

Report on Public Consultation on
Transmission Development Plan
2019–2028



Table of Contents

Glossary	4
Introduction	6
Description of SONI's Consultation Process	7
Purpose of the Transmission Development Plan.....	7
Responses to the Consultation.....	8
Summary of feedback	8
Agivey Cluster	8
Constraints on renewable generators.....	9
Interconnection	10
TDPNI 2019 and 2030 Targets.....	11
Connecting Existing and Future Renewable Generation	11
North-South Interconnector	13
Integration with Tomorrow's Energy Scenarios (TES)	14
TSO-TAO/DSO Co-ordination	15
Appendix 1 – Consultation Response.....	18

Abbreviations

ATR Associated Transmission Reinforcement

DSO Distribution System Operator

EC European Commission

FAQ Firm Access Quantity

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 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 economics of various development options.

We have both statutory¹ and licence² obligations to produce a Transmission Development Plan for Northern Ireland (TDPNI) annually. Before the TDPNI can be approved, SONI is obliged to hold a consultation on the draft TDPNI². Based on the responses to the consultation we update the draft TDPNI, where necessary, and submit a consultation report alongside the updated TDPNI to the Utility Regulator (UR).

Following this, the UR is obliged to hold a public consultation on the draft TDPNI³.

This document is the report on the SONI TDPNI 2019–2028 consultation. It describes the consultation process and provides an overview of the submissions received and our responses to the issues raised.

¹ EU Directive 2009/72 (Article 22)

² SONI TSO Licence (Condition 40)

³ European Directive 2009/72 (Article 22)

Description of SONI's Consultation Process

The draft TDPNI was posted for public consultation on the SONI website on 21 November 2019 and the consultation ended on 19 December 2019.

A notification of SONI's consultation was sent, via email, to the SONI stakeholders subscribed to the info@soni.ltd.uk mailing list.

Purpose of the Transmission Development Plan

Local and European strategic energy policy objectives set the context for investment in the Northern Ireland transmission system to ensure security of electricity supply, competitiveness of the economy, and long-term decarbonisation of electricity supply. To achieve these strategic objectives, it is necessary to invest in the development and maintenance 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 identified 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. It is important to note that the TDPNI is neither a strategy-forming nor a policy-forming document.

Responses to the Consultation

SONI received three submissions in response to the consultation. These were from:

- Moyle Interconnector Limited;
- Northern Ireland Renewables Industry Group; and
- Scottish Power Renewables

We would like to thank all parties for their responses. The rest of this report deals with the issues raised in these submissions. We have attached the three submissions to the back of this report.

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

Summary of feedback

Agivey Cluster

NIRIG and Scottish Power Renewables

“...we are particularly hesitant about the actual status of the Agivey Cluster.

Publicly available information makes us believe the project is currently in Planning stage although the draft TDP indicates that it has been consented. We would appreciate clarification.”

Our response

In the TDPNI, Agivey Cluster is described as being in Step 3 (consents stage). This means that we are currently in the process of seeking consents for it. As of January 2020, Agivey Cluster is awaiting a decision on Planning Permission from Causeway Coast and Glens Borough Council.

Constraints on renewable generators

NIRIG

*Over half of the 2019 DD [Dispatch Down] is due to constraints. Constraints can be removed with the further development of the Northern Ireland transmission system. This draft development plan is therefore a critical document for the Northern Ireland renewable industry. It is critical that this plan can substantially reduce the constraints currently being experienced by Northern Ireland windfarms. As this loss of renewable energy and increase in CO₂ emission is currently already at a high level, it is also critical the plan details clearly how the transmission reinforcements will be delivered in a timely manner...
...NIRIG is concerned that without significant strategic investment in both the transmission and distribution system that levels of dispatch down could increase further negatively impacting upon efforts to meet new renewable electricity targets and increasing consumer costs.”*

Our response

The projects included in the TDPNI 2019–2029 represent a significant investment in the Northern Ireland transmission network. In particular, the programme of circuit upgrades and new circuit development in the Northwest of Northern Ireland will increase the ability of the network to carry renewable generation to centres of load and thus alleviate constraints on generators.

SONI is actively investigating future scenarios for energy production and usage in Northern Ireland through Tomorrow’s Energy Scenarios, and the results of this work and any future renewable energy targets will be incorporated in our planning processes and future TDPNIs.

Interconnection

Moyle Interconnector Limited

“This year Moyle welcomes inclusion of a project in the plan – ‘Moyle 275 kV Reinforcement (NEW)’ in section 7.4.6 – which would permit full use of Moyle’s technical 500 MW export capacity. We agree that this project would benefit market integration, security of supply and RES integration.

