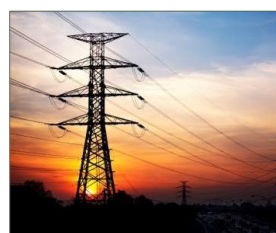


Connection Arrangements for Offshore Generation

Next Steps Paper

December 2013



About the Utility Regulator

The Utility Regulator is the independent non-ministerial government department responsible for regulating Northern Ireland's electricity, gas, water and sewerage industries, to promote the short and long-term interests of consumers.

We are not a policy-making department of government, but we make sure that the energy and water utility industries in Northern Ireland are regulated and developed within ministerial policy as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly through financial and annual reporting obligations.

We are based at Queens House in the centre of Belfast. The Chief Executive leads a management team of directors representing each of the key functional areas in the organisation: Corporate Affairs; Electricity; Gas; Retail and Social; and Water. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our Mission

Value and sustainability in energy and water.

Our Vision

We will make a difference for consumers by listening, innovating and leading.

Our Values

Be a best practice regulator: transparent, consistent, proportional, accountable, and targeted

Be a united team

Be collaborative and co-operative

Be professional

Listen and explain

Make a difference

Act with integrity

Abstract

This paper details the next steps following our consultation in the spring of 2013 on the connection of offshore generation. It also includes our comments on the responses that we received to that consultation.

The paper describes our updated view on the legal framework and the geographic area covered by the current licences.

The paper describes the current framework for connection applications and connection charging and explains how this transfers across to developments offshore.

It identifies the work that needs to be undertaken to ensure that all sources of generation are able to compete on an equal basis in the wholesale market.

We are writing to instruct SONI and NIE to review all of the documentation produced under their licences to ensure that it is fit for purpose for offshore generation and we will be issuing a discussion paper on contestability in connections in early 2014.

Audience

This paper is relevant to developers considering opportunities for both on and offshore generation, current electricity licence holders, DETI and other interested stakeholders.

Consumer impact

This paper clarifies that the existing connection framework will be applied to offshore generation in a way that neither unduly discriminates against it or provides for preferential treatment.

The paper does not propose any changes that would change the manner of calculating costs to the end users of the network.

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1 SUMMARY

- 1.1 In the spring of 2013 we consulted on the arrangements for connecting offshore renewable generation to the NI electricity network. This consultation closed on 30 May. We received 18 responses to this consultation.
- 1.2 The consultation covered:
- Options for Physical Connection configurations and Wider Transmission System Reinforcements;
 - Ownership, Responsibilities and License Arrangements;
 - System Security, Least Cost Technically Acceptable (LCTA) connection design, Cost Allocation and Charging Arrangements;
 - Changes to the Connection Application Process and the NI Queue for new connections;
 - Impact and changes to the Grid Code.

Legal Framework

- 1.3 Shortly after the consultation closed we received legal advice on a separate issue which included clarification of the extent of the territory covered by the Electricity Order (Northern Ireland) 1992. The Northern Ireland Act of 1998 defines Northern Ireland as also including “so much of the internal waters and territorial sea of the United Kingdom as are adjacent to Northern Ireland.”
- 1.4 This means that, unless otherwise specified, all licences issued under the Electricity Order (NI) 1992, cover territorial waters also. Both NIE and SONI’s licences simply state that the licence covers “Northern Ireland”, therefore based on The Northern Ireland Act 1998 they cover both onshore and offshore territories.
- 1.5 The Grid Code, Distribution Code and Connection Charging Statements are all created under these licences. This means that SONI and NIE are obliged to create and maintain these documents to cover both onshore and offshore connections.
- 1.6 We are writing to SONI and NIE to instruct them to review all documents created under their licences to ensure that they are suitable for both on and off shore generation connections. As required under their licences, they will

consult on any changes that they deem necessary, before submitting them to us for approval.

- 1.7 We will undertake our own consultation if any significant changes are proposed to these documents to accommodate offshore generation.

