

# **STATEMENT OF METHODOLOGY AND CHARGES FOR CONNECTION TO ELECTRICITY NORTH WEST LIMITED'S ELECTRICITY DISTRIBUTION NETWORK**

This statement is effective from 1<sup>st</sup> August 2008

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

Dalton House,  
104 Dalton Avenue,  
Birchwood Park,  
Birchwood,  
Warrington.  
WA3 6YF.

Registered No. 2366949 (England)

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# Section 1 - General Introduction

## Who we are

- 1.1 Electricity North West Limited is the licensed electricity distribution business serving the North West part of England, from Buxton to Carlisle and from Blackpool to Settle. We distribute electricity to a range of customers comprising domestic, commercial and industrial, from a network of 14,000 km of overhead lines, 45,000 km of underground cabling and substations at various network levels. Electricity North West Limited's distribution licence is issued under the Electricity Act (1989)<sup>1</sup>. This statement is produced by Electricity North West Limited, referred to in this statement as 'Electricity North West', however, responsibility for the provision of our connections service will be undertaken through our agent United Utilities Electricity Services Limited, referred to in this statement as 'United Utilities Electricity Services' and where appropriate will be detailed as such throughout this document.

## Licence Obligations

- 1.2 This statement describes the Connection Charging Methodology under which parties will be charged for Connection to Electricity North West's electricity distribution network from 1<sup>st</sup> August 2008.
- 1.3 Electricity North West are obliged, under Licence Condition 4B, paragraph 1(a), of its Electricity Distribution Licence, to prepare a statement approved by the Authority setting out the methodology upon which charges will be made for connection to our electricity distribution network. We are also obliged to review our connection charging methodology annually in accordance with Licence Condition 4B, paragraph 2(a) and in order to comply with paragraph 2(b) make such modifications to the Connection Charging Methodology Statement that better achieve the 'relevant objectives'<sup>2</sup> as defined in paragraph 3 of Condition 4B.
- 1.4 Words and expressions used in this statement have (unless specifically defined herein) the definitions given to them in the Act or the Licence and shall be construed accordingly.
- 1.5 The Gas and Electricity Markets Authority (hereinafter referred to as the "Authority") has approved this statement. Future modifications will also be subject to approval by the Authority. This statement is available free, in pdf format, from the United Utilities website at [www.unitedutilities.com](http://www.unitedutilities.com). Alternatively a paper copy of this statement is available on request for a fee of £10 plus packing, postage and VAT.

## Purpose of this document

- 1.6 To provide a clear and understandable guide as to which parts of a connection must be undertaken by Electricity North West's agent United Utilities Electricity Services (known as "non-contestable works") and which areas may be undertaken by suitably approved third party installers (known as "contestable works").

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1 As amended by the Utilities Act 2000, the Sustainable Energy Act 2003 and the Energy Act 2004

2 See Glossary of terms for definition of 'relevant objectives'

- 1.7 To explain Electricity North West's charging methodology in order to provide an understanding of the estimated charges for works undertaken by United Utilities Electricity Services.
- 1.8 To give an overview of the process, information requirements and appropriate contact details.

## **Persons entitled to apply for connection**

- 1.9 Any person may apply for a connection to Electricity North West's distribution network.
- 1.10 A contractor who can provide written evidence of appointment may apply for a connection on behalf of the customer.

## **Non-contestable works**

1.11 Non-contestable works are works that must be undertaken by Electricity North West as a statutory licensed distributor. Charges for non-contestable works, levied by Electricity North West's agent United Utilities Electricity Services, will be the same regardless of which accredited installer undertakes the contestable work. This assumes that the contestable design is the same in all cases; however, any major variations in outline design proposals may have an impact on the level of non-contestable charges. Charges for non-contestable work will be shown separately in any quotation. However, details of the contestable design may be required in order for firm costs to be provided.

1.12 Non-contestable works comprise:

- processing the application and assessing the effects on the existing network;
- design, specification and carrying out of any work to reinforce our existing network (this means work to enable Electricity North West's distribution network to transport the additional amount of electricity, which you need);
- determining the point(s) of connection to Electricity North West's existing network;
- connection of the extension to Electricity North West's distribution network and the energisation of the new connection equipment;
- the removal or movement of Electricity North West's existing equipment (this excludes equipment which has been de-commissioned and signified by us as safe to remove. The method for removal of redundant equipment must be approved by Electricity North West in advance of any work being carried out. As a matter of safety, all equipment must be assumed to be live unless proven dead by a Electricity North West authorised engineer);
- approval of the design of the contestable works (the design specification, including materials to be used, being in accordance with Electricity North West's specifications);
- the negotiation and acquisition of all land rights (leases, easements and wayleave agreements etc.) and planning consents required for statutory connections and diversions of existing asset, with the exception of the works as defined within 1.16;
- operation, repair and maintenance of extension assets over and above the minimum design scheme;
- inspection, monitoring and testing of contestable work; and

- the use of compulsory powers of acquisition of any necessary wayleaves, easements and/or land rights in accordance with Schedules 3 and 4 of the Act.

## **Contestable works**

1.13 Contestable works are works, which may, if you wish, be carried out by any accredited installers. A list of contractors who may be able to undertake this work is available from the Lloyds website, as listed in Section 9.

In some specific circumstances, some works may be carried out by a third party other than an accredited installer (e.g. a landowner undertaking own trenching). These exclusions to the requirement to use accredited installers are detailed in section 3.

1.14 Contestable works comprise:

- the design for new or increased supplies from the distribution network (Electricity North West's agent United Utilities Electricity Services reserve the right to determine the circumstances under which connection design can be undertaken by approved parties);
- the negotiation and acquisition of all land rights (leases, easements, wayleave agreements etc.) and planning consents required for competitive connections;
- the procurement and provision of materials for the extension;
- trenching and other preparation of the site, including the circuit routes between your premises and the point of connection to Electricity North West's distribution network;
- construction of the extension (insofar as this involves the installation of new equipment);
- recording of work and location of cable routes and equipment on site and the provision of this information to Electricity North West's agent United Utilities Electricity Services;
- reinstatement (both temporary, if appropriate, and permanent) of the site, including the circuit routes; and
- making provision for the installation of metering equipment.
- construction of reinforcement and diversions associated with a new connection, in accordance with the guidance as provided within 1.16.

1.15 Where the Developer is responsible for obtaining Land Rights, the acquisition must be carried out by a qualified agent approved by Electricity North West's agent United Utilities Electricity Services. Land Rights must be obtained in accordance with Electricity North West's policies and standards. All legal documentation must be submitted to Electricity North West's agent United Utilities Electricity Services in such time as to allow the documents to be examined and approved prior to energisation of the new connection.

## **Reinforcement and Diversions**

1.16 Certain types of reinforcement and diversionary work may be carried out by suitably accredited installers for adoption by Electricity North West. The scope of such works is limited to reinforcement and diversionary works associated with a new connection which:

- are new works that are physically and electrically separate from existing Electricity North West infrastructure;
- do not require access to existing Electricity North West 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 33kV and HV/LV distribution substations.

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

The design of the majority of diversion projects associated with new connections is likely to be less complex than the design of reinforcement schemes. The design of diversionary works can be contestable for overhead lines and underground cables, not exceeding 33kV and for HV/LV distribution substations. The dismantlement and disposal of existing Electricity North West assets shall remain non-contestable, because it would require access to existing Electricity North West assets and/or areas.

## **Procedure for obtaining a connection**

1.17 The procedure will largely depend on:

- (i) whether you choose to request a statutory connection whereby Electricity North West's agent United Utilities Electricity Services is responsible for all aspects of the work i.e. both non-contestable and contestable activities, or
- (ii) if you elect for a competitive connection, in which case the contestable work is undertaken by an accredited installer.

1.18 The process for obtaining a connection is set out in Section 2, together with the details we need from you or your contractor.

The basic steps can be summed up as follows:

1. Determine if you require a statutory or competitive connection
  - 1.1 Appoint Electricity North West's agent United Utilities Electricity Services to carry out all work or
  - 1.2 Appoint an accredited installer
2. Complete a statutory new connection application form and submit to the appropriate office listed in Section 9; or,  
Complete a competitive new connection form to obtain a Point of Connection (POC) and submit to the appropriate office listed in Section 9.
3. Electricity North West's agent United Utilities Electricity Services will advise you of any charges to be levied with regard to your application.
  - 3.1 For a statutory request these charges may include costs for designing the contestable element of the connection as well as the non-contestable.
  - 3.2 In addition, in the case of large developments or generation enquiries where a number of meetings may be necessary in advance of an application for a POC, Electricity North West's agent United Utilities Electricity Services may charge for the time spent in attending such meetings. No charges will be made for the initial meeting.

4. If you have elected for a statutory connection then all design work will be carried out by Electricity North West's agent United Utilities Electricity Services. On completion of the design you will be sent a letter detailing the charge for construction of the new network extension and the terms by which the connection is to be made.
5. If you have chosen a competitive connection you or your accredited installer should channel all enquiries through to the United Utilities Electricity Services Connections Liaison office at Oakland House, Manchester, as listed in Section 9.
  - 5.1 Your accredited installer will need to submit all design information for approval, **prior to any work being undertaken on site.**
  - 5.2 A list of your accredited installer's responsibilities is outlined in Section 4.

## Section 2 - Essential information

### Your initial request

- 2.1 If you need a new, increased or reduced connection to our distribution network, you should apply to the appropriate United Utilities Electricity Services office, as detailed in Section 9. Which office is the appropriate one will depend on the nature of your request.

### Demand Connections

- 2.2 **If you need a new connection and wish to nominate Electricity North West's agent United Utilities Electricity Services** as being solely responsible for both the non-contestable and contestable elements of the new connection (this is known as a statutory connection) you should apply to the following:

- For low voltage or high voltage connections (below 7 MVA) you should apply to, United Utilities Electricity Services, at the appropriate office listed in Section 9.
- For loads in excess of 7 MVA you should make an application to United Utilities Electricity Services' Connections Liaison office at Hathersage Road, Manchester, as listed in Section 9.

- 2.3 **If you need a new connection and elect to appoint an accredited installer** to carry out the contestable work, the installer can apply on your behalf for a Point Of Connection (POC). However, the installer will need a letter of authority from you. A list of accredited installers permitted to carry out contestable activities can be obtained from the Lloyds website, as listed in Section 9.

Whether you elect for a statutory connection or a competitive connection it will be necessary for you or your contractor to complete a Point of Connection (POC) request form. There are two main forms: a 'POC Request Housing' for domestic developments and a 'POC Request Industrial/Commercial' for any other types of development.

- 2.4 **If you wish to make changes to an existing connection** then you should apply to the appropriate office as listed in Section 9 depending on your location and the maximum power required. Work falling into this category includes additional loads/capacity, reductions in loads/capacity, service alterations, terminations and disconnections.
- 2.5 **If you need a connection at Extra High Voltage (EHV) or with a greater security of supply** than we would normally provide, you should apply to United Utilities Electricity Services' Connections Liaison office at Hathersage Road, Manchester, as listed in Section 9. Please note that if you need this type of connection then the terms described in this statement are not a reliable guide to the charges that will apply.

### Generation Connections

- 2.6 If you need a connection for generating electricity then you should apply to United Utilities Electricity Services' Terms and Conditions Manager at the address listed in Section 9.
- 2.7 There is increasing interest in the connection of small generation units to our low voltage distribution network. A small generation unit is a machine capable of exporting up to 16

amp per phase; which encompasses the range of domestic combined heat and power unit, domestic photovoltaic and domestic wind turbines currently available. If you intend to install such equipment the generator and the installation must comply with Engineering Recommendation G83/1 (see section 9 for further information on access to ER G83/1).

2.8 You will need to provide a complete set of data to enable Electricity North West's agent United Utilities Electricity Services to assess your request, and provide a quotation or point of connection. This will include, but not be limited to:

- Equipment terminal voltage;
- Rated kVA;
- Maximum Active Power sent out;
- Reactive power needed;
- Fault level contribution;
- Net import and export requirements;
- Number of machines;
- Type of plant, technical specifications and type of primary energy;
- Schematic diagram;
- Operating regime;
- Technical specification of the protection and fault clearing times; and
- Technical specifications of the control and communications equipment to be used in normal and emergency conditions.

2.9 You should also read the generation connection principles set out in section 4, which we use to determine the charge for this type of connection.

2.10 If your generator is to be connected at the same voltage level as the infeed to Electricity North West's distribution network from National Grid Electricity Transmission's network (generally 132 kV but 33 kV in some localities<sup>3</sup>) or is in our opinion likely to be material in terms of the CUSC (ie relevant small), we are required to confirm or otherwise with National Grid Electricity Transmission that there are no associated changes necessary to their network to accommodate the generation. This is described more fully in Section 5.15.

2.11 Electricity North West's agent United Utilities Electricity Services will make a Connection Offer in respect of an application for connection no later than 90 days<sup>4</sup> after the Application Date, except in cases where the Authority has agreed with Electricity North West for a longer period to apply.

## Diversions

2.12 **If you need a diversionary works of our existing network, which are classified as contestable within 1.16** then you should apply to the United Utilities Electricity Services office as listed under 9.2. For all other diversions you should apply to the United Utilities Electricity Services office as listed under 9.4.

3 ie Kearsley and Macclesfield

4 This offer will be an unconditional offer in respect of works identified by Electricity North West's agent United Utilities Electricity Services to provide connection to Electricity North West's distribution system. However the offer will be conditional in respect of any works identified by National Grid Electricity Transmission to facilitate the connection. This work may be reinforcements to the transmission system or required site specific connection work.

2.13 Standard forms are available to help you provide the necessary information. This information enables Electricity North West's agent United Utilities Electricity Services to assess your request and provide a quotation or point of connection. The correct form to be completed will be provided on receipt of your initial request made to any of the offices listed in Section 9.

## **The minimum information needed by Electricity North West's agent United Utilities Electricity Services**

2.14 In order for Electricity North West's agent United Utilities Electricity to assess your request and provide a quotation or point of connection they will need information to enable them to do this. The information they will need is:

- Applicant's details, name and address, contact name and number
- Site details (including ground conditions), location, full address, grid reference if possible, and most importantly a geographical plan of where the site is. (possibly a "marked up" page from an A-Z)
- A scaled plan of the proposed development preferably scaled at 1:500
- Details of the person who will accept responsibility for any terms
- Details of any temporary supplies that may be needed
- Details of any street lighting schemes which may be involved
- If a domestic point of connection:
  - Total number of dwellings
  - Total number of types of dwellings
  - Details with regard to other utilities, such as gas on site
  - Information on the type of heating/hot water systems i.e. gas, electric on and off peak loads
- If a commercial or industrial point of connection:
  - The electrical loadings of the equipment to be installed
  - The electrical loadings and details of any electrical motors (including air conditioning and chillers)
  - Details of harmonic loading of equipment
  - Type and method of starting of electrical motors
  - If any motor starts more than once in any two hour period, the details of the sizes and frequency of starting
  - Details of any welders or welding equipment, including ratings and total welding load.

