STATEMENT OF CHARGES FOR CONNECTION TO NORTHERN IRELAND ELECTRICITY NETWORKS' DISTRIBUTION SYSTEM

Effective from 5th of August 2024
Version 1.11

DOCUMENT CHANGE CONTROL SHEET

Document Control					
Document Version	**Description**	**Originated**	**Submission Date**	**Approval Date**	**Notes**
V1.6	Submission To Utility Regulator	NIE Networks	17/12/2021	18/01/2021	Update to Connection Chardes in Schedules including the Standard Connection Charge.
V1.7	Submission To Utility Regulator	NIE Networks	27/09/2022	03/10/2022	Update to Connection Charges in relation to Contestability methodology in Section 9, Definition of Access Agreement and Schedule 13 Charges in relation to Contestability in Connections Section B & D
V1.8	Submission To Utility Regulator	NIE Networks	12/10/2022	18/10/2022	Update to Connection Charges in relation to Contestability methodology in Section 9.2 and 9.5. Amendment of definitions and terms
V1.9	Submission To Utility Regulator	NIE Networks	10/07/2023	08/09/2023	Update to Connection Charges in Schedules excluding the Standard Connection Charge. Update in pricing outlined in Appendix 1. Update to section 5.1.4, adjusting cross-reference clause number. Update to section 11, NIE Networks' Contact Details
V1.10	Submission To Utility Regulator	NIE Networks	04/01/23	29/02/2024	Updates to reflect Cluster Methodology review consultation
V1.11	Submission To Utility Regulator	NIE Networks	19/06/2024	01/07/2024	Update to Connection Charges in Schedules excluding the Standard Connection Charge. Update to section 1 and 11, NIE Networks' Contact Details. Update to Appendix 1 a).

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1. Introduction

General

1.1 This Statement of Methodology and Charges for Connection to the **Distribution System** (the "**Statement of Charges"**) has been prepared in accordance with Condition 32 of the **Licence**. It sets out the basis on which charges will be made for connection to the **Distribution System** and also provides information on the connection process.

1.2 Northern Ireland Electricity Networks Limited (NIE Networks) is the owner of the Northern Ireland **Distribution System** and is authorised to distribute electricity by means of a **Licence** granted by the Department for the Economy (DfE), under Article 10(1)(bb) of the Electricity (Northern Ireland) Order 1992, as amended, (the "**Order**") and it is regulated by the Northern Ireland Authority for Utility Regulation (the "**Authority"**).

1.3 Under the **Licence** NIE Networks is responsible for the planning, development, maintenance and operation of the **Distribution System**, a system consisting of some 47,000 kilometres of network connecting approximately 910,000 customers and with a maximum demand of approximately 1,800 MW.

1.4 NIE Networks is the only party in Northern Ireland entitled to offer terms to connect, or to modify an existing connection, to the **Distribution System**. However **Contestability in Connections (CIC)** introduces competition for certain aspects of new connections.

1.5 The headings used in this statement are for ease of reference only and shall not affect its interpretation.

1.6 Expressions used in this statement have the definitions given to them in the **Order** unless otherwise defined herein and shall be construed accordingly. Terms which are capitalised and in bold type are defined in Section 12 of this statement.

Contestability in Connections

1.7 **Contestability in Connections** is the term attributed to the opening up of the market for the design, procurement and installation of new assets necessary to accommodate a new connection. Customers have the option of having some of the connections work, referred to as the **Contestable Work**, carried out by an **Independent Connection Provider** (**ICP)**.

1.8 For more information on **Contestability in Connections** please refer to the Guidelines for Contestability in New Electricity Connections in Northern Ireland (the **Guidelines**[1]) and Section 9 of this **Statement of Charges**

Connections to the Distribution System

1.9 The following sections describe the processes for applications, offers, acceptance of offers and connection to the **Distribution System**.

[1] https://www.nienetworks.co.uk/documents/connections/distribution-contestability-guidelines

The Application Process

1.10 The connection process commences with the person seeking a new or modified connection completing an application form and submitting it to Connections Customer Liaison, NIE Networks.

1.11 Applications for a connection can be made online by following the link below.:

http://www.nienetworks.co.uk/Connections

This site contains pointers to aid completion of the application form online through our website.

1.12 Alternatively, an application form can be requested by calling NIE Networks on 03457 643 643 and then returning the completed form together with all relevant information to:-

NIE Networks
Connections Customer Liaison,
Northern Ireland Electricity Networks Limited
120 Malone Road
Belfast
BT9 5HT

1.13 In order to process your application efficiently, we will require certain information listed in the application form, including but not limited to:

a) Name and address of the person requiring connection
b) A full address and postcode of the property to be connected;
c) Site plans including the layout of the property to be connected;
d) The electrical characteristics of the connection such as the type of electricity meter you require;
e) The date on or by which the connection is required;
f) The maximum import or export power, depending on the nature of the application that will be required at the point of connection.

1.14 Further information may be required when we process the application. NIE Networks will contact you to discuss your specific requirements or identify additional information required. This will happen typically within ten working days from receipt of your application.

1.15 We will acknowledge receipt of your application and advise you of your job reference number for use in future communication and correspondence.

1.16 If you wish to alter the connection application or revise the information contained in the connection application then NIE Networks, in its discretion, may treat the revised application as a new application and seek to recover any costs incurred associated with assessing the revised application.

Offer of Terms for Connection

1.17 NIE Networks is required by the **Licence** to provide terms for connection within three months of receiving the connection application and associated relevant information,

including a fee, if appropriate. Where we require a longer period of time to prepare the connection offer we may seek consent from the **Authority** after consulting with the applicant.

1.18 NIE Networks is not obliged to offer terms for connection if it is exempt from doing so under Article 21 of the **Order**.

1.19 NIE Networks will provide information on the arrangements whereby SONI, as **Transmission System** Operator in Northern Ireland, allocate transmission Firm Access Quantity (FAQ) to generators connecting to the **Distribution Network** which are 5MW and above. The applicant is responsible for contacting SONI to request an FAQ.

1.20 The **Terms Letter** will include details of the work required to provide the electricity connection, a quotation for the work involved to provide the connection and the terms and conditions for the carrying out of that work

1.21 The **Terms Letter** will contain two options and only one can be accepted[2]. The first option is where NIE Networks will undertake all of the **Connection Works** and the **Reinforcement Works**, if any, and is known as the **Full Works Option**. The second option is where NIE Networks will undertake only the **Non-Contestable Works** and the **Reinforcement Works**, if any, and is known as the **Non-Contestable Works Option**. More detail is provided in Section 9.

1.22 The **Connection Charge** that will apply to any **Terms Letter** issued by NIE Networks will be determined by the **Statement of Charges** in force on the date on which the **Terms Letter** is issued. Should the **Terms Letter** not be accepted prior to a new **Statement of Charges** coming into force the **Terms Letter** may be revised to reflect the **Statement of Charges** in force on the date of acceptance.

1.23 In the event that connection does not occur during the period within which the **Statement of Charges** which was in force at the date of acceptance of the **Terms Letter** remained in force and such delay was not due to reasons within the control of NIE Networks then the **Terms Letter** may be revised to reflect the **Statement of Charges** in force on the date of connection.

1.24 While NIE Networks shall endeavour to ensure that the estimated Connection Charge as stated in the Terms Letter is as accurate as possible based upon current charges and design assumptions it may be necessary to revise the Connection Charge and/or vary the Terms Letter before or after acceptance where circumstances have changed since the Terms Letter was issued, although NIE Networks shall always act reasonably in a manner consistent with that of a reasonably prudent distribution network operator.

1.25 Circumstances in which we may be required to revise the Connection Charge or issue a variation of the Terms Letter include, without limitation:

i. Where completion of the **Connection Works** is programmed to take place more than 12 months after acceptance of the **Terms Letter** andthe cost of labour and materials has increased since the date of the **Terms Letter**. In such circumstances

[2] The exception being where the connection application is to modify, alter or divert an existing connection and the customer's requirements can be met without the construction of a new connection. In this case the **Terms Letter** will contain only one option.

the **Connection Charge** may be adjusted in line with the **Retail Price Index**, a London metal exchange price index or in accordance with any other mechanism considered appropriate by NIE Networks;

ii. Where a full design review of the proposed **Connection Works** is required after acceptance of the **Terms Letter**;

iii. Where a full site survey is required for the required civil works;

iv. Where further **Connection Works** are identified as being required following the customer providing full technical details of the customer works;

v. Where the customer works or **Contestable Works**, if not undertaken by NIE Networks, have not been completed satisfactorily;

vi. Where the proposed cable /overhead line routes are unachievable or other property rights or statutory consents can not be obtained;

vii. Where there is any change to the application for connection submitted by the customer or the customer makes or request a modification to the physical or electrical characteristics described in the Specific Conditions for Connection Works;

viii. Where any of the circumstances described in sub-clause 6.17 of the **Statement of Charges** apply;

ix. Where the application for connection to the **Distribution System** may require works on the **Transmission System** and such works have not been identified in the **Terms Letter** and/or included in the **Connection Charge.**

1.26 Should it be necessary for NIE Networks to revise the **Terms Letter** and/or the **Connection Charge** NIE Networks shall notify the customer as soon as is reasonably practicable of the proposed variation. Any additional amounts required by the variation shall be paid by the customer within 30 days of the date of an invoice. Where the proposed variation will result in a refund to the customer this will be paid by NIE Networks as soon as practicable. If the customer disputes the proposed variation the provisions of clauses 4.2 and 12 of the **General Terms for Connection Works** shall apply. The customer's right to terminate the **Agreement** under clause 10.1 of the **General Terms for Connection Works** shall not be affected by the variation.

Acceptance of Terms

1.27 If you wish to accept the **Terms Letter** for connection to the **Distribution System** you should accept that offer in accordance with its terms and provide the relevant payment. Quotations are valid for 90 calendar days so your acceptance and payment must be received within that period.

The Connection Process

1.28 Following receipt of the accepted **Terms Letter** NIE Networks will carry out the works required for pre–connection planning subject to the terms of connection. Some connections may require electricity equipment to be sited on other people's land in which

case NIE Networks will seek permission from the landowners or other government bodies before we can proceed with your connection works. Permission may also be required from the Department of Agriculture, Environment and Rural Affairs (DAERA) for proposed overhead lines, in Areas of Outstanding Natural Beauty (AONB), in Areas of Special Scientific Interest (ASSI) or over 400 metres in length. In addition, Article 40 consent may be required for the installation, and keeping installed, of any overhead electric line, from DfE. The process of obtaining the required consents[3] can typically take between six to nine months although on occasions may take longer.

1.29 Processing your connection through to construction will be delivered through our depot network.

1.30 When consents and the appropriate payment have been received, NIE Networks will contact you to agree a date for the work. Normally for small connections construction may take between four to eight weeks from when your site is ready and for larger type connections can take up to 1 year. Connection is subject to receipt of your connection card[4] from your electrical contractor.

Appointment of Supplier and Connection Agreement

1.31 A person requiring a connection to the **Distribution System** will be required to enter into a **Connection Agreement** with NIE Networks setting out the terms and conditions which will apply after energisation with regard to NIE Networks providing and maintaining the connection. In some cases the electricity **Supplier** of the person requiring connection will act as an agent for NIE Networks and put in place a standard **connection agreement**, known as the 'Standard Connection Terms and Conditions for Low Voltage Connections'. In the event of any inconsistency with this statement the agreement(s) will take precedence.

Disputes and Determinations

1.32 Should a dispute arise between NIE Networks and the person seeking a connection to the **Distribution System** the complaint procedure set out in Section 11 should be followed. If the dispute cannot be resolved either party may request a determination of any of the terms and conditions of connection by the **Authority**.

[3] Examples of consents include but are not limited to DfI Planning, DfE Article 40, Street Works Legislation, 3rd party permissions.

[4] Method to apply for final connection of an electrical installation confirming that the proposed installation complies with the relevant electrical installation standards

2. Legal and Licence Obligations

Condition 15

2.1 By virtue of Condition 15 of the **Licence**, NIE Networks is required to ensure that in providing offers of connection to the **Distribution System** it does not:

2.1.1 unduly discriminate as between any persons (or any class or classes of person or persons); or

2.1.2 unduly prefer itself (or any affiliate or related undertaking) over any other person or persons (or any class or classes of person or persons).

Condition 27

2.2 By virtue of Condition 27 of the **Licence** NIE Networks is required to prepare, implement and comply with a **Distribution Code** detailing the technical parameters and considerations relating to connection to and operation and use of the **Distribution System**. The **Distribution Code** shall be designed so as to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the distribution of electricity and neither prevent nor restrict competition in the generation and supply of electricity in Northern Ireland, or, to the extent that the **Distribution Code** may have such effect, on the Island of Ireland.

Condition 30

2.3 By virtue of Condition 30 of the **Licence** NIE Networks is required, upon receiving a request from any person, to make a connection between (1) any premises or any other electricity distribution or transmission system, and (2) the **Distribution System**. Furthermore NIE Networks:

i. shall not treat that request as anything other than a notice given under Article 20(1) of the **Order** requiring it to make a connection pursuant to Article 19(1) of the Order; and

ii. to the extent that the request does not comply with the requirements of Article 20 of the **Order**, shall take all reasonable steps, including by way of providing information and assistance to the person making the request, to ensure that it does so comply.

2.4 NIE Networks is required to offer terms for connection to the **Distribution System** as soon as practicable and (save where the **Authority** consents to a longer period) in any event not more than three months after receipt by NIE Networks of an application containing all the information that NIE Networks may reasonably request.

2.5 Where in response to such applications it is determined that works are also required on the **Transmission System**, the references to works on the **Distribution System** in Condition 30 shall apply equally to works on **Transmission System**. Accordingly all references in this statement to extension, reinforcement or decommissioning works on the **Distribution System** shall apply equally to extension, reinforcement or decommissioning works on the **Transmission System**.

Condition 32

2.6 By virtue of Condition 32 of the **Licence** NIE Networks is required to prepare a statement approved by the **Authority** setting out the basis upon which charges will be made for connection to the **Distribution System** and this statement is published to meet that obligation.

2.7 This statement is required to be in a form and to contain detail as shall be necessary to enable any person to make a reasonable estimate of the charges to which it would become liable for the provision of a connection to the **Distribution System.**

2.8 This statement is required to include:

2.8.1 a schedule listing those items (including the carrying out of works and the provision and installation of electric lines or electrical plant or meters) of significant cost liable to be required for the purpose of connection (at entry or exit points) to the **Distribution System** for which **Connection Charges** may be made or levied and including (where practicable) indicative charges for each such item and (in other cases) an explanation of the methods by which and the principles on which such charges will be calculated. (NIE Networks would refer you in particular to Schedules 4 – 12 of this statement.)

2.8.2 the methods by which and the principles on which any charges will be made in respect of extension or reinforcement of the **Distribution System** rendered necessary or appropriate by virtue of providing connection to or use of system to any person seeking connection. NIE Networks would refer you in particular to sub-clauses 4.2 and 5.1 of this statement;

2.8.3 the methods by which and the principles on which **Connection Charges** will be made in circumstances where the electric lines or electrical plant to be installed are of greater size or capacity than that required for use of the **Distribution System** by the person seeking connection (NIE Networks would refer you in particular to sub-clause 6.8 of this statement);

2.8.4 the methods by which and the principles on which any charges (including any capitalised charge) will be made for maintenance and repair required of electric lines, electrical plant or meters provided and installed for making a connection to the **Distribution System** (NIE Networks would refer you in particular to sub-clause 4.7 of this statement);

2.8.5 the methods by which and the principles on which any charges will be made for the provision of special metering or telemetry or data processing equipment by NIE Networks for the purposes of enabling any person which is bound to comply with the **Distribution Code** to comply with its obligations in respect of metering there under, or for the performance by NIE Networks of any service in relation thereto (NIE Networks would refer you in particular to sub-clause 4.2 and 5.1 of this statement); and

2.8.6 the methods by which and principles on which any charges will be made for disconnection from the **Distribution System** and the removal of electrical plant,

electric lines and ancillary meters following disconnection (NIE Networks would refer you in particular to sub-clause 6.13 of this statement).

2.9 NIE Networks shall revise this statement at least once in every year in order that the information provided shall continue to be accurate in all material respects. Any revisions will be made with the approval of the **Authority**.

