactive” for the purposes of settlement. This definition applies irrespective of the method used to effect the de-energisation – e.g. removal of fuse at the connection point or other method.
<b>Disconnection</b>	Our action intended to permanently break the connection between the Distribution System and the connectee’s equipment, possibly including the removal of our equipment from the connectee’s premises.
<b>Disconnection Notice</b>	A notice sent by a Supplier to us requesting the permanent disconnection of the connection to a premise.
<b>Distribution Code</b>	The Distribution Code of the Distributors of England and Wales; the document produced by each Distributor in accordance with

Condition 11 of its Licence and approved by Ofgem to define the technical aspects and planning criteria of the working relationship between the Distributor and all those connected to its Distribution System.

<b>Distribution Licence</b>	Refers to the Electricity Distribution Licence issued pursuant to Section 6(1) (c) of the Act.
<b>Distribution System</b>	The whole of our interconnected distribution equipment, including such items as; cables, overhead lines and substations, which are operated in accordance with the Distribution Licence.
<b>Easement</b>	A perpetual right negotiated by and granted to us which allows us to install and maintain that equipment under or over private land, normally without restriction.
<b>Extra High Voltage or EHV</b>	A voltage level at or higher than 22kV.
<b>Gas and Electricity Markets Authority (GEMA) (the Authority)</b>	As established by the Utilities Act.
<b>High Voltage or HV</b>	A voltage between 1000 volts and 22,000 volts.
<b>kVA</b>	Kilo-volt amperes.
<b>Licence</b>	The Electricity Distribution Licence granted to Laing O'Rourke Energy Ltd pursuant to section 6(1) (c) of the Act.
<b>Low Voltage or LV</b>	230 volts plus 10% or minus 6% measured between the neutral conductor and any phase conductor, or 400 volts plus 10% or minus 6% measured between any two phase conductors.
<b>Metering System</b>	means a metering system registered in CMRS in accordance with the provisions of the Balancing and Settlement Code;
<b>Network Assessment</b>	Means an assessment of both the existing Distribution System and the effect of your proposals imposed on the Distribution system.
<b>Ofgem</b>	Ofgem is the Office of Gas and Electricity Markets, regulating gas and electricity industries in Great Britain. Ofgem operate under the governance of the Gas and Electricity Markets Authority (sometimes referred to as the Authority or GEMA) which sets all major decisions and policy priorities.
<b>Re-energisation</b>	The resumption of supply to a Metering System following a period of de-energisation, such that the Metering System is considered to be "active" for the purposes of settlement. This definition applies irrespective of the actual method used - e.g.

insertion of fuse at the connection point or other method

<b>Reinforcement</b>	Any alteration to our existing Distribution System designed to enable the Distribution System to distribute an increased amount of electricity.
<b>Substation</b>	A building or enclosure including the equipment within it, where electricity is controlled, converted or transformed at High Voltage or Extra High Voltage.
<b>Supplier</b>	An organisation with a Supply Licence which can register itself as supplying electricity to any metering point.
<b>Temporary Connection</b>	A connection to the Distribution System which is likely to have a finite life span.
<b>Wayleave</b>	A legal agreement which allows us to install our Distribution System over third party property. A Wayleave is for a limited duration only as opposed to a cable easement which is in perpetuity.