2.15 Whether the connection is domestic, commercial or industrial it is essential that a total load requirement be provided.

## **What to expect from a quotation**

2.16 You as the customer should provide as much information as possible on your requirements and Electricity North West's agent United Utilities Electricity Services will base its design/quotation on the information provided by you including loads, ground conditions etc.

2.17 Electricity North West's agent United Utilities Electricity Services will discuss your requirements with you. However, in accordance with Section 16 of the Act, it is your

responsibility to determine the maximum power of electricity needed to be conveyed through the connection.

### **Non contestable quotation**

2.18 Non-contestable quotations will be provided for the type of work outlined in Section 4. The estimated time that the works will start from receipt of acceptance will depend on the envisaged programme for the contestable works and the proposed date for energisation of the new connection. The timing of non-contestable works involving network outages, which may jeopardize supplies to existing customers, e.g. perhaps because of excessive winter loads on remaining circuits, will be subject to agreement with Electricity North West's agent United Utilities Electricity Services.

### **Contestable quotation**

2.19 Contestable quotations will be provided by Electricity North West's agent United Utilities Electricity Services to those requesting a statutory quotation (i.e. for the whole job). The works will cover those outlined in Section 4. The estimated time to carry out such works will depend on the complexity of the connection design, volume of work, the acquisition of legal consents and limitations placed on Electricity North West's agent United Utilities Electricity Services by local authorities for work in the highway. Generally Electricity North West's agent United Utilities Electricity Services will endeavour to meet realistic energisation dates, subject to restrictions caused by operating conditions of the existing electricity network, or the influence of outside organisation(s) and/or individual landowners.

2.20 The contestable and non-contestable elements will be shown separately.

### **Reinforcement of existing distribution network**

2.21 Electricity North West's policy is to charge for the necessary reinforcement of its existing network (i.e. work on its existing network needed in order for it to deliver the additional amount of electricity, which you require). Please refer to section 6 for a detailed explanation of the charging methodology.

2.22 In the case of multiple applications for spare capacity, priority will be given to those received first. Multiple applications for spare capacity received prior to the issuing by Electricity North West's agent United Utilities Electricity Services of any firm quotation for a connection will have their load requirements aggregated. Reinforcement costs will then be allocated on a pro rata basis.

### **Interactive Connection Applications**

2.23 The principles for managing two or more "Interactive Connection Applications" will be in accordance with the information as provided below.

#### **Definitions**

1. **"Application Date"** is, in respect of each applicant who makes a request for connection, the date and time at which Electricity North West's agent United Utilities Electricity Services receives the complete set of data which we deem is necessary to progress the connection application and (where applicable) we receive the payment for the associated study work.

2. **“Committed Network”** means assets that are not yet installed and commissioned on the electricity distribution network owned by Electricity North West and operated by Electricity North West’s agent United Utilities Electricity Services, but which are planned to be so as a result of other Connection Offers which have been made by it and accepted by the applicant for connection and where the applicant for connection has paid any applicable charges.
3. **“Connection Offer”** is an offer from Electricity North West’s agent United Utilities Electricity Services to an applicant who has requested connection to the electricity distribution network owned by Electricity North West and operated by Electricity North West’s agent United Utilities Electricity Services.
4. **“Existing Network”** means Electricity North West’s currently installed and commissioned electricity distribution network.
5. **“First Applicant”** is the applicant, within a group of applicants from whom we have received Interactive Connection Applications, with the earliest Application Date.
6. **“Interactive Connection Applications”** arise where Electricity North West’s agent United Utilities Electricity Services receives two or more applications for connection which make use of the same part of the Existing Network or Committed Network or otherwise have a material operational effect on that network such that there is or would be a material impact on the terms and conditions of any Connection Offer made in respect of such connections.
7. **“Interactive Connection Offers”** are Connection Offers made in respect of Interactive Connection Applications.
8. **“Offer Date”** is the date and time on which Electricity North West’s agent United Utilities Electricity Services sends the Connection Offer to the applicant.

### **Parties Applicable**

All parties who connect to Electricity North West’s distribution network may be classed as being interactive, but applications to connect load or Export Generation of 1 MVA and above to our HV and EHV networks will be applicable in all instances. In any event, Electricity North West’s agent United Utilities Electricity Services will endeavour to contact/inform any applicant who it deems to be applicable.

### **Connection Offers**

Electricity North West’s agent United Utilities Electricity Services will make a Connection Offer to any applicant in accordance with the criteria as provided within 2.11 of this document, except where the Authority has agreed to a longer period <sup>5</sup>.

The Application Date shall signify the start time of the formal application for connection process and therefore define the ranking of the applicants.

5. This time period maybe extended if United Utilities is required to seek confirmation from NGET on whether works are necessary on the transmission network to facilitate the connection (refer to section 5.15 for further details).

Should Electricity North West's agent United Utilities Electricity Services receive one or more Interactive Connection Applications within this period, which provide for Interactive Connection Offers, it shall inform all applicants in writing that their applications are interactive. Any Interactive Connection Offer shall also specify the interactivity ranking with other applications.

Once the First Applicant's Connection Offer is deemed interactive by Electricity North West's agent United Utilities Electricity Services, they have 30 days from the date of notification (this may be the offer date) or the remainder of their existing offer period, whichever is less, in which to accept the offer by signing it and returning it to us. United Utilities Electricity Services may make Interactive Connection Offers to subsequent applicants during this period, but the First Applicant's offer shall always have priority over any other Interactive Connection Offer(s) it makes. The Interactive Connection Offers to subsequent applicants shall indicate that their offer shall be conditional on the response of the First Applicant and of any applicants holding Interactive Connection Offers ranking before theirs.

Should the First Applicant choose to accept their Connection Offer, all associated Interactive Connection Offers shall become invalid. At that point, Electricity North West's agent United Utilities Electricity Services will write to all parties who have Interactive Connection Offers and inform them that these are now invalid. Those customer(s) can advise United Utilities Electricity Services that they wish their original application to continue to be considered, which entitles them to remain in the same existing order for a new [Interactive] Connection Offer, or they can withdraw their application. If a customer wishes their original application to be considered, United Utilities Electricity Services will issue them with a new [Interactive] Connection Offer, in accordance with Electricity North West's Licence Condition obligations.

Should the First Applicant choose not to accept their Connection Offer from Electricity North West's agent United Utilities Electricity Services, or fails to accept it within the validity period, the next highest ranked Interactive Connection Application shall move into First Applicant status. The Interactive Connection Offer as provided to that party is now unconditional and shall remain valid, as all Interactive Connection Offers are based on our knowledge of Existing Network or Committed Network. United Utilities Electricity Services shall inform all other applicants with Interactive Connection Applications of this revised position and of the revised status of their Interactive Connection Application/Interactive Connection Offer.

Electricity North West's agent United Utilities Electricity Services shall not process any acceptance of Interactive Connection Offers from any applicant other than the First Applicant while the First Applicant's Connection Offer is still valid and has not been formally accepted or declined.

### **Connection Offer Validity**

All Connection Offers which are known to be interactive at the Offer Date will be valid for 30 days.

If a Connection Offer becomes interactive after the Offer Date it will be valid for the lesser of the remainder of the original validity period or 30 days from notification of interactivity.

## **The difference between a budget quotation and firm quotation**

### **Budget quotations**

2.24 Budget quotations are provided in order to give an indication of the costs for providing a connection. They are not open for acceptance by the recipient but enable you to assess the charges that might be applicable. Electricity North West's agent United Utilities Electricity Services can often calculate a budget quotation by carrying out a simple desktop exercise, using benchmark costings. As such any charges we make for calculating the budget quotation are lower than those we would apply for calculating a firm quotation. Generally budget costs are only requested for large capital schemes, thus giving you the opportunity to consider the financial practicability of your connection project before engaging in further expenditure. A budget quotation will detail the assumptions that have been made in order to arrive at the figure(s) being quoted.

### **Firm quotations**

2.25 In order to arrive at a firm quotation Electricity North West's agent United Utilities Electricity Services will need to carry out detailed design work. In addition they may need to engage in site surveys, route proving exercises and the production of tender documents etc although in the main such activities will only apply to large commercial and industrial projects.

### **Quotation validity and terms**

2.26 Budget quotations are not open for acceptance.

2.27 Firm quotations are issued by Electricity North West's agent United Utilities Electricity Services for acceptance by you subject to the terms and conditions under which they will have been quoted, including the scope of work covered by the estimate. They will be open for acceptance within a ninety day period from the date of issue.

### **Payment policy**

2.28 In most circumstances, Electricity North West's agent United Utilities Electricity Services would expect all payments to be made in advance of any orders placed for equipment or works to be carried out on site. However, projects involving large amounts of capital expenditure, which might be phased over a period of time, may have their payments staged over the life of the project, subject to individual negotiation.

### **Adoption process**

2.29 A transfer payment for the completion of the adoption of the contestable assets may be included in the terms of our connection offer. This payment will be a nominal value to facilitate the ownership transfer of the assets. Its value will reflect the voltage of connection and actual equipment constructed.

## What to expect after you accept the quotation

### Statutory Connection

2.30 Any quotation for a statutory connection will be conditional on Electricity North West's agent United Utilities Electricity Services obtaining all Land Rights necessary for Electric Lines and Electric Plant. Before Electricity North West's agent United Utilities Electricity Services will begin its construction works, it will require as the case may be:

- The transfer of the freehold or alternatively the grant of long leasehold of any substation site on which is to be sited Electrical Plant that is comprised in the connection. These Land Rights shall be obtained by Electricity North West's agent United Utilities Electricity Services from the Developer in all instances.
- The grant of a permanent easement (deed of grant) for any Electric Line that is comprised in the connection. These Land Rights shall be obtained by Electricity North West's agent United Utilities Electricity Services from the Developer or any third party landowner as the case may be in all instances.

A deed of grant will be necessary for any Electric Line which is to be installed in, on or over any part of the Developers land which will not form part of an adopted or prospectively adopted highway. Where Electric Lines that are comprised in the connection are installed on private land outside of the perimeter of the development site it will be necessary to acquire a deed of grant from the third party landowner(s). In some cases Electricity North West's agent United Utilities Electricity Services will acquire a wayleave from the third party landowner(s).

Whether Electricity North West obtains a freehold transfer, a lease, an easement or a wayleave, these are all legal agreements that will be between Electricity North West, the Developer, a third party landowner and any occupier where applicable.

### Competitive Connection

2.31 Before Electricity North West's agent United Utilities Electricity Services will energise the connection of the Contestable works to Electricity North West's existing network, it will require all Land Rights to have been obtained.

Electricity North West's agent United Utilities Electricity Services may assist the Developer, where appropriate, in the acquisition of Land Rights from third party landowners.

For Electricity North West's post adoption security requirements, Electricity North West's agent United Utilities Electricity Services will acquire from the Developer all necessary Land Rights for any Electric Lines or Electrical Plant comprised in the connection within the development site. The Developer will be responsible for the acquisition of Land Rights needed from third party landowners outside the development. Electricity North West will be a party to such agreements with third party landowners for the purpose of its post adoption security but will not negotiate directly with third party landowners in respect of Land Rights. The Agreement to Adopt will inform Developers of this requirement.

## **General**

2.32 In instances where Land Rights cannot be obtained by negotiation; Electricity North West may exercise its powers of compulsory purchase under the Electricity Act 1989 or apply under the Act to the Secretary of State for a 'Necessary Wayleave'. If Electricity North West need to exercise its compulsory powers, it will be necessary to treat the whole of the connection as a statutory scheme, if that is not already the case.

## **Connection agreements**

2.33 You may also need to enter into a connection agreement with Electricity North West, setting down the specific terms, which will apply to the connection and its use.

2.34 While these terms and conditions will be consistent with this statement, the agreement will take precedence. Electricity North West's agent United Utilities Electricity Services may issue a connection agreement to you after the quotation has been accepted.

The connection agreement will include details covering:

- The right to a connection and supply, and obligations of both parties for the continuance of the connection;
- Limitation of demand and consequences of exceeding the agreed capacity;
- Termination of the connection and the consequences of this action;
- Temporary de-energisation;
- De-energisation;
- Metering – compliance with Elexon Codes of Practice and the obligations of the supplier;
- Our equipment and its accommodation on site;
- Your installation and its compliance with the relevant regulations;
- Liability of both parties for physical damage, loss etc; and
- Notices, point of contact information.

## **Provision of information to nominate a supplier**

2.35 Electricity North West will be responsible for raising an MPAN (Meter Point Administration Number) for your connection. In order to enable Electricity North West's agent United Utilities Electricity Services to carry out this activity you must supply the full postal address and postcode of each building or plot that is to have a metered connection. In order to obtain an electricity supply you will need to appoint an electricity supplier. The MPAN issued to you or your nominated agent will be required by your electricity supplier. The supplier will then register with Electricity North West as your appointed supplier. Failure to appoint a supplier will prevent energisation of each individual connection where the MPAN has not been registered.

## **Section 3 - Work that must be carried out by Electricity North West's agent United Utilities Electricity Services**

### **Obtaining a Point Of Connection (POC)**

- 3.1 If you need a Point of Connection (POC) to our distribution network, you should apply to the appropriate United Utilities Electricity Services office as listed in Section 9. Standard forms are available to help you provide the necessary information.
- 3.2 Electricity North West's agent United Utilities Electricity Services will accept applications from developers or accredited installers, who can provide written evidence of their appointment to act on your behalf. You will need to provide the installer with a letter of authority stating that they can act on your behalf.
- 3.3 If you need a current list of accredited installers this can be found on the Lloyds website as listed in section 9.
- 3.4 Electricity North West's agent United Utilities Electricity Services will charge a Point of Connection fee, as listed under Table 11 on page 54. This fee is payable following acceptance of the point of connection and subsequent design validation.