2.10 NIE Networks will send a copy of this statement to any person who requests it on payment of a charge of £10.00 plus VAT. A copy of this statement can also be downloaded free of charge from NIE Networks website at NIE Networks' Statement of Charges | Northern Ireland Electricity Networks

2.11 NIE Networks is required to set connection charges at a level which will enable NIE Networks to recover:

I. the appropriate proportion of the costs directly or indirectly incurred in carrying out any works, the extension or reinforcement of the **Distribution System** and the provision and installation, maintenance and repair and, following disconnection, removal of any electric lines, electrical plant, meters, special metering, telemetry, data processing equipment or other items; and

II. a reasonable rate of return on the capital represented by such costs.

2.12 NIE Networks is required to ensure that, in setting its charges for connection, it shall not restrict, distort or prevent competition in the generation, transmission, distribution or supply of electricity.

2.13 NIE Networks is required to provide on request (subject to the terms and conditions set out in Conditions 32 of the **Licence** and subject to payment of NIE Networks reasonable costs) a statement showing present and future circuit capacity, forecast power flows and loading on the part or parts of the **Distribution System** specified in the request and fault levels for each distribution node covered by the request.

Electricity (Connection Charges) Regulations (Northern Ireland) 1992

2.14 Where a new customer is to be connected to the **Distribution System** by making use of existing **Connection Assets** constructed by NIE Networks, for which the expenses incurred by NIE Networks were wholly or mainly defrayed by an existing domestic customer(s) who connected within the preceding five years the new customer will be charged a proportion of the value of the shared **Connection Assets**, calculated in accordance with the Electricity (Connection Charges) Regulations (Northern Ireland) 1992. (NIE Networks would refer you in particular to section 6.9 of this statement).

Energy Efficiency Directive (2012/27/EU) - Annex XII

2.15 NIE Networks must comply with Annex XII of the Energy Efficiency Directive, in respect of **High-efficiency Cogeneration connections**. Annex XII states among other things, that the 'overall process to become connected to the grid should be no longer than 24 months, bearing in mind what is reasonably practicable and non-discriminatory'.

Customer Standards

2.16 NIE Networks has guaranteed standards to help us address customer issues and queries as quickly as possible. We always do our best to meet or exceed these standards. Our standards outline the general level of service we aim to give customers and further guaranteed standards cover specific instances of our services to you[4].

[4] https://www.nienetworks.co.uk/help-advice/claims-complaints/customer-standards

3. Customer Categories

3.1 Any person may apply for a connection, or for a modification to an existing connection, to the **Distribution System**. Should that person wish NIE Networks to proceed with **Connection Works** a connection charge will be payable. The charge will depend on the category of person applying.

3.2 For the purposes of this statement, and connection charging policies, persons applying for a connection, or for a modification to an existing connection, to the **Distribution System** will fall into one of two categories:

1. **Authorised Generators**,

   Charging arrangements for this category are set out in Section 4 of this statement

   For **Authorised Generators** connecting to the network as part of a **Cluster** refer also to Section 7 of this statement

2. Not an **Authorised Generator**,

   Charging arrangements for this category are set out in Section 5.

3.3 Charging arrangements applicable to both categories are set out in Section 6.

4. Authorised Generators

4.1 For an **Authorised Generator** that is connected to or intends to connect to **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** this section 4 is to be read in conjunction with Section 7 and Appendix 2.

4.2 Any customer in this category wishing to connect, or to modify an existing connection, to the **Distribution System** will be required to pay for:

4.2.1 the reasonable cost of installing new and/or modified **Connection Assets**;

4.2.2 a proportion of the reasonable cost of installing any new **Connection Assets** which are to be shared with others who are connecting simultaneously, if any (refer to sub-paragraph 6.8.2 for further guidance);

4.2.3 the reasonable cost of decommissioning **Distribution System** assets resulting from the new or modified connection, if any; and

4.2.4 certain costs incurred by NIE Networks in undertaking the **Connection Works** as set out in the **Terms Letter**. For example, any environmental planning costs, any costs incurred in acquiring planning consents, any costs incurred in complying with any conditions of planning consents, any external legal costs, any costs incurred in seeking, obtaining and paying for wayleaves or easements and any costs relating to exceptional land conditions or exceptional civil works. Any such costs incurred by NIE Networks after acceptance of the **Terms Letter** may be invoiced separately.

4.3 Notwithstanding the provisions of sub-paragraph 4.2, NIE Networks will consider, where requested by the customer, entering into an alternative charging arrangement with **Authorised Generators** applying for connection, or already connected, to the 33kV network which shall require the customer to pay the outturn costs of those works set out in sub-paragraphs 4.2.1, 4.2.2 and 4.2.3, as applicable. In this event, NIE Networks will provide as part of the **Terms Letter** an estimate of the Connection Charge, identifying where requested by the customer the costs of the main items of expenditure in a manner consistent with the level of detail provided in Schedules 4 to 12. The reasonable cost, including any additional administrative costs associated with this payment option, will be payable in advance of energising the connection, or as set out in the **Terms Letter** with any reconciliation carried out after a determination of the final costs. The level of detail of the actual outturn costs provided to the customer will be consistent with the level of detail provided in Schedules 4 to 12.

4.4 The estimate provided to a customer pursuant to sub-paragraphs 4.2 and 4.3 will include internal engineering and project management costs.

4.5 The **Connection Charge** is normally payable in full in advance of commencing site construction works. However, in the case of **Connection Works** for **Authorised Generators** being connected, or already connected, at high voltage, NIE Networks may agree to the Connection Charge being payable during construction of the connection(s). Where a connection is to be commissioned or constructed in phases, a staged payment profile below will be considered depending on circumstances. NIE Networks will not commit to incurring expenditure until a sum equal to that expenditure has been received from the applicant. An indicative stage payment profile is provided in Table 1 below.

Indicative
Staged Payments Profile

Job Value	**Payment Required with Acceptance of Terms**	**Remaining Staged Payments**
≤£250k	Up to 20% of connection charge with acceptance of terms	Remaining connection charge following receipt of consents and prior to construction work commencing
>£250k and <£5m	**Stage 1** – Up to 10% of connection charge with acceptance of terms	**Stage 2** – Up to 20% of connection charge prior to commencement of consents process (DfI planning/ land rights), if applicable. **Stage 3** – Up to 20% of connection charge post completion of consents process (DfI Planning / land rights obtained) **Stage 4** – Up to 30% of connection charge to order "long lead time" materials **Stage 5** – Remaining balance of connection charge prior to construction commencing on site
≥£5m	**Stage 1** – Up to 5% of connection charge with acceptance of terms	**Stage 2** – Up to 25% of connection charge prior to commencement of consents process (DfI planning/ land rights), if applicable. **Stage 3** – Up to 20% of connection charge post completion of consents process (DfI Planning / land rights obtained) **Stage 4** – Up to 30% of connection charge to order "long lead time" materials **Stage 5** – Remaining balance of connection charge prior to construction commencing on site plus a reconciliation of any variations to the project (for example O&M Charges if the design changes)

Connection Application Fees – Authorised Generator

4.6 An **Authorised Generator** seeking an offer of terms for connection will be required to pay a Connection Application Fee ("CAF") reflecting the costs incurred by NIE Networks in producing the **Terms Letter.**

4.6.1 The CAF shall be either:

I. a fixed CAF derived from Schedule 2; or
II. a CAF based on the outturn cost of carrying out the relevant detailed studies, preparing a connection design and issuing a **Terms Letter**

4.6.2 The customer shall advise NIE Networks of his preferred payment method for the CAF – fixed fee or outturn cost.

4.6.3 Where the customer advises NIE Networks that he wishes to pay the outturn cost of carrying out the relevant detailed studies, preparing a connection design and issuing a **Terms Letter**, NIE Networks shall levy the appropriate CAF from Schedule 2 and a reconciliation of the actual charge will be carried out after a determination of the final costs.

4.6.4 Where a customer wishes to connect a generator to the **Distribution System** and to do so may require works on the **Transmission System** NIE Networks is obliged to pay a fee to SONI reflecting the costs incurred by SONI and NIE Networks (acting as the owner of the **Transmission System**) in assessing the generator's effect on the **Transmission System**. Where SONI levies a connection application fee on NIE Networks then NIE Networks shall recover that fee from the customer, as set out in Schedule 2

4.6.5 The CAF is payable in advance of carrying out any connection design work. Delays in production of the **Terms Letter** may occur if the CAF is not received in a timely manner.

4.6.6 Any **Authorised Generator** applying for an offer to modify an existing connection will be required to pay a CAF reflecting the costs incurred by NIE Networks in producing the connection modification offer. The CAF for a connection modification offer is calculated on a case by case basis.

Where an **Authorised Generator** wishes to change any aspect of a connection application then the **Authorised Generator** may be obliged to pay a second CAF. The decision on whether or not to levy a charge will depend on the materiality of the change to the application.

Operation and Maintenance Charges

4.7 In the case of **Authorised Generators** seeking a connection which shall be used wholly or mainly for export to the **Distribution System** the connection charge shall include an element to provide for the operation and maintenance (O&M) costs over the lifetime of the connection. Section 7 makes specific reference to the treatment of O&M for **Authorised Generators** connecting to **Designated Cluster Infrastructure, Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure.**

4.7.1 Following a customer connection to the **Distribution System**, there will be ongoing operation and maintenance costs associated with the required **Distribution System** assets. The Distribution Use of System (Duos) tariff levied on **Suppliers** is used to fund the operation and maintenance of these assets.

4.7.2 However, as NIE Networks does not charge DUoS in relation to export capacity, the **Authorised Generators** must pay an O&M charge to fund the ongoing operation and maintenance costs associated with the required **Distribution System** assets for the duration of their **Connection Agreement**. Special DUoS tariffs are levied on **Authorised Generators** for the imports across NIE Networks' **Distribution System**. These tariffs exclude any O&M cost recovery for the **Connection Assets**.

4.7.3 Where an O&M charge is levied on an **Authorised Generators** it shall be paid as part of the connection charge. It shall be set at 1.3% of the connection charge per the **Terms Letter**, discounted back to a present value using the regulated rate of return over the lifetime of the **Connection Agreement**. For more information on O&M charges for **Contestably** built assets refer to Section 9.

4.7.4 In certain cases, NIE Networks may agree to, or may require, annual payments for O&M charges. Where this is the case the annual charge shall be set at 1.3% of the connection charge per the **Terms Letter**, increasing in real terms over the lifetime of the **Connection Agreement**. Should the O&M charge be paid by annual instalments NIE Networks will require the customer to enter into a payment agreement and provide appropriate security for such payments.

4.7.5 O&M charges associated with **Authorised Generators** connecting to the network as part of a **Cluster** will comprise of two elements; (i) O&M charges associated with the **Authorised Generator's** contribution to cluster infrastructure and (ii) O&M charges associated with the **Authorised Generator's** unique connection. NIE Networks will define in its **Terms Letter** which of the arrangements as set out in 4.7.2 and 4.7.3 will apply in respect of each element.

4.7.6 Where a **Connection Agreement** does not have a defined duration the period, for the purposes of calculating O&M charges pursuant to this paragraph 6, shall be 20 years.

5. Customers who are not an Authorised Generator

5.1 Any customer in this category wishing to connect, or to modify an existing connection, to the **Distribution System** will be required to pay:

5.1.1 the reasonable cost of installing new and/or modified **Connection Assets**, where such **Connection Assets** are required to create new or increased connection capacity to the **Distribution System**;

5.1.2 the reasonable cost of installing new and/or modified **Connection Assets**, where such **Connection Assets** are installed at the request of the customer for his benefit and are not required to create new or increased connection capacity to the **Distribution System**;

5.1.3 the reasonable cost of installing new and/or modified **Connection Assets** for un-metered connections to the **Distribution System**;

5.1.4 a proportion of the reasonable cost of any new **Connection Assets** which are to be shared with others who are connecting simultaneously, if any (refer to sub-paragraph 6.9.2 for further guidance);

5.1.5 where applicable, a proportion of the cost of any existing **Connection Assets** to be shared with **Domestic Premises** which are already connected, if any (refer to sub-paragraphs 6.9.1 – 6.9.2 for further guidance);

5.1.6 certain costs incurred by NIE Networks in undertaking the **Connection Works** as set out in the offer of connection. For example, any environmental planning costs, any costs incurred in acquiring planning consents, any costs incurred in complying with any conditions of planning consents, any external legal costs, any costs incurred in seeking, obtaining and paying for wayleaves or easements and any costs relating to exceptional land conditions or exceptional civil works. Any such costs incurred by NIE Networks after acceptance of the **Terms Letter** may be invoiced separately.

5.2 Notwithstanding the provisions of sub-paragraph 5.1:

5.2.1 where a customer has accepted a **Full Works Option** to connect a new housing development with 12 or more individually serviced **Domestic Premises,** or to extend an existing development of fewer **Domestic Premises**, the customer will pay a **Standard Connection Charge** for each **Domestic Premise**, assuming the customer will provide, without charge to NIE Networks, all Low and High Voltage cable trenching, joint holes and suitable back-filling material for bedding and blinding cables, including service cable trenching and backfilling but excluding any system development work unrelated to the provision of electricity supplies to the development.

5.2.2 In addition to the **Standard Connection Charge**, NIE Networks may issue further charges in respect of abnormal costs incurred in making the connections available. Such charges may arise from;

(a) Departure from the most economical distribution design or standard construction methods or equipment as chosen by NIE Networks, if required by the Developer, any Government department, any statutory body or any person acting under statutory power or duty.

(b) Working in difficult ground including but not limited to rock or running sand.

(c) Additional work required if all dwellings to be serviced from the same multi-service joint are not ready to accept the service cable at the same time.

(d) Any other cause which gives rise to abnormal cost to NIE Networks.

5.2.3 Any charge payable in respect of abnormal costs whether ascertained before, during or after NIE Networks' work, will be chargeable directly to the Developer, and shall not be appointed so as to increase the **Connection Charge** applicable to each dwelling.

5.2.4 Building programmes must be phased so as to suit NIE Networks' construction arrangements otherwise an abnormal cost charge may arise.

5.2.5 Temporary arrangements to provide connection in advance of the permanent arrangements are not included in the **Connection Charges** quoted and if required will be on the basis of a separate agreement.

5.2.6 Should the Developer alter the plans during the development, and should any of NIE Networks' work or equipment be thus rendered unnecessary, or less efficient or less economic NIE Networks may make an additional charge in respect of such work or equipment.

5.2.7 Should any equipment belonging to NIE Networks already on the site of the development require to be altered, the nature and extent of the alteration should be determined before proceeding with the development. Depending on circumstances the cost of the alteration may be chargeable to the Developer.

5.2.8 Where a customer wishes to connect an **Apartment Block** with a single point of supply to a communal meter location for the **Apartment Block**, this would not be classified as a Housing Development and therefore the **Standard Connection Charge** does not apply in this instance.

Payment Terms

5.3 In the case of a new connection where the capacity will be taken up over a number of years, or where the extent to which the supply will be taken up is not reasonably ascertainable at the time of connection, the Connection Charge will be payable in full in advance.

5.3.1 In the case of new housing developments with 12 or more individually serviced **Domestic Premises**, the **Standard Connection Charge** will be payable on a site connection basis prior to the installation of the house service cabling.

Payment Profile

5.4 NIE Networks will not commit to incurring expenditure until a sum equal to that expenditure has been received from the applicant. The stage payment profile shown in Table 2 will be considered by NIE Networks for connections where requested by the applicant. It is important to note that any delays in NIE Networks receiving the appropriate stage payment will impact on construction delivery timescales. The "connection charge" is the estimated amount set out in the connection offer plus any additional amount required to be paid in accordance with the provisions of this statement. An indicative stage payment profile is provided in Table 2 below.

Table 2 – Indicative Staged Payments Profile

Job Value	Payment Required with Acceptance of Terms	Remaining Staged Payments
≤£250k	Up to 20% of connection charge with acceptance of terms	Remaining connection charge following receipt of consents and prior to construction work commencing
>£250k and <£5m	**Stage 1** – Up to 10% of connection charge with acceptance of terms	**Stage 2** – Up to 20% of connection charge prior to commencement of consents process (DfI planning/ land rights), if applicable. **Stage 3** – Up to 20% of connection charge post completion of consents process (DfI Planning / land rights obtained) **Stage 4** – Up to 30% of connection charge to order "long lead time" materials **Stage 5** – Remaining balance of connection charge prior to construction commencing on site
≥£5m	**Stage 1** – Up to 5% of connection charge with acceptance of terms	**Stage 2** – Up to 25% of connection charge prior to commencement of consents process (DfI planning/ land rights), if applicable. **Stage 3** – Up to 20% of connection charge post completion of consents process (DfI Planning / land rights obtained) **Stage 4** – Up to 30% of connection charge to order "long lead time" materials **Stage 5** – Remaining balance of connection charge prior to construction commencing on site

5.5 Connection of Customers who are not an Authorised Generator to Constructed Cluster Infrastructure

5.5.1 Where a customer who is not an **Authorised Generator** has applied for connection and following the application of the **Least Cost Technically Acceptable (LCTA**) principle described in section 6.8, the LCTA connection is deemed to be a connection to **Constructed Cluster Infrastructure** the customer shall be offered a connection to that **Constructed Cluster Infrastructure.**

5.5.2 For the avoidance of doubt, customers who are not an **Authorised Generator** connecting to **Constructed Cluster Infrastructure** will not be charged according to Section 7 ('NIE Networks' Charging arrangements for Authorised Generators connecting to the network as part of a Cluster') of this Statement of Charges.

