

NIE NETWORKS CONNECTIONS

Distribution Generation Application and Offer Process Statement

Version 4: Effective from 7th November 2023 at 10:00am

Summary of Changes

Issue	Date	Details of Change
1	18/05/2018	Original Issue
2	26/04/2019	The changes in the second version related only to the Generation Connection Application Section, which now refers to the new Generation Application Form as one form rather than two forms.
3	14/01/2022	The changes in the third version reflect the updated NIE Networks connection offer policy to provide distribution offers with non-firm market access to generators 5 MW and above.
4	07/11/2023	The changes in the fourth version reflect the updated NIE Networks connection offer policy to provide distribution offers with non-firm market access to generators less than 5 MW.

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Foreword

This Distribution Generation Application and Offer Process Statement (the “Statement”) is issued with the approval of the Network Connections Design Manager.

This is the fourth version of the Statement. The changes in the fourth version reflect the updated NIE Networks connection offer policy to provide distribution offers to generators (with a registered capacity of) less than 5 MW. These changes were developed with feedback provided from industry stakeholders through the following forums;

- The Connections Innovation Working Group (CIWG) which was established in 2018 to discuss the potential implications of connecting further generation to the distribution system on a non-firm basis
- The joint NIE Networks and SONI Consultation on NIE Networks Providing Distribution Generation Export offers to Applicants less than 5MW, dated 31st March 2023¹

The updated connections process will remove the requirement for full transmission firmness to be available in order for NIE Networks to issue a Distribution Connection Offer (for both generators with a registered capacity of 5MW and above and generators with a registered capacity less than 5MW). For all export offers, an assessment will be carried out to determine if there is available capacity at a Bulk Supply Point (BSP), as outlined in section 4. For generators 5MW and above, at the appropriate time in the connections process, SONI will complete Firm Access Quantity (FAQ) analysis and issue this information to the connecting party. The FAQ calculated will be reflective of actual transmission firm capacity.

This document supersedes both the Small Scale and Large Scale Generation Grid Connection Information Pack previously published on the NIE Networks website. Both of these documents will be replaced by this Statement.

The purpose of this Statement is to provide detail on the submission requirements and process for applicants applying to connect a **Generating Unit** (other than micro generation) to the NIE Networks’ **Distribution System**.

Unless otherwise defined in this Statement, terms in this Statement which are capitalised and in bold type are defined in the **Distribution Code**². Other terms have explanations given for them in Appendix C.

The effective date of this statement is 7th November 2023 at 10:00am (the Effective Date). The Application and Offer process discussed in this statement will only be applicable to those:

- Generators with a registered capacity less than 5MW who applied after 7th November 2023 at 10:00am
- Generators with a registered capacity greater than or equal to 5MW who applied after 14th of January 2022 at 9:00am

¹<https://www.nienetworks.co.uk/documents/connections/consultation-providing-distribution-generation.aspx>

² <http://www.nienetworks.co.uk/about-us/distribution-code>

1. INTRODUCTION

Depending on factors including size, a **Generating Unit** may connect to either the **Transmission System** or the **Distribution System**. **Small Scale Generation (SSG)** (<5MW) is currently connected exclusively to the **Distribution System**, while larger generators may connect to either the **Distribution System** or the **Transmission System**.

For a **Transmission System** connection (i.e. at 110kV and above) applicants should contact SONI Limited as the **Transmission System Operator (TSO)**. More details on the **TSO's** connection application process are available on **TSO** website³.

Where an applicant wishes to connect to the **Distribution System** (i.e. at up to and including 33kV) and operate a **Generating Unit** in parallel with the NIE Networks' **Distribution System**, the applicant must apply to NIE Networks' for a connection. This requirement is stipulated in the Electricity Safety, Quality And Continuity Regulations (Northern Ireland) 2012, Part 6, 23 (1) "*a person shall not install or operate a source of energy which may be connected in parallel with a distributor's network unless they (d) agree specific requirements with the distributor who owns or operates the network*". This stipulation is fulfilled in the form of a connection agreement between NIE Networks and the applicant.

Note that ESQCR 23 (1) is without prejudice to whether the source of energy is exporting that energy to the Distribution Network; therefore a connection agreement is required for all sources of energy even where they do not export to the network (except for those that comply with ESQCR 23 (2) where "*the source of energy does not produce an electrical output exceeding 16 amperes per phase at low voltage*"⁴ such as micro generation).