### **Non-contestable works**

- 3.5 The following list identifies the type of work that Electricity North West's agent United Utilities Electricity Services will have sole responsibility for i.e. all non-contestable work. The charges payable by you for the costs incurred by Electricity North West will reflect the following activities that we may need to carry out in order to afford you a connection to the network:
  - load studies and determination of a point of connection;
  - system studies, load flows, fault level analysis etc associated with generation enquiries;
  - design and specification of the non-contestable elements of the work;
  - provision of budget and firm quotations;
  - cost of equipment and time spent in preparing tenders for this equipment;
  - compulsory acquisition of legal consents;
  - non-contestable construction work;
  - diversion of existing equipment (except those works as defined under 1.16);
  - reinforcement of existing assets (except those works as defined under 1.16) ;
  - design approval and inspection and monitoring of contestable work carried out by your appointed contractor;
  - operation and maintenance (O&M) of the new network extension assets installed over and above the minimum design scheme, once it is energised and in service;
  - the acquisition of land rights and consents for statutory connections; and
  - operational activities.

## **Levels of service to be expected from Electricity North West's agent United Utilities Electricity Services**

3.6 Electricity North West's agent United Utilities Electricity Services will respond as soon as practicable, specifying the proposed point of connection to Electricity North West's existing distribution network for competitive connection enquiries and offering an estimate and terms for carrying out statutory connections.

3.7 The timescales for:

- the provision of estimates for connection work applied for under the Act, will be in accordance with Guaranteed Standards EGS3 - Regulation 6 "Estimate of Charges for new Connections";
- the construction of the connection work applied for under the Act, will be in accordance with Overall Standard of Performance – Service 3 – "Providing a Supply"; and
- the provision of points of connection and design approval will be in accordance with defined performance measures as outlined by Ofgem.

The performance measures are available on the Ofgem website at:

[www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8200\\_CompetitioninConnections.pdf](http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8200_CompetitioninConnections.pdf)

## **Section 4 - Work that Electricity North West's agent United Utilities Electricity Services or your contractor may carry out**

### **General**

- 4.1 If you need Electricity North West's agent United Utilities Electricity Services to carry out all contestable aspects of the connection project then your initial application for a connection should identify the fact that you are applying for a statutory connection under Section 16 of the Act.
- 4.2 If you need a competitive contestable quotation, then you should apply for a point of connection or arrange for an accredited installer to do so on your behalf. To obtain this information you or your accredited installer will need to contact United Utilities Electricity Services Connections Liaison office at Oakland House, Manchester, as listed in Section 9.
- 4.3 If you appoint an accredited installer, the installer can apply on your behalf for a Point of Connection (POC). However, the installer will need a letter of authority from you.

### **Who can do what work**

- 4.4. Table 1 summarises the type of work that may be undertaken either by:
  - a) Electricity North West's agent United Utilities Electricity Services following an enquiry for a statutory connection, or
  - b) a suitably accredited installer if you choose a competitive connection
- 4.5 A list of accredited installers detailing their accredited activities is available from the Lloyds website as listed in section 9.
- 4.6 Subject to prior agreement with Electricity North West's agent United Utilities Electricity Services, you may carry out certain less technical aspects of the construction work, without appointing an accredited installer to do this on your behalf. For example you may choose to excavate a cable trench across your own property. However, any work you undertake must comply with the construction standards, e.g. trench depths, required by Electricity North West.

### **Points to note regarding the design, construction and adoption of competitive works**

- 4.7 All contestable work undertaken by your accredited installer will have to be covered by an Agreement to Adopt. This Agreement specifies the terms by which Electricity North West will adopt the new assets installed by your accredited installer. The Agreement is multi-partite between you, your accredited installer, any third party landowner and Electricity North West. The Agreement provides Electricity North West with certain guarantees against defects which, if identified after energisation of the new network extension, will have to be corrected by Electricity North West's agent United Utilities Electricity. The Agreement also lays down the procedures by which the contestable elements of the project

can be carried out by your accredited installer and the responsibility for the notification of such works.

- 4.8 Before energisation and subsequent adoption of the contestable works carried out by your accredited installer, the installation should be free of any defects and be designed and constructed in accordance with Electricity North West's Electricity Specifications, Codes of Practice and Engineering Policy Documents. Appropriate documentation will be issued free of charge to your accredited installer at the design stage, subject to a licence agreement contract which protects Electricity North West's intellectual copyright on this material.

*Table 1 Summary of options and responsibilities table*

		<b>Statutory connection</b>	<b>Competitive connection</b>
1	Carry out work to determine the point of connection*	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>
2	Obtain all land rights and consents**		<b>Your land agent</b>
3	Produce detailed design for on-site works***		<b>Your accredited installer</b>
3a	Design approval		<b>Electricity North West's agent United Utilities Electricity Services</b>
4	Project manage the connection		<b>You or your contractor</b>
5	Provide materials to our specification		
6	Carry out cable trenching work on-site		
7	Install ducts on-site		<b>You or your contractor</b>
8	Carry out substation building and civil work on-site		

9	Carry out non-electrical work off-site (including meeting provisions of New Roads and Street Works Act)		<b>Your accredited installer</b>
10	Carry out live electrical work to connect the new extension to the existing network	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>
11	Carry out live electrical work including live jointing on the new extension on a clearly defined ring fenced site****		<b>Your approved installer (subject to contractor approval and any regime imposed by Electricity North West's agent United Utilities Electricity Services)</b>
12	Carry out dead electrical work		
13	Carry out any reinforcement/ diversion work on our existing network		<b>Electricity North West's agent United Utilities Electricity Services</b>
14	Carry out any reinforcement/ diversion work, associated with a new connection, in accordance with the criteria as defined under 1.16.		<b>Your accredited installer</b>
15	Carry out quality assurance inspections of new work and of test and connects to newly installed asset		<b>Electricity North West's agent United Utilities Electricity Services</b>
16	Install metering and make internal wiring live		<b>Your supplier</b>

\* Please refer to Ofgem's website at:  
[http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/7342\\_12404a.pdf](http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/7342_12404a.pdf)  
for recent changes to these activities.

\*\* Any easement/wayleave obtained by the Developer will have to be transferred to Electricity North West as part of the adoption process. If the use of compulsory powers to acquire land rights is necessary, the connection scheme will need to be treated as a statutory connection.

\*\*\* Designs are subject to Electricity North West's agent United Utilities Electricity Services approval – summary information on generic designs is available in Electricity North West's long-term development statement (Licence Condition 25 statement) for guidance.

\*\*\*\* Live electrical jointing work will only be permitted on greenfield sites, or brownfield sites, which have had all Electricity North West's existing live equipment removed or isolated and made dead.

## Section 5 - Connection issues and specific exclusions

### Unmetered connections

- 5.1 You may nominate Electricity North West's agent United Utilities Electricity Services to undertake the whole job (a statutory connection), by applying to the appropriate office listed under section 9. It should be noted that in many cases the bulk of the work may be classed as non-contestable if it involves work being carried out on existing 'live' network. Work that can be carried out without interference with the existing electricity network will be deemed contestable. Alternatively, you may appoint a suitably accredited installer to undertake the contestable elements of the work. You will need to provide your contractor with a letter of authority to act on your behalf.
- 5.2 Non-contestable charges will be levied by Electricity North West's agent United Utilities Electricity Services regardless of which accredited installer undertakes the contestable work.
- 5.3 The following wording is an extract from the Electricity (Unmetered Supply) Regulations 2001 and describes the circumstances where an unmetered connection may be given.
- (1) An unmetered supply may be given where -
- (a) the electrical load is of a predictable nature, and
  - (b) either -
    - (i) the electrical load is less than 500 W; or
    - (ii) it is not practical for a supply of electricity to be given through an appropriate meter at the premises due to -
      - (aa) the anticipated metering costs in the particular case being significantly higher than the usual metering costs associated with that size of electrical load;
      - (bb) technical difficulties associated with providing such a meter in the particular case; or
      - (cc) operation of law so as to prohibit or make excessively difficult the provision of such a meter in the particular case.
- (2) An unmetered supply shall only be given where the authorised distributor, authorised supplier and the customer have agreed to such a supply.
- Any existing unmetered connections which are altered will be subject to the above.
- 5.4 Electricity North West agent United Utilities Electricity Services will provide a 'rent a jointer' scheme to interested parties on a project by project basis. This scheme is for public lighting authorities and their appointed agents. We are happy to discuss our charges for 'rent-a-jointer' service on application – please refer to contact details in section 9.
- 5.5 Table 2 below, sets out the services available and shows activities that can be undertaken by you, your contractor or your accredited installer.

*Table 2 Summary of services available for unmetered connections*

		<b>Work carried out in the highway or in the vicinity of existing live equipment</b>	<b>Ringfenced greenfield/brownfield sites**</b>
1	Carry out work to determine the point of connection	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>

2	Wayleaves and easements and other necessary conditions*	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>
3	Produce detailed design for on-site works	<b>You or your contractor</b>	<b>You or your contractor</b>
4	Project manage the connection		
5	Provide materials to our specification		
6	Carry out cable trenching work on-site	<b>You or your contractor</b>	<b>You or your contractor</b>
7	Install ducts on-site		
8	Carry out substation building and civil work on-site		
9	Carry out non-electrical work off-site (including meeting provisions of New Roads and Street Works Act)		
10	Carry out live electrical work to connect the new extension to the existing network	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>
11	Carry out live electrical work including live jointing on the new extension**	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Your approved installer (subject to contractor approval and any regime imposed by Electricity North West's agent United Utilities Electricity Services)</b>
12	Carry out quality assurance inspections of new work and test and connect newly installed asset		<b>Electricity North West's agent United Utilities Electricity Services</b>
13	Install new connection	<b>Electricity North West's agent United Utilities Electricity Services</b>	<b>Electricity North West's agent United Utilities Electricity Services</b>
14	Live transfers		
15	Permanent disconnections		

\* Any easement/wayleave obtained by you or your contractor will have to be transferred to the DNO as part of the adoption process.

\*\* Live electrical jointing work will only be permitted on greenfield sites, or brownfield sites that have had all Electricity North West existing live equipment removed or isolated and made dead.

## Temporary connections (including disconnection and reconnection)

- 5.6 You may nominate Electricity North West's agent United Utilities Electricity Services to undertake the whole job (a statutory connection) by applying to the appropriate office listed under section 9. It should be noted, that in many cases, the bulk of the work may be classed as non-contestable, if it involves work being carried out on existing 'live' network. Work that can be carried out without interference with the existing electricity network will be deemed contestable. Alternatively you may appoint a suitably accredited installer to undertake the contestable elements of the work. You will need to provide your contractor with a letter of authority to act on your behalf.
- 5.7 Non-contestable charges will be levied by Electricity North West's agent United Utilities Electricity Services regardless of which accredited installer undertakes the contestable work.
- 5.8 Where you or your supplier wish a supply to be permanently de-energised, you should provide a minimum of two days notice (or such other period as may be specified in your agreement). Electricity North West agent United Utilities Electricity Services will arrange to de-energise the supply and read the metering equipment, where appropriate, for billing purposes.
- 5.9 Temporary de-energisation (and subsequent re-energisation) resulting from you or your supplier's failure to comply with the terms of the use of system or connection agreement as the case may be, or carried out at your or your supplier's request will be at your or your supplier's expense.
- 5.10 If you need the supply to be disconnected, this should be requested in writing. On receipt of such, a request we will take all reasonable steps to remove the equipment in accordance with your reasonable requirements. Normally low voltage service termination equipment would be removed within 10 working days but up to three months' notice may be needed to remove high voltage substation plant. In the case of EHV supplies we should be consulted at an early stage and a programme for the removal of equipment will be subject to individual assessment.
- 5.11 On termination of a connection agreement Electricity North West retains the right to remove our equipment, the cost of which will be chargeable to you. Where it becomes necessary to disconnect your supply any payments outstanding in providing that connection will become due forthwith. Where it is not cost effective to recover assets from site (e.g. buried cables), the assets will normally be made safe and left on site, but if you need us to remove them, the cost of removal will be payable by you. All such equipment will remain our property until otherwise agreed in writing with us. Temporary disconnection (and reconnection) of the premises at your request will be carried out at your expense.

*Table 3 Indicative charges for disconnection (for illustrative purposes)*

<b>Description of work</b>	<b>Indicative charge</b>
Remove existing LV single phase underground service	£430 in normal working hours £600 outside normal working hours
Remove existing LV single phase overhead service	£320 in normal working hours £510 outside normal working hours

Remove existing LV three phase underground service or main	£450 in normal working hours £630 outside normal working hours
Remove existing LV three phase overhead service or main	£410 in normal working hours £640 outside normal working hours
Additional services, disconnected at the same time by the disconnection of the master service or the mains cable	£75 per additional service
Remove existing high voltage service	Price on Application
Exceptional circumstances	Price on Application

- 5.12 These costs are for illustrative purposes only and are based on current direct/indirect labour, material and overhead rates contained within our Connection charging estimating package. Please note that special prices will apply to the above services for work carried out after midnight and on Sundays and Bank Holidays.

### Changes in connection capacity

- 5.13 If **you wish to make changes to an existing connection** then you should apply to the appropriate United Utilities Electricity Services office as listed in Section 9 depending on your location and the maximum power needed. Work falling into this category includes additional loads/capacity, reductions in loads/capacity, service alterations, terminations and disconnections.

### Generator connections

- 5.14 If you have installed or intend to install on-site generation and need a connection to Electricity North West's distribution network to take a supply from it at any time (either intermittent or continuous), the principles for determining the charge for the connection will be in accordance with this statement. Whilst the principles for determining the generation use of system charges will be in accordance with our licence Condition 4 'Statement of Charging Methodology for Use of Electricity North West's Electricity Distribution Network' document. To apply for a connection to generate electricity please write to United Utilities Electricity Services Terms and Conditions Manager at the address listed in Section 9. You should also contact us to discuss the relevant requirements of the Distribution Code and the Grid Code, which relate to your on-site generation.
- 5.15 Under the terms of the distribution licence, if your generator is to be connected at the same voltage level as the infeed to Electricity North West's network from National Grid Electricity Transmission's network (generally 132 kV but 33 kV in some localities<sup>3</sup>) or is large enough to have a material effect on National Grid Electricity Transmission's network, Electricity North West is required to notify National Grid Electricity Transmission of your proposed connection by formally requesting a 'Statement of Works'.
- 5.16 National Grid Electricity Transmission has 28 days to respond to a request for 'Statement of Works'. Upon receipt of a Statement of Works, if any works are required on National Grid Electricity Transmission's network Electricity North West has 90 days to respond to

National Grid Electricity Transmission. Electricity North West's agent United Utilities Electricity Services will advise you accordingly and at this stage you have the option of withdrawing your application. If you proceed, Electricity North West's agent United Utilities Electricity Services will issue a connection offer to you in line with the criteria as stated in 2.11.