6. NIE Networks' Charging Arrangements Applicable to all Customers

6.1 The work to be done and the **Connection Charge** payable will inevitably depend on the requirements of the customer seeking the connection, on the condition of the assets at the point of connection, on the planning and security standards applicable and on any other relevant matters. An illustrative list of circumstances which could lead to increased **Connection Charge** is provided in Schedules 4 to 12.

6.2 A customer seeking a connection for a temporary supply will be charged the full cost of the connection. However, a portion of the **Connection Charge** in respect of assets which are recoverable in a cost effective manner by NIE Networks on the termination of the temporary supply may be either waived or refunded at the sole discretion of NIE Networks. Any such waiver or refund will be set out in the **Terms Letter.**

6.3 Where a customer's connection requires that works already planned by NIE Networks on the **Distribution System** are advanced or altered, the customer will be liable to pay for any incremental costs incurred by NIE Networks in deviating from its original plan.

6.4 NIE Networks will provide as part of the **Terms Letter** an estimate of the **Connection Charge**, identifying the costs of the main items of expenditure in a manner consistent with the level of detail provided in Schedules 4 to 12.

6.5 The estimated **Connection Charge** may be adjusted by such amount as is reasonable to reflect the increased or, as the case may be, decreased cost to recover reasonable costs incurred by NIE Networks All assets which were installed on the Northern Ireland **Distribution System** at April 1992 are funded through use of system charges. New or existing customers will not therefore be charged through a **Connection Charge** for pre-April 1992 plant, equipment or cabling which is utilised as part of the local connection arrangements, even if they require to be refurbished, modified or replaced due to asset condition or for wider system needs. However, where a new or existing customer requests that any pre-April 1992 plant, equipment or cabling is refurbished, modified or replaced to meet the capacity requirements of that customer then the new or modified assets will be defined as **Connection Assets** and a **Connection Charge** will be levied in accordance with this section and Sections 4 or 5 as applicable.

6.6 You will not receive any credit for the value of any equipment recovered by us as a result of the connection.

6.7 You will not receive any credit for the value of any deferment of asset renewal expenditure by us.

LCTA Principle

6.8 NIE Networks will normally offer a customer the **Least Cost Technically Acceptable** (**"LCTA"**) connection.

6.8.1 Where a customer requests a connection design which is more expensive than the **LCTA** connection then, if that option is acceptable to NIE Networks, the customer will be required to pay in full the estimated cost of providing the additional **Connection Assets** necessary to meet the customer's requirements, in addition to the **Connection Charge** levied under Section 4 or 5, as appropriate.

6.8.2 There may be occasions where NIE Networks decides for its own reasons that the preferred design is not the **LCTA** connection. In that event, except for the

circumstances detailed in Section 7, the customer, or group of customers, will only be required to pay for the estimated cost of the **LCTA** connection. Section 7 makes specific reference to the treatment of Authorised Generators connecting to **Designated Cluster Infrastructure or Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure.**

Sharing Connection Assets

6.9 Where a new customer is to be connected to the **Distribution System** by making use of existing **Connection Assets** constructed by NIE Networks, for which the expenses incurred by NIE Networks were wholly or mainly defrayed by an existing domestic customer(s) who connected within the preceding five years, the new customer will be charged a proportion of the value of the shared **Connection Assets**, calculated in accordance with the Electricity (Connection Charges) Regulations (Northern Ireland) 1992.

6.9.1 If the customer's domestic premises are connected by making use of **Connection Works** constructed by NIE Networks then pursuant to the Electricity (Connection Charges) Regulations (NI) 1992 the customer may be entitled to receive a partial rebate of the original **Connection Charge** paid to NIE Networks, less a payment to NIE Networks in respect of reasonable administrative expenses, in the event that another party is connected within five years by making use of those **Connection Works.**

6.9.2 Where a number of customers connect simultaneously and share the use of **Connection Assets**, each customer may be charged a proportion of the estimated cost of the shared **Connection Assets**. Each customer's charge will be based on the ratio of their connection capacity to the total connected capacity making use of the shared **Connection Assets**.

6.10 In respect to 6.9.1 and 6.9.2, the Shared asset is the portion of the **Distribution System** that is common to the existing and new domestic connections. This partial rebate is fixed and based on the cost at the time of connection.

6.11 No partial rebate will be forthcoming if the connection is to be made to the **Distribution System** which was previously connected for commercial purposes.

6.12 Section 7 specially deals with sharing of connection costs for **Authorised Generators connecting to Designated Cluster Infrastructure** or **Approved Cluster Infrastructure or Constructed Cluster Infrastructure.**

De-energisation and Decommissioning Charges

6.13 Where a customer gives reasonable advance notice of a requirement for a temporary de-energisation of their connection, and such de-energisation can be provided by removal of fuses or similar means during normal working hours, then NIE Networks will arrange to de-energise, and subsequently re-energise on a similar request, the connection with no charge to the customer. Requests for temporary de-energisation, and subsequent re-energisation, in all other circumstances will require the customer to pay all reasonable costs incurred by NIE Networks in taking such action. (NIE Networks would refer you in particular to section 6.14 of this statement and the associated Schedules referred to therein)

6.13.1 Where temporary de-energisation (and subsequent re-energisation) results from the failure by a customer to comply with the terms of their **Connection Agreement** then the costs of such action shall be paid by the customer.

6.13.2 Where a customer requires a connection to be decommissioned the customer will be required to pay all reasonable costs incurred by NIE Networks in disconnecting the customer from the **Distribution System**. NIE Networks may remove **Connection Assets** from the site. Where it is cost effective to do so, NIE Networks will remove such equipment at no charge to the customer. Where it is not cost effective to do so, for example in the case of buried cables, the **Connection Assets** will normally be made safe and left on the site. If the customer requires NIE Networks to remove the **Connection Assets** from the site where such removal is not cost-effective then the cost of removal shall be payable by the customer. All such equipment will remain the property of NIE Networks unless otherwise agreed in writing with NIE Networks. If the assets are utilised on the **Distribution System** within a period of five years a refund of part of the **Connection Charge** will be paid to the original customer. The refund will be calculated as the net current cost accounting asset value at the time the asset is brought back into use, less the cost of maintaining and storing the asset while out of service and NIE Networks reasonable administration expenses. NIE Networks will maintain a register of such plant where a refund may be pending.

6.13.3 Where a customer requires a connection to be decommissioned in an emergency situation the customer will be required to pay appropriate costs incurred by NIE Networks in disconnecting the customer from the **Distribution System.**

Indicative Charges

6.14 Indicative charges for connection to the **Distribution System** are provided in Schedules 4,5,6,7,8,9,10,11 and12 of this statement. These schedules provide typical costs for the main items of expenditure, excluding VAT, for a new or modified connection to the **Distribution System**. These costs are based on current market information, budgetary quotes received from manufacturers and recent tenders. While NIE Networks believes these costs are reasonable at the time of publication actual costs can vary significantly depending on, for example, movements in labour and raw material costs, site conditions and planning requirements.

6.15 The minimum and maximum values of charges shown in Schedules 4 to 12 are designed to provide an indication of the range of charges that would normally apply to a particular activity and are therefore not absolute limits on the minimum and maximum value of charge that will be levied. The estimated charge for each activity will be calculated based upon the specific circumstances of the application taking account of all relevant factors.

6.15.1 Examples of factors that may result in estimated charges in the **Terms Letter** exceeding the indicative charges provided in this statement include but are not limited to the following:

i. statutory and other standards governing the system;

ii. the length of cable or overhead line required to connect to the existing system;

iii. the customer's **MEC** or **MIC** in relation to the available capacity of the existing system;

iv. whether the connection is by underground cable or overhead lines;

v. the type of ground requiring excavation;

vi. the type and extent of reinstatement necessary;

vii. the need for river, railway, telecommunication, other electric circuit and road crossings;

viii. the availability of wayleaves or easements for cables or lines, including any planning consents;

ix. the availability of a suitable substation site, including any necessary planning consents; and

x. the connection programme.

xi. Any change in Legislation to which NIE Networks is obliged to comply.

xii. The requirement for restricted working at the request of either the customer or Department for Infrastructure Transport NI .

6.16 For more information on charges applicable to contestable connections refer to Section 9 of this document along with Schedule 13.

Circumstances which could lead to increased Connection Charges

6.17 The following is an illustrative but non exhaustive list of circumstances which could lead to estimated **Connection Charges** having to be increased following acceptance of the connection offer and additional costs being separately invoiced:

i. Failure to provide and/or install ducts to facilitate the installation of services into premises.

ii. Work unable to be progressed in an orderly fashion in accordance with normal engineering policies and practices thus imposing additional costs.

iii. Transformer/substation sites not provided to NIE Networks in suitable locations at nominal prices or rents, taking account of cable access, earthing conditions as well as access by personnel.

iv. Failure to provide all necessary civil works including ducts, access ways, cable chases and covers, etc. in multiple occupancy premises.

v. "Dirty"[5] loads which affect the on-going security and standard of service on the system.

vi. Failure to provide adequately clean cable trenching.

vii. Failure to have all cable trenching and joint holes prepared prior to the date agreed between NIE Networks and the applicant.

viii. Failure to have a suitable metering location prepared which must have been previously agreed with NIE Networks.

[5] "Dirty" loads refer to equipment that affects the quality of the supply and may include but are not limited to large motors, welders, abnormal starting arrangements or abnormal loads.

ix. Additional work required if all dwellings to be serviced from the same multi-service joint are not ready to accept the service cable at the same time.

x. Failure by NIE Networks to undertake work where an agreed appointment for work is booked and NIE Networks arrive within the appointment slot but is unable to carry out the work or gain access to the premises.

xi. Circumstances in which the proposed site requirements (layout or load requirements) has altered since the receipt of the connection application or information in the connection application has altered

7. NIE Networks' Charging arrangements for Authorised Generators connecting to the network as part of a Cluster

7.1 This section of the Distribution Charging Statement sets out the charging principles applied to the connection of **Authorised Generators** to **Designated Cluster Infrastructure**, **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure**. It is to be considered in conjunction with "The methodology for Connecting to the Northern Ireland distribution System using Cluster Substations" which is included as appendix 2 to this Charging Statement. For the avoidance of any doubt, this section of the Statement of Charges does not apply to customers who are not an **Authorised Generator** connecting to Constructed **Cluster Infrastructure.**

7.2 Where an **Authorised Generator** seeks connection to the network, other than for the purposes of **Electric Storage**, and and where there is available or planned connection capacity within an appropriate **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure**, and where the **Authorised Generator** proposes to connect suitable generation plant and equipment, the **Authorised Generator** will be offered connection to that **Approved Cluster Infrastructure** or **Designated Cluster Infrastructure** or **Constructed Cluster Infrastructure**. NIE Networks shall not be obliged to offer an alternative connection location other than to the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** identified by NIE Networks. Where an **Authorised Generator** has applied for connection for the purposes of Electric Storage and, following the application of the LCTA principle described in section 6.8, the LCTA connection is deemed to be a connection to **Constructed Cluster Infrastructure** the **Authorised Generator** shall be offered a connection to that **Constructed Cluster Infrastructure.**

7.3 Any **Authorised Generator** applying to connect will be charged the full cost of assets unique to that **Authorised Generator's** application.

7.4 In addition, subject to 7.4.1, any **Authorised Generator** applying to connect will, subject to 7.11, be charged a proportion of the cost of the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** that is, or is to be shared with other **Authorised Generators** whether or not those Generators have yet made application.

7.4.1 In circumstances where **Authorised Generators** opt to construct **Approved Cluster Infrastructure** contestably, the full cost of the **Approved Cluster Infrastructure** shall be borne by such **Authorised Generators**. For more information see Section 9 of this document and the Guidelines for Contestability [6] (Guidelines).

7.5 NIE Networks' connection offers will be prepared on the following basis. These requirements reflect the timeline whereby cluster infrastructure develops from **Designated Cluster Infrastructure** to **Approved Cluster Infrastructure** through to **Constructed Cluster Infrastructure** and the potential for each to differ in terms of the extent and nature of the cluster infrastructure as well as the costs.

7.5.1 New connection applications received prior to approval by the **Authority** of a **Designated Cluster Infrastructure** will receive connection offers to the

[6] https://www.nienetworks.co.uk/documents/connections/distribution-contestability-guidelines

Designated Cluster Infrastructure on the basis of an indicative cost and will be so marked.

7.5.2 After approval of the **Designated Cluster Infrastructure** by the **Authority**, offers previously provided on the basis of connection to, and the costs associated with, the **Designated Cluster Infrastructure** will be updated to reflect connection to, and the costs associated with, the **Approved Cluster Infrastructure**.

7.5.3 Similarly, new applications received after approval of **Designated Cluster Infrastructure** by the **Authority**, but prior to completion of the cluster infrastructure will be provided with offers on the basis of connection to, and the costs associated with, the **Approved Cluster Infrastructure.**

7.5.4 Where new applications for connection are received after the completion of the construction of the **Approved Cluster Infrastructure** connection offers will be provided on the basis of connection to, and the out-turn costs associated with, the **Constructed Cluster Infrastructure** as validated by the **Authority.**

7.6 As detailed in section 4.6, NIE Networks may agree to a connection charge being payable on a staged basis during construction of the connection. In such circumstances, since connection to cluster infrastructure comprises two elements of cost, there will need to be two sets of staged payments agreed with NIE Networks; one relating to the contribution to the cluster infrastructure and one related to the unique element of the connection. In addition, the following further requirements, detailed in 7.6.1 and 7.6.2, will apply in respect of that element of any connection charge associated with the Cluster Infrastructure. These additional requirements do not apply to that element of connection charge associated with the cost of assets unique to that **Authorised Generator's** application.

7.6.1 Where a connection offer is made for connection to either a **Designated Cluster Infrastructure** or an **Approved Cluster Infrastructure** or a **Constructed Cluster Infrastructure** the **Authorised Generator** shall, in addition to the stage payments, provide payment security to the satisfaction of NIE Networks and which provides for recovery of the **Authorised Generator's** total contribution to the cluster infrastructure less any contribution made at the time of agreement for connection to the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or a **Constructed Cluster Infrastructure.** Such security will not be required to be put in place until the cluster infrastructure has been approved by the **Authority.** The security shall be free of lien or condition save that the **Authorised Generator** has failed to make a payment or payments. In the event that payment is made for an **Authorised Generator** by calling payment security, the network capacity will no longer be reserved for that **Authorised Generator**, its estate or its successors nor will the **Authorised Generator**, its estate or successors be entitled to a refund of connection charges already paid.

7.6.2 In section 4.6, table 1 sets out the trigger points for stage payments. The table defines milestones which are however not descriptive of activities that apply in respect of an **Authorised Generator's** contribution to cluster infrastructure where that generator applies for connection to a **Constructed Cluster Infrastructure** (the work on the cluster infrastructure having already been completed). Therefore, where a generator applies for connection to a **Constructed Cluster, Infrastructure** stage payments for the **Authorised generators** contribution to the **Constructed Cluster Infrastructure** will be aligned in terms of timing and percentage to the stage payments associated with the **Authorised generator's** payment for the unique element of their connection.

7.7 Transfer of ownership of an **Authorised Generator** shall be notified to NIE Networks by the vendor within 10 days of the transfer. The liability for on-going or unpaid charges shall be the responsibility of the new owner.