This Statement outlines the application requirements and process for obtaining an offer of terms for the connection for a **Generating Unit** to operate in parallel with the NIE Networks' **Distribution System**. A connection agreement will be completed and signed off at the final stages of the construction phase.

It should be noted that micro generation follows a separate process than the process detailed within this Statement. The details regarding the process for micro generation can be found on NIE Networks website⁵.

³ <http://www.soni.ltd.uk/>

⁴ The Electricity Safety, Quality and Continuity Regulations (Northern Ireland) 2012: <http://www.legislation.gov.uk/nisr/2012/381/made>

⁵ <http://www.nienetworks.co.uk/connections/generation-connections/micro-scale>

This Statement is comprised of the following sections:

1. Generation Connection Application and Offer Process
2. Generation Connection Application
3. Queuing Principles
4. Determining if Connection Capacity is Available
5. Applying for an Extension
6. Connection Design
7. Offer of Terms for Connection
8. Acceptance of Terms
9. Complaints

NIE Networks will continue to review this Statement to ensure it remains effective and up-to-date and reserves the right to modify this Statement at any time.

2. GENERATION CONNECTION APPLICATION AND OFFER PROCESS

Figure 1 is a detailed flowchart which provides an overview of the connections process for all generators.

For the avoidance of doubt the connections process is applicable to all types of generation application including; requests for new and increased MEC, and over install connections.

For generator applicants required to contact the **TSO** to request an FAQ and Associated Transmission Reinforcements (ATRs) report, the **TSO** will carry out analysis to determine the level of firmness associated with a generator and the connection is assessed using the FAQ Methodology. Information on the arrangements whereby SONI Limited as the Transmission System Operator (**TSO**) in Northern Ireland, allocate transmission FAQ to connecting generators is published on the SONI website at www.soni.ltd.uk.

For a generator to be assessed for FAQ and the ATRs identified that are required to provide firm access, the generator is required to have in place the relevant consents as specified in the 'Allocation of Transmission FAQ in Northern Ireland & ITC Methodology to determine FAQs Decision Paper'. The Installation will be assessed for FAQ based on the latter of the connection application effective date or the date on which relevant consents (for example, planning permission) were granted.

The generator is responsible for contacting SONI to request an FAQ report. It is the responsibility of SONI to provide details of the FAQ and the ATRs that are required to provide firm access for the Installation.

NIE Networks is required by its **Licence** to offer terms for connection as soon as practicable or no later than 3 months after receiving the connection application and associated relevant information, including fee, if appropriate. It should be noted in exceptional circumstances NIE Networks may have to apply to the Utility Regulator (UR) for an extension of time in which to offer terms for connection. The details of this process are explained in section 5.

In advance of submitting any formal application for connection and at the request of an applicant, NIE Networks may carry out a connection design and analysis study for projects that are at an initial investment appraisal stage in order to assist applicants wishing to connect a **Generating Unit** or modify an existing connection arrangement to the NIE Network's **Distribution System**. Such a study is entirely optional and does not in itself represent an application for connection. For more details on this see Appendix A.