- 5.17 Electricity North West's agent United Utilities Electricity Services will discuss with you the implications of the National Grid Electricity Transmission Statement of Works. Should you wish to proceed with your connection application Electricity North West will need to enter into a separate contract with National Grid Electricity Transmission in relation to your connection.
- 5.18 National Grid Electricity Transmission will respond to Electricity North West's application within 90 days with an appropriate offer to Electricity North West. Electricity North West's agent United Utilities Electricity Services will then vary its connection offer to you to cover the cost of capital works and any liabilities contained in National Grid Electricity Transmission's offer<sup>6</sup>.
- 5.19 A generator connected to Electricity North West's distribution network will be liable for charges to cover:
- a full contribution to connection assets required for network extension from the established point of connection, including metering, should these assets be provided by Electricity North West's agent United Utilities Electricity Services', plus an apportioned contribution towards the costs of reinforcing the existing network should the connection require it;
  - the scheme preparation, including the calculation of load flow, fault level and electrical losses and the assessment of the effect of the generation on distribution network reinforcement requirements;
  - Electricity North West's agent United Utilities Electricity Services' attendance at generation commissioning tests;
  - the installation and operation of suitable telemetry equipment;
  - on a periodic basis any additional system control resulting from generation connected to Electricity North West's distribution network; and
  - all costs<sup>7</sup> levied by National Grid Electricity Transmission associated with connection works required to facilitate the connection. Where National Grid Electricity Transmission has no contractual relationship with the generator all costs, including secured amounts, levied by National Grid Electricity Transmission associated with infrastructure works required to facilitate the connection will be passed directly through to the generator.

<sup>6</sup> It should be noted that the total time taken from the time of application to the time of issue of an unconditional offer for a connection which involves National Grid Electricity Transmission Works could be a maximum of 246 days.

<sup>7</sup> Except annual National Grid Connection Charges as these are allocated in accordance with the methodology described in our Licence Condition 4 Statement.

## Section 6 - Connection Charging Methodology

### Connection

6.1 Electricity North West's agent United Utilities Electricity Services will calculate the connection charge based on the estimated costs of the minimum scheme, which would be designed to meet the requirements of the connection for your sole benefit, consistent with sound engineering practices and subject to the specifications and standard sizes of equipment used by Electricity North West's agent United Utilities Electricity Services.

6.2 To calculate your charge we will take into account:

- standards governing our distribution network;
- length of cable or line needed from our existing distribution network;
- size of your requested capacity in relation to available capacity of our existing distribution network, including the age of the asset and the condition of it;
- whether any extension or reinforcement of our existing distribution network is by underground cable or overhead lines;
- type of ground requiring excavation, the type and extent of reinstatement necessary (including New Roads and Street Works Act requirements), and the need for road crossings;
- availability of wayleaves/easements for cables or lines including any consents;
- availability of suitable substation sites including any necessary consents; and
- the necessity for overtime working.

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

6.3 If Electricity North West has reasonable grounds for concluding that your proposed connection would reduce the security of the system to a level below the standard required by the Act, Electricity North West reserves the right to apply, following consultation with you, special terms.

6.4 If your requested requirements are in excess of the minimum scheme capable of providing connection, then you shall pay all the costs for the connection.

6.5 If Electricity North West's agent United Utilities Electricity Services delivered a scheme design that provided additional capacity than the practicable minimum scheme needed for your connection, the costs in excess of that minimum scheme will normally be borne by Electricity North West.

6.6 If the minimum scheme is capable of accommodating additional connections, and other persons requiring connections agree at the time of your application to pay a share of the connection costs, then the costs of the scheme will be shared accordingly.

6.7 A charge for the operation and maintenance will be levied, as an upfront charge, on all the requested assets installed over and above the normal level of assets required to be installed for a minimum connection.

- 6.8 In certain circumstances you will be required to make a payment in respect of existing network assets that have been installed recently but which are to be used for the purpose of providing your connection (refer to paragraphs 6.19, 6.24 to 6.27).
- 6.9 If a detailed study is needed prior to design of the scheme, Electricity North West's agent United Utilities Electricity Services will agree with you in advance the cost of the study and its apportionment.
- 6.10 Some demand and generation applications/enquiries may entail a meeting with Electricity North West and/or its agent United Utilities Electricity Services to discuss your requirements. An initial meeting to discuss the aspects of your connection request will be held at no cost to you. However, Electricity North West may make a charge (see paragraph 7.7 for details of the charges) for any subsequent meetings that it and/or its agent are asked to attend. Speculative developments in particular often require several meetings, which are prompted by changes to the final site layout, thereby necessitating the connection requirements to be redefined.
- 6.11 In general Electricity North West reserves the right to recover all reasonable costs (see section 7 for details of the associated charges) incurred in arriving at a suitable engineering solution following any request for a connection to the existing distribution network.

### **Reinforcement**

- 6.12 Electricity North West will charge for the necessary reinforcement of its existing network (ie work on the existing network needed in order for it to deliver or accept the additional amount of electricity that you require).
- 6.13 The costs associated with the reinforcement of existing distribution network assets, generally up to one voltage level above the voltage of the Point of Connection to the existing distribution network, will be split with a share attributed to you based on your requirements.
- 6.14 The charges for reinforcement to our distribution network will be based on the application of the two cost apportionment factors (CAF), dependent upon the factor driving the requirement for reinforcement:
- The 'security' CAF; and
  - The 'fault level' CAF.
- 6.15 The following are the six exceptions to the application of the two cost apportionment rules for the calculation of the reinforcement costs:
- For generation connections only, the apportionment rules set out below will only be applied to reinforcement costs up to a cap of £200 per kW of installed generation capacity. All reinforcement costs in excess of this cap will be charged in full to the connecting generator alongside other connection charges;
  - The two cost apportionment rules will not be applied to the works associated with the provision of:
    - a higher level of security, requested by the customer, than that is required to meet the minimum standard of security;
    - additional network capacity for the connection of dirty load;
    - a temporary connection;
    - reinforcement to sole use assets; and

- reinforcement for a speculative development.

In these instances the works will be charged in full.

- 6.16 Where the reinforcement works are driven by either thermal capacity or voltage or both as assessed against the relevant security standard the 'security' cost apportionment factor is applied. This rule determines the proportion of the reinforcement costs that should be paid by a connecting party for the capacity requirement in proportion to the new network capacity. The rule expressed as a percentage is:

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

Electricity North West's agent United Utilities Electricity Services will assess the effective (secure) capacity of the existing network prior to the connection and then establish the necessary upgrade to ensure the network is secure following your connection. For the avoidance of doubt this rule will be used for all equipment types and voltages.

'Required capacity' is the design capacity of the connection, agreed through negotiation with the customer. Where an existing customer requests an increase in capacity then the 'Required Capacity' is defined as the incremental capacity required by the customer. For multiple connections the design connection capacity will be the total capacity required after consideration of the effects of diversity

'New Network Capacity' is the effective capacity of an asset following its reinforcement.

- 6.17 Where the reinforcement works are driven by fault level restrictions the 'fault level' cost apportionment rule is applied. This rule determines the proportion of the reinforcement costs that should be paid by a connecting party for the incremental increase in the fault level due to their connection as a proportion of the new fault level rating. The rule expressed as a percentage is:

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

'Fault level contribution from connection' is 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 network.

'New Equipment Fault Level Capacity' is the design fault level rating of the relevant section of the network following the replacement of assets.

For the avoidance of doubt this rule will be used for all equipment types and voltages.

- 6.18 On some projects there may be interaction between the two rules. In such cases, the 'Security' CAF will be applied to the reinforcement works that are driven by compliance with the security requirement. The 'Fault Level CAF' will be applied to another costs, not already apportioned under the 'Security CAF', that are associated with reinforcement works that are driven by the need to maintain the distribution network within fault levels limits.

- 6.19 The application of the cost apportionment rules to determine an appropriate proportion of the reinforcement cost to be levied on a connecting party may result in spare capacity or fault level headroom being created on the Distribution Network. The creation of this spare capacity/fault level headroom will have been funded by Electricity North West. Applicants who request to make use of all or part of these reinforcement assets may be charged an appropriate proportion of the original costs using the cost apportionment rules. This retrospective charge may be applied for a period of five years from the date of the installation of the reinforcement assets.
- 6.20 When Electricity North West have contributed to reinforcement costs for a connection with required capacity of 20 kVA or above, the customer will be charged ongoing availability charges set, at least, at the level of the required capacity for a period of one year from the date of connection.
- 6.21 When assets are removed from the distribution network to facilitate reinforcement works, the written-down value of the removed assets is held by Electricity North West for the benefit of all customers irrespective of whether the assets are reused or not.
- 6.22 Electricity North West reserves the right to levy a charge on a connecting party for the value written-down against any assets scrapped due to reinforcement works.
- 6.23 Where a customer requests a level of capacity that involves reinforcement costs being incurred by Electricity North West and the same customer subsequently requests additional capacity (or is found to be using in excess of the agreed capacity), then Electricity North West will recalculate the cost apportionment factor for the new capacity and apply retrospective charges.

#### **Development Area**

- 6.24 Where connections are required within a development area or regeneration zone and Electricity North West believes that it forms part of a larger project to be developed within five years then Electricity North West's agent United Utilities Electricity Services may build the appropriate infrastructure to facilitate connections within the zone/area. The cost for the provision of reinforcement of the network will be apportioned between subsequent connection requesters in relation to the capacity required and the type of load. In this way all customers who connect within the area/zone will be treated in a fair and equitable manner.
- 6.25 Assets financed by Electricity North West, as a consequence of the cost apportionment rules, will be subject to re-apportionment for subsequent comers for a period of five years after commissioning.

#### **Speculative Developments**

- 6.26 Electricity North West's agent United Utilities Electricity Services is asked to provide indicative and/or firm quotations for infrastructure and/or connections to projects of a speculative nature. Where Electricity North West's agent United Utilities Electricity Services deems a project to be speculative, the full cost of the work including any reinforcement shall be charged in full including an additional charge to reflect ongoing operation, repair and maintenance costs. Speculative developments may have one or more of the following characteristics:

- the development will take more than five years to reach maturity;

- end users and/or 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 the immediate requirements of (an) end user(s);
- the capacity requested caters for future speculative phases of a development rather than the initial phase(s) of the development; and
- the infrastructure only is being provided, with no connections for end users requested.

### **Electricity (Connection Charges) (Amended) Regulations 2002**

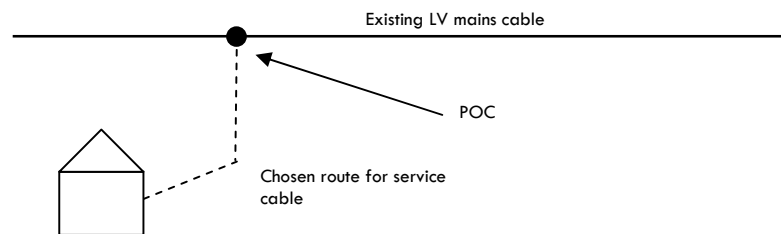
6.27 There may be occasions when you will be required to make a payment in respect of distribution network assets that have previously been installed (and paid for by a connecting party) but which are to be used to provide your connection. These circumstances are detailed in the Electricity (Connection Charges) (Amended) Regulations 2002.

## Worked Examples

6.28 The following are examples to illustrate the connection costs applicable in a number of standard scenarios and to aid understanding of the apportionment rules. All the examples assume that the developer has requested Electricity North West's agent United Utilities Electricity Services to undertake all the new connection works.

### Example 1 - A new connection to a domestic premises

A customer requests a 230 V single phase 100 amp supply to a new house in an urban location. The new premises can be connected to an existing LV main cable in a nearby street. The assets provided from the point of connection to the customer's premises are fully chargeable as a new connection.



#### Estimated cost of contestable activity

15 m Service cable, excavation in footpath to customer laid duct, backfill and termination

**Cost**  
£722

#### Estimated cost of non - contestable activity

Single Service breach joint and joint hole

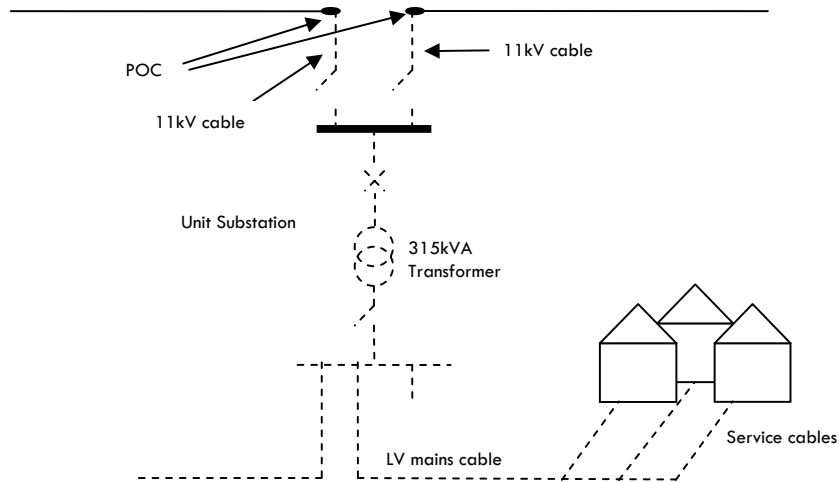
**Cost**  
£352

#### Estimated Connection Charge

The estimated cost of this connection is £1,074 (VAT is not applicable to new domestic connections).

## Example 2 - New connections on a domestic housing development

A housing developer requests connections for 200 domestic premises. A new distribution substation will be established to provide the collective load requirement of the site. To meet the required engineering design and specifications as regards security levels, the substation will be looped into the existing HV network and this is the minimum cost scheme. The assets provided from the points of connection to the developer's premises are fully chargeable as a new connection.