7.8 Subject to the requirements of 7.14, the proportion of the cost of the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** that will be charged to each **Authorised Generator** connecting to the **First Transformer** will be assessed on the basis of the **MVA** of capacity installed, or to be installed, by each **Authorised Generator** connecting to the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** divided by either the **Designated Cluster Infrastructure Connection Capacity** or **Approved Cluster Infrastructure Connection Capacity** or **Constructed Cluster Infrastructure Connection Capacity** respectively, depending upon its status at the time of any connection offer. For example, if the connection capacity of the **First Transformer** was, say, 90MVA, and a generator had a capacity of 19MVA then it would pay 19/90ths of the cost of the shared assets. 7.15 below shows an example of charges applied to generators that connect over time to cluster infrastructure**.**

7.9 NIE Networks will publish and keep current a list of **Designated Cluster Infrastructure Connection Capacity, Approved Cluster Infrastructure Connection Capacity** and **Constructed Cluster Infrastructure Connection Capacity**.

7.10 Depending upon the timing of payments, the level of contributions from **Authorised Generators,** whether **Authorised Generators** opt for offers based on estimated or out-turn cost chargeable and the actual costs of the construction of the **Approved Cluster Infrastructure** there may be a shortfall in the recovery of costs (Capital and O&M) by NIE Networks. In such an event, any shortfall shall be recovered by NIE Networks through network charges, by the addition of such costs to the **Regulatory Asset Base** in respect of capital costs and by an addition to NIE Networks' Opex allowance in respect of O&M costs. Similarly there may also be an over recovery of such costs and in such an event any over recovery shall be repaid by NIE Networks through network charges, by an appropriate reduction in the **Regulatory Asset Base** in respect of capital costs and by a reduction to NIE Networks' Opex allowance in respect of O&M costs.

7.11 In circumstances where an **Authorised Generator** makes an application for connection which has the effect of increasing the electrical capacity required from the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** above the capacity of the **First Transformer** and therefore necessitates the installation of a second transformer or a third transformer (where the capacity of a second transformer is exceeded by the connection application) or triggers the need for further transmission reinforcement then that **Authorised Generator** shall be required to pay for the full cost of the second transformer or the third transformer or further transmission reinforcement (as the case may be) and associated works notwithstanding that the transformer and / or further reinforcement may subsequently become a shared asset.

7.11.1 Where NIE Networks receives two or more applications from **Authorised Generators** for connection to **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** each of which has the effect of increasing the electrical capacity required from the **Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** or **Constructed Cluster Infrastructure** above the capacity of the **First Transformer** and therefore necessitates the installation of a second transformer or a third transformer and / or further transmission reinforcement (where the capacity of the second transformer is exceeded by a connection application) then NIE Networks

will designate these as **Interactive Connection Applications** and place them in an **Interactive Queue** for the second transformer or third transformer and / or further transmission reinforcement (as the case may be).

7.11.2 The **Interactive Queue** shall be comprised of the **Affected Parties** and an **Affected Party's** position in the **Interactive Queue** will be determined by the **Application Date**. The **Affected Party** with the earliest **Application Date** amongst the **Affected Parties** will be the first, the **Affected Party** with the next earliest **Application Date** will be the second and so on.

7.11.3 At the time of making an **Interactive Connection Offer** each **Affected Party** will be informed that:

- Their connection offer is interactive;
- There is another **Interactive Connection Offer(s)** outstanding, the acceptance of which might affect the terms of any **Interactive Connection Offer** made;
- Their respective position in the **Interactive Queue** determined by the **Application Date;**
- The terms of any **Interactive Connection Offer** are subject to revision depending upon whether the other(s) are accepted or not.

7.11.4 Each **Interactive Connection Offer** issued to an **Affected Party** will have a **Validity Period** of 90 days**.**

7.11.5 Each **Interactive Connection Offer** will require payment of the full cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and associated works notwithstanding that the transformer may subsequently become a shared asset.

7.11.6 All **Affected Parties** will be able to accept their **Interactive Connection Offer** during the **Validity Period**. If two or more **Affected Parties** accept their **Interactive Connection Offer t**hen the **Affected Party** which has the first position in the **Interactive Queue** will be required to pay the full cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and associated works in accordance with the **Interactive Connection Offer** (such **Affected Party** to be referred to as the 'Primary Affected Party').

7.11.7 An **Affected Party** which does not accept their **Interactive Connection Offer** before the expiry of the **Validity Period** will be deemed to have terminated their connection application and will be required to submit a new connection application if they subsequently require connection. No extension of the **Validity Period** will be permitted for any **Affected Party** regardless of the circumstances, including where the **Affected Party** may submit a complaint to the **Authority**.

7.11.8 Following receipt of an accepted **Interactive Connection Offer** from each **Affected Party.** NIE Networks will inform the Primary Affected Party of their obligation to pay the full cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and request payment security to the satisfaction of NIE Networks which shall provide for recovery of the cost of the transformer and / or further transmission reinforcement and associated works. The security shall be free of lien or condition, save that the Primary Affected Party has failed to make a payment or payments as required by the **Interactive Connection Offer**. Such payment security must be provided to NIE

Networks within 45 days of request failing which the Primary Affected Party will be deemed to have terminated their connection application. In such circumstances NIE Networks will then write to the second **Affected Party** in the **Interactive Queue** (the 'Second Affected Party') to confirm that party's obligation to pay the cost of the transformer and / or further transmission reinforcement and associated works and request payment security in accordance with this paragraph 7.11.8. In the event the Second Affected Party fails to provide payment security within 45 days of the request the process will be followed until either payment security is received or no **Affected Party** remains in the **Interactive Queue**. Except as provided by paragraph 7.11.9 no extension to the time for providing payment security will be permitted for any **Affected Party** regardless of the circumstances, including where the **Affected Party** may submit a complaint to the **Authority**.

7.11.9 In circumstances where each **Affected Party** has informed NIE Networks in writing at the time of accepting their **Interactive Connection Offer** that they do not require any other **Affected Party** to provide payment security in accordance with paragraph 7.11.8 then NIE Networks shall delay its request for payment security until such time as the cluster infrastructure has been approved by the **Authority,** following which NIE Networks shall require payment security in respect of the cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and associated works from the relevant **Affected Party** in accordance with paragraph 7.11.8. Until payment security is received by NIE Networks no **Affected Party** will be released from its obligation to pay the full cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and associated works.

7.11.10 Any **Affected Party** which is not required to pay the full cost of the second transformer or third transformer and / or further transmission reinforcement if applicable and associated works in accordance with paragraphs 7.11.5 to 7.11.8 above may be required to pay a proportion of the cost of the second transformer or third transformer and / or further transmission reinforcement (as the case may be) and associated works, calculated as a per MVA share of that **Affected Party's** utilisation of the transformer, in the event that arrangements permitting the recovery of such cost by NIE Networks on a non-discriminatory basis are put in place. This paragraph 7.11.10 will be updated to reflect any such arrangements.

7.12 In addition to the capital cost recovery mechanisms above, NIE Networks makes a charge for operation and maintenance (O&M), as detailed in section 6. For the avoidance of doubt, O&M charges and the requirements set out in section 6, will apply to both the connection charge associated with an **Authorised Generator's** contribution to the shared cluster infrastructure as well as the **Authorised Generator's** charge for its unique connection.

7.13 **Special Protection Schemes** needed to advance and manage the amount of generation on the system may comprise shared assets and assets unique to an individual **Authorised Generator**. The same principles detailed in this section in respect of **Approved Cluster Infrastructure** and the unique connections will be applied to the charge for **Special Protection Schemes**.

7.14 Where connection offers are made on the basis of connection to **Constructed Cluster Infrastructure** and the construction is complete, **RPI** will be applied to the cost of the **Constructed Cluster Infrastructure** when calculating an **Authorised Generator's** contribution to the cost of the **Constructed Cluster Infrastructure** and to the **Authorised Generator's** O&M charge**,** as set out in 7.8 and 7.12. The **RPI** factor will be based on the time period that has elapsed between the first **Reference Date** prior to the date of

completion of the **Constructed Cluster Infrastructure** and the first **Reference Date** prior to the date on which the connection offer is provided to the **Authorised Generator**.

7.15 Cluster Charging Example

The example's in the tables below sets out how capital and O&M charges will apply in respect of the connection of a number of **Authorised Generators** to **Approved Cluster Infrastructure** being built by NIE Networks**.** In the example there is an initial Investment of £10m to establish a 90**MVA** cluster substation (Initial Cluster Substation). Three Generators G1 (18MVA), G2 (27MVA) and G3 (36MVA) connect. The examples below also include an Electric Storage connection ES1 that is assumed to connect to Constructed Cluster Infrastructure, as **Electric Storage** sites are not considered during Cluster designation as laid out in section 4.1 of Appendix 2. The **Electric Storage** site included in the example's below only considers the export aspect of the site.

7.15.1 Connection Charges associated with connection to cluster substation

Table 3 below sets out how the connection charges associated with G1, G2 and G3, connecting to the cluster substation are calculated. To simplify the example, the timings of the connection of the three generators and therefore the implications of **RPI** have not been taken into account. Also the example assumes that there is no change in the cost of the cluster infrastructure as its status moves from **Designated Cluster Infrastructure** through to **Approved Cluster Infrastructure** and then to **Constructed Cluster Infrastructure.**

	Capacity Requirement **MVA**	**Cumulative Capacity Installed** **MVA**	**Residual Capacity** **MVA**	**Contribution From Connectee** **£m**	**Capital cost of cluster infrastructure** **£m**	**Charge to RAB following receipt of contribution** **£m**
			90		10.0	10.0
G1	18	18	72	2.0 = (18/90*10)		8.0 = (10.0– 2.0)
G2	27	45	45	3.0 = (27/90*10)		5.0 = (8.0 -3.0)
G3	36	81	9	4.0 = (36/90*10)		1.0 = (5.0 – 4.0)
ES1	9	90	0	1.0 = (9/90*10)		0.0 = (1.0 – 1.0)

Table 3 - Connection charges associated with contribution to cluster infrastructure

7.15.2 Operation & Maintenance (O&M) Payments

Based on the same example and assuming an annual charge of 1.3% of capital costs, O&M costs are as detailed in Table 4:

	Capacity **MVA**	**Contribution** **£m**	**Annual O&M charge** **£m**	**Annual charge to customers recovered by NIE Networks through an addition to the opex allowance following receipt of O&M contribution from each** **£m**
G1	18	2.0	0.026 = (2.0*1.3%)	0.104 = (10*1.3% – 0.026)
G2	27	3.0	0.039 = (3.0*1.3%)	0.065 = (10*1.3% - 0.026 - 0.036)
G3	36	4.0	0.052 = (4.0*1.3%)	0.013 = (10*1.3% - 0.026 - 0.036 -0.052)
ES1	9	1.0	0.013 = (1.0*1.3%)	0.0 = (10*1.3% - 0.026 - 0.036 -0.052-0.013)

Table 4 - O&M costs

8. NIE Networks' Charging Arrangements – Managed Connections – for future use

This section is reserved for any charging arrangements that might be put in place for Managed Connections, currently being discussed in a NIE Networks' Project 40 industry forum which both Department for the Economy and Northern Ireland Authority for Utility Regulation (NIAUR) are represented.

9. NIE Networks' Charging Arrangements for Contestable Works.

General

9.1 NIE Networks has been working with the **Authority** with regards to implementing **Contestability in Connections** within Northern Ireland. Further details can be found here

9.2 From Q4 2022 **Contestability in Connections** within Northern Ireland has been expanded to allow certain LV final connections contestable. Please refer to Guidelines

9.3 For more information on **Contestability in Connections** and the applicable framework please refer to the Guidelines for Contestability in New Electricity Connections in Northern Ireland (the **"Guidelines")** which can be downloaded here

Contestability

9.4 Contestability is the process where an **Independent Connection Provider** (or "**ICP**") may undertake elements of the provision of a new connection to **Distribution System**.

9.5 **ICP**s must hold relevant accreditation for specific activities undertaken under the National Electricity Registration Scheme (NERS) operated by LRQA in Northern Ireland. In addition the ICP must have entered into a Framework Access Agreement with NIE Networks.

9.6 Should **Contestable Works** be installed by an **ICP** then, at commissioning, and providing certain conditions are met:

9.6.1 the ownership of the **Contestable Works** will be transferred to NIE Networks, and
9.6.2 NIE Networks will assume operational responsibility for connections to the **Distribution System**.

9.7 For the **Contestable Works** to be transferred to NIE Networks the customer and/or the **ICP** will be required to enter into an **Adoption Agreement**.

Application and Offer process

9.8 Following assessment of the connection notification and providing that it contains all information reasonably requested by NIE Networks a **Terms Letter** will be issued containing two options as described below[7]. These options are mutually exclusive and only one can be accepted.

i. Option 1 is for NIE Networks to undertake all of the **Connection Works** and the Reinforcement Works, if any, and is known as the **Full Works Option**.

ii. Option 2 is for NIE Networks to undertake only the **Non-Contestable Works** and the Reinforcement Works, if any, and is known as the **Non-Contestable Works Option**.

[7] The exception being where the connection application is to modify, alter or divert an existing connection and the customer's requirements can be met without the construction of a new connection. In this case the Terms Letter will contain only one option.

9.9 The **Terms Letter** will be accompanied by a **Functional Specification** and a **Quotation Summary.**

i. The **Functional Specification** will fully describe the **Contestable Works** and the **Non-Contestable Works**; and

ii. The **Quotation Summary** will set out the charges payable by the customer depending on which option is chosen. The appropriate charges for operation and maintenance will also be confirmed, if applicable.

Contestable and Non-Contestable Works

9.10 The **Guidelines** provides full details of the elements of the work which are classified as **Contestable** or **Non-Contestable**.

Factors influencing Contestability in Connection Charges

9.11 Charges for **Contestability in Connection charges** are shown in Schedule 13. The actual charges associated with specific projects will reflect the level of the work required. The factors which influence the actual level of charges include:

- The amount of network analysis required to review the designs carried out by **ICP**s. The amount of network analysis undertaken would be influenced by, amongst other factors, the number of connections and connection capacity requested by the applicant, characteristics of the load/generation to be connected and the capacity of the existing **Distribution System** and/or **Transmission System**.
- The experience and competency of the **ICP** appointed by the customer. At the time of providing an offer of terms it is unlikely the **ICP** will have been nominated by the customer. The offer will therefore assume that the **ICP** requires to be assigned a Level 3 inspection level and this will be amended, if required, once the **ICP** has been identified. Level 3 may attract a more detailed inspection regime than **ICPs** in Level 1 and 2. Schedule 13 shows the maximum inspection and monitoring charge for a level 3 **ICP**, although it should be noted that if the **ICP's** work is found to be unacceptable, the inspection and monitoring charges are likely to be increased to recover costs incurred by NIE Networks in carrying out repeat inspections.
- The level of management and job scheduling required for the connection project. The management and job scheduling costs associated with projects that are completed over a long timescale would tend to be higher than those costs associated with projects that are completed over a short timescale.
- The number and complexity of Land Rights required. Some technically simple connections, such as the installation of an LV underground cable, could require more than one wayleave or consent.
- The **ICP** fails to complete the final connection and is completed by NIE Networks, price is available on application.

9.12 The **Quotation Summary** will set out the charges for design reviews as outlined in Schedule 13 and may include other charges.

9.13 If for any reason additional design reviews are required then this will incur additional charges which must be paid in advance of adoption of the assets.

Operations, Repairs and Maintenance Charges for Contestable Works

9.14 For **Authorised Generators**, the cost to cover future operations, repairs and maintenance of the connection will be included as part of the **Connection Charge**.

9.15 Where an O&M charge is levied it shall be set at 1.3% of the **Connection Charge**. For contestably built assets that are to be adopted by NIE Networks, the O&M charge shall be estimated by NIE Networks when the **Terms Letter** is issued based on the NIE Networks design of the contestable assets.

9.16 When the final design of the contestable assets is completed by the **ICP**, NIE Networks shall undertake a review of the estimated O&M costs to reflect any changes in design. A reconciliation of O&M costs will take place and any reconciliation charges must be paid in advance of adoption of the assets.

Inspection and Monitoring Regime

9.17 NIE Networks will inspect and monitor some of the **Contestable Work** provided by the appointed **ICP**. The number of visits required will be determined according to the actual connection proposals and the competency of the **ICP**. Further information can be obtained in the Policy for Inspection of Contestable Works which is available on the ICP portal www.nienetworks.co.uk/icp. Information regarding inspections and the associated charges will be specified within the **Quotation Summary**.

9.18 If for any reason fewer inspections or site visits are required than the number estimated the difference in cost will be refunded as appropriate. If for any reason additional inspections or site visits are required these will be subject to reconciliation and any reconciliation charges must be paid in advance of adoption of the assets.

9.19 Charges relating to contestable connections are contained in Schedule 13 of this document. Indicative inspection fees that will be applicable for different connection types are outlined in Schedule 13 B.