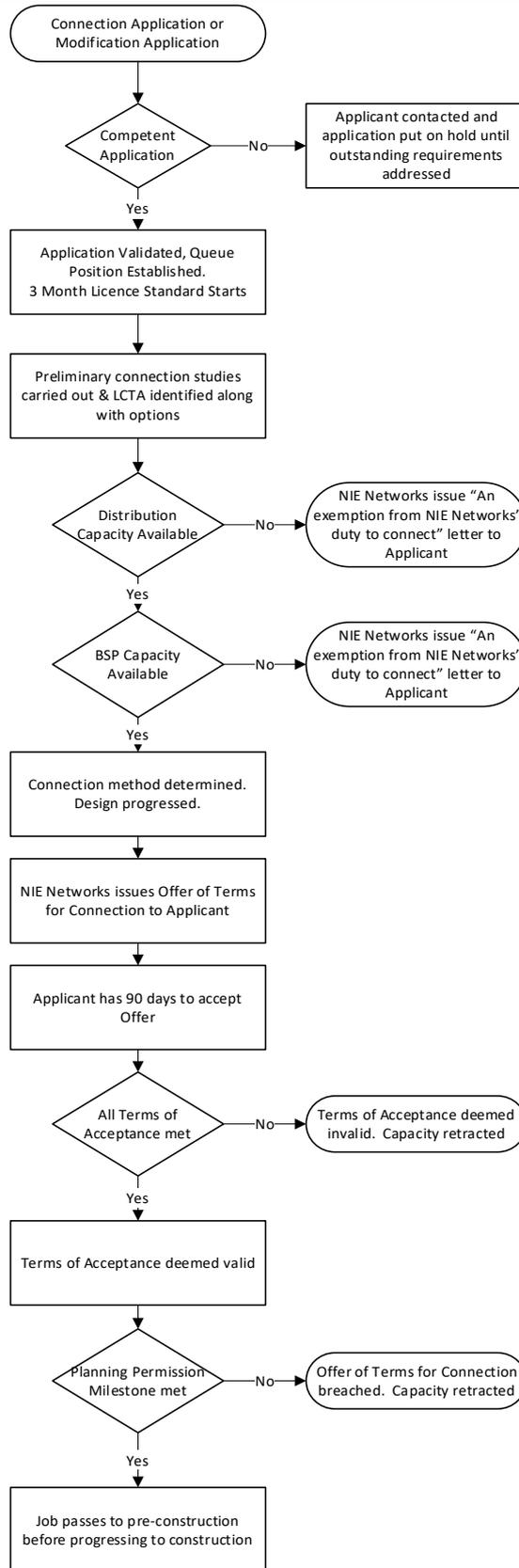


Figure 1 - Generation Connection Process (for Generators with a registered capacity of 5MW and above and Generators with a registered capacity of less than 5MW)

3. GENERATION CONNECTION APPLICATION

The first part of the process to receiving a distribution offer of terms for connection for a **Generating Unit** is to submit a formal application. The details on how to do this can be found on the NIE Networks website⁶. When a distribution connection application is received by NIE Networks, it is registered ('date and time stamped' on receipt) and given a unique job reference number. The applicant will be notified of this reference number and should quote this number when enquiring about their application. Applicants seeking to connect to the **Distribution System** must meet the following pre-requisites in order for the connection application to be deemed valid:

- Submission of the relevant distribution connection application form (available on NIE Networks website), completed correctly and all necessary data provided and;
- Payment of the relevant connection application fee in total by BACS or cheque

The application fee amount is dependent on the Total Installed Generation Capacity (TIC) of the applicant's site. For up to date application fees please refer to the NIE Networks Statement of Charges for connection⁷ in force at the date of making the connection application.

NIE Networks will only begin to work on preparing the offer of terms for connection after the generation connection application has been deemed valid with all necessary information submitted along with the appropriate application fee. For a typical list of what is required for the generation application to be deemed valid see Appendix D.

If the application does not include all the required information, NIE Networks will write to the applicant and request the outstanding information. In relation to the timeline to make an offer of terms for connection, the application will be put on 'hold' until all relevant information is received.

Although planning permission is no longer a pre-requisite for a connection application; if planning permission has been obtained for the development, or if the development does not require planning permission, the applicant should provide a copy of the planning permission (or confirm the reason for exemption) for development as failure to do so may affect the terms of connection, (see Section 7.1).

Following the receipt of all information and payments, the connection application will progress to a preliminary connection study (see Section 4). Note that if **Transmission System** works are required the **TSO** may need to provide information to NIE Networks in order that NIE Networks may develop terms for connection. If design studies are required to be carried out by the **TSO** then NIE Networks may need to apply to the UR for an extension to the 3-month period in which it must issue the offer of terms for connection. For more information on this process please (see Section 5).

⁶ <http://www.nienetworks.co.uk/connections/generation-connections>

⁷ <http://www.nienetworks.co.uk/documents/connections/statement-of-charges>

Documentation issued with the offer of terms for connection, where capacity is available, (see Section 4) will outline the connection voltage, connection costs, terms for connection, details of the work required to provide the connection for the requested capacity and technology and a date for completion.

NIE Networks will also inform the applicant about the Distribution Loss Adjustment Factor (DLAF) information about the Installation.

4. DETERMINING IF CONNECTION CAPACITY IS AVAILABLE

All applications seeking export capacity, zero export or over-installs will have their queue position determined by the date and time at which their application is deemed valid.

For the avoidance of doubt; for applications that are deemed valid when received by NIE Networks, the queue position will be based on the date and time of receipt of the application, whereas where an application is deemed not valid when received by NIE Networks, the queue position will be determined by the later date and time of receipt of the outstanding information and / or application fee.