### Estimated cost of contestable activity

Provision and laying 100 m 11 kV cable	<b>Cost</b> £18,520
315 kVA 11 kV/400 V Unit Distribution Substation	£30,710
LV mains, service cables and terminations	£279,610

### Estimated cost of non - contestable activity

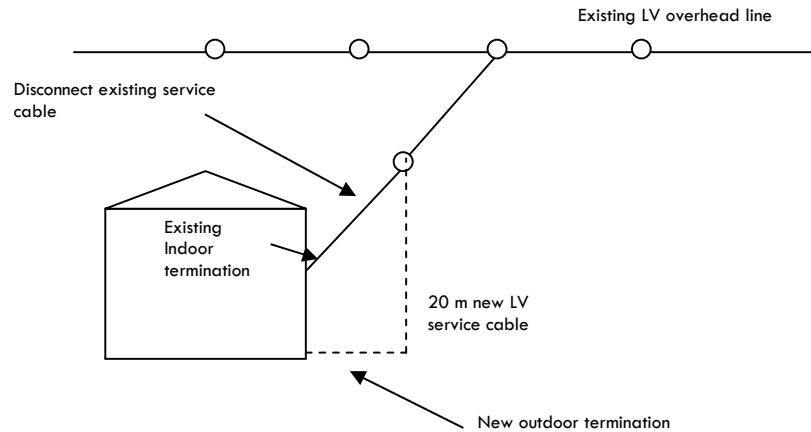
Two HV cable joints inclusive of engineering time	<b>Cost</b> £2,306
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### Estimated Connection Charge

The estimated cost of this connection is £331,146 (VAT is not applicable to new domestic connections).

### Example 3 - Service alteration to a domestic property

A domestic customer requests their service position to be moved from inside the building to the outside of the building. This involves replacing the existing cut out and part of the service cable.



#### Estimated cost of non-contestable activity

20 m service cable, excavation, backfill and termination  
Final connection to LV network

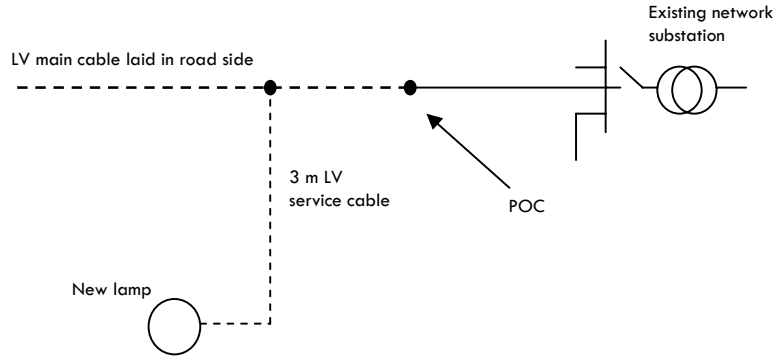
**Cost**  
£586  
£352

#### Estimated Charge

The estimated cost of this service alteration is £938 plus VAT.

#### Example 4 – A new unmetered service connection

A local authority has requested a connection to 15 street lamps located on a recently refurbished roadway. A LV mains cable is laid in the roadside close to the location of the new street lights. The connection of one of the lamps is shown below. The assets provided from the point of connection to the individual street lamps are fully chargeable as a new connection.



#### Estimated cost of contestable activity

	<b>Cost</b>
Provision and laying 150 m LV main cable	£10,680
Fifteen connections with 3 metres service cable, excavation, backfill and termination for each lamp	£8,260

#### Estimated cost of non - contestable activity

	<b>Cost</b>
Final connection of LV mains cable to network	£352

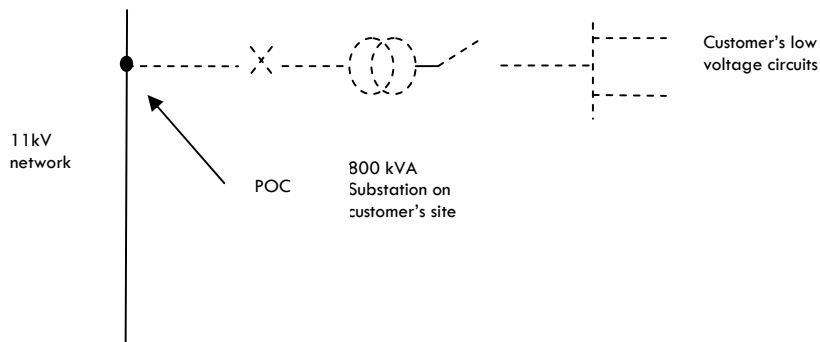
#### Estimated Connection Charge

The estimated cost of this connection is £19,292 plus VAT.

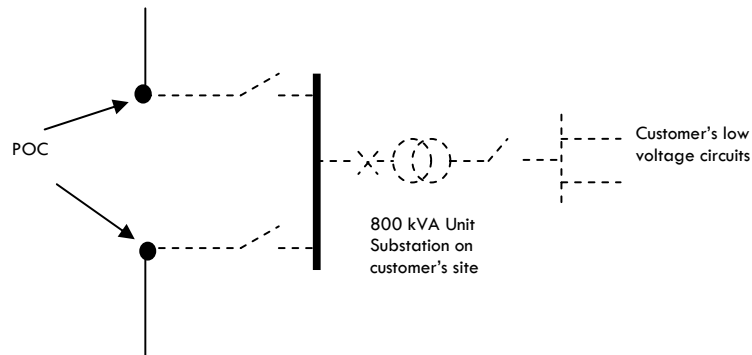
### Example 5 – A new connection to a commercial premises

A customer requests a 600 kVA load requiring a new 230/400V three phase supply to a commercial premises. The customer has requested that a ring connection be provided. As this is a customer requested connection and therefore classified as an enhanced connection, the connection charges must take into consideration what the minimum cost scheme would be. The assets associated with the enhanced cost scheme are fully chargeable as a new connection.

The Minimum Cost Scheme is a new 800 kVA substation teed onto existing HV network.



The enhanced connection scheme is a new 800 kVA substation looped into existing HV network.



#### Estimated cost of contestable activity (for enhanced scheme)

	<b>Cost</b>
Provision and installation HV cable to network, HV Switchgear, 800 kVA transformer	£80,260
Provision and installation LV cabling	£18,930
Metering panel	£880

**Estimated cost of non - contestable activity (for enhanced scheme)**

	<b>Cost</b>
HV joints to network	£2,306

**Estimated cost of contestable activity (for Minimum Cost Scheme)**

	<b>Cost</b>
Provision and installation HV cable to network, HV Switchgear, 800 kVA transformer	£65,320
Provision and installation LV cabling	£18,930
Metering panel	£880

**Estimated cost of non - contestable activity (for Minimum Cost Scheme)**

	<b>Cost</b>
HV joint to network	£1,153

**Estimated Connection Charge**

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £102,376 (ie £100,070 for contestable assets and £1,972 for non-contestable assets).
2. No reinforcement to the network is required.
3. Operation and Maintenance charge is applicable since an enhanced connection has been provided. O & M charge is levied on the connection charge and is calculated at 14% on difference between minimum and enhanced cost schemes.

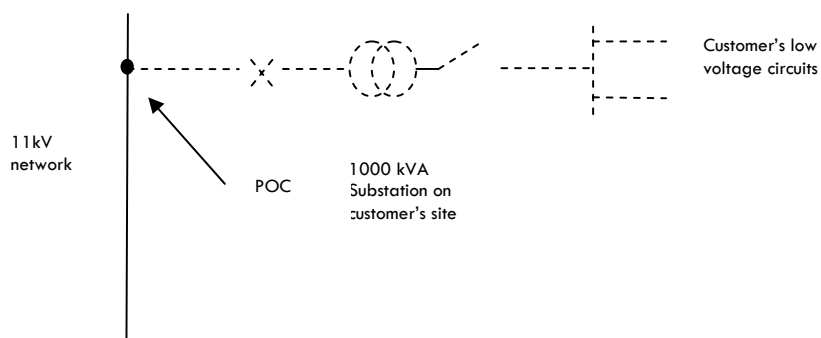
Operation and Maintenance charge = (£102,376 - £86,283) x 14%

Operation and Maintenance charge = £2,253

4. The total estimated cost of this connection is £104,629 plus VAT.

### Example 6 - Additional load application for a commercial premises (requiring change from LV to HV)

A customer requests an additional load to his existing supply requirements. The customer's existing ASC is 200 kVA and is provided via a 230/400 V three phase connection. The customer wishes to increase his supply requirements to 850 kVA. The new supply will be provided via a HV network connection. The assets provided from the point of connection to the customer's premises are fully chargeable as a new connection.



#### Estimated cost of contestable activity

	<b>Cost</b>
Provision and installation HV cable to network, HV Switchgear, 1000 kVA transformer	£67,530
Provision and installation LV cabling	£18,930
Metering panel	£880

#### Estimated cost of non - contestable activity

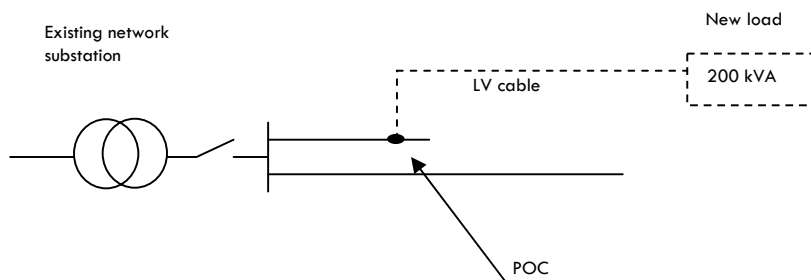
	<b>Cost</b>
HV joint to network	£1,153

#### Estimated Connection Charge

The estimated cost of this connection is £88,493 plus VAT.

### Example 7 - New connection for commercial supply requiring reinforcement

A customer requests a new 200 kVA 230/400 V three phase connection. The 500 kVA transformer at the local network substation is fully loaded and will have to be replaced with an 800 kVA transformer. The assets provided from the point of connection to the customer's premises are fully chargeable as a new connection.



#### Estimated cost of contestable activity

	<b>Cost</b>
Provision and installation of LV cable	£9,550
Metering panel	£1,420

#### Estimated cost of non - contestable activity

	<b>Cost</b>
Replacement of 500 kVA transformer	£14,760
LV joint to network	£352

#### Estimated Connection Charge

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £11,322 (ie £10,970 for contestable assets and £352 for non-contestable assets).
2. The network has been reinforced by upgrading the local transformer. The cost of this asset and associated work is apportioned to the customer using the Security Cost Apportionment Factor.

$$\text{Security CAF} = 200/800 \times 100\% = 25\%$$

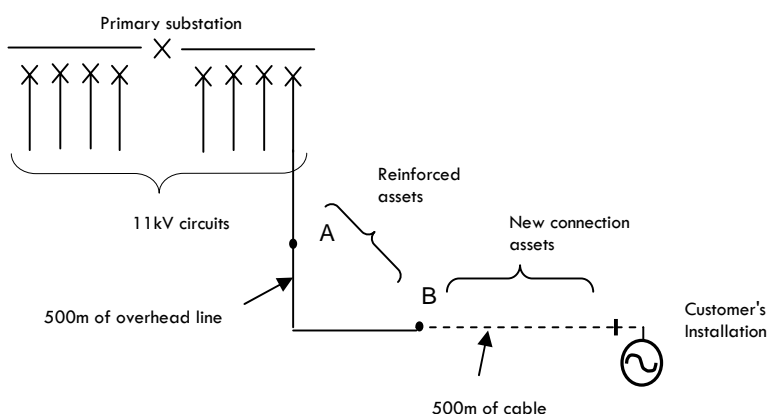
$$\text{Total cost of reinforcement} = £14,760$$

$$\text{The reinforcement re-apportionment charge} = £14,760 \times 25\% = £3,690$$

$$\text{The total estimated cost of this connection is } £15,012.$$

### Example 8 - New connection for distributed generator requiring reinforcement

An application for a new 3 MVA distributed generator connection is requested. The connection of generator involves the upgrading of 500 m of overhead line (between points A and B) on the distribution network to carry the export capacity of the distributed generator and the laying of 500 m of new cable (between B and the customer's installation). Point B is the point of connection for the distributed generator.



#### Estimated cost of contestable activity

Provision and laying 500 m HV cable

**Cost**  
£100,840

#### Estimated cost of non - contestable activity

Construction of 500 m HV overhead line  
HV pole top termination

**Cost**  
£57,180  
£1,003

#### Estimated Connection Charge

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £101,843 (ie £100,840 for contestable assets and £1,003 for non-contestable assets).
2. The network has been reinforced by way of an upgraded HV overhead line. The cost of this asset and associated work is apportioned to the customer using the Security Cost Apportionment Factor.

Customer required capacity = 3 MVA

New network capacity (governed by primary switchgear rating) = 5 MVA

Security CAF =  $3/5 \times 100\% = 60\%$

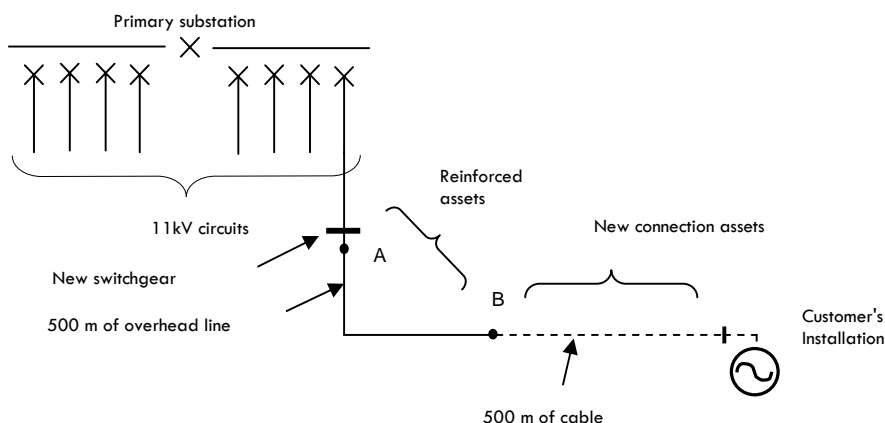
Total cost of reinforcement = £57,180

The reinforcement re-apportionment charge =  $£57,180 \times 60\% = £34,308$

Total estimated cost of this connection =  $£100,843 + £34,308 = £135,131$

### Example 9 - New connection for distributed generator requiring reinforcement

The connection of 3 MVA distributed generator involves the upgrading of 500 m of overhead line (between points A and B on the distribution network) to carry the export capacity of the distributed generator, the upgrading of the switchgear at point A for increase fault level on the distribution network and the laying of 500 m of new cable (between B and the customer's installation). Point B is the point of connection for the distributed generator.