10. NIE Networks' Charging Arrangements – 33kV Reinforcement - for future use

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11. NIE Networks' Contact Details

Should you require any further details about the information contained in this statement or if you have any comments on how this statement might be improved please contact:

Commercial Analyst
Northern Ireland Electricity Networks Limited
120 Malone RoadBelfast
BT9 5HT

Additional information on the connection process can be obtained at NIE Networks website at www.nienetworks.co.uk.

Applications for connection to the Distribution System or for modifications to existing Connection Assets please refer to section 1.9.

For inquiries regarding Use of System or Network enquiries please call NIE Networks on 028 9066 1100 or write to:

Use of System Enquiries
Northern Ireland Electricity Networks Limited
120 Malone Road
BELFAST
BT9 5HT

Complaints Procedure

We promise to deal fairly and effectively with your complaint and do everything we can to reach a satisfactory outcome. We aim to learn from complaints, to improve the service we provide to our customers and to prevent recurrence.

Should you have a complaint regarding this statement you can contact NIE Networks by phone on our customer helpline, **03457 643 643** from 8am-5pm Monday to Friday, or by submitting a complaint online at http://www.nienetworks.co.uk/help-advice/claims-complaints

Alternatively you can write to our Customer Relations Manager:

Customer Relations Manager
Northern Ireland Electricity Networks Limited
Carn Industrial Estate,
CRAIGAVON,
BT63 5QJ
Some complaints will need further investigation and we may not be able to give you an immediate answer. In these cases we will advise you within 10 working days. We will make every effort to address your complaint and provide you with an answer as quickly as possible.

If you are not happy with our decision you can ask for your complaint to be looked at again by our Managing Director. Please write to:

NIE Networks Managing Director
Northern Ireland Electricity Networks Limited
120 Malone Road
BELFAST

BT9 5HT

We will reply to all complaints received within 10 working days.

Contact the Consumer Council

If you are unable to have your complaint resolved to your satisfaction, or if at any time you are unhappy with our response, The Consumer Council, an independent body, may be able to help. Please contact 0800 121 6022 or contact via complaints@consumercouncil.org.uk

Alternatively you can write to:

The Consumer Council
Floor 3
Seatem House
28-32 Alfred Street
Belfast
BT2 8EN

Disputes in relation to NIE Networks **Connection Works**

Should you have a complaint in respect of your **Connection Works** following **Acceptance of Terms**, you should follow the escalation procedure outlined in the **General Terms for Connection Works.**

12. Definitions

Term	Definition
"Acceptance of Terms"	The document enclosed with the **Terms Letter** which is used to indicate acceptance of the **Terms Letter** and, with regard to contestability, is used to indicate acceptance of either the **Full Works Option** or the **Non-Contestable Works Option**.
"Adoption Agreement"	means the agreement covering the ownership transfer of the **Contestable Works** from the customer or the customer's **ICP**, as appropriate, to NIE Networks.
"Affected Parties"	all applications for connection whose offers of terms for connection have been identified by NIE Networks as being interactive.
"Apartment Block"	a single building comprising more than one unit to be used as a residence or business which have the use of common areas, amenities or services.
"Application Date"	means the date on which NIE Networks receives a valid connection application.
"Approved Cluster Infrastructure"	means proposed Network Infrastructure including, as appropriate, civil works, electrical lines and cables, electrical plant, meters, telemetry and data processing equipment which has been approved for construction by the **Authority** as being required for the purposes of connecting a **Cluster** to the network.
"Approved Cluster Infrastructure Connection Capacity"	means the electrical capacity expressed in **MVA** of the **Approved Cluster Infrastructure**

"Authorised Generator"	means a person, including a person requiring a connection for the purposes of Electric Storage, who generates, or when connected to the **Distribution System** will generate, electricity for the purpose of giving a supply to any premises or enabling a supply to be so given and who is, or will be when connected to the **Distribution System**, authorised to do so by a **Licence** or exemption;
"Authority"	means the Northern Ireland Authority for Utility Regulation, as established under the **Energy Order**;
"Cluster"	Means a combination of either or both: (A) one or more existing or proposed **Authorised Generators** which are or may be connected to a **Designated Cluster Infrastructure** or an **Approved Cluster Infrastructure** or a **Constructed Cluster Infrastructure** and which are subject to charges in accordance with the principles set out in section 7 of this Statement of Charges. Such **Authorised Generators** are required to pay for sole use assets and to pay a contribution for assets shared with others (subject to section 7.11). (B) one or more customers who are not **Authorised Generators** which are or may be connected to **Constructed Cluster Infrastructure** and which are subject to charges in accordance with the principles set out in section 5.5 of this Statement of Charges.
"Connection Agreement"	an agreement between NIE Networks and a customer setting out the terms relating to a connection to the Distribution System;

“Connection Assets”	means: those assets required to connect the customer’s assets to the Distribution System, including, as appropriate, civil works, electrical lines, electrical plant, meters, telemetry and data processing equipment; those assets required to reinforce the Distribution System which are at the connection voltage level and one voltage level above; and in the case of a customer connecting at 33kV, those assets required to reinforce the Transmission System at 110kV which are installed to enable the transfer of the customer’s Maximum Export Capacity or Maximum Import Capacity, disregarding electricity flows caused by any other customer;
“Connection Charge”	means the charge payable by the customer for the NIE Networks Connection Works as set out in the Terms Letter together with the O&M Charge (if applicable)
"Connection Works”	Means the works required for the connection at the premises requested by the customer comprising the Contestable Works and the Non-Contestable Works.
“Constructed Cluster Infrastructure”	means existing Network Infrastructure including, as appropriate, civil works, electrical lines and cables, electrical plant, meters, telemetry and data processing equipment which has been previously been approved by the Authority as being required for the purposes of connecting a Cluster to the network.
“Constructed Cluster Infrastructure Connection Capacity"	means the electrical capacity expressed in MVA of the Constructed Cluster Infrastructure

“Contestability in Connections”	Is the term attributed to the opening up of the market for the design, procurement and installation of new assets necessary to accommodate a new or modified electricity connection. You have the option to have some of the connections work, referred to as Contestable Work, carried out by an ICP who must be accredited with Lloyds Register unless otherwise agreed with us.
“Contestable Works”	The Connection Works that are identified in the Terms Letter which can be carried out by a party other than NIE Networks and SONI (and ‘Contestable’ will be interpreted accordingly).
“Designated Cluster Infrastructure”	means Network Infrastructure including, as appropriate, civil works, electrical lines and cables, electrical plant, meters, telemetry and data processing equipment proposed by NIE Networks as being required for the purposes of connecting a Cluster to the network, prior to its approval for such purpose by the Authority.
“Designated Cluster Infrastructure Connection Capacity"	means the electrical capacity expressed in MVA of the Designated Cluster Infrastructure
“Distribution Code”	means the code of that name developed pursuant to condition 27 of the Licence;
“Distribution System”	means the system owned by NIE Networks which consists (wholly or mainly) of Low Voltage lines and electrical plant and is used for conveying electricity to any premises or to any other distribution system;
“Distribution System Security and Planning Standards”	means the standards referred to in Condition 19 of the **Licence.**
“Domestic Premises”	means premises used wholly or mainly for domestic purposes;

"Electric Storage"	Electricity Storage in the electricity system is the conversion of electrical energy in to a form of energy which can be stored, the storing of that energy, and the subsequent reconversion of that energy back into electrical energy.
"Energy Order"	means the Energy (Northern Ireland) Order 2003;
"First Transformer"	means the first electrical transformer to be installed or installed (as the case may be) as part of the Designated Cluster Infrastructure or Approved Cluster Infrastructure or Constructed Cluster Infrastructure having an electrical capacity not exceeding 90MVA;
"Framework Access Agreement"	Means the agreement setting out a framework for the ICP to request access to the NIE Networks Distribution System in order to carry out any Final Connection Works.
"Full Works Option"	means the option set out in the Terms Letter under which NIE Networks will undertake all of the Contestable Works, all of the Non-Contestable Works including, if required, the Reinforcement Works.
"Functional Specification"	The document provided by NIE Networks which describes the technical requirements of NIE Networks for the Connection Works.
"General Terms for Connection Works"	The document which sets out general terms for the Connection Works.
"Guidelines"	Means the document produced by NIE Networks and SONI which defines the principles of contestability in Northern Ireland.
"High-efficiency Cogeneration"	means cogeneration (i.e. production of heat and electricity) that meets the criteria laid down in Annex II of the Energy Efficiency Directive (2012/27/EU).

"High Voltage"	means exceeding 1000 volts and up to 33000 volts
"Independent Connection Provider or ICP"	A person other than NIE Networks who is accredited to undertake Contestable Works in relation to the provision of a connection to the Distribution System.
Interactive Connection Application	means two or more applications for connection which will make use of Designated Generation Cluster Infrastructure, Approved Generation Cluster Infrastructure or a Constructed Generation Cluster Infrastructure and which cause the capacity of the First Transformer to be exceeded such that there is or would be a material impact on the terms of any connection offer made respect of such applications;
"Interactive Connection Offers"	are connection offers made in respect of Interactive Connection Applications.
"Interactive Queue"	means the queue of Affected Parties who have made Interactive Connection Applications as determined by NIE Networks;
"Least Cost Technically Acceptable" or "LCTA"	means the connection which: • complies with the Distribution System Security and Planning Standards; and • complies with any other applicable standard, regulation and code; and • takes into account committed developments on the Distribution System; and is the least overall cost;
"Licence"	**means the licence granted to NIE Networks to distribute electricity granted under Article 10(1)(bb) of the Order;**

"Low Voltage"	means not exceeding 1000volts
"Maximum Export Capacity" or "MEC"	means the maximum permissible amount of electricity to be exported to the Distribution System as set out in the Connection Agreement.
"Maximum Import Capacity" or "MIC"	means the maximum permissible amount of electricity to be imported from the Distribution System as set out in the Connection Agreement
"MVA"	means the vector sum of active and reactive power generated, used or transferred through a circuit or device
"Non-Contestable Works"	means the option set out under the Terms Letter under which NIE Networks will undertake all of the Non Contestable Works including, if required, the Reinforcement Works.
"The Non-Contestable Works Option"	means the option set out under the Terms Letter under which NIE Networks will undertake all of the Non Contestable Works and if required the Reinforcement Works.
"Order"	means The Electricity (Northern Ireland) Order 1992, as amended;
"Proposed"	means having received DOE Planning Permission or having made a formal Planning Application to DOE.
"Quotation Summary"	means the breakdown of the Connection Charge provided by NIE Networks with the Terms Letter.

"Reference Date"	Means the Date, each year, on which NIE Networks applies **RPI** to its **Regulatory Asset Base**
"Regulatory Asset Base" or "RAB"	'The value ascribed by the **Authority** to the capital employed in the NIE Networks' regulated businesses.'
"Reinforcement Works "	Means works that are required by a new or modified connection to the **Distribution System** and which are modifications to the existing system as compared to **Connection Works** which form an electrical connection between the **Customer Works** and the **Distribution System.**
"Retail Price Index" or "RPI"	means the index of prices compiled by the Office for National Statistics and means the index of prices compiled by the Office for National Statistics and published as Table RP02 at www.statistics.gov.uk;
"SCADA"	means the IT system for Supervisory Control and Data Acquisition
"Special Protection Scheme (SPS)"	is a scheme comprised of measuring devices and connected to control or switching devices, the purpose of which scheme is to detect the occurrence and/or the extent of an unacceptable condition on NIE Networks' system, and to cause a range of control or switching actions which will cause the network to be restored to a safe condition.

“Standard Connection Charge”	The charge levied where a customer wishes to connect a new housing development with 12 or more individually serviced **Domestic Premises**, or to extend an existing development of fewer **Domestic Premises**
“Statement of Charges”	means the Statement of Charges for Connection to Northern Ireland Electricity Networks Distribution System (this document)
“Supplier”	means the holder of a licence to supply electricity granted under Article 10 (c) of the **Order**
“Technical Terms for Connection”	The technical terms issued by NIE Networks with the Terms Letter that apply to the connection
“Terms Letter”	means the letter issued by NIE Networks offering terms for connection to the Distribution System.

"Transmission System"	means the system of electric lines owned by NIE Networks and comprising high voltage lines and electrical plant and meters used for conveying electricity from a generating station to a substation, from one generating station to another, and from one substation to another within the Northern Ireland (including such part of the North/South Circuits as is owned by NIE Networks) (except any such lines which the **Authority** may approve as being part of the NIE Networks' **Distribution System)** and any other electric lines which the **Authority** may specify as forming part of the **Transmission System**, but shall not include any Interconnector;
"Validity Period"	means the period of time during which an **Interactive Connection Offer** is capable of acceptance in accordance with its terms.

Schedule 1 – Connection Design and Analysis Fee

Connection design and analysis allows the assessment of the distribution network infrastructure to determine if it is adequate to allow the connection of the proposed generation and/or storage scheme or to identify and design the works required in order to permit the connection of the proposed generation and/or storage scheme.

A connection design and analysis fee will apply where a connection design analysis is requested in advance of an application for connection and may apply in cases where a connection offer can not be issued.

For the avoidance of doubt, a connection design and analysis is optional and can be requested without submitting an application for connection but it is not a prerequisite for making an application for connection.

A connection design and analysis fee also typically applies to existing generation and/or storage sites where the generation and/or storage device is being altered or replaced within the terms of the existing connection agreement, e.g. a change of generator of the same size and rating where no change of the connection agreement is required.

Please note that a connection design analysis does not reserve network capacity for a particular project. NIE Networks cannot guarantee that a connection will be available when an application for connection is made.

Customer Category	***Connection Design and Analysis Fee***
Customer requiring a connection agreement for the parallel operation of a total installed capacity of less than or equal to 150kW:	£667
Customer requiring a connection agreement for the parallel operation of a total installed capacity of more than 150kW:	£1,356

Notes:

1. The Connection Design and Analysis fees in this Schedule 1 are exclusive of Value Added Tax which will be charged at the appropriate rate.

Schedule 2 - Connection Application Fee

The following table sets out the connection application fee(s) payable to NIE Networks by a **Generation Applicant** seeking a connection offer and connection agreement that permits the parallel operation of a generation and/or storage scheme.

Customer Category	***Connection Application Fee***
Customer requiring a connection agreement for up to 32amps per phase where the installation meets G99/NI Fast Track requirements:	£300
Customer requiring a connection agreement for the parallel operation of a total installed capacity of less than or equal to 20kW:	£678
Customer requiring a connection agreement for the parallel operation of a total installed capacity of more than 20kW and less than or equal to 150kW:	£2,034
Customer requiring a connection agreement for the parallel operation of a total installed capacity of more than 150kW and less than or equal to 2MW:	£6,780
Customer requiring a connection agreement for the parallel operation of a total installed capacity of more than 2MW	£10,169
Additional fee for a customer requiring a connection agreement for the parallel operation of a total installed capacity of 5MW and above and less than 20MW and whose connection requires a detailed assessment by SONI for its effect on the **Transmission System**:	£29,834
Additional fee for a customer requiring a connection agreement for the parallel operation of a total installed capacity of more than 20MW and whose connection requires a detailed assessment by SONI for its effect on the **Transmission System**:	£42,774

Notes:

1. G99/NI Fast Track applications involving connection of two separate inverters supplying separate generation and **Electricity Storage** installations up to an aggregated total of 32amps per phase where each single inverter is =<16amps per phase, the export is limited to 16amps per phase through a G100 relay and each inverter complies with G83/G98. Further details can be found on the NIE Networks website; https://www.nienetworks.co.uk/connections/generation-connections
2. For the payment of this fee a customer's application for connection shall be assessed to determine if a connection offer can be made, as in some circumstances. NIE Networks is relieved from having to make a connection offer pursuant to the Licence or the order. A connection offer issued following assessment shall so far as possible set out any connection and/or reinforcement

works required, the dates by when these works are planned to be completed and the connection charges payable. The works specified in the offer will not normally be fully engineered and specified. In particular, any overhead line routes or cable routes will not have been identified and any environmental aspects of the works will not have been fully evaluated. These tasks will not be undertaken until after the acceptance of any offer.

3. The connection application fees in this Schedule 2 are exclusive of Value Added Tax which will be charged at the appropriate rate.

4. Where two or more connection applications are processed together as a group of applications NIE Networks may, in its sole discretion, reduce the application fees for each customer if the costs incurred in preparing the offers are reduced.