Where a valid application is in place, NIE Networks will first determine if there is **Distribution System** capacity available for the applicant by carrying out preliminary connection studies in line with the NIE Networks' Policy 21/006 –'Determining Distribution Capacity for Generation Connections'. The preliminary design will also consider possible route length and preliminary specification of the design.

If there is no **Distribution System** capacity available for the export of power from the **Generating Unit**, NIE Networks will issue the applicant with a notice confirming that capacity is not available and that NIE Networks is therefore exempt from making a connection in accordance with the circumstances set out by the Distribution **Licence** Condition 30 and Article 21 of the Electricity Order (NI) 1992.

Thereafter, if there is no capacity available at a Bulk Supply Point (BSP), i.e. no available BSP transformer capacity (or line capacity for radial fed BSP's) at the relevant 110/33kV substation for the export of power from the **Generating Unit**, NIE Networks will issue the applicant with a notice confirming that capacity is not available and that NIE Networks is therefore exempt from making a connection in accordance with the Distribution **Licence** Condition 30 and Article 21 of the Electricity Order (NI) 1992.

Applicants who are seeking an export connection which is 5 MW or greater will follow the connections process which is detailed in "NIE Networks Providing Distribution Generation Offers with Non-Firm Market Access" Decision Paper⁸." The process which is followed is described below;

- If **Distribution System** capacity is available, there is no pre-requisite for Firm Transmission capacity to be available (however there is the requirement for Bulk Supply Point (BSP) capacity to be available for those seeking export) and so NIE Networks will continue with the offer of terms process as illustrated in Figure 1.
- Upon receiving the relevant consents, the applicant should contact SONI to request an FAQ and ATR report.
- The **TSO** will carry out analysis to determine the level of firmness associated with a generator and is assessed using the FAQ Methodology.

⁸ <https://www.nienetworks.co.uk/documents/generation/non-firm-decision-paper-feb-2021.aspx>

- On completion of this analysis, the **TSO** will issue the generator with an FAQ report. The FAQ report outlines any ATRs required to provide the generator with firm access along with indicative delivery dates.

Applicants who are seeking an export connection which is less than 5 MW will follow the connections process which is detailed in “NIE Networks Providing Distribution Generation Export Offers to Applicants Less Than 5MW (SSG).”¹ The process which is followed is described below;

- If **Distribution System** capacity is available, there is no pre-requisite for Firm Transmission capacity to be available (however there is the requirement for BSP capacity to be available for those seeking export) and so NIE Networks will continue with the offer of terms process as illustrated in Figure 1.

5. APPLYING FOR AN EXTENSION

The UR in its’ decision paper dated the 31st of May 2017 titled ‘Review of Electricity Distribution and Transmission Connections Policy’⁹, stated that requesting and granting extensions should be considered on an individual basis and be the ‘exception’ rather than the ‘norm’. Where extensions are necessary, the UR has set out the process in Figure 3 to create further transparency and accountability.

