

Report on the Utility Regulator's
Consultation on Transmission
Development Plan Northern Ireland
2018–2027



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Abbreviations

ATR	Associated Transmission Reinforcement
DSO	Distribution System Operator
EC	European Commission
FAQ	Firm Access Quantity
HRA	Habitats Regulations Assessment
OSS	Operational Security Standards
SEA	Strategic Environmental Assessment
SEF	Strategic Energy Framework
SONI	System Operator Northern Ireland
TAO	Transmission Asset Owner
TDPNI	Transmission Development Plan Northern Ireland
TIA	Transmission Interface Arrangements
TSO	Transmission System Operator

TSSPS Transmission System Security and Planning Standards

Glossary

Associated Transmission Reinforcement (ATR)	ATRs are the transmission reinforcements that must be completed in order for a generator to be allocated Firm Access Quantity (FAQ). ATRs include reinforcements such as line and busbar upratings, new stations and new lines.
EirGrid	The Transmission System Operator in the Republic of Ireland.
Firm Access Quantity (FAQ)	The level of firm financial access available in the transmission network for a generator is that generator's FAQ. Firm financial access means that if the power produced by a generator is constrained up or down, it is eligible for compensation in the manner set out in the Trading and Settlement code.
NIE Networks	Northern Ireland Electricity Networks, the Transmission Asset Owner, Distribution Asset Owner and Distribution System Operator in Northern Ireland.

Introduction

As the Transmission System Operator (TSO) for Northern Ireland, we are responsible for the development of the Northern Ireland transmission network. We are obliged to plan the development of a safe, secure, reliable, economical, and efficient transmission network to meet all reasonable demands for electricity, in accordance with our legal obligations.

We plan the development of the transmission network taking account of the long-term electricity system needs and the relative performance of various development options.

We have both statutory¹ and licence² obligations to produce a Transmission Development Plan for Northern Ireland (TDPNI) annually. This is the first such document. We have a statutory obligation to produce a Strategic Environmental Assessment (SEA)³ and a Habitats Regulation Assessment (HRA)⁴ on the TDPNI. These have been prepared in conjunction with the Plan itself. Before the TDPNI can be approved, SONI is obliged to hold a consultation on the draft TDPNI², SEA and HRA. This was undertaken in November 2018 – January 2019. Based on the responses to the consultation we updated the draft TDPNI, SEA and HRA,

¹ EU Directive 2009/72 (Article 22)

² SONI TSO Licence (Condition 40)

³ Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (S.R. 280/2004), transposed from European Communities Directive 2001/42/EC

⁴ Council Directive 92/43/EEC, and Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995

where necessary, and submitted a consultation report alongside the updated TDPNI to the Utility Regulator (UR). This can be viewed on the SONI website⁵.

Following this, the UR held a public consultation on the draft TDPNI⁶ in accordance with its obligations.

This document is the consultation report on the UR's TDPNI 2018–2027 consultation. It describes the consultation process and provides an overview of the submissions received and our responses to the issues raised.

Description of Consultation Process

We consulted the UR; NIE Networks in its role as Transmission Asset Owner (TAO) and Distribution System Operator (DSO); and EirGrid in its role as TSO in Ireland prior to the draft TDPNI, SEA and HRA being issued for the initial public consultation. As part of the SEA process, SONI was obliged to consult with a number of statutory transboundary stakeholders in Ireland.

SONI held the public consultation on the draft TDPNI 2018–2027 from 27 November 2018 to 31 January 2019.

SONI then produced a consultation report which was submitted to the UR. This report and the responses received were published on the SONI website⁵.

⁵ The report on the SONI consultation can be found here:

<http://www.soni.ltd.uk/media/documents/Report-on-Draft-TDPNI-2018-2027-Public-Consultation-final.pdf>

⁶ European Directive 2009/72 (Article 22)

The UR then undertook a consultation on the updated TDPNI from 18 April – 24 May 2019. This report details SONI’s response to the UR consultation. The TDPNI itself is subject to UR approval before the TDPNI is formally adopted. At this point SONI will also publish an SEA Statement.

Purpose of the Transmission Development Plan

It is useful to outline the purpose of the TDPNI.

Local and European strategic energy policy objectives set the context for investment in the Northern Ireland transmission system. To achieve these strategic objectives, it is necessary to invest in the development of the electricity transmission system.