5. If an application for connection is withdrawn prior to the issue of the connection offer but following the connection design and analysis, then the appropriate connection design and analysis fee may apply.

Schedule 3 – Housing Sites Full Works Option

Notwithstanding the provisions of sub-paragraph 5.2

The following charge applies where a customer has accepted a **Full Works Option** to connect a new housing development with 12 or more individually serviced **Domestic Premises**, or to extend an existing development of fewer **Domestic Premises**, the customer will pay a **standard connection charge** for each **Domestic Premise.**

Customer Category	***Standard Connection Charge***
Housing Site > 12	£1,094

The following schedules (Schedule 4 – 12) illustrate the range of prices that may apply to your application subject to section 6.14:

Schedule 4 – Indicative Costs for Small Services

- These costs are typically associated with the construction of small services and exclude any charges associated with traffic management, obtaining land right and abnormal working hours.
- It should be noted that excavation and reinstatement costs for areas with multiple services, rock, cobbles, granite sets, large flag stones, public realm locations etc. will be higher and this will be reflected in the estimated Connection Charge.

Activity	Description	Factor	Unit	Min	Max
Single Phase Service	Single phase service, from a passing main, including cable, mains service joint, excavate and backfill joint hole, (excavate to site boundary only), And termination. Service cable length up to 5 metres	Same Side (Tarmac Footpath)	No.	£1,837	£3,400
		Same Side (Grass Verge)	No.	£1,645	£2,890
		Cross Type 3&4 Carriageway	No.	£2,900	£6,581
		Additional metres (footpath)	m	£53	£112
		Additional metres (Grass Verge)	m	£33	£76
		Additional metres (Carriageway)	m	£110	£161
Three Phase Service (<70Kva)	Three phase service, from a passing main, including cable, mains service joint, excavate and backfill joint hole, (excavate to Site boundary only), and termination. Service cable length up to 5 metres	Same Side (Tarmac Footpath)	No.	£1,954	£3,712
		Same Side (Grass Verge)	No.	£1,909	£3,019
		Cross Type 3&4 Carriageway	No.	£3,110	£6,710
		Additional metres (footpath)	m	£55	£113
		Additional metres (Grass Verge)	m	£35	£63
		Additional metres (Carriageway)	m	£107	£162

Activity	Decryption	Factor	Unit	Min	Max
Service Disconnect (Underground)	Underground service from a passing main, including, service pot-end joint, excavate, backfill and reinstate joint hole, remove service cut-out at meter position.	Same side in public footpath (Single phase)	No.	£1,292	£4,362
		Same side in public footpath (Three phase)	No.	£1,379	£5,346
Service Disconnect (Overhead)	Overhead service from wood pole, including, service termination, removing under eaves and recovering all conductors, remove service cut-out at meter position.	Pole to wall (Single Phase)	No.	£965	£2,517
		Pole to wall (Three Phase)	No.	£1,110	£2,807

Schedule 5 – Indicative Costs for Traffic Management Fees

- These costs are typically associated with the requirements to comply with the Northern Ireland Streetworks, Registry and Notification System (NISRANS).

- It should be noted that higher charges may apply depending on the specific site location and taking due account of any updated legislation, requirements for abnormal working hours etc. and this will be reflected in the estimated Connection Charge.

Activity	Description	Factor	Unit	Min	Max
Traffic Management	Type 0 Carriageway	Carriageway with over 70,000 vehicles per day	Per Occasion	On application[8]	
	Type 1 Carriageway	Carriageway with over 20,000 and less than 70,000 vehicles	Per Occasion	On application	
	Type 2 Carriageway	Carriageway with over 5,000 and less than 20,000 vehicles	Per Occasion	On application	
	Type 3 Carriageway	Carriageway with over 2,000 and less than 5,000 vehicles	Per Occasion	£608	£1,593
	Type 4 Carriageway	Carriageway with up to 2,000 vehicles per day	Per Occasion	£608	£1,593

[8] Type 0, 1 and 2 Carriageway are defined as the most highly trafficked roads by TransportNI and as such may be subject to special designation as protected streets, strategic routes, traffic-sensitive streets or streets with special engineering difficulties. This designation may impact on restricted hours of working, specialised methods of working including the type of temporary traffic management, and other directions from TransportNI such as the establishment of diversionary routes with associated advertising costs.

Schedule 6 – Indicative Costs for Underground Cables

- These costs are typically associated with the construction of underground cables and exclude any charges associated with requirements for working abnormal working hours, traffic management, obtaining land rights and excavation and reinstatement.

Activity	Description	Factor	Unit	Min	Max
Extension of Underground Cables – including pulling in open trench and jointing onto existing mains (Excavation and Reinstatement by Others)	Lay 10m cable or less including jointing onto Existing underground cable in prepared trench or pulling through duct installed by others.	Extension of Low Voltage Mains (95W/F) – 10M	No.	£1,803	£1,934
		Additional Metres of 95WF Mains Cable	m	£17	£33
		Extension of Low Voltage Mains (185W/F) – 10M	No.	£1,880	£2,042
		Additional Metres of 185WF Mains Cable	m	£27	£44
		Extension of Low Voltage Mains (>185W/F) – 10M	No.	£1,934	£2,078
		Additional Metres of >185WF Mains Cable	m	£32	£47
		Extension of HV Mains (20M)	No.	£4,928	£5,427
		Additional Metres of HV Mains Cable	M	£42	£55
		Extension of 33kV Mains(30M)[9]	No.	£16,658	£277,709

[9] The variance between minimum and maximum costs relate to the fact that the minimum costs relates to standard cable whereas the maximum costs relates to oil-filled cables that incur substantial construction costs.

Schedule 7 – Indicative Costs for Overhead Lines

- These costs are typically associated with the construction of overhead lines and exclude any charges associated with working abnormal working hours, traffic management, obtaining land rights, survey, compliance with necessary Legislation (DfI Planning, environmental impact assessments etc.), crossing other utilities, poor ground conditions (piling, rock, unavoidable land damage due to construction, specific access/ egress reinforcement costs etc.), tree cutting, use of cranes, alterations to existing equipment to facilitate construction of overhead line. In addition, the construction is based on standard NIE Networks' design and working in an unrestricted continuous basis.

Activity	Description	Unit	Min	Max
Extension of Low Voltage Overhead Lines (Single Phase)	Erect Single Span including terminal pole (typical span 45 – 50m)	No.	£5,570	£7,710
	Erect additional span (typical span 45 - 50m)	No.	£2,320	£5,166
Extension of Low Voltage Overhead Lines (Three Phase)	Erect Single Span including terminal pole (typical span 45 – 50m)	No.	£8,214	£10,963
	Erect additional span (typical span (45 - 50m)	No.	£2,826	£6,976
Extension of 11kV Overhead Lines (Single phase, maximum 50mm conductor)	Erect Single Span including terminal pole (typical span - 90m)	No.	£9,076	£17,988
	Erect additional span (typical span - 90m)	No.	£2,824	£10,333

Activity	Description	Unit	Min	Max
Extension of 11kV Overhead Lines (Three phase, maximum 50mm conductor)	Erect Single Span including terminal pole (typical span - 90m)	No.	£10,806	£23,444
	Erect additional span (typical span - 90m)	No.	£3,321	£11,503
Extension of 33kV Overhead Lines (100mm – 200mm conductor)	Erect Single Span including terminal pole (typical span - 100m)	No.	£19,167	£22,518
	Erect additional span (typical span - 100m)	No.	£10,688	£17,441

Schedule 8 – Indicative Costs for Substations

- These costs are typically associated with the construction of substations and exclude any charges associated with requirements for working outside normal working hours, traffic management, obtaining land rights, land purchase, terminating incoming circuits, compliance with necessary Legislation (DfI Planning, environmental impact assessments etc.), poor ground conditions (piling, rock, unavoidable land damage due to construction, specific access/ egress reinforcement costs, requirements for specialised earthing design etc.), tree cutting, use of cranes, alterations to existing equipment to facilitate construction of overhead line, **SCADA** equipment, noise enclosures, excavation and reinstatement on customer's property. In addition, the construction is based on standard NIE Networks' design and working in an unrestricted continuous basis.

Activity	Brief Description	Unit	Min	Max
High Voltage Substation up to 1000kVA	Install ground mounted substation up to 315kVA including Ring Main Unit, Low Voltage fuse or circuit breaker	No.	£49,229	£69,014
	Install ground mounted substation >315kVA and up to 500kVA including RMU, Low Voltage fuse or circuit breaker	No.	£50,905	£69,227
	Install ground mounted substation >500kVA and up to 800kVA including RMU, Low Voltage fuse or circuit breaker	No.	£50,541	£78,355
	Install ground mounted substation >800kVA and up to 1000kVA including RMU, Low Voltage fuse or circuit breaker	No.	£66,919	£82,942
	Transformer Change	No.	£40,011	£48,982
High Voltage Pole Mounted Substations	Install Pole mounted transformer up to 25kVA including pole and stays	No.	£10,856	£17,066

Activity	Brief Description	Unit	Min	Max
	Install Pole mounted transformer up to 100kVA including pole and stays	No.	£22,747	£31,555
	Install Pole mounted transformer up to 200kVA including poles and stays	No.	£26,007	£34,814
High Voltage only Substation (customer owned HV/Low Voltage transformer)	Install internal HV Switchgear (RMU) and metered circuit breaker	No.	£32,388	£39,899
	Install external HV Switchgear (RMU) and metered circuit breaker	No.	£41,965	£50,529
33kV / 11kV Primary Substation	New Indoor single Transformer substation	No.	£1,115,262	£2,302,931
	New Indoor double Transformer substation	No.	£1,599,957	£3,343,691
	New outdoor single Transformer substation	No.	£1,386,991	£2,074,308
	New outdoor double Transformer substation	No.	£2,032,949	£3,197,237

Activity	Brief Description	Unit	Min	Max
33kV / 11kV Primary Substation	Additional transformer at existing indoor Substation	No.	On application[10]	
	Additional transformer at existing outdoor Substation	No.	On application	
	Change Transformer	No.	On application	
	Change HV Switchgear	No.	On application	

* The above are exclusive of in-feed HV cable costs.

Activity	Brief Description	Unit	Min	Max
33kV Primary Substation	New Indoor single metered supply point (typical wind farm installation)	No.	£292,378	£536,453
	New Indoor double metered supply point (typical major load installation)	No.	£599,220	£878,798

[10] Due to the complexities that may arise associated with existing sites it is not possible to provide sample costs for this range of job types within this schedule.

Schedule 9 – Indicative Costs for Acquiring Land Rights

- While any work required to negotiate documentation beyond NIE Networks' standard documentation, external legal costs and compensation payable to third parties are pass through costs, the costs below are typical NIE Networks' costs associated with the attainment of land rights which permit the installation, operation and maintenance of NIE Networks' equipment. The land rights required by NIE Networks are dependent upon the circumstances applicable to the connection and are at the discretion of NIE Networks. If the land rights that we require cannot be obtained by negotiation we may have to exercise our powers of compulsory acquisition from **DfI** under the **Order** in which case the costs or expenses that we incur will be charged on a pass through basis. Pass-through costs incurred by NIE Networks after acceptance of the connection offer may be invoiced separately.

Activity	Brief Description	Unit	Min	Max
Wayleaves	Obtain single Wayleave from third party landowner	No.	£165	£332
	Obtain single Wayleave from developer including negotiations with land agents	No.	£207	£414
	Obtain single Wayleave from Public Body	No.	£207	£414
Cable Easement	Obtain Cable Easement	No.	£1,156	Individually Assessed
Substation Lease	Obtain Substation Lease	No.	£1,156	Individually Assessed

Schedule 10 – Indicative Costs for Survey

- These costs are typically associated with the survey for overhead lines and include the determination of pole positions, marking out pole positions, determining required tree clearances and identifying applicable land owners.

Activity	Brief Description	Unit	Min	Max
Survey	Survey associated with installation of pole mounted Transformer only	No.	£398	Individually Assessed
	Survey associated with Overhead Line (1 span)	No.	£796	Individually Assessed
	Survey associated with Overhead Line (2 spans)	No.	£955	Individually Assessed
	Survey associated with Overhead Line (3 spans)	No.	£1,114	Individually Assessed
	Survey associated with Overhead Line (4 spans)	No.	£1,274	Individually Assessed
	Survey associated with Overhead Line (5-8 spans)	No.	£1,910	Individually Assessed
	Survey associated with Overhead Line (>8 spans or 33kV Connection)	No.	Individually Assessed	Individually Assessed [11]

[11] The survey of lines > 8spans and 33kV connections are more likely to require additional survey works due to the existence of other power line crossings and multiple landowner consents and therefore it is not possible to provide a maximum cost without knowledge of the entire proposal.

Schedule 11 – Indicative Costs for SCADA Communications and Metering

SCADA

Within the **Distribution Code – Issue 5**, which was approved by the Utility Regulator in April 2019, there was a requirement for **SCADA** under the following conditions:

a) Power Generating Facilities with an Output of 1MW or more which are first connected after 1st January 2010;

b) Power Generating Facilities with an Output of 100kW or more up to 1MW which are first connected after 1st January 2010 where the DNO decides that **SCADA** is required because of local network reasons; and

c) Power Generating Facilities with an output of 5MW or more which were connected prior to 1st January 2010

The communication strategy utilised to integrate **SCADA** into NIE Networks' systems are categorised in the following bands:

d) Where a Power Generating Facility with a registered capacity greater than 100kW and less than 5MW is connected to the Distribution System at a nominal voltage less than 33kV, then the DNO will allow the Generator to provide the RTU in accordance with the relevant Setting Schedules or EREC G99/NI as applicable

e) Where a Power Generating Facility with a registered capacity greater than 100kW and less than 5MW is connected to the Distribution System at a nominal voltage of 33kV or greater, then the DNO may provide its own RTU in accordance with the relevant Setting Schedules or EREC G99/NI as applicable.

f) For Power Generating Facilities with a registered capacity of 5MW or more, the DNO will provide for SCADA by the installation of its own Remote Telemetry Unit (RTU). The RTU will be the physical interface between the Distribution Control Centre and Power Generating Facilities connected to the Distribution System plant to be monitored and controlled in accordance with the relevant Setting Schedules.

- The costs typically associated with the installation of fibre and **SCADA** equipment are illustrated below and are shown based on the installation being connected by overhead conductor, on the basis of pole positions being no greater than 100m apart and continuous working along the route, or underground cable.

Activity	Brief Description	Unit	Min	Max
Fibre Conductor Installation	Installation of overhead line fibre at time of construction of overhead line	1kM	£58,563	£180,297
	Installation of underground fibre at time of installation of underground cable – excludes excavation and reinstatement	1kM	£12,754	£18,706

Activity	Brief Description	Unit	
Installation of SCADA Communication Equipment	Generation Connection <5MW Applicant Provides RTU	No.	On application (min value £20,337)
	Generation Connection <5MW NIE Networks Provides RTU	No.	On application (min value £49,610)
	Generation Connection >5MW NIE Networks Provides RTU	No.	On application (min value £49,610)

METERING

- The typical costs associated with for the installation of appropriate metering units are illustrated below which exclude instances where a GSM modem cannot be installed.

Activity	Brief Description	Unit	Min	Max
Metering	HV Metering Requirements for load supplies >70kVA and <1MVA	No.	£3,686	£4,432
	HV Metering Requirements for load supplies >1MVA	No.	£4,539	£5,380
	Metering Requirements for Generation Connections (<33kV)	No.	£770	£2,358
	Metering Requirements for Connections ≥ 33kV	No.	Individually Assessed	Individually Assessed

Schedule 12 – Indicative Costs for Distribution Code Compliance Testing

- These costs are typically associated with NIE Networks assessing the compliance with the **Distribution Code** which specifies day-to-day procedures that govern the relationship between the NIE Networks and users of its **Distribution System** for planning and operational purposes in normal and emergency circumstances and exclude any requirements for abnormal hours working.