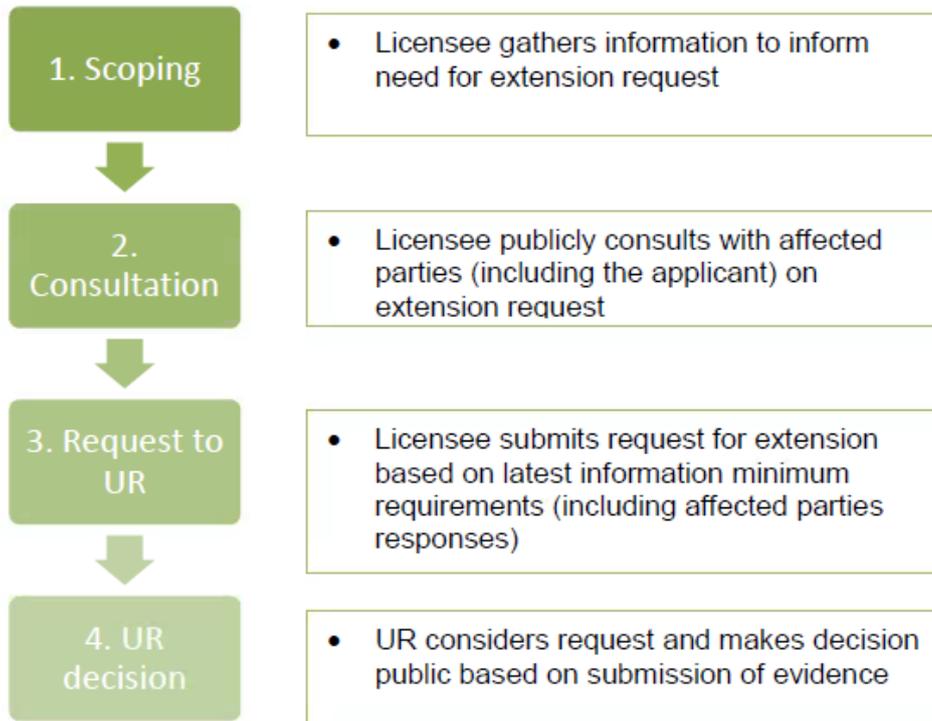


Figure 2: Extension Process

⁹<https://www.uregni.gov.uk/files/uregni/media-files/Electricity%20Connections%20Decision%20FINAL.pdf>

6. CONNECTION DESIGN

When capacity relevant to the application has been confirmed and the connection method has been determined, NIE Networks will carry out further design of the connection in line with Policy 21/002 v2 – Guidelines for the Connection of Embedded Generation to the NIE Networks' Distribution Network and relevant superseding policies. The design will include the following;

- **Plant** requirements – including Switchgear
- **Protection** requirements
- Initial Overhead Line route (and options)
- Underground cable route
- Environmental considerations/constraints
- Civil works
- SCADA and Communications requirements
- Site visits may be carried out to the determine initial route and plant requirements

7. OFFER OF TERMS FOR CONNECTION

NIE Networks offer of terms for connection for a **Generating Unit** comprises the following documents (in order of precedence):

1. The Terms Letter and any appendices attached to it
2. Quotation Summary
3. Functional Specification
4. The Technical Terms for Connection (including the proposal map)
5. The General Terms for Connection Works
6. The Contestable Connection Terms and Conditions, should the Contestable Works be carried out by the applicant or an ICP
7. Acceptance of Terms, to be signed and returned by applicant

It should be noted that the Terms Letter will be issued containing two options for undertaking the Connection Works as described below. These options are mutually exclusive and only one can be accepted:

- 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
- Option 2 is for NIE Networks to undertake only the Non-Contestable Works and the reinforcement works, if any.

Where Network Planning Milestones are to be applied these will be detailed in the Terms Letter and will apply regardless if the applicant accepts either Option 1 or Option 2. This Statement confirms what the relevant Network Planning Milestones are for an applicant

wanting to connect a **Generating Unit**, and what type of applicant they will apply to. It also details the implications of not meeting these milestones. These milestones have been introduced to ensure that connection capacity is withdrawn where connection applications are not progressing within reasonable timelines in order to prevent applicants from hoarding capacity.

The Network Planning Milestones that will apply are;

- Planning Approval Milestone
- Longstop Milestone
- MEC Utilisation Milestone

7.1 Planning Approval Milestone

The Planning Approval Milestone will apply to all **Generating Unit** applicants seeking new or modified MEC in receipt of an offer of terms for connection and will apply regardless whether Option 1 or Option 2 is accepted. For the avoidance of doubt, the Planning Approval Milestone will not be applicable to zero export applications or over-install applications.

Applicants will be required to provide a copy of their planning permission or relevant consents (see Appendix B for relevant consents) no later than 120 days from the date of the Terms Letter. For clarification the proof of this milestone must have been received by NIE Networks no later than the 120 days from the date of the Terms Letter. The proof of planning permission or relevant consents must be relevant and accurately reflect the project that is described in the application form. The applicant may provide a link to the website that provides evidence of their proof of planning permission i.e. the planning portal.

NIE Networks' reserves the right to act as sole arbiter in determining whether any evidence of planning permission provided is sufficient. Generally, NIE Networks' role will be to assess whether there is 'prima facie evidence of sufficient planning permission' on the basis of documentation provided. Where it is unclear, NIE Networks may request further evidence and the Planning Approval Milestone will only be deemed valid when the appropriate evidence is provided, noting that if such evidence is not provided until after 120 days the offer of terms will be terminated. Where the development does not require planning permission, the applicant should confirm and provide proof of the reason for planning permission exemption in advance of the 120 day milestone deadline.

Failure to meet this milestone will be deemed to be a breach of the terms for connection and therefore the applicant's offer of terms for connection will be terminated, and capacity will be reallocated to another applicant. For the avoidance of doubt, please note that no extensions of time will be given to applicants to meet this milestone, even where applicants wish to undergo, or are currently undergoing, a planning appeal process. It should be noted that where applicants fail to meet their Planning Approval Milestone, the applicant's deposit will be refunded less any monies committed.