Connection Charging

- 1.8 Based on this interpretation of the legal framework underpinning NIE and SONI's licences, the existing connection charging statements already apply to both on and off-shore generation. We do not propose to make any changes to these arrangements as both SONI and NIE are required under their licences to not unduly discriminate against or prefer any person or class of persons when connecting them to the system.
- 1.9 This means that the developers of transmission connected generation are required to pay for the least cost technically acceptable solution to connect their generation to the existing system and an annual charge for use of the transmission system. While generators connecting at distribution voltages are required to pay for the assets at their connection voltage plus one voltage higher, they are not charged for using other parts of the distribution system charge (note: generators over 5 MW pay for the use they make of the transmission system).

Connection Application Process

- 1.10 We also confirm that the date of connection application will continue to be the basis for allocating firm access to the transmission network. Should any subsequent changes be made to the technical details of the connection application (as specified under the grid code and/or distribution code), the date that these changes are finalised will apply rather than the original application date.
- 1.11 None of the connection charging statements that we approve places any obligation on a connecting party to have secured planning permission before applying for a connection. However, they are required to provide all relevant information with their application. Some statutory consents need to be obtained before parameters such as capacity and configuration are known with any certainty.

- 1.12 Obtaining planning permission before making a connection application is a principle that is adopted by the TSO and DSO to ensure that the data submitted can be delivered in practice. We would therefore encourage offshore developers to obtain all of the relevant statutory consents before making a connection application.
- 1.13 In addition, any connecting party will need to be confident that it is in a position where it is likely to be able to accept the connection offer before making an application. Security cover and initial payments are due early in the connections process.
- 1.14 Access to finance is likely to be critical in determining the point at which a developer can realistically apply for a connection, and any investing parties would rationally expect the developer to have secured statutory consents, particularly those which affect the maximum generation capacity, before releasing money to fund the connection to the grid.

Contestability in Connections

- 1.15 As stated in our Forward Work Plan, we are commencing work on the framework to permit contestability in connections in NI. This will permit all developers to tender for the construction of their connection assets, or to construct them themselves. All work will have to be done to the standards specified by NIE and approved by DETI.
- 1.16 This workstream will also consider the longer term ownership and maintenance of the connection assets. We expect to issue a discussion paper on contestable connections in early 2014.

Contact Us

- 1.17 Any questions on this document should be directed to:

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1.18 This paper is available in alternative formats such as audio, Braille etc. If an alternative format is required, please contact the office and we will be happy to assist.

2 INTRODUCTION

- 2.1 In the spring of 2013 we consulted on the arrangements for connecting offshore renewable generation to the NI electricity network. This consultation closed on 30 May. We received 18 responses to this consultation.
- 2.2 The consultation covered:
- Options for Physical Connection configurations and Wider Transmission System Reinforcements;
 - Ownership, Responsibilities and License Arrangements;
 - System Security, Least Cost Technically Acceptable (LCTA) connection design, Cost Allocation and Charging Arrangements;
 - Changes to the Connection Application Process and the NI Queue for new connections;
 - Impact and changes to the Grid Code.
- 2.3 We have responded in detail to each of the points raised by respondees in the annex to this paper.

Legal Framework

- 2.4 Shortly after the consultation closed we received legal advice on a separate issue which included clarification of the extent of the territory covered by the Electricity Order (Northern Ireland) 1992. The Northern Ireland Act of 1998 defines Northern Ireland as also including “so much of the internal waters and territorial sea of the United Kingdom as are adjacent to Northern Ireland.”
- 2.5 This means that, unless otherwise specified, all licences issued under the Electricity Order (NI) 1992, cover territorial waters also. Both NIE and SONI’s licences simply state that the licence covers “Northern Ireland”, therefore based on The Northern Ireland Act 1998 they cover both onshore and offshore territories.