Activity	Brief Description	Unit	Min	Max
Distribution Code Compliance	Costs associated with testing installation for compliance with Distribution Code compliance and provision of necessary paperwork.	Per installation	£3,480	£10,439
	Additional costs associated with compliance for Grid Code compliance	Per installation	Please refer to SONI charging statement for most recently published charges	

Schedule 13 – Charges relating to Contestability in Connections

The following charges are applicable for connections where the customer or their appointed **ICP** is undertaking the **Contestable Works.**

A Design Review of the Contestable Work

For applications received in accordance with Section 9 of this Statement, NIE Networks' charges associated with the review of a **Contestable Works** design produced by an ICP are set out in the Table below:-

Type of Connection	Charge
Demand	
Connection of new domestic supply - service only	£85
Connection of new housing development consisting of less than 12 houses, apartments or site supplies	£170
Connection of new housing development consisting of 12 or more houses, apartments or site supplies	£341
Domestic supply greater than 80A	£170
Connection of new domestic supply including HV equipment and LV service	£170
Connection of an unmetered supply	£85
Commercial / industrial supply less than 70kVA	£170
Commercial / industrial supply between 70kVA and 1MVA at HV or LV	£170
Commercial or industrial supply greater than 1MVA at HV	£682
Connections to 11kV Network (requiring switchboard)	£5,277
Connections to 33kV Network > 5MVA	£8,833
Generation	
Connection of a small-scale generator	£341
Connections to 33kV Network > 5MVA	£8,833

B Inspection of Contestable Works

The table below outlines the indicative inspection fees that will be applicable for different Connection Types.

	Type of Connection	Charge
Demand	Connection where total cost of Contestable Works is under £1000	£292
	Connection of new domestic supply - service only to 1 dwelling	£292
	Connection of new housing development consisting of less than 12 houses, apartments or site supplies	£1,167
	Connection of new housing development consisting of 12 or more houses, apartments or site supplies	£2,626
	Domestic supply greater than 80A	£292
	Connection of new domestic supply including HV equipment and LV service	£875
	Connection of an unmetered supply	£292
	Commercial / Industrial supply less than 70kVA	£292
	Commercial / industrial supply between 70kVA and 1MVA at HV or LV	£1,167
	Commercial or industrial supply greater than 1MVA at HV	£1,459
	Connections to 11kV Network (requiring switchboard)	£1,167
	Connections to 33kV Network ≥ 5MVA	£2,334
	Additional inspection if required (per inspection)	£142
Generation	Connection of a small-scale generator	£1459
	Connections to 33kV Network > 5MVA	£2,334

C Land Rights

We require the transfer of the freehold or alternatively the grant of long leasehold of any substation site which forms part of the **Contestable** or **Non-Contestable Works**.

We require the grant of a permanent easement (deed of grant) for any electric line that forms part of the **Contestable** or **Non-Contestable Works** which will not form part of an adopted or prospectively adopted highway. We may in some cases accept a wayleave as an alternative.

NIE Networks costs for reviewing, processing, executing and adopting the relevant legal land rights obtained by you or your ICP are as follows:

Ancillary Fees	Charge
Wayleave	£159.48
Planning Consents	£159.48
DfE Article 40 Consent	£159.48

Lease / Easement Adoption	£159.48
Lease / Easement Drawing Review	£159.48

NIE Networks may have additional costs for the legal review and admin processing costs for land rights documentation secured for **Contestable Works**.

D Other

Our miscellaneous charges associated with the provision of the connection are set out in the Table below:

Category	**Charge**
Negotiation of special terms	Price on application
Meetings not covered by other charges	Price on application
Abortive Visit	Price on application
Planning approval	Price on application
Assistance in the identification of LV paper insulated lead covered cables	£299 min, £2,541 max
Charge for useof a voltage discriminator for cables (VODCA) device	£500 per day or part of.
Emergency disconnection of the Contestable Works in the event of post-energisation test failures as per Framework Access Agreement	Price on application
NIE Networks to carry out remedial works to rectify defects as per Framework Access Agreement	Price on application
NIE Networks to complete final connection following ICP inability to complete	Price on application

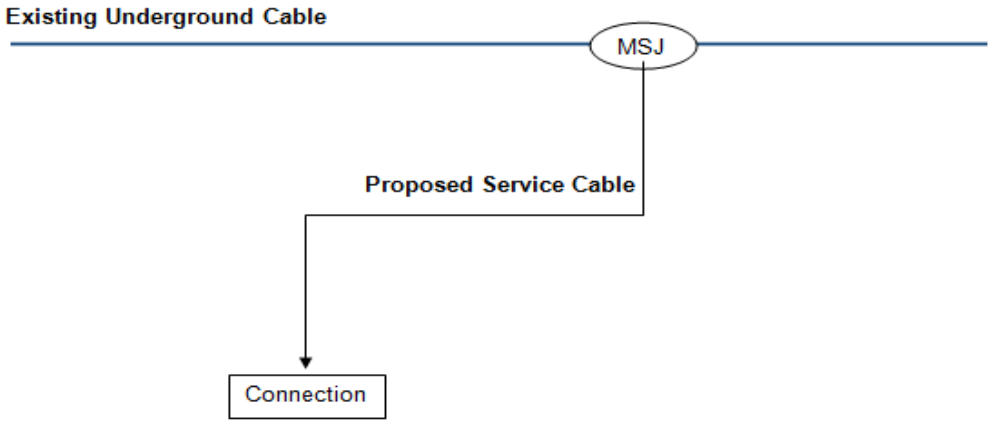
The Operation and Maintenance Percentage for contestably built assets is detailed and explained in Section 9.13.

Appendix 1 – Typical Methods of Connection – Simple Diagrams and Photographs

The following diagrams and photographs are provided to assist with consideration of Schedules 4-12 and are for illustrative purposes only.

Urban Connection

a) This illustrates a typical example of a Multi-service joint (MSJ) from an existing underground cable to enable the connection of a small service (single phase or three phase).

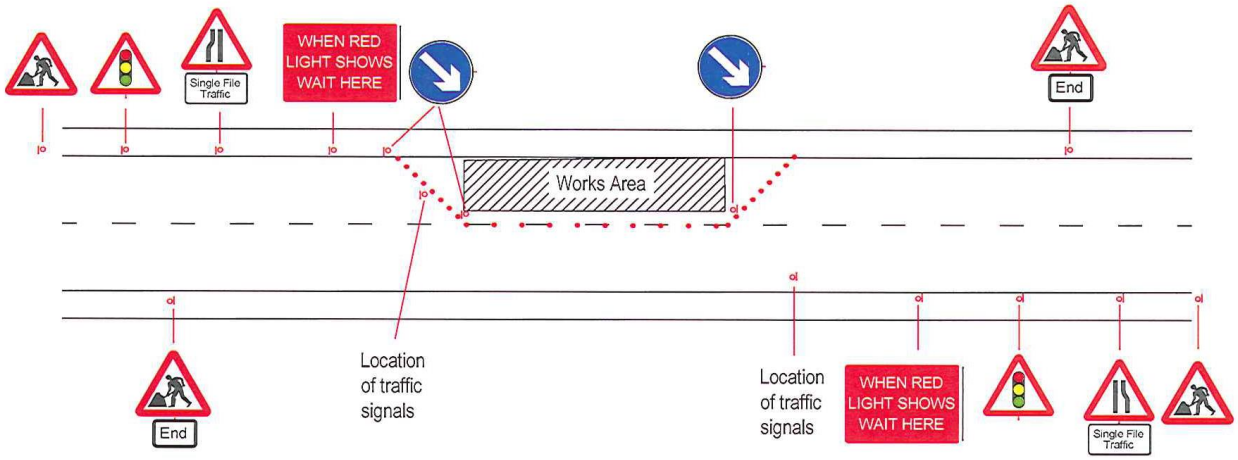


Indicative costs for this proposed urban connection method of connection based on a single phase supply from a mains cable on a tarmac footpath with 1 third party permission required. These costs can be located under Schedules 4, 5 and 9 and as illustrated below:

Description	Schedule Number	Minimum Cost	Maximum Cost
Single phase service from passing main	4	£1,837	£3,400
Additional 2M cable trenching on footpath	4	£106	£224
Traffic Management on Type 4 Carriageway, if required.	5	£608	£1,593
Obtain wayleave from third party	9	£165	£332
Total		**£2,716**	**£5,549**

Traffic Management

a) This illustrates a typical example of a traffic management plan to comply with Northern Ireland Streetworks, Registry and Notification System (NISRANS). Each requirement will be individually assessed and designed to ensure compliance with NISRANS requirements.



Traffic Management for 2-Way traffic lights

Indicative costs for traffic management can be located under Schedule 5.

Mains Cable

a) This illustrates a typical example of an underground cable extension from an existing underground cable and can be utilised for the diversion of existing equipment.

Indicative costs for this proposed mains cable method of connection can be located under Schedules 4, 5 and 8.

Overhead Lines

a) This illustrates a typical example of a **low voltage** overhead line network.

b) This illustrates a typical example of a **high voltage** overhead line network.

Indicative costs for the above overhead lines proposed methods of connection can be located under Schedules 4, 6, 8 and 9.

Substations

a) This illustrates a typical example of a **high voltage** ground mounted substation.

b) This illustrates a typical example of a **high voltage** pole mounted transformer with **low voltage** overhead connection.

c) This illustrates a typical example of a **high voltage** primary substation

Indicative costs for these proposed substation methods of connection can be located under Schedules 5, 6, 7, 8 and 9.

Methodology for to the Northern Ireland Distribution System using Cluster Substations

1st of April 2024

1. INTRODUCTION

To facilitate the connection of renewable generation to the electricity grid whilst respecting Northern Ireland's landscape and cultural heritage, Northern Ireland Electricity Networks (NIE Networks) intends, in appropriate circumstances, to group or "cluster" generators so that they will share network infrastructure. Where there is insufficient potential generation in an area to justify a cluster, then generators would continue to be connected on an individual basis to the 33kV system.

Clustering generators also offers advantages in managing information and control related to that part of the system and could permit single point rather than distributed solutions to other engineering problems arising from high levels of renewable energy penetration. It is not yet clear how voltage stability, fast response and inertia response will be managed in future, but grouping of generators is likely to facilitate more efficient solutions.

In March 2010 NIE Networks consulted on the principle of clustering generators and the associated charging mechanism[12]. The consultation process concluded that:

- Clustering provided a suitable method of connecting groups of generators that are located in the same vicinity.
- The charge for a generator to connect into a cluster substation should be based on a proportion of the cost of the cluster, plus the full cost of its unique **connection assets**.
- The Least Cost Technical Acceptable (LCTA) method of connection must still be considered for generators not associated with a group.

Following the consultation process the Utility Regulator (UR) issued a decision paper[13] on 21 April 2011, which agreed with the above conclusions and directed NIE Networks to proceed with the updating of NIE Networks Charging Statement to give effect to this methodology.

The above consultation and decision paper focused on the principles of adopting a clustering approach and the options for the charging of costs. It did not consider the precise criteria that should be considered or the methodology that should be applied when concluding that a group of generators should be connected as a cluster. Also, it did not evaluate the construction options for cluster infrastructure. This paper therefore considers these issues. Specifically it:

- Details the criteria to be used to determine when a clustered approach should be applied by NIE Networks and
- Outlines the process to evaluate options for the establishment of a cluster.

The following process should be followed for each situation where clustering is to be considered:

1. Collation of information on generation
2. Assessment Process
    - Assessment of the extent of generation that requires to be planned for
    - Consideration of the case for a cluster taking account of adjacent network
    - Assessment of options for delivering the cluster
3. Development of conclusions and preparation of a report related to each cluster for submission as an approval to UR

[12] Charges for Connecting Groups of Generators to the Northern Ireland Distribution System
http://www.nienetworks.co.uk/Network/Major-projects/Renewable-investment
[13] Decision Paper on the Charges for Connecting Groups of Generators (Clustering) to the Northern Ireland Distribution System.
http://www.uregni.gov.uk/uploads/publications/Decision_Paper_on_Charges_for_Connecting_Groups_of_Generators.pdf

2. COLLATION OF INFORMATION ON GENERATION

Table 1 below shows the information relating to existing and proposed generators that NIE Networks will collate and update on a 3 monthly basis. Whilst the majority of the information is in the public domain, certain details are sourced from one-to-one interactions with developers. This latter information will only be shared with the UR and will be treated as confidential.

Generator Stage	***Information***	***Source***
Commissioned	Name Developer Size (MVA) Location (x,y co-ordinates) Commissioning Date	NIE Networks Records Developers
Consented (Planning Approved)	Name Developer Financial Stage (if available) Size Location Requested Commissioning Month Likelihood of completion	NIE Networks Records Planning Service Developers
Awaiting Planning Approval from NI Planning Service or Planning Appeals Commission (PAC)	Name Developer Size Location Estimated Commissioning Year Likelihood of completion	Planning Service PAC Developers
Environmental Impact Assessment (EIA) underway	Name ****Confidential**** Developer Size Location Estimated Commissioning Year Likelihood of completion	Developers
Withdrawn from Planning or Rejected by Planning	Name Developer Size Location Likelihood of completion	Planning Service Developers
Early Stage e.g. landowner option negotiations	Name ****Confidential**** Developer Size Location Estimated Commissioning Year Likelihood of completion	Developers

Table 1 Generator Information

3. ASSESSMENT PROCESS

The assessment process has two stages.

1. A technical assessment of the various network connection options for the expected level of generation.
2. A non-technical assessment covering environmental considerations, access restrictions and opportunities, timing issues and costing. This will seek to refine the output of the technical assessment, reducing the available connection options to one preferred scheme.

Generally, this assessment will entail the consideration of 33kV connections compared to options for establishing a shared 110kV infrastructure (i.e. a cluster).

4. TECHNICAL ASSESSMENT

4.1 Extent of Generator Capacity to be Accommodated

The primary consideration in this analysis is the level of generation capacity that is likely to connect to a potential cluster substation. **Electric Storage** sites are not considered during Cluster designation.

Geographical Extent of a Cluster

An assessment is made of all generation anticipated in an area of about 700 km^2 or a 15km radiusThis radius is based on a 12km maximum length of 33kV 200mm^2 aluminium overhead line that, when fully loaded, maintains the 33kV voltage at the generator within statutory limits. Where an element of underground cable is included in the connection, which has become increasingly common based on NIE Network's experience to date with regards to Cluster Substations, the cable lengths can be higher. An allowance has been made to the radius to account for the technical impacts of this. The radius is based upon average conditions and engineering principles and judgement are to be applied to refine any particular case. The radius is intended for use when designating a cluster site, each individual connection application will be considered individually based on its unique technical characteristics.

Anticipated Extent of Generation - Weighted to Take Account of Uncertainty

NIE Networks gain knowledge of future developments directly from developers or through information they submit to theNI Planning Service.. Some developments are however more certain than others and this needs to be considered. All known generators within the defined area will be listed with their Maximum Export Capacity (MEC) and each MEC will then be weighted to reflect its development status.
Five development stages that have been identified are Early Stage, EIA Commenced, Submitted to Planning Service or PAC, Withdrawn from Planning and Consented. Weighting factors will be applied to each of the five stages. This enables a probabilistic calculation to be made of the total anticipated MEC in the area. . The proposed weightings are based as far as possible on historical data and information from ongoing discussions NIE Networks has with developers and NI Planning Service. The following factors were considered in refining the proposed weightings.

- To date all large scale generation projects that have received planning consent have subsequently been constructed and connected or are currently proceeding within the NIE Networks' connections process, hence a weighting factor of 1.0 will be applied.
- Between 1993 and 2013 (when the cluster methodology was introduced),approximately 80% of the aggregated capacity[14] of all large scale renewable generation projects submitted for planning approval have obtained consent. In March 2021 the Department for Infrastructure published figures collated by the Northern Ireland Statistics and Research Agency that showed the approval rate for renewable energy planning applications was 79.2% in Q3 2020/21[15] . Based on this historical data a weighting factor of 0.8 will be applied for generators submitted to planning. To date 100% of the large scale renewable

[14] Also 80% of individual large scale generations that have applied for planning permission have obtained approval

[15] 88% of the applications in this period were for single turbines. When considering windfarm success rates specifically, the success rate is in the range 50-100%.

generation projects referred to the PAC (following rejection by the Planning Service) have been approved. This is mainly because developers have only submitted large scale renewable generation projects with a strong case. The number of generators awaiting a PAC decision tends to be small in numbers for two reasons. Firstly the number of applications is low and secondly the PAC tend to make decisions quickly. Generators awaiting a PAC outcome will be grouped with those in planning and attract a 0.8 weighting factor

- Generators that have commenced work on an EIA will have a zero weighting applied. Generators at this stage have a high degree of uncertainty and the information would be very difficult to verify.
- Developers often inform NIE Networks of new generator projects in the early stages of development. Although this information is very useful, a weighting factor of zero will be applied due to the high level of uncertainty associated with the projects. Similarly projects that have been withdrawn from planning will also have a zero weighting applied; although such projects may be resubmitted there is no certainty of this.

All weightings will be kept under review with the benefit of experience. The proposed weighting factors are therefore as follows.