Where an applicant has received planning permission, but it is subject to a Judicial Review application which seeks to challenge the grant of that planning permission, NIE Networks will deem the Planning Approval Milestone to be met and the application for connection will progress through to construction at the financial risk of the applicant. If the applicant does not

wish to take this financial risk, the applicant will have the option to withdraw their application therefore giving up the associated capacity. The applicant's deposit will be refunded less any monies committed.

It should be noted that NIE Networks will not commence any pre-construction works until the Planning Approval Milestone (if applicable) has been met. If however the applicant wishes for pre-construction works to commence ahead of the applicant meeting the Planning Approval Milestone, NIE Networks may facilitate this at the request of the applicant. If the applicant fails to meet the Planning Approval Milestone, the applicant's deposit will be refunded less any monies committed.

7.2 Longstop Milestone

The offer of terms for connection provided by NIE Networks will detail a Scheduled Completion Date along with a Longstop Milestone Date. These will be included in the Terms Letter for applicants seeking export, zero export or over-install and will apply regardless whether Option 1 or Option 2 is accepted.

The Scheduled Completion Date is the date by which NIE Networks expects the construction works relating to the connection to be completed, at the time of issuing the offer of terms for connection.

The Longstop Milestone Date will be the date which is 24 months after the Scheduled Completion Date. I.e. If the Scheduled Completion Date for an applicant's project is 31st January 2019, their Longstop Milestone Date, and the date on which capacity can be retracted will be 31st January 2021.

It should be noted that the Scheduled Completion Date and Longstop Milestone Date detailed in the offer of terms for connection are established based on NIE Networks carrying out the Full Works for connections. A high level work programme will be included within the offer of terms for connection to provide clarity on how this Scheduled Completion Date has been derived.

If the connection works are not completed by the Longstop Milestone Date, NIE Networks will be at liberty to terminate the applicant's offer of terms for connection and retract the capacity unless NIE Networks has approved an extension to this Longstop Milestone Date. It should be noted that NIE Networks will only extend the Longstop Milestone Date in circumstances where the applicant can prove that the delay in achieving the Longstop Milestone Date was due to a "Force Majeure Event".

For the purposes of this Statement "Force Majeure Event" means any event or circumstance, or series of events or circumstances beyond the reasonable control of the applicant which could not have been avoided by the applicant and which has the result that that the applicant is unable to achieve the Longstop Milestone Date, including war, public demonstration or other civil commotion, acts of terrorism, criminal damage, any effect of the natural elements, including unusually heavy or prolonged rain or accumulation of snow or ice, strikes and other labour disputes, the mechanical or electrical breakdown or failure of plant and/or apparatus owned or operated by the applicant, which has been operated in accordance with manufacture's recommendations, a delay by a supplier in the production or delivery of plant, materials or other components, an electrical system emergency or a delay on the part of NIE

Networks or the TSO; provided however that lack of funds shall not be interpreted as an event or circumstance beyond the reasonable control of the applicant.

An applicant wishing to extend their Longstop Milestone Date must formally write to NIE Networks as soon as possible once they become aware of a delay to the Longstop Milestone Date due to a Force Majeure Event. The applicant must identify the nature of the Force Majeure Event and its expected duration and provide evidence to support their application for an extension to the Longstop Milestone Date. Whether or not the Longstop Milestone Date is extended will be determined by NIE Networks at its sole discretion taking into account the following factors:

- The nature of the Force Majeure Event
- Is it expected that the Force Majeure Event will be resolved within a short period of time
- Has proof of material progress towards completion of the connection been provided
- Is there evidence of other project(s) seeking the same capacity

7.3 Utilisation Milestone

The Utilisation Milestone will apply to all **Generating Unit** applicants in receipt of an offer of terms for connection and will apply regardless whether Option 1 or Option 2 is accepted. For the avoidance of doubt, the Utilisation Milestone will be applicable to applicants seeking new/modified MEC, zero export, or over-install.

For applicants seeking new/modified MEC, where the MEC is not fully utilised within 24 months of the completion of the connection works NIE Networks reserve the right to reduce the MEC for the installation to the sum of the MW name plate ratings of the **Generating Units** actually connected and commissioned. This will ensure that the capacity available to the applicant can be reduced in the case where an applicant does not use the capacity assigned to it within its offer or connection agreement fully but has completed the connection works i.e. it has met the Longstop Milestone Date but is not using the capacity assigned within its offer or connection agreement to the application.