The switchgear replacement will increase the fault level from 150 MVA to 250 MVA.

#### Estimated cost of contestable activity

	<b>Cost</b>
Provision and laying 500 m HV cable	£100,840

#### Estimated cost of non - contestable activity

	<b>Cost</b>
Construction of 500 m HV overhead line	£57,180
Provision and installation of new switchgear (11 Panel)	£725,000
HV pole top termination	£1,003

#### Estimated Connection Charge

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £101,843 (ie £100,840 for contestable assets and £1,003 for non-contestable assets).
2. The network has been reinforced by upgrading the HV overhead line and replacing the switchgear. The cost of these assets and associated work is apportioned to the customer using the appropriate Cost Apportionment Factor.

The switchgear upgrade is required to remove fault level constraints, whilst the overhead line upgrade is required to remove capacity constraints.

Fault level contribution from connection = 10 MVA  
New equipment fault level = 250 MVA  
Customer required capacity = 3 MVA  
New network capacity governed by switchgear rating = 5 MVA

Fault Level CAF =  $(3 \times 10) / 250 \times 100\% = 12\%$   
Security CAF =  $3 / 5 \times 100\% = 60\%$

The reinforcement re-apportionment charge for the new switchgear =  
 $\pounds 725,000 \times 12\% = \pounds 87,000$   
The reinforcement re-apportionment charge for the overhead line =  
 $\pounds 57,180 \times 60\% = \pounds 34,308$

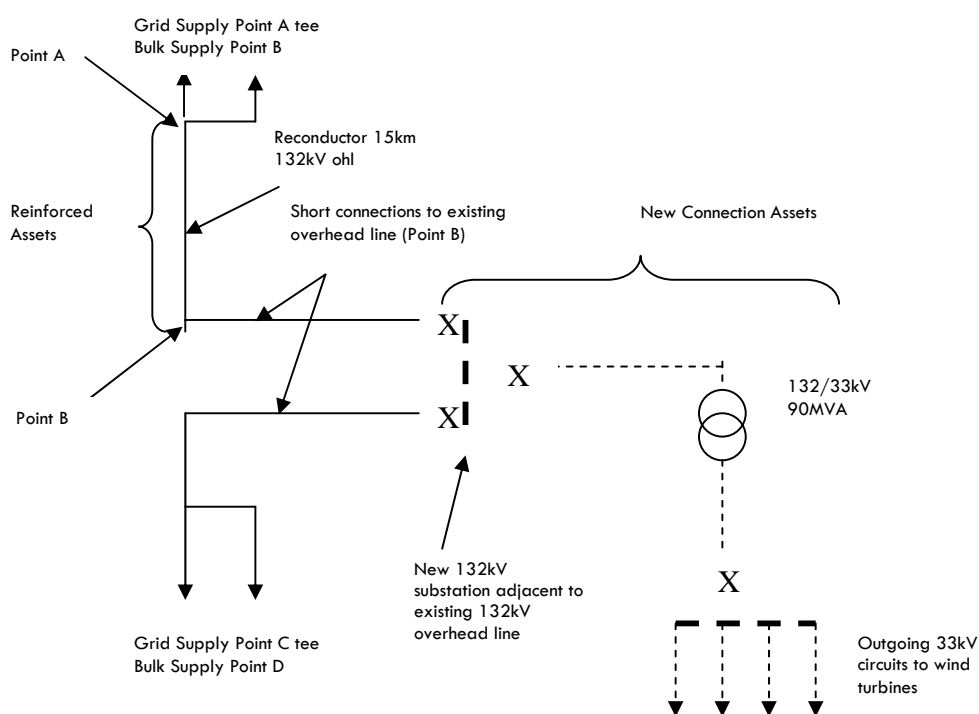
3. Total estimated cost of this connection =  $\pounds 101,843 + \pounds 87,000 + \pounds 34,308 = \pounds 223,151$

### Example 10 – New connection of a 70MW generator to the 132kV network.

An application for a new 70 MW distributed generator connection is requested. The point of connection is onto an existing 132kV overhead line. To allow the full generation export capacity of 70MW, part of this line has to be updated (between points A and B on the diagram) by re-conductoring to give a circuit capacity of 213MVA.

Contestable works include installation of the new 132kV substation including a metered breaker, 132kV cable, a 90MVA 132/33kV grid transformer, 33kV switchgear and outgoing 33kV circuits to the wind turbines.

Non contestable works include the re-conductoring of the existing line, and the final connection from the line to the new 132kV substation.



### Estimated cost of contestable activity

	<b>Cost</b>
Construction of 132kV overhead line	£860,000
Provision and installation of new 132kV substation including metered circuit breaker	£3,550,000
Provision and installation of new 132/33kV grid transformer	£1,800,000
Construction of 33kV circuits to wind turbines	£630,000
33kV switchgear	£113,000

### Estimated cost for non contestable activity

132kV connection work to existing circuits	£117,000
Re-conductor 15km overhead line including 10 tower changes	
New connection point B to point A	£4,650,000

### Estimated Connection Charge

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £ (ie £6,953,000 for contestable works and £117,000 for non-contestable).
2. The network has been reinforced by re-conductoring 15km of overhead line and replacing 10 towers to accommodate the larger conductor. The cost of these assets and associated work is apportioned to the customer using the appropriate Cost Apportionment Factor.

Customer required capacity = 70 MVA

New network capacity = 213 MVA

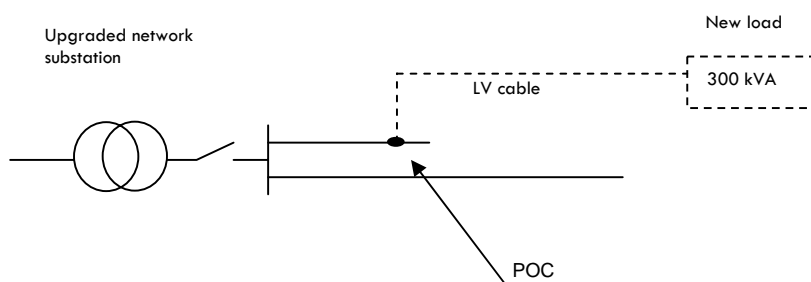
Security CAF =  $70/213 \times 100\% = 32.86\%$

The reinforcement re-apportionment charge for the overhead line =  
 $£4,650,000 \times 32.86\% = £1,527,990$

3. Total estimated cost of this connection =  $£7,070,000 + £1,527,990 = £8,597,990$

### Example 11 – Additional Load for commercial supply requiring reinforcement

A customer has an existing 200kVA 230/400 V three phase supply and wants to increase the on-site load to 300kVA. The 500kVA transformer at the local network substation is fully loaded and will have to be replaced with an 800kVA transformer. The assets provided from the point of connection to the customer's premises are fully chargeable as a new connection.



#### Estimated cost of contestable activity

	<b>Cost</b>
Provision and installation of LV cable	£9,550
Metering panel	£1,420

#### Estimated cost of non - contestable activity

	<b>Cost</b>
Replacement of 500 kVA transformer	£14,760
LV joint to network	£352

#### Estimated Connection Charge

1. The assets and work concerned with the connection only are charged in full to the customer. Estimated connection charge is £11,322 (ie £10,970 for contestable assets and £352 for non-contestable assets).
2. The network has been reinforced by upgrading the local transformer. The cost of this asset and associated work is apportioned to the customer using the Security Cost Apportionment Factor.

$$\text{Security CAF} = 100/800 \times 100\% = 12.5\%$$

$$\text{Total cost of reinforcement} = £14,760$$

$$\text{The reinforcement re-apportionment charge} = £14,760 \times 12.5\% = £1,845$$

3. The total estimated cost of this connection is £13,167

## Section 7 - Schedule of indicative charges

### New connections and associated network reinforcement

7.1 Please note the charges below are indicative only.

Table 4 Indicative charges for new connections and reinforcement activities

Activity	Description	Illustrative costs
Low voltage service line and termination	Single phase 100 amp service, from a passing main, including service cable, mains service joint, excavate and backfill joint hole, (excavate to site boundary), and termination. Service cable average length 15 metres. Duct installed by third party. Inclusive of liaison with highways authority, where necessary.	
	Same side service in typical tarmac footpath.	£950 to £1,200
	Same side service in typical grass verge.	£750 to £900
	Cross road service in typical carriageway.	£2,400 to £3,000
	Three phase 100amp service, from a passing main, including service cable, mains service joint, excavate and backfill joint hole, (excavate to site boundary) and termination. Service cable average length 20 metres. Duct installed by third party. Inclusive of liaison with highways authority, where necessary.	
	Same side service in typical tarmac footpath.	£1,300 to £1,600
	Same side service in typical grass verge.	£1,000 to £1,300
	Cross road service in typical carriageway.	£2,750 to £2,800
	Industrial and commercial supply up to 300kVA includes mains joint and excavate and backfill joint hole, terminate cable into module. Service length 30 metres. Duct installed by third party. Inclusive of liaison with highways authority where necessary.	
	Same side service in typical tarmac footpath.	£2,100 to £3,000
	Same side service in typical grass verge.	£1,400 to £1,800
	Cross road service in typical carriageway.	£3,500 to £5,000

Extension of low voltage mains	Low voltage mains cable. Excavate 100 metres of ground and install 300mm three core waveform cable and re-instate to match existing surface, includes straight joint onto main and bottle end.	
	Typical tarmac footpath.	£10,100 to £16,800
	Typical grass verge.	£8,100 to £5,500
	Carriageway.	£18,800 to £29,200
	Additional cable typical tarmac footpath.	£6,800 to £16,500
	Additional cable typical grass verge.	£3,900 to £7,000
	Additional cable in typical carriageway.	£8,400 to £23,100
Extension of high voltage mains	High voltage mains cable. Excavate 100 metres of ground and install 300mm three core Triplex cable and re-instate to match existing surface, includes straight joints at both ends onto main.	
	Typical tarmac footpath.	£14,600 to £21,700
	Typical grass verge.	£8,300 to £10,400
	Carriageway.	£20,600 to £30,500
	Additional cable typical tarmac footpath.	£8,600 to £17,700
	Additional cable typical grass verge.	£6,700 to £9,300
	Additional cable in typical carriageway.	£10,200 to £24,400
Extension of high voltage mains overhead line	Install a single wire span of overhead line.	
	To extend from an existing line, includes installation of a single pole (in normal ground conditions) and installation of all associated steelwork and cables inclusive of stay. Includes termination to existing line. Typical span length 90 metres.	
	Install a single 2 wire span of overhead line.	£14,000
	Install a single 3 wire span of overhead line.	£16,400

Distribution substation	Install electrical plant excluding all civil works and housings.	
	Install 3 phase 100kVA Pole Mounted Transformer (inclusive of stout pole).	£9,700
	Install a network 200kVA compact transformer self contained unit.	£25,200 to £27,700
	Install a direct customer connected 500kVA Ground Mounted Unit Transformer including modification to connect customer's cables.	£36,900 to £41,200
	Install a network 1000kVA Ground Mounted Unit Transformer, inclusive of Ring Main Unit and five way LV cabinet.	£44,300 to £48,800
	Install a High Voltage supply (up to 1MVA at 6.6kV and 1.5MVA at 11kV). Install a Ring Main Unit and direct connected metered circuit breaker.	£22,400 to £28,500
	Install an Extensible unit High Voltage supply (up to 4.5MVA at 6.6kV and 7.5MVA at 11kV). Install extensible switchgear and metered circuit breaker to serve a single cable fed customer.	£42,200 to £48,000
Transformer change at existing distribution substation (re-inforcement)	Replace Transformer and remove existing plant to appropriate depot.	
	Change 100kVA Pole Mounted Transformer to 200kVA Pole Mounted Transformer. Install 'H' pole or install stub pole to support new pole mounted transformer. Remove 100kVA Pole Mounted Transformer.	£12,600
	Change 315kVA freestanding transformer to a 500kVA transformer. Disconnect existing 315kVA and install new 500kVA freestanding transformer.	£21,900 to £28,300
	Change existing 500kVA Unit Transformer to an 800kVA Unit Transformer. Disconnect existing 500kVA unit transformer and install 800kVA unit transformer.	£25,500 to £31,900

Switchgear change at existing distribution substation	Change existing three way LV cabinet to five way LV cabinet attached to existing Unit Transformer.	£8,300 to £14,800
	Change HV switchgear that cannot be looped in for that which can.	£13,600 to £20,000
	New HV board with circuit breaker and two ring switches to replace existing ring main unit.	£13,600 to £20,000
Extension of EHV (33kV) mains	33kV overhead line.	£98,500 per km
	33kV underground cable.	£314,000 per km
New 33kV/HV substation	Single transformer primary substation, with four outgoing circuits (inclusive of one 33kV circuit breaker from BSP and associated protection, but no 33kV cable).	£1,236,500
New 33kV/HV substation	Two transformer primary substation, with eight outgoing circuits (inclusive of two 33kV circuit breakers from BSP and associated protection, but no 33kV cable).	£2,500,000
Transformer change at existing 33kV/HV substation	Replace 33kV/HV transformer (on new plinths with noise enclosures).	£600,000
Switchgear change at existing 33kV/HV substation	Replace HV switchboard including building (comprises of an eleven panel board including eight outgoing circuits, two transformer breakers and one bus section breaker).	£725,000
	Replace 33kV switchboard including new building and compound (comprises of a five panel board).	£1,350,000
Switchgear extension at existing 33kV/HV substation	Additional HV circuit breaker for modern switchgear.	£62,000
	Additional HV circuit breaker for obsolete switchgear requiring busbar conversion chamber.	£113,500
	Additional 33kV circuit breaker for modern switchgear.	£113,000
	Additional 33kV circuit breaker for obsolete switchgear requiring busbar conversion chamber.	£210,000

Extension of EHV (132kV) mains	Single circuit overhead line.	£290,000
	Double circuit overhead line.	£340,000
	Underground cable single circuit.	£975,000
New 132/33kV substation	Single transformer, (inclusive of five panel 33kV switchboard).	£2,510,000
	Two transformer substation, (inclusive of thirteen panel 33kV switchboard).	£5,480,000
Transformer change at existing 132 kV/33 kV substation	Replace two 132/33kV transformers (on new plinths and noise enclosures).	£1,740,000

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

#### **Fluctuation of prices and charges**

The prices in the above table are representative of most connections however the prices can fluctuate due to any of the following factors:

- Material and Labour Prices
- Type of Ground conditions
- Planning Consents
- Local Authorities
- Out of hours working
- Customer requested working patterns
- Reinforcement re-apportionment factors
- Traffic Sensitive areas
- Other external agencies (ie environmental)
- Crossing bridges
- Size of transformer required
- Size of cables required
- Undulating ground

7.2 These charges are for illustrative purposes only and are based on current direct/indirect labour, material and overhead rates contained within our Connection charging estimating package.