The primary objective of the TDPNI is to describe the transmission network developments planned for the next ten years. The TDPNI explains:

- Our approach to network development;
- The drivers for investment, both policy drivers and technical drivers;
- The needs of the transmission network; and
- The planned network developments with expected project completion dates.

In so doing, the TDPNI raises awareness of planned network reinforcements.

Responses to the Consultation

The UR received six submissions in response to the consultation. These were from:

- Energia;
- Moyle Interconnector Limited;
- Northern Ireland Electricity Networks;
- Northern Ireland Renewables Industry Group;
- Scottish Power Renewables; and
- SSE.

We would like to thank all parties for their responses.

The rest of this report deals with the issues raised in these submissions.

A number of the submissions received by the UR were the same as those received by SONI during the initial consultation, or included sections that were identical to those received in the SONI consultation. This report gives our responses to the points raised in the submissions received in the UR consultation that were not raised previously in the SONI consultation. Our responses to the other points raised can be seen in our consultation response document for the previous round of consultation, published on the SONI website⁷.

In the following sections we summarise and respond to the submissions.

⁷ <http://www.soni.ltd.uk/media/documents/Report-on-Draft-TDPNI-2018-2027-Public-Consultation-final.pdf>

Welcome for the opportunity to respond to the TDPNI Consultation

Most respondents welcomed the opportunity afforded them by the consultation process to comment on the plan.

Summary of feedback

Cluster Substations

Scottish Power Renewables and NIRIG

“We would appreciate if the Plan could include a review of all clusters even if there are no reinforcements planned.”

Our response

NIE Networks adopted a ‘cluster’ connection policy to connect groups of renewable generators to the electricity distribution network fed by new transmission substations. Currently, 110/33kV cluster substations exist at Magherakeel, Gort, Tremoge, Rasharkin and Curraghmulkin, with one further cluster planned at Agivey (the details of which can be found in the TDPNI and on the SONI website⁸). SONI has planned projects, such as the Creagh/Kells – Rasharkin circuit and the uprate of the Omagh Main – Dromore double circuit, in order to reinforce connections to these cluster substations. Together with NIE we keep the utilisation of cluster substations under review. The cluster connection policy is beyond the scope of the TDPNI. However there is potential for further utilisation of the existing cluster substations by for example reconfiguration of nearby distribution-connected generation in order to alleviate constraints on the 33 kV system, and projects have been

⁸ <http://www.soni.ltd.uk/the-grid/projects/agivey-project/the-project/>

commenced to this end. Details of these projects will be discussed in the TDPNI 2019–2028.

Innovation

Scottish Power Renewables

“We encourage the development of hybridisation regulation frameworks and rules as part of a post-DS3 programme to enable higher System Non-Synchronous Penetration (SNSP). We also recommend greater emphasis on innovation to enable SONI to continue to deliver world-leading levels of renewable penetration.”

Our response

SONI is a participant and a work package leader in the EU SysFlex project⁹, which is overseen by EirGrid. This project aims to share EirGrid’s and SONI’s experience in achieving high level of wind integration and facilitate pan-European adoption of high levels of renewable generation. European co-ordination and interconnection will be necessary to increase levels of renewable penetration beyond the high levels already realised on the all-island electricity system. This project will also incorporate work on facilitating hybrid sites. We are also actively engaged in work to prepare for a post-DS3 programme to allow the power system to meet renewable integration and decarbonisation targets after 2020. We will consider the options associated with hybridisation through this programme.

⁹ <http://eu-sysflex.com/>

Interconnection

Moyle Interconnector Limited

“We note that SONI's response has indicated that SONI has begun investigations into facilitation of full import and will engage on full export...After a very long period of constraints, this is a welcome development... we suggest that the TDP should be more explicit in committing to removal or at least substantial reduction of constraints to use of existing interconnector capacity.”

Our response

We are in the process of investigating the investments, if any, that will be necessary to maximise utilisation of the Interconnector. We are actively engaging with Moyle Interconnector Ltd. on operational measures that can currently be undertaken to this end, and on the future investments in Northern Ireland, if any, that will be necessary to facilitate full import and export. SONI is also aware that there are restrictions in the export capacity at the Scottish end of the link. SONI is also reviewing the transient and dynamic implications of changing the Moyle Interconnector's firm access. If a project arises from these analyses it will, subject to governance processes, be included in future TDPNIs. There will also be further cost benefit tests at the main project gateways.