Stage	***Weighting Factor***
Consented	1.0
Submitted to Planning or PAC	0.8
EIA Commenced	0.0
EIA Commenced with Generator in an AONB or similar	0.0
Withdrawn from Planning	0.0
Early Stage	0.0

Table 2 Weighting Factors

The above weighting factors will be applied to the individual generator capacities to establish an overall ‘weighted’ anticipated cluster capacity.

Where an individual generator is located such that connection is possible to more than one cluster then the following would apply in terms of allocation of capacity.

- One cluster substation must be selected as the preferred method of connection for each generator.
- The cluster selected should generally be the closest to the generator.
- In special circumstances a cluster substation other than the closest may be selected. This could be the case if the closest substation is already fully subscribed (with generators that have already made an application), or where the closest substation’s estimated commissioning date will unreasonably delay the connection, or where environmental limitations prevent building the connection asset to the nearest cluster.

The inclusion of a generator in any category is only for the purpose of decision making about the viability of a cluster. It does not infer any greater connection right to any particular generator over any other generator in the area.

4.2 Weighted Capacity Threshold for Consideration of a Cluster Substation

In rural areas NIE Networks generally seeks to use overhead lines as the preferred construction method. An overhead line usually provides the least cost method of connection with a good level of reliability. NIE Networks will typically provide connection to generators using one 33kV overhead line, the line currently used[16] has a rating of 28MVA. A single 110kV overhead line can provide a capacity of up to 190MVA.

A threshold of 56MVA will be used as the minimum combined weighted MEC needed to justify a cluster. This figure is based on a view that generally two 33kV overhead lines (each rated at 28MVA) into a given area would be acceptable, whilst three would not be acceptable when compared with a single 110kV circuit.

Where the combined weighted MEC of generators located within a designated area is less than 56MVA then their connection(s) will generally be designed using one or two 33kV overhead lines connected to a suitable point on the network. In some cases a joint connection scheme may be applied to ensure that connection to more than two generators can be provided using a maximum of two 33kV lines.
Where the combined weighted MEC for the designated area is greater than 56MVA then further consideration will be given to establishing a 110/33kV cluster substation located within the designated area.

The MEC of a generator is usually specified in MW. When calculating the combined weighted MEC in MVA, the power factor requirements for that type of generator stated within NIE Networks' Distribution Code will apply

[16] 200mm^2 AAAC conductor 33kV overhead line. This is currently specified as a draft NIE document.

5. FURTHER ASSESSMENT

When the steps described in Sections 3 and 4 conclude that a cluster substation should be considered then NIE Networks will carry out further analysis. This is described in 5.1. The LCTA method of connection should also be considered further, as described in 5.2. Connection options will generally involve a clustered option and a single 33kV overhead lines option. Options will be developed based the existing Planning and Security Standards and taking other transmission proposals into account.

In both cases the information detailed in Table 3 will be required.

Information	Source
Capacity available on the local distribution network	NIE Networks' Electrical Studies
Capacity available at the local grid substation	SONI FAQ report NIE Networks' Electrical Studies
Distance to the local grid substation	NIE Networks' Mapping System
Required connection dates for generators	Developers
Estimated approval dates generator in planning	Developers
Estimated time to provide a cluster connection	NIE Networks
Estimated time to provide individual connections	NIE Networks
Estimated cost to establish a cluster	NIE Networks
Estimated cost of individual connections	NIE Networks
Any known routing restrictions or opportunities e.g. access, environmental, land owner, terrain	NIE Networks

Table 3 Site Specific Information

5.1 Further Assessment of a Cluster Substation

Based on a consideration of the information in Table 3, NIE Networks will conclude whether the establishment of a cluster substation represents the optimal method of connection. The following criteria must be considered and an overall conclusion drawn.

Use of Three or More Overhead Lines

Whilst the case for a cluster approach is based on avoiding multiple 33kV overhead lines, this will need to be validated on a case by case basis. Apart from environmental considerations, the costs associated with a multiple 33kV line option may escalate when reinforcement work at the existing grid substation is included.

Use of Underground Cable

The use of underground cabling can reduce the time to complete the connection of a generator to the network. This can be an important factor for developers. The issue of timing is dealt with in further detail later in this section.

Where the use of multiple 33kV lines is not considered practical (due to visual impact considerations or when suitable routes and/or planning approval cannot be obtained) the option of using multiple 33kV underground cables may be considered as an alternative to the cluster solution.

The use of multiple underground cables must be carefully considered against the following criteria .

- Cost - The main drawback of using underground cable is that it is considerably more expensive per unit length than overhead line. A cable circuit route length will also typically be greater than an overhead circuit because it must follow roadways or pre-defined boundaries, further increasing the cost. The overall cost may also escalate when reinforcements at the existing grid substation are included. This approach may need the agreement of all the developers involved as connection costs could exceed that of the clustered option.
- Future Connections - The use of all available underground cable routes may jeopardise the connection of future generators in the area. Future connections may become much more expensive as a result of forcing underground cabling and substation reinforcement on to later generators.
- Efficiency - The use of long 33kV cables transporting high power flows may result in an inefficient network in terms of total capital expenditure and network losses.
- Environmental Impact - Whilst the use of underground cabling provides benefits in terms of visual impact, the effect on the landscape and wildlife during the construction phase can be significant. In addition, underground cables can have a permanent environmental impact.

Environmental Assessment

NIE Networks has considered the potential for carrying out a detailed environmental assessment of the range of connection options. In particular to assess the feasibility of and enable the comparison of cluster options with those based on multiple 33kV lines. A number of environmental criteria would be considered during this assessment. It would then become a judgement by environmental and planning specialists to consider the various options against these criteria.

The methodology applied by such specialists is to score environmental cost on the basis of trusted databases of environmental information. Where opportunities are present parts of the route can have a negative environmental cost element e.g. by the route corridor following existing infrastructure corridors.

The environmental process will have two outcomes. The first is a set of recommendations as to whether each or any option is environmentally feasible. The second is the estimated environmental "cost" of each option. The absolute numbers associated with environmental "cost" have no meaning other than for option comparison / weighting.

The environmental report will provide details of the following:

- The general nature of the environment and any special features.
- The options studied.
- The model used for the study.
- The infrastructure weightings used.
- The findings.
- The recommended option.
- The lowest environmental impact route corridor and all corridors within 5% and 10% of that corridor.

The report will also list information supplied for the study and will be accompanied by maps. The report will be provided by environmental experts and is to be a resource for information to be provided to the Planning Service.

NIE Networks considers that defensible judgements can often be made on these matters, without the need for lengthy and costly consultant input. It is proposed that an environmental assessment will be carried out only where it is needed to support a decision.

Cost Assessment

Option costing is only to be applied to solutions which are deemed technically acceptable and environmentally feasible.

Dealing first with the simple case where the environmentally preferred option is also the cost preferred option, the decision is straight-forward.

Where the environmentally preferred and cost preferred options do not align, then NIE Networks will investigate the matter further and report on the issue to the UR with a recommendation. Within a set of feasible solutions, NIE Networks generally seeks to minimise cost, however there could be occasions where the environmental "cost" difference is great and this may influence the outcome.

Where an otherwise acceptable option carries excessive cost but is preferred by a developer for reasons of say timing or constraints minimisation, then NIE Networks may offer that option to the developer in exchange for the developer funding the excess cost.

There are two aspects to cost within the decision-making framework. There is the initial or construction cost and there is an all-of-life cost. For network issues, all-of-life cost mostly concerns initial cost plus electrical losses. Although all-of-life costs will be considered as part of the "cost" assessment it does not affect developer contributions.

The costing report will indicate:

- The basis of costing.
- The options costed and their details.
- The expected option cost and any further assumptions made in the costing of options.
- The expected accuracy of the cost estimates.
- Whether a clearly preferred connection scheme can be recommended or whether additional investigation is required.

Timing

NIE Networks recognises that the lead time for delivery of an individual 33kV connection is generally less than that of a cluster substation. A new 33kV overhead line requires a ground survey and the acquisition of wayleaves and planning approval prior to the construction phase. An Environmental Impact Assessment (EIA) may be requested by the planning authority if the line passes through an AONB or similar designation. An EIA for a 33kV line has not been requested to date.

Establishing new Cluster Infrastructure requires the development of a new 110/33kV substation in the vicinity of the proposed generators, and a 110kV line or lines will connect to the existing grid. Generally, the Planning Service will require that an EIA is completed for both the 110kV substation and line(s). Depending on the requirements of the EIA, the data collection phase alone can take up to a year. The analysis of the data and production of the EIA report will add 3-6 months to this. The substation design, line surveys, legalities and procurement of the equipment are also significant with a clustered arrangement.

The construction phase for establishing a cluster substation is also considerably longer than that of a single 33kV overhead line. As a result, the grid connection of the first generator to connect to a new cluster substation may be significantly longer than a direct 33kV connection to an existing node.. When the cluster substation is established subsequent generators may benefit from shortened lead times.

One solution to avoid delays for the first generator would be for NIE Networks to develop cluster substations ahead of generators requesting connection. With this approach there would however be an unacceptable level of risk that the predicted generators do not obtain planning approval and subsequently the investment in the cluster is nugatory.

A second solution would be to offer the first generator an individual 33kV connection. The difficulty with this solution is that removing one generator may reduce the justification of the cluster. The connection of future generators in the area using individual connections could also be jeopardised in terms of line route availability and securing planning approval. Also, the use of multiple 33kV overhead lines transporting high power flows may result in an inefficient network in terms of total capital expenditure (albeit funded by developers) and network losses.

Clearly a balanced position is needed where no generator's connection is unduly delayed and also where NIE Networks can continue to successfully connect generators to the grid. It is proposed that where the implementation of a clustered approach will severely delay an individual generator's connection then consideration may need to be given to providing the generator with an individual connection. In terms of this assessment it is considered that while, preferably, any single generator should not be delayed by more than 24 months by the implementation of a cluster approach, such delay

needs to be considered alongside the implications for the other planned generators of proceeding on the basis of an alternative option for connection. Where an individual 33kV connection is proposed then a second iteration of the analysis described in this paper must be completed to determine the optimum method of connection for the remaining generators. Where the removal of a generator from a cluster removes the justification for that clusterthen the generatorwill not generally be offered an individual connection.

In order for the timing provision to be applied, the following conditions must be met:

a) The applicant is the "first in the queue" for connection **to Designated Cluster Infrastructure** or **Approved Cluster Infrastructure** and has suffered or will suffer a **Delay** in being connected to that cluster. In this context 'Delay' shall mean that connection shall not occur within a period of 24 months commencing on the estimated scheduled completion date as stated in the Terms Letter offering terms for connection issued to the applicant by NIE Networks.

b) The first in the queue has applied for and paid NIE Networks for a connection design and analysis study to be undertaken within 3 months (or such longer period as agreed with the customer) of the connection design and analysis study application date, to determine if a direct connection to an existing node is technically acceptable; and

c) Where a direct connection to an existing node is technically acceptable, offering a direct connection to an existing node to the first in the queue would not result in the removal of justification for that Cluster should the offer for the direct connection to an existing node be accepted.

5.2 Further Assessment of the LCTA Method of Connection

In the same way that the requirement for a cluster approach needs to be challenged fully, as detailed in section 5.1, the alternative conclusion that individual LCTA 33kV connections are appropriate also needs detailed investigation. The following sets out the criteria that must be considered.

Cost

Where the combined output of generators in a designated area is less that 56MVA then generally one or two 33kV overhead lines will be used to provide the connection(s). However when it can be demonstrated that it would be cost effective to use a cluster approach, then a shared 110/33kV substation could be developed. The analysis will consider the cost to the NI customer only, and would involve comparing the shortfall in the cluster cost versus the reinforcement and/or constraint costs associated with the LCTA option. It is envisaged that a clustered solution will only apply in exceptional circumstances where the combined weighted MEC is less than 56MVA.

6. CLUSTER APPROVAL AND PRE-CONSTRUCTION

The UR's approval is required for each cluster as provided for by paragraph 4.21 of Annex 2 of the NIE Networks Distribution Licence. This is because electricity customers may contribute initially to the cost of the cluster.

As discussed in 5.1 the time taken to deliver cluster substations is critical to meeting developer's expectations for grid connections. To allow NIE Networks to construct cluster substations in a timely manner, whilst ensuring that the risk of under-recovery of customer funding is minimised, the following process is proposed.

- The cluster substation is justified as described in Sections 3 to 5.
- An approval for the pre-construction work for each cluster is then sought from the UR. The justification for the cluster described in this document will be detailed in the approval paper.
- Following consideration, and subject to UR agreeing with the case for the cluster, UR will grant NIE Networks' approval to proceed with the pre-construction work.
- NIE Networks completes the pre-construction work and submit the proposal to the DfI Planning Service for their approval.
- Based on the outputs of the pre-construction work NIE Networks will calculate a cost estimate for the construction work.
- NIE Networks then re-assesses the justification for the cluster substation. i.e. check if any of the conditions have changed. In particular, if changes in the status of generators associated with the cluster reduces the combined weighted MEC to below 56MVA then NIE Networks will reconsider the case for the cluster. The clustered option will only be progressed where NIE Networks can demonstrate clearly that this represents the most cost effective solution in terms of the contribution from the NI customer.
- Subject to the case remaining valid, NIE Networks will then submit an approval paper to the UR for the construction phase of the project.
- Following consideration, and subject to UR agreeing again with the case for the cluster, UR will grant NIE Networks' approval to proceed with the construction work. When planning approval has been obtained the construction phase can proceed.

Full implementation of the criteria specified in sections 3 to 5 will help ensure that the time needed to select a method of supply and obtain the necessary approvals can be minimised.

To assist developers in prioritising their projects, details of the cluster plan will be published on the NIE Networks' website and discussed during regular meetings. This will include the location of each cluster and the achieved and expected dates for key milestones. NIE Networks will also publish the estimated per MVA charge associated with accessing each cluster. The content of the information will be kept under review, with the benefit of experience and ongoing discussion with developers. The data will be updated by NIE Networks at least every three months.

7. CLUSTER STATUS AND CONNECTION OFFERS

A cluster substation will evolve in terms of scope and cost through three principles stages:-

7.1 Designated Cluster Infrastructure

Based on a combination of generators in the planning process and connection applications NIE Networks may conclude that a cluster substation is the most appropriate method of connection for a group of generators in a particular area. Up to the time that NIE Networks has secured construction approval such infrastructure is defined within this Statement of Charging as **Designated Cluster Infrastructure.** Because of the limited design and the limited certainty over planning and landowner consents the cost estimate for a **Designated Cluster Infrastructure** will be indicative only.

7.2 Approved Cluster Cnfrastructure

Following detailed design and planning permission NIE Networks will seek construction approval from the **Authority** for **Designated Cluster Infrastructure.** Following approval such infrastructure is defined within this Statement of Charging as **Approved Cluster Infrastructure.** Because design has been carried out and planning permissions will be in place there will be good confidence in the cost estimate for an **Approved Cluster Infrastructure**.

7.3 Constructed Cluster Infrastructure

Following the completion of work on **Approved Cluster Infrastructure** such infrastructure is defined within this Statement of Charging as **Constructed Cluster infrastructure.** Because **Constructed Cluster Infrastructure** is complete the cost for such infrastructure is an actual out-turn cost, the level of which will require to be validated by the **Authority**.

Connection applications could occur at 4 stages (as set out below) in the “evolution” of a cluster substation. Table 2 below sets out how connection offers will be developed in respect of each of the 4 stages:-

Timing of connection application	Terms of a connection offer
1. Prior to pre-construction approval	• Offer will be based initially on the indicative cost of the **Designated Cluster Infrastructure** • Initial payment following acceptance of terms is not refundable unless, through no fault of the generator, construction of the cluster infrastructure does not proceed • Offer will be subject to UR pre construction and construction approval. • Offer will be revised following construction approval to take account of the cost of the **Approved Cluster Infrastructure**
2. After pre-construction approval	• Offer will be based initially on the indicative cost of the **Designated Cluster Infrastructure** • Initial payment following acceptance of terms is not refundable unless, through no fault of the generator, construction of the cluster infrastructure does not proceed • Offer will be subject to UR construction approval • Offer will be revised following construction approval to take account of the cost of the **Approved Cluster Infrastructure**
3. After construction approval	• Offer will be based on the cost of the **Approved Cluster Infrastructure**
4. After construction	• Offer will be based on the out-turn cost of the **Constructed Cluster Infrastructure,** as validated by the **Authority**

Table 4 Basis of connection offers during the development of a cluster

8. Process Flow Chart