For applicants seeking zero export or over-install applicants, the applicant must have the **Generating Unit**, as referred to in the offer of terms for connection, fully commissioned and evidence provided to NIE Networks within 24 months of the completion of the connection works otherwise NIE Networks' reserves the right to terminate the offer of terms for connection. In the event where no connections works are required, the applicant must have the **Generating Unit** as referred to in the offer of terms for connection, fully commissioned within 24 months of the date of the Terms Letter otherwise NIE Networks' reserves the right to terminate the offer of terms for connection.

8. ACCEPTANCE OF TERMS

The offer of terms for connection issued by NIE Networks is valid for acceptance within 90 days of the date of Terms Letter. Acceptance will be deemed valid by NIE Networks provided the following is received within the same 90 days:

- Signed Acceptances of Terms relevant to the chosen option (see below for more detail); and
- Payment of Deposit

The Terms Letter will have two Acceptance of Terms forms enclosed; one for the Option 1 and one for Option 2. Only one can be signed and returned by the applicant to confirm which option has been selected.

No extensions to the 90 day acceptance period will be given to applicants seeking export. If the Acceptance is deemed invalid, the capacity will be retracted and capacity reallocated to the next applicant in the queue.

In the circumstance where a **Generating Unit** applicant receives an offer of terms for connection to a Cluster Substation which has UR construction approval, the applicant must provide a security bond/payment by no later than 120 days from the date of the Terms Letter. Failure to provide the security bond/payment by this date will be deemed a breach of the terms for connection and therefore the applicant's offer of terms for connection will be terminated and capacity retracted.

In circumstance where a Generating Unit applicant has an accepted offer of terms for connection to a Cluster Substation which has not yet received UR construction approval, NIE Networks will issue a letter following UR construction approval being granted requesting security for the cluster payment. The applicant must provide a security bond/payment by no later than 120 days from the date of that letter. Failure to provide the security bond/payment by this date will be deemed a breach of the terms for connection and therefore the applicant's offer of terms for connection will be terminated and capacity retracted.

9. COMPLAINTS

At NIE Networks, customer service is very important to us. However, if the applicant is unhappy with any aspect of our customer service the applicant may choose to submit a complaint. For details on how to submit a complaint, please refer to the, 'General Terms for Connections Works' document enclosed with your offer of terms for connection.

Appendix A

Connection Design and Analysis Study (Optional)

In advance of submitting any formal application for connection and at the request of an applicant, NIE Networks may carry out a connection design and analysis study (CDAS) for projects that are at an initial investment appraisal stage in order to assist applicants wishing to connect a **Generating Unit** or modify an existing connection arrangement to the NIE Network's **Distribution System**. Such a study is entirely optional and does not in itself represent an application for connection.

It should be noted that the provision of a connection design and analysis study is at the sole discretion of NIE Networks. Consequently in some cases NIE Networks may refuse to provide a connection design and analysis study, for example where NIE Networks is aware that there is no capacity on the **Transmission System** and/or the **Distribution System** which would facilitate the proposed project.

In order to request a connection design and analysis study for a particular project, NIE Networks requires the applicant to complete NIE Networks' 'Generator Enquiry Form' and forward it to NIE Networks with the appropriate fee for the connection design and analysis study. The fee for connection design and analysis study can be found in NIE Networks Statement of Charges for Connection.

A copy of the electrical data sheet for the **Generating Unit** should also be attached if this is available. On receipt of both the appropriate fee and adequate technical information, NIE Networks will confirm if it intends to progress a connection design and analysis study.

The connection design and analysis study will consider the most appropriate **Distribution System** connection arrangement at the applicant's specific location of the relevant generation, at that point in time, and details of the work required to provide connection for the requested capacity and technology type. The connection design and analysis study will provide the applicant with relevant information at the date of the study including:

- an indication of whether or not a connection is achievable
- an indicative cost for providing a suitable network connection, if it is achievable, and
- an outline of the work involved in constructing the connection, including information on:
 - connection voltage level
 - point of connection to NIE Networks network
 - details of the connection arrangement

It is expected that this may help the applicant decide if they wish to proceed with their project as planned and whether to submit a formal application to NIE Networks. Applicants should be aware that commissioning a connection design and analysis study does not reserve network capacity for a particular project, and that NIE Networks cannot guarantee that a connection will be available or the connection method identified in the connection design and analysis study will be the same when an applicant makes a formal application for connection. The connection design and analysis study effectively a 'snapshot' at a point in time.