Investment Certainty and Non-Firm Generation

Scottish Power Renewables

“We believe that investment and investment certainty for developers in transmission system development is paramount to facilitating connection access and removing the very real barriers to entry that exist today. Transparency of information would enable developers to form more realistic business cases. Equally, a defined, time-governed process to allow new connections or extensions to connection agreements for re-powering should be developed to remove the significant amount of uncertainty around applications that exists at present.”

Scottish Power Renewables

“... the absence of Associated Transmission Reinforcement (ATR) is already impacting wind farm output. The draft TDP does not make sufficient reference to the impacts of the proposed ATRs on making existing generation firm, and we recommend that the ATRs refer to how much generation could be relieved of constraints. We are concerned about the delays to required ATRs and also the regular push-back of estimated completion dates.”

NIRIG

We do not believe that there is sufficient information in this TDP about the quantity of existing non-firm connections and the quantity, location and timelines for delivery of these projects. We are also very concerned about the delays to required ATRs, and regular pushback of estimated completion dates.”

Our response

SONI issue a connection offer to any party applying to connect to the Northern Ireland transmission system within 90 days of them making an application. Any generation owner seeking to re-power transmission-connected generation will have to apply to change their connection agreement to ensure that they remain grid

code complaint and that any change in their Maximum Export Capacity (MEC) is accounted for. Those seeking to re-power generation sites connected to the distribution system will have to contact the DSO (NIE Networks) to discuss requirements.

The accuracy of both the completion date and the phases of development of a project will increase as the project progresses. SONI recognises that stakeholders should be aware of the stage a project is at in the development cycle in order to understand the impact on the certainty in the delivery date provided. Therefore, efforts have been made to make the phase that each project is at as clear as possible in the plan. SONI will consider how best to include information on non-firm generation in future issues of the TDPNI, given that other publications by SONI are already available in this regard, such as the quarterly publication of Associated Transmission Reinforcements (ATR). We are considering ways that we can address this need for more up-to-date public information.

Strategy

Scottish Power Renewables

“We do not believe that the TDP draft fully recognises the reinforcement investment required for existing connected generation, nor does it adequately provide for the increased levels of renewable generation that will be required to deliver decarbonisation targets.”

“Policy must be future-proofed to provide clear and comprehensive processes that facilitate all types of connections in a transparent and cost effective manner. The existing Electricity Licence and Order are no longer fit for purpose and an urgent review of both is required to enable market requirements such as flexibility and smart systems.”

NIRIG

“We do not believe that the TDP draft fully recognises the reinforcement investment required for existing connected generation, nor does it adequately provide for the increased levels of renewable generation that will be required to deliver decarbonisation targets. For example, a moderately-ambitious target of 70% renewable electricity by 2030 would require an extra c.1000MW of onshore wind and 200MW of solar generation, and the draft Plan does not provide the investment required for this level of generation. In addition, existing projects will be repowered, potentially with greater MW capacity, within the timeframe of this draft Plan. The TDP does not reflect the requirement for increased capacity and connections.”

Our response

SONI has an obligation to develop the transmission system in an economic, efficient and coordinated manner. The current renewable penetration target of 40% is based on a cost-benefit analysis undertaken by the Department for the Enterprise, Trade and Investment in 2010. It is fair to point out that the approved projects are aimed at consolidating the transmission system to cater for this existing target. In regard to higher renewable targets SONI does expect that it and the Utility Regulator will require policy direction in the form of a new Strategic Energy Framework (SEF), as the current SEF expires in 2020. The existing SEF mandates a target annual renewable electricity penetration of 40%, and this is likely to be surpassed by 2020. SONI is actively engaging with the Department for the Economy and the UR in the development of a new energy strategy for Northern Ireland to replace the SEF.

Whilst the Future Energy Scenarios are not as yet published for Northern Ireland this current version of the TDPNI does include potential projects, in the long list stage, that not only consolidate against the current targets but would also facilitate

significant increases in installed renewable generation. Future TDPNIs will give up-to-date information about these potential projects.

TSO-DSO Co-Operation

Scottish Power Renewables

We recommend additional focus on the coordination between NIE and SONI to deliver the best outcome for the system as a whole... A Joint Planning Committee with the SO and TO, such as exists in GB, could facilitate this liaison.”