3 GRID CODE, DISTRIBUTION CODE AND CONNECTION CHARGING

Grid Code and Distribution Code

- 3.1 The Grid Code and the Distribution Code are both created under the licences that extend out to the limit of NI territorial waters. This means that SONI and NIE are both obliged to create and maintain these documents to cover both onshore and offshore connections. Until now, offshore connections were not relevant in NI.
- 3.2 We are writing to SONI and NIE to instruct them to review these codes to ensure that they are now suitable for both on and off shore generation connections.
- 3.3 The relevant licence conditions specify that NIE and SONI must consult with any parties that are materially affected before making any changes to these codes. We therefore do not propose to undertake any consultation on these matters before receiving the recommendations of the Grid Code and Distribution Code Review Panels.
- 3.4 However, we may undertake our own consultation if any significant changes are proposed to these documents to accommodate offshore generation. In approving any changes we will be cognisant of our duty to protect consumers through promoting competition in the generation of electricity.

Connection Charging

- 3.5 The current transmission and distribution connection charging statements also apply out to the limit of NI territorial waters. These statements contain the principles for charging parties connecting to the transmission and distribution systems in NI. There are different charging policies applied to each.

Transmission Connection Charging

- 3.6 The transmission connection charging methodology was harmonised between NI and RoI as part of the development of the SEM arrangements¹. Under these arrangements, developers are charged for the Least Cost Technically Acceptable (LCTA) solution to connect their generation to the existing transmission system. Rebates are payable if any of these connection assets are used by another connecting party within ten years.
- 3.7 Generators also pay annually for use of the all-island transmission system. The charges are based on their location on the system and their connected capacity. The charges are calculated to ensure that generators triggering network reinforcement pay more for using the system than those who make efficient use of existing assets².

Distribution Connection Charging

- 3.8 The distribution connection charging differs from transmission in a number of aspects. Generators connecting to the distribution system do not pay for using any distribution assets, instead they pay for assets required to connect them to the system at their connection voltage and one voltage higher. For example, a generator connecting at LV will pay for assets at LV and 11kV, but will have free use of the 33kV system.
- 3.9 The charges are limited to the least cost technically acceptable solution.
- 3.10 Generators with a capacity greater than 5MW affect flows on the transmission system and therefore they pay for use of that system also. These TUoS charges are calculated on the same basis as transmission connected generators.

1

http://www.allislandproject.org/en/transmission_decision_documents.aspx?page=3&article=afe682c7-e564-4c64-aeaf-ad17b66fbd08

2

http://www.allislandproject.org/en/transmission_decision_documents.aspx?page=2&article=5b96c825-702f-4e71-9ddc-7f655c4817d0

Application to Offshore Connections

- 3.11 SONI and NIE have licence obligations which require them to ensure that the costs charged to connecting parties are based on their statements of changes. They are also obliged not to unduly discriminate against or prefer any party connecting to the system.
- 3.12 We do not propose to instruct NIE or SONI to review their charging methodology for offshore generation. However, the licence obligations are placed on the companies (rather than us) to determine the appropriate cost allocations and should either of them consider that the existing methodology is not appropriate they are able to update the charging methodology subject to consultation with affected parties and our approval.
- 3.13 The definition of the LCTA is a technical matter, with responsibility placed on the TSO or DSO to undertake the design of the connection. If any party is unhappy with SONI and/or NIE's designation of the LCTA solution, it can follow the dispute process. In the mean time, we do not intend to voice any further opinion on how the technical standards should be applied.
- 3.14 We are writing to SONI and NIE instructing them to review the Planning Standards to ensure they are fit for purpose for offshore generation. Any changes to these standards will be consulted upon by SONI and NIE before submitting them to us for approval.