Appendix B

Relevant Consents

In keeping with the relevant consents that were consulted upon with industry in 2014, the following specifies the relevant consent evidence required for different type of projects. This evidence will be used by NIE Networks in determining achievement of the Planning Approval Milestone

- The required level of consent for onshore projects is full Planning Permission
- The required level of consent for a Compressed Air Energy Storage (CAES) plant that requires a Mineral Prospecting **Licence** is obtaining that licence
- The required level of consent for offshore projects is either an Exclusivity Agreement or an Agreement for Lease from The Crown Estate

Appendix C List of References and Terms

REFERENCES

- [1] <https://www.nienetworks.co.uk/documents/connections/consultation-providing-distribution-generation.aspx>
- [2] <http://www.nienetworks.co.uk/about-us/distribution-code>
- [3] <http://www.soni.ltd.uk/>
- [4] The Electricity Safety, Quality and Continuity Regulations (Northern Ireland) 2012: <http://www.legislation.gov.uk/nisr/2012/381/made>
- [5] <http://www.nienetworks.co.uk/connections/generation-connections/micro-scale>
- [6] <http://www.nienetworks.co.uk/connections/generation-connections>
- [7] <http://www.nienetworks.co.uk/documents/connections/statement-of-charges>
- [8] <https://www.nienetworks.co.uk/documents/generation/non-firm-decision-paper-feb-2021.aspx>
- [9] <https://www.uregni.gov.uk/files/uregni/media-files/Electricity%20Connections%20Decision%20FINAL.pdf>

TERMS

Maximum Export Capacity (MEC) is the value you are requesting to be recorded against your connection in NIE Networks' system as the maximum capacity that can be exported by your connection

Maximum Import Capacity (MIC) means the value recorded against your connection in NIE Networks' system as the maximum capacity that can be imported by your connection

5MW means a generator site having a proposed registered capacity of five (5) megawatts

Small Scale Generation or SSG is a Power Generating Facility with a registered capacity from 100kW to under 5MW

Registered Capacity is the normal full load capacity of a Power Generating Module, or of a Power Generating Facility, as declared by the Generator less the MW consumed when producing the same. For Power Generating Modules connected to the DNO's Distribution Network via an Inverter, the Inverter rating is deemed to be the Power Generating Modules rating.

Appendix D - Generation Application Checklist

Essential

- Completed G99/NI application form
 - Correspondence details
 - Payment Details
 - Installer details
 - Legal Details
 - MPRN (Existing connections)
 - Connection details
 - MEC
 - MIC (Load details required for MIC > 138kVA)
 - TIC
- Applicable Connection application fee
- Location map showing
 - meter position
 - Site boundaries
 - Substation location (if required)
 - If wind turbine then location of wind turbine on site location.
- Easting and Northing co-ordinates of each Generating Unit (Wind Turbine)
- Easting and Northing co-ordinates of customer Substation (if applicable)
- MPRN
- Details of any existing generation
- Proposed make and model of generator including datasheet which includes
 - Starting currents and type of starter for each Generating Unit installed
 - Impedance data for each Generating Unit installed and connecting network to the point of connection
 - Fault level data for total generation site
- For synchronous machines we need 2 x datasheets:
 - 1 x for the engine
 - 1 x for the alternator (note: the customer should confirm the exact make & model of the alternator as the datasheets typically include a number of variants of the same alt)
- Single line diagram showing:

LV connected:

- LV incoming supply point
- Customer LV switch-boards
- Connection points of all existing generation with inverters labelled
- Connection points of all proposed generation with inverters labelled
- Location of all protection schemes (G99/NI, G100, RPP, NVD, etc)
 - G99/NI protection must be referenced on SLD

HV connected:

- 11kV incoming supply point
- Customer 11kV switch-gear
- Customer transformers including:
 - Tx voltage ratios
 - Tx ratings
 - Tx voltage impedance (Z%)
- Customer LV switch-boards
- Connection points of all existing generation with inverters labelled

- Connection points of all proposed generation with inverters labelled
- Location of all protection schemes (G99/NI, G100, RPP, NVD, etc)
 - G99/NI protection must be referenced on SLD

Desirable

- Photo of supply showing meter serial number
- Planning Ref number (if applicable) and location of proposed generation
- Harmonics report