## Non-contestable charges

### Design Approval

Table 5 Design approval charges

Design Category	Charge
Design for Low Voltage, unmetered supplies	£49 per proposal, plus £5 per termination in the same scheme to a maximum of 150
Design for Low Voltage, domestic supplies (1 to 4 properties)	£97 per proposal
Design for Low Voltage, single phase supplies (<20kVA) and three phase supplies (<60kVA)	£181 per proposal, plus £8 per termination in the same scheme to a maximum of 150
Design for Low Voltage three phase supplies from 60 to 300kVA	£181 per proposal plus £41 per termination in the same scheme
Design for each central metering installation in a multi-occupancy building	£89 per installation in the same scheme
Design for a Network Distribution substation and the associated HV network	£665 per substation in the same scheme
Design for a Low Voltage Substation, Metered supply and the associated High Voltage network	£665 per termination in the same scheme
Design for a High Voltage Substation, Metered supply and associated High Voltage network	£665 per termination in the same scheme
Design for EHV schemes	Price on Application

- 7.3 These charges are based on our current direct labour and overhead rates as contained within our connections charging estimating package.

## Legal Consent

Table 6 Indicative charges for legal consent

Category of legal consent	Indicative charge
Residential development substation site from developer (including easements from developer)	£240
Commercial/industrial development substation site from developer (including easements from developer)	£480
Residential/commercial/industrial development substation site from third party owner(s) (including easements from same third party owner(s))	£960
Wayleave(s)/easement(s) only on a residential site from developer	£240
Wayleave(s)/easement(s) only on a commercial/Industrial site from developer	£480
Wayleave(s)/easement(s) from third party owner(s)	£848
Statutory consents for overhead lines	£1,920
Electricity North West company solicitor costs for all of the above	£550

7.4 These charges are for illustrative purposes only and are based on current direct labour and overhead rates contained within our Connections charging estimating package.

## System Studies

7.5 A system study will be undertaken by Electricity North West's agent United Utilities Electricity Services where in accordance with the criteria provided in this section, the application is likely to have a material effect on the safe and secure operations of the system and/or any adverse effect on other connected customers.

A system study, where undertaken, will:

- Assess the existing capacity of Electricity North West's electricity distribution network to be able to accept the demand or generation connection application requirements (ie that the network will remain in compliance with appropriate national and Electricity North West standards); and
- Define the minimum cost scheme, in accordance with Electricity North West's engineering designs and specifications.

A range of indicative charges, for system studies are shown in the Tables below for generation and demand connections.

A system study will be undertaken for any generation connection application received by Electricity North West's agent United Utilities Electricity Services, except for a single SSEG installation notification which does not form part of a multiple installation programme on the same electrical feeding path. The system study charges are as asset out in table 7a below.

*Table 7a Indicative system study charges for generation connections.*

<b>Capacity (MVA)</b>	<b>Indicative charge</b>
Up to and including 1	£1,240
>1 up to and including 4	£2,470
>4 up to and including 10	£8,300
>10 up to and including 40	£12,000
>40 up to and including 100	£16,000
>100	Price on Application

A system study will be undertaken for a demand connection application received by Electricity North West's agent United Utilities Electricity Services, where the connection requirements meet one or more of the following criteria:

- The nature of the new load to be connected is likely to give rise to power quality problems on Electricity North West's electricity distribution network. Examples of equipment that would cause power quality problems are:
  - Arc furnaces
  - Welding plant

- Electric motors, where material (P28 provides guidance on the connection of disturbing loads)
- Any significant non-linear load (ie thyristor and other electronically controlled loads)
- There is likely to be a material impact on any upstream network as a result of the connection, when considering the amount of capacity headroom available on that upstream network, particularly where that upstream network is operated with parallel paths such that revised power flows cannot be determined by inspection.

The system study charges are as set out in table 7b below. Note that the need for a study at LV will be the exception, and then only in relation to industrial or commercial loads.

*Table 7b Indicative system study charges for demand connections.*

<b>Voltage at POC</b>	<b>Capacity (MVA)</b>	<b>Indicative charge</b>
LV	Up to 1	£1,240
HV	Up to and including 2	£2,470
HV	>2	£5,400
33kV	Up to and including 10	£8,600
33kV	>10	£14,900
132kV	Any	Price on Application

7.6 These charges are for illustrative purposes only and are based on current direct labour and overhead rates calculated for our system study operatives. Note, payment of system studies charges (plus VAT) is required in advance of the study being undertaken.

### **Provision of Additional Meetings**

7.7 An initial meeting to discuss any aspects of your connection request will be held at no cost to you. However, Electricity North West will charge £270 per meeting for a two-hour meeting held at Electricity North West's or our agent United Utilities Electricity Services' offices for any subsequent meetings that we are asked to hold. Additional time over the two hours will be charged at £70 per person per hour.

## Provision of Data

- 7.8 Detailed information can be provided for specific parts of Electricity North West's electricity distribution network on request. The information that can be provided and the associated charges are given below.

*Table 8 Indicative charges for the Provision of Data*

### Network Data

<b>Description</b>	<b>Indicative Charge</b>
Circuit Complex Impedance (including zero sequence) & Rating	£52 + £36 each circuit
Circuit Susceptance data for voltages other than 132 kV	£52 + £36 each circuit
Feeder Load Data (Amp)	£67 / feeder / 12 months
Group Load Data (MW and MVAR)	£67 / group / 12 months
Equivalent Short Circuit Impedance at a Busbar	£145 / busbar
Limitation on the firm capacity of a substation	Provide with full Group and Feeder Load Data only

### Plant Data

<b>Description</b>	<b>Indicative Charge</b>
Circuit Breaker Fault Level Ratings	£156 / switchboard
Transformer Impedance, Rating & Tap Range, incl earthing details and hot site identification	£156 / transformer
Transformer Zero Sequence Reactance Data	£156 / transformer

### Fault Level Studies (including limitation on fault level)

<b>Description</b>	<b>Indicative Charge</b>
11 kV Fault Level Study (RMS break currents decremented to expected protection operation time)	£1,245 / up to the local primary substation
33 kV Fault Level Study	£1,245 / up to the local BSP substation
132 kV Fault Level Study	£1,867 / up to the NGET interface
Indicative cost of work to reduce the limitation on fault level	Subject to system study at £78 per hour

- 7.9 These charges are for illustrative purposes only and are based on current direct labour and overhead rates calculated for our system study operatives.

## Final connection to Electricity North West's distribution network

7.10 A range of charges are shown below for connection to the existing distribution network, by Electricity North West's agent United Utilities Electricity Services, on behalf of an accredited installer.

*Table 9 Charges for final connection to Electricity North West's distribution network*

<b>Initial jointing and energisation activities</b>	<b>Charge</b>
Low Voltage service polarity and earth loop impedance testing at service termination position.	£36 to £49
Low Voltage service joint (all sizes) (excluding excavation & re-instatement).	£343 to £408
Low Voltage energisation by a mains joint to an existing cable (excluding excavation and reinstatement).	£343 to £408
Low Voltage bottle end to mains cable (excluding excavation & re-instatement).	£158 to £325
Low Voltage energisation by termination to an existing piece of switchgear, including all associated operational costs.	£189 to £465
Low Voltage energisation by connection to an existing overhead line.	Price on Application
High Voltage energisation by a joint to an existing cable, including all associated operational costs (excluding excavation and reinstatement).	£781 to £1,153
High Voltage energisation by termination to an existing piece of switchgear, including all associated operational costs.	£448 to £635
High Voltage energisation by connection to an existing overhead line, including all associated operational costs.	Price on Application
Extra High Voltage energisation connection.	Price on Application

7.11 These charges are based on current direct/indirect labour, material and overhead rates as contained within our connection charging estimating package.

## Point of Connection to Electricity North West's Electricity Distribution Network

7.12 A range of charges are shown below, for determining a Point of Connection to Electricity North West's existing distribution network, on behalf of an accredited installer.

*Table 10 Charges for determining a Point of Connection to Electricity North West's Distribution Network*

<b>Point of Connection activity</b>	<b>Charge</b>
Low Voltage, Single Phase, Un-metered Supplies (<20kVA)	£55 per Point of Connection plus £5 per termination
Low Voltage (LV) Connection - for 1 to 4 domestic properties, where no system reinforcement or diversions are required	£142
Low Voltage (LV) Connection - for a capacity up to 60kVA, where no system reinforcement or diversions are required	£142
Low Voltage (LV) Connection - new connections to the distribution system where the point of connection & associated work, including reinforcement do not exceed 1kV	£1,223
High Voltage (HV) Connection - new connections to the distribution system where the point of connection &/or associated work, including reinforcement, are above 1kV, but do not exceed 22kV	£3,761
Extra High Voltage (EHV) Connection - new connections to the distribution system where the point of connection &/or associated work, including reinforcement, are above 22kV	Price on Application
LV Generation Connection - new generation connections to the distribution system where the point of connection & associated work, including reinforcement that do not exceed 1kV	£1,691
HV Generation Connection - new generation connections to the distribution system where the point of connection &/or associated work, including reinforcement, are above 1kV, but do not exceed 22kV	£3,761
Extra High Voltage (EHV) Generation Connection - new generation connections to the distribution system where the point of connection &/or associated work, including reinforcement, are above 22kV	Price on Application

7.13 The costs shown in Table 10 allow for one revision to any application, such as a change in load details or site layout. Any further rework caused by changes in requirements will be considered on a case by case basis and additional charges may be made.

## Inspection and Monitoring

7.14 Table 11 Charges for the inspection and monitoring of Contestable works to be adopted by Electricity North West

Inspection and Monitoring activity	Charge
Service cable installation (per 10 services installed)	£158
Service termination (per termination)	£158
Service jointing (per joint)	£158
Mains cable laying (per 100m installed)	£158
Mains jointing (per joint)	£158
Plant installation (per substation, inc. terminations)	£721
Civil works, footings inspection (per substation)	£158
Civil works, building inspection (per substation)	£287
HV network pre-commissioning tests (per substation)	£493
Overhead equipment inspection (per pole) (Note: For H-poles use one inspection)	£158

Any additional audits that are required to follow up failure during an audit will be charged the same as initial audits, as advised in the above table.

The charge for inspection and monitoring by Electricity North West's agent United Utilities Electricity Services, of work carried out by accredited installers on EHV installations, will be given individual consideration. The level of charges will depend upon the complexity of the work being carried out and the necessary experience needed by individuals monitoring the installation of the equipment.

The below table will be used to calculate the actual numbers of inspection charges to be made.

Table 12 Inspection and Monitoring Levels

Audit Levels						
Site Inspections	Activity	First Audit Level	Qualifying count and period to move to second level	Second Audit Level	Qualifying count and period to move to second level	Third Audit Level
	Mains Cable Installation	50% per site	10 Inspections across a minimum of 5 sites within 6 months	10%	5 Inspections across a minimum of 5 sites within 6 months	5%
	Service Cable Installation	10%	20 installations across a minimum of 5 sites within 6 months	2%	-	2%

	Mains Jointing	50%	10 Inspections across a minimum of 5 sites within 6 months	10%	5 Inspections across a minimum of 5 sites within 6 months	5%
	Service Jointing	20%	20 joints across a minimum of 5 sites within 6 months	5%	20 joints across a minimum of 5 sites within 6 months	2%
	Service Termination	20%	20 terminations across a minimum of 5 sites within 6 months	2%	-	2%
	HV Pre-Commissioning Tests	100%	5 tests within 6 months	20%	5 tests within 6 months	5%
	Transformers and Switchgear	100%	-	100%	-	100%
	Civil Works	100%	-	100%	-	100%

Note: Excludes polarity checks.

#### **Other circumstances which our charges may take into account**

7.15 These are:

- Service termination where you fail to provide and/or install ducts to facilitate the installation of services into the premises
- Progression of work needed other than in an orderly fashion in accordance with normal engineering policies and practices thus imposing additional costs
- Transformer/substation sites not provided to us in suitable locations at normal prices or rents, taking account both of cable access and access by personnel
- Multiple occupancy premises where the developer fails to provide all necessary civil work including ducts, access ways, chases and covers, etc; and
- Loads with abnormal characteristics, which affect the security and standard of service on the electricity distribution network, for example, arc welders and large motors.

#### **Administration fees**

7.16 Fees are chargeable to cover the costs incurred in:

- the production and administration of the Agreement to Adopt, which will be standard for all applications;
- discharging our obligations under the Electricity (Connection Charges) Regulations 1990 (as amended by new Electricity (Connection Charges) Regulations 2002), where applicable.

The minimum administration fee is £411

### Charge for Substation Locks and Notices

7.17 A charge of £238 per substation for the provision by Electricity North West of the following standard items:

- Electricity North West's substation locks
- Electricity North West's switchgear locks
- Electricity North West's substation nameplates
- Electricity North West's danger of death notices

### Unmetered connections charges

7.18 An unmetered connection is classified as an electricity connection to street lighting, traffic signs, bus shelters, telephone boxes and other like structures situated on a highway, which is permitted by regulations made under paragraph 1A of Schedule 7 to the Act but cross-referenced with the requirements and the Electricity (Unmetered Supply) Regulations 2001.

### Street lighting price matrix for contestable works

Table 13 Indicative charges for contestable street lighting work

Item description	Full Works	Joint only
Disconnection	£330 - £430	£343 - £408
Transfer	£460 - £670	£343 - £408
New connection up to 5 metres same side	£550 - £790	£343 - £408
Road crossing new connection up to 15 metres	£1,420 - £ 1,770	£343- £408
Extra per metre cable	£60 - £80	n/a

7.19 These charges are for illustrative purposes only and are based on current direct/indirect labour, material and overhead rates contained within our Connection charging estimating package. Please note that a 25% and 50% premium will apply to the above services for work carried out on a Saturday and a Sunday respectively.