Our response

SONI and NIE Networks have a standing Planning Panel, under the umbrella of the Transmission Interface Arrangements. This group meets once every two months and coordinates the routine exchange of data, the standards that are applied, the transmission investment plan and the projects that are being progressed. SONI and NIE Networks in some cases progress joint analysis and associated reports in support of projects which have transmission and distribution elements. Further as necessary NIE Networks and SONI share information where projects involve existing infrastructure.

Appendix A – Submissions Received - TDPNI

Source	Topic	New Comments since SONI Consultation	Impact on TDPNI 2018-2027
Scottish Power Renewables and NIRIG	Clusters	We would appreciate if the Plan could include a review of all clusters even if there are no reinforcements planned.	none - detail on relevant projects will be included in future TDPNIs
Scottish Power Renewables	Innovation	We encourage the development of hybridisation regulation frameworks and rules as part of a post-DS3 programme to enable higher System Non Synchronous Penetration (SNSP). We also recommend greater emphasis on innovation to enable SONI to continue to deliver world-leading levels of renewable penetration.	none - but work ongoing elsewhere in SONI
Moyle Interconnector Limited	Interconnection	We note that SONI's response has indicated that SONI has begun investigations into facilitation of full import and will engage on full export...After a very long period of constraints, this is a welcome development... we suggest that the TDP should be more explicit in committing to removal or at least substantial reduction of constraints to use of existing interconnector capacity.	for consideration in future TDPNIs

Source	Topic	New Comments since SONI Consultation	Impact on TDPNI 2018-2027
Scottish Power Renewables	Investment certainty/Non-firm generation	We believe that investment and investment certainty for developers in transmission system development is paramount to facilitating connection access and removing the very real barriers to entry that exist today. Transparency of information would enable developers to form more realistic business cases. Equally, a defined, time-governed process to allow new connections or extensions to connection agreements for re-powering should be developed to remove the significant amount of uncertainty around applications that exists at present.	none - for consideration in future TDPNIs, and information available in ATRs, including the potential for more frequent refresh of the data
NIRIG	Investment certainty/Non-firm generation	We do not believe that there is sufficient information in this TDP about the quantity of existing non-firm connections and the quantity, location and timelines for delivery of these projects. We are also very concerned about the delays to required ATRs, and regular pushback of estimated completion dates.	for consideration in future TDPNIs
SSE	n/a	SSE has inputted into the industry level response prepared by NIRIG. We are supportive of their comments in relation to the proposed SONI TDP 2018-2027.	none
Scottish Power Renewables	Investment certainty/Non-firm generation	... the absence of Associated Transmission Reinforcement (ATR) is already impacting wind farm output. The draft TDP does not make sufficient reference to the impacts of the proposed ATRs on making existing generation firm, and we recommend that the ATRs refer to how much generation could be relieved of constraints. We are concerned about the delays to required ATRs and also the regular push-back of estimated completion dates.	for consideration in future TDPNIs
Scottish Power Renewables	Strategy	Policy must be future-proofed to provide clear and comprehensive processes that facilitate all types of connections in a transparent and cost effective manner. The existing Electricity Licence and Order are no longer fit for purpose and an urgent review of both is required to enable market requirements such as flexibility and smart systems.	none - beyond SONI control
Scottish Power Renewables	Strategy	We do not believe that the TDP draft fully recognises the reinforcement investment required for existing connected generation, nor does it adequately provide for the increased levels of renewable generation that will be required to deliver decarbonisation targets.	none - will be reflected in future TDPNIs in line with government strategy
NIRIG	Strategy	We do not believe that the TDP draft fully recognises the reinforcement investment required for existing connected generation, nor does it adequately provide for the increased levels of renewable generation that will be required to deliver decarbonisation targets. For example, a moderately-ambitious target of 70% renewable electricity by 2030 would require an extra c1000MW of onshore wind and 200MW of solar generation, and the draft Plan does not provide the investment required for this level of generation. In addition, existing projects will be repowered, potentially with greater MW capacity, within the timeframe of this draft Plan. The TDP does not reflect the requirement for increased capacity and connections.	none - will be reflected in future TDPNIs when government strategy is updated

Source	Topic	New Comments since SONI Consultation	Impact on TDPNI 2018-2027
Scottish Power Renewables	TSO-DSO co-operation	We recommend additional focus on the coordination between NIE and SONI to deliver the best outcome for the system as a whole... A Joint Planning Committee with the SO and TO, such as exists in GB, could facilitate this liaison.	none - but work ongoing