4 CONNECTION APPLICATION PROCESS

Current Situation

- 4.1 The current statutory framework³ obliges the TSO and DSO to offer terms as soon as practicable on receipt of “an application containing all such information as the Licensee may reasonably require for formulating the terms of the offer⁴”. They are also required not to “unduly discriminate against or prefer⁵” any connecting party.
- 4.2 To ensure open and transparent treatment of connection applications, the information required on application for connection is specified in the Grid Code⁶ and Distribution Code⁷. The connection application date is the date on which all of the specified information and the associated application fee are provided.
- 4.3 This places a clear obligation on the connecting party to be in a position to provide all of the relevant information before applying for a connection to the system.
- 4.4 The connecting party would also need to be in a position to accept any connection offer within 3 months of it being issued⁸. This requires the developer to make initial payments and commits it to providing security cover at the specified time.
- 4.5 While there are no barriers stopping a developer from taking a risk and making a connection application before all of the variables associated with the development, e.g. capacity and configuration, have been finalised, in practice the risks associated with this course of action are very high and the TSO and DSO recommend that planning permission is obtained before making an application.

³ Electricity Order (Northern Ireland) 1992, Secondary legislation associated with this and the TSO and DSO licences.

⁴ NIE Distribution Licence Condition 30 and SONI TSO Licence Condition 25

⁵ NIE Distribution Licence Condition 15 and SONI TSO Licence Condition 15

⁶ Grid Code - Planning Code – in particular PC6.4.1, PC7 and PC Appendix A Part 1

⁷ Distribution Code – Planning Code – in particular Section 9 and Appendix A

⁸ The standard time for all connection offers in NI

Application to Offshore Connections

- 4.6 As the statutory framework applies out to the limit of NI territorial waters, the same obligations to provide data, make payments, post security cover and commit to paying TUoS apply equally to offshore developers.
- 4.7 We do not intend to make any amendments to this regime for offshore generation. Therefore the developers are free apply for a connection to the grid at any time, however they should be in a position to fulfil all of the responsibilities placed on all connecting parties through licences, the Grid Code, the Distribution Code, the connection offer and the subsequent TUoS agreement.
- 4.8 In practical terms, this means that before making a connection application, offshore developers are encouraged to:
- have secured any statutory consents that restrict the output from their sites and/or the configuration of the site;
 - be confident of having financing in place to allow them to accept the connection offer and the associated TUoS agreement.
- 4.9 Access to finance is likely to be critical in determining the point at which a developer can realistically apply for a connection, and any investing parties would rationally expect the developer to have secured statutory consents, particularly those which affect the maximum generation capacity, before releasing money to fund the connection to the grid.
- 4.10 We intend to remain with the principle of determining the Firm Access Quantities based on connection application date for both on- and off-shore generation.
- 4.11 For the avoidance of doubt, should the connecting party revise any of the information specified in the Grid and/or Distribution code during the application process, the application date becomes the date on which the final information is provided. This is consistent with other forms of generation and is in line with our statutory duties.

5 OWNERSHIP AND CONTESTIBILITY

- 5.1 In our consultation paper we also considered the construction and ownership of the connection assets. Most respondents expressed a preference for developers to be able to tender for the construction of the connection assets or construct them themselves.
- 5.2 At present, NIE is required under its licence to connect any party that requests connection, subject to certain exemptions. Obligations are also placed onto the connecting party.
- 5.3 The framework around the connections process, including provision of data, obtaining wayleaves and easements, technical standards, electrical safety, and funding ongoing maintenance has all been designed around NIE constructing the connection assets. Distribution connection assets are operated by NIE and transmission connection assets are operated by SONI
- 5.4 A significant amount of work is required to allow connecting parties to take responsibility for the construction of their own connection assets. We will need to work with SONI, NIE and DETI to review and revise the framework to permit contestability in connections.
- 5.5 As the current framework applies to both on and offshore connections, we intend to develop contestability in a manner that will not differentiate on the basis of technology. The longer term ownership and maintenance of the assets will be considered within this work.
- 5.6 We intend to issue a discussion paper on the proposed scope of work, phasing of implementation and share of responsibilities early in 2014.

6 NEXT STEPS

- 6.1 SONI and NIE will review the documents and codes produced under their licences to ensure they are fit for purpose for offshore generation.
- 6.2 We will work with DETI, NIE and SONI to develop the scope of work for contestability in connections. We intend to issue a discussion paper on this early in 2014.
- 6.3 Any questions on this document should be directed to:

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