## Street lighting price matrix for non-contestable works

Table 14 Indicative charges for non-contestable street lighting work

Description	Indicative charge
Permanent disconnection of existing Electricity North West's electricity distribution network supply	£430
Transfer of existing Electricity North West's electricity distribution network supply, maximum distance up to 5 metres (including live service to service joint only, no excavation, backfill etc).	£408
New permanent Electricity North West's electricity distribution network connection (including for live mains to service breach joint only, no excavation, backfill etc).	£408

7.20 These charges are for illustrative purposes only and are based on current direct/indirect labour, material and overhead rates contained within our connection charging estimating package.

### Rent a Jointer

7.21 Electricity North West's agent United Utilities Electricity Services will provide a rent a jointer scheme to interested parties on a project by project basis at present. A schedule of rates for this service will be agreed before project commencement. Service levels will also be agreed on the lines of minimum project duration and minimum scope of works. We acknowledge that this is a developing market and we look to a standard approach to indicative charges as the scheme develops.

### Adoption Payment

7.22 An allowance may be included in the terms of the connection offers provided by Electricity North West's agent United Utilities Electricity Services for a new or increased connection.

Table 15 Adoption payment

Assets	Allowance for typical connection type
Local 11 kV or 6.6 kV connection, Substation, LV mains and LV service	Nil value
LV fuseway in substation, LV mains and LV service	Nil value
Local LV mains (connected to existing LV mains from substation) and LV service	Nil value

## Section 8 - Disputes

- 8.1 If you are unhappy with the terms or charges offered by Electricity North West then in the first instance approach us. If agreement with Electricity North West cannot be reached within a reasonable time, then you may approach Energywatch (the gas and electricity consumer council). They are able to investigate consumer complaints and disputes but will expect you to let us try and sort out any dispute first.
- 8.2 If Energywatch and Electricity North West are unable to resolve your dispute, then either party may request determination of the dispute by the Gas and Electricity Markets Authority (GEMA). Energywatch will forward the case to the Authority.
- 8.3 Electricity North West customer service contact details:
- Connections Liaison  
United Utilities Electricity Services Limited  
Oakland House, Talbot Road,  
Manchester  
M16 0HQ  
Telephone: 0161 875 7114  
[www.unitedutilities.com](http://www.unitedutilities.com)
- 8.4 Energywatch (North West) contact details:
- Energywatch North West  
Boulton House  
Chorlton Street  
Manchester  
M1 3HY  
Telephone: 08459 06 07 08  
[www.energywatch.org.uk](http://www.energywatch.org.uk)
- 8.5 For further information on determinations go to Ofgem's determination website at [www.ofgem.gov.uk](http://www.ofgem.gov.uk).

## Section 9 – General Information

### Contact details

#### New connection enquiries

##### 9.1 For statutory connections apply to our agent:

United Utilities Electricity Services Limited  
Oakland House  
Talbot Road  
Manchester  
M16 0HQ  
Telephone: 0161 875 7114

##### 9.2 Installation by an accredited installer:

Points of connection, design approval, approval of contractors and specifications.

Asset Adoption Section  
United Utilities Electricity Services Limited  
Oakland House  
Talbot Road  
Manchester  
M16 0HQ  
Telephone: 0161 875 7114

#### Existing connection enquiries

##### 9.3 Add loads with capacity less than/up to 60 kVA.

**Including reductions in load, terminations, service alterations, disconnections, all regions**

Customer Services  
United Utilities Electricity Services Limited  
Hartington Road  
Preston  
PR1 8LE  
Telephone: 0800 1951452

#### 9.4 Add loads with capacity greater than 60 kVA, and diversions

**North region:** Skelmersdale, Wigan, Bolton, Bury, Heywood, & all areas North

Connections Liaison  
United Utilities Electricity Services Limited  
Hartington Road  
Preston  
PR1 8LE  
Telephone: 01772 848244

**South region:** Urmston, Salford, Manchester, Oldham, Rochdale, & all areas South

Connections Liaison  
United Utilities Electricity Services Limited  
Oakland House  
Talbot Road  
Manchester  
M16 0HQ  
Telephone: 0161 875 7114

#### **Connections for generating electricity**

9.5 Terms and Conditions Manager  
United Utilities Electricity Services Limited  
Hartington Road  
Preston  
PR1 8LE  
Telephone: 01772 848344

#### **Connections at Extra High Voltage (EHV) – New or existing supplies**

9.6 Connections Liaison  
United Utilities Electricity Services Limited  
Hathersage Road  
Manchester  
M13 0EH  
Telephone: 0161 257 4734

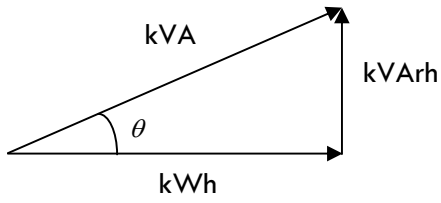
#### **Terms and conditions (including applications for reductions in load)**

9.7 Terms and Conditions Manager,  
United Utilities Electricity Services Limited  
Hartington Road,  
Preston.  
PR1 8LE.  
Telephone: 01772 848344

## **Lloyds Address and Website Address**

- 9.8 Lloyd's Register EMEA  
Hiramford, Middlemarch Office Village,  
Siskin Drive, Coventry,  
CV3 4FJ.  
Telephone: 024 7651 8630  
[www.lr.org/ners](http://www.lr.org/ners)

## Glossary of terms

Act	The Electricity Act 1989 as amended by Utilities Act 2000, the Sustainable Energy Act 2003 and the Energy Act 2004.
Agreement to Adopt	An agreement between you, your accredited installer and Electricity North West, setting out the terms and conditions by which Electricity North West will adopt new assets.
Authorised	Applies to an employee of an accredited installer, being recognised by Electricity North West's agent United Utilities Electricity Services to have the necessary knowledge and skill to carry out, with the necessary safety and quality, certain tasks associated with the installation of new connections.
Authorised Supply Capacity (ASC)	Means the agreed maximum capacity measured in kilovoltampere you are allowed to take from the Distribution Network through your point of connection.
Authority	The Gas and Electricity Markets Authority (GEMA) – the regulatory body for the gas and electricity industries established under section 1 of the Utilities Act 2000.
Capitalised Operation and Maintenance (O&M) percentage	The annuitised percentage rate of the operation and maintenance percentage; based on 20 year lifetime discounted at the allowed rate of return.
Chargeable reactive power units	<p>A reactive power charge is made for each kVAh consumed in excess of 33% of the number of units (kWh) consumed in each month. This represents a threshold value for power factor of 0.95, below which consumed reactive units are chargeable. The diagram below shows the calculation of power factor.</p> <p style="text-align: center;"><math>\cos \theta = \text{Power}</math></p> 
Connection agreement	An agreement between you and Electricity North West setting out terms and conditions with which we are each bound concerning the provision and use of the connection.
Consents	Consents which we need in accordance with various statutes before we can build or modify an overhead line. Examples are planning permission and approval by the Department of Trade and Industry.
CUSC	Means the Connection and Use of System Code governing connection to and use of NGET's transmission network
Customer With Own Generation (CWOOG)	A customer who has his own generation and which is capable of being paralleled to our Distribution Network.

De-energise	Our action of opening switches or removing fuses, in order to prevent electricity flowing from our distribution network to your equipment at your premises.
Development Area	A defined area that is designated for development or regeneration.
Disconnect	Our action intended to permanently break the connection between our network and your equipment, possibly including the removal of our equipment from your premises.
Distributed Generator	A generator with a direct connection to Electricity North West's Distribution Network.
Distribution Code	The Distribution Code of the Distributors of England and Wales. It is the document produced by each Distributor in accordance with Condition 9 of its Licence and approved by Ofgem to define the technical aspects and planning criteria of the working relationship between the Distributor and all those connected to its Distribution Network.
Distribution Licence	The Electricity Distribution Licence granted to Electricity North West Limited pursuant to section 6(1) of the Act
Easement	A perpetual right negotiated by and granted to the owner of underground or overhead equipment, allowing him to install and maintain that equipment under or over private land, normally without restriction.
Elexon	The Balancing and Settlements Company.
Extra high voltage (EHV)	22 kV or higher voltage or 11 or 6.6 kV if supplied directly from a transformer with a primary voltage of 132 kV. The tolerances are plus or minus 6% measured between any two phase conductors.
Grid Code	The document produced by NGET in accordance with its transmission licence and approved by Ofgem to define the technical aspects and planning criteria of the working relationships between NGET and all those connected to its transmission network and including, in certain aspects Distributed Generators.
High voltage (HV)	6.6 kV or 11 kV plus or minus 6% measured between any two phase conductors.
Low voltage (LV)	230 volt plus 10% or minus 6% measured between the neutral conductor and any phase conductor.
Network	The whole of our interconnected distribution equipment, including cables, overhead lines and substations, which we operate in accordance with our licence.
National Grid Electricity Transmission (NGET)	The company that owns and operates the transmission network in England and Wales.
Ofgem	Ofgem is the Office of Gas and Electricity Markets that regulates the gas and electricity industries in Great Britain. Ofgem operate under the governance of the Gas and Electricity Authority (sometimes referred to as the Authority or GEMA) which sets all major decisions and policy priorities.

Operation and Maintenance (O&M) percentage	The percentage rate of Operation and Maintenance is calculated as the percentage of the operation and maintenance costs to the modern equivalent value of the distribution network assets.
Standards of Performance	Standards laid down by the Office of Gas and Electricity Markets against which our average or overall performance of certain duties is measured and compared.
POC	Point of connection, as defined, to our distribution network.
P28	Engineering Recommendation P28 is a document issued by the ENA and covers the distribution network planning limits for voltage fluctuations caused by industrial, commercial and domestic equipment in the United Kingdom.
Re-energisation	Our action of closing switches or replacing fuses, in order to allow electricity to flow from our distribution network to your equipment at your premises.
Reinforcement	Any work to increase the network's capability of delivering load or accepting generation on any part of our existing network.
Relevant Objectives	<p>The relevant objectives, as defined in our Electricity Distribution Licence, are:</p> <p>(a) That compliance with the connection charging methodology facilitates the discharge by the licensee of the obligations imposed on it under the Act and by this licence;</p> <p>(b) That compliance with the connection charging methodology facilitates competition in the generation and supply of electricity, and does not restrict, distort, or prevent competition in the transmission or distribution of electricity;</p> <p>© That compliance with the connection charging methodology results in charges which reflect, as far as is reasonably practicable (taking account of implementation costs), the costs incurred by the licensee in its distribution business; and</p> <p>(d) That, so far as is consistent with sub-paragraph (a), (b) and (c), the connection charging methodology, as far as is reasonably practicable, properly takes account of developments in the licensee's distribution business.</p>
Regeneration Zone	See 'Development Area'
Statutory connection	A request under Section 16 of the Electricity Act 1989 to provide a connection.
SSEG	A Small Scale Embedded Generator (SSEG) is a source of electrical energy rated up to and including 16 Ampere per phase, single or multi phase, 230/400 Volt AC.
Substation	A building or enclosure including the equipment within it, where electricity is controlled, converted or transformed at high voltage or extra high voltage.
Supplier	The company from whom you purchase electricity.
Supply Capacity	The largest amount of electricity, expressed in kilovoltampere, that we say can pass from Electricity North West's Distribution Network to your equipment at your premises.

Temporary Connection	A connection to the Distribution Network which is likely to have a limited life span.
Transfer	Transfer means, in relation to an unmetered connection, the installation of electrical lines (and any associated electrical plant), to enable any structure provided with an unmetered supply to be relocated.
Wayleave	A legal agreement which allows us to install Electricity North West's Distribution Network over third party property.

## Other publications

9.8 The following publications and details of where to find them may be of use to those seeking a connection.

- Electricity North West's Statement of Charges for the Use of Electricity North West's Electricity Distribution Network is available free of charge from our website at [www.unitedutilities.com](http://www.unitedutilities.com). Alternatively a hard copy is available on request for a fee of £10 plus packing, postage and VAT.
- Electricity North West's Licence Condition 25 Statement, a summary of this statement is available on our website at [www.unitedutilities.com](http://www.unitedutilities.com).
- Electricity North West's Distribution Code is available free of charge from the DCode website at [www.dcode.org.uk](http://www.dcode.org.uk) or alternatively an unserved copy is available for £50 plus packing, postage and VAT by following up the contact details on page 44.
- Engineering Recommendation G83/1 is to available purchase from the Energy Networks Association website at [www.energynetworks.org.uk](http://www.energynetworks.org.uk). Copies of the connection application forms referred to in the Engineering Recommendation G83/1 are available free of charge on the same website.
- The following legislation is available to reference or purchase from the HMSO website at [www.hmso.gov.uk](http://www.hmso.gov.uk):
  - Electricity Act 1989;
  - Utilities Act 2000;
  - Sustainable Energy Act 2003;
  - Energy Act 2004;
  - Electricity (Connection Charges) Regulations 2002;
  - Electricity (Connection Charges) (Amendment) Regulations 2002;
  - The Electricity (Unmetered Supply) Regulations 2001;
  - Electricity Safety, Quality and Continuity Regulations 2002;
  - The Electricity (Standards of Performance) Regulations 2001 and the Electricity (Standards of Performance) (Amendment) Regulations 2002.

## Version Control

Version	Date	Details	Author
1.1	24 Sept. '04	Draft submission for Ofgem consultation	S M Brooke
1.2	26 Nov. '04	Final submission for Ofgem approval	S M Brooke
1.3	18 Feb. '05	Revisions reflecting comment from 'notice of decision' document	S M Brooke
1.4	3 Mar. '06	Annual review: <ul style="list-style-type: none"> <li>• Re-format the document to align it with the other licence condition statements;</li> <li>• Update name, website changes and definitions to align with the other licence condition statements;</li> <li>• Remove incorrect wording on the application of design and monitoring charges in contestable charges; and</li> <li>• Include additional worked examples in Section 6 to illustrate how connection and reinforcement charges are calculated.</li> <li>• Amend the threshold level at which capacity charges are incurred following reinforcement of the distribution network.</li> </ul>	F Welsh, E J Rigby
1.5	28th Nov '06	UU/2007/001 UU/2007/002 UU/2007/003 UU/2007/004 UU/2007/005	F Welsh, E J Rigby
1.6	20th Apr '07	UU/2007/006 UU/2007/007.1	S Brooke, F Welsh
1.7	30th July '07	UU/2008/001	S Brooke, F Welsh
1.8	7th Feb '08	ENW/2008/005 ENW/2008/006 ENW/2008/007 ENW/2008/008 ENW/2008/009	F Welsh
1.9	11th Jun '08	ENW/2009/002	F Welsh