Noting that the SONI team has already engaged with Moyle on the scope and options for reconfiguration of the network near Moyle and Ballylumford, Moyle will continue to support SONI’s engineering and any associated cost-benefit analysis.”

NIRIG

“We understand that SONI/EirGrid plan to contract more capacity exporting from Moyle (NI-Scotland) from 2020 onwards. We further understand that there is currently an export restriction in place due to voltage issues and that SONI is preparing to remove this 300MW export restriction. We request clarity on the works and timelines required to maximise export capacity through the Moyle Interconnector.”

Our response

The maximum export capacity of the Moyle Interconnector has recently been increased to 380 MW, but this is subject to operational mitigations and is not possible under all circumstances. Currently, any further export above 380 MW would create a risk of unacceptable voltage conditions on the Northern Ireland network. As discussed in the response by Moyle Interconnector Limited, SONI has identified a project to investigate the release of the full 500 MW technical capacity of the interconnector on the Northern Ireland end on a permanent basis.

This project is at a very early stage and will involve multi-criteria and cost-benefit analysis of a number of different options, including non-traditional and innovative

solutions. SONI will update the status of this project in future TDPNIs and will engage with Moyle Interconnector Limited and other stakeholders throughout this process.

Note that these works will address constraints on the Northern Ireland side of the Moyle interconnector only.

TDPNI 2019 and 2030 Targets

NIRIG

“The draft TDP does not outline sufficient investment to facilitate the anticipated level of renewable deployment required to decarbonise the Northern Ireland electricity system. NIRIG welcomes SONI’s stated commitment to 95% System Non-Synchronous Penetration (SNSP) by 2030, however we feel that the investment outlined in the TDP is insufficient to meet this objective.”

Our response

SONI published the Tomorrow’s Energy Scenarios for consultation in September 2019. Following on from this, SONI will be undertaking an analysis of the Tomorrow’s Energy Scenarios in relation to the investment programme detailed in the TDPNI in order to help identify any deficiencies and prioritise projects. This will feed into future versions of the TDPNI from 2021 onwards.

An increase of the SNSP limit towards 95% is also expected to require additional System Services to be put in place. This is beyond the scope of the TDPNI and will be addressed through the continuation of the DS3 programme.

Connecting Existing and Future Renewable Generation

NIRIG and Scottish Power Renewables

*“... It would be beneficial to highlight in the TDPNI whether projects tagged as ‘RES Integration’ are aiming to release capacity for new projects in development and/or to be developed, or the intention for reinforcements is only to fulfil the current queue of projects waiting to connect, as well as currently operational without firm access. Developers will welcome an indication of the potential MW of capacity that’s supposed to remain available for new connections after project construction (if that is to be the case). This will drive efficiencies for developers and the TSO as it would steer efforts to develop renewable projects as close as possible to network areas with available capacities, improving the network utilisation and therefore getting the best value out of the reinforcement expenditure...
...There is a fundamental need to develop a flexible and principle-based approach to connections and network access. Policy must be future proofed to provide clear and comprehensive processes that facilitate all types of connections in a transparent and cost-effective manner.”*

Scottish Power Renewables

*“The draft TDP does not make sufficient reference to the impacts of the proposed ATRs and/or projects on making existing generation firm, and how these would alleviate constraints in the future...
... we do not believe that the TDP draft neither sufficiently recognises or addresses 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 that are due to be announced for Northern Ireland in 2020 by the Department for Economy (DfE).”*

Our response

The projects listed in the TDPNI have been identified as necessary to alleviate constraints and issues that currently exist or are anticipated once generators that are currently committed are connected. However, these will also increase the capacity of the network. The anticipated opportunities for new generation are detailed in the Ten Year Transmission Forecast Statement (TYTFS). The TYTFS analysis is based on development projects which have passed Part 1 of SONI's Grid Development Process⁴.

SONI has a statutory duty to develop the transmission system in an economic and efficient manner. Assessment of options (including new circuits, circuit upgrades and other non-traditional and innovative solutions) is subject to a cost-benefit analysis including capital and revenue (constraint) costs. This also includes other criteria including technical and environmental. If a reinforcement project is deemed to be non-economic then the Utility Regulator may direct derogation from the SONI Transmission System Security and Planning Standards (TSSPS) to allow SONI to continue to operate the system without the reinforcement.

North-South Interconnector

NIRIG

“NIRIG fully supports the development of the second North/South interconnector. NIRIG also understands the challenges in bringing it forward and note that the completion dates have been pushed back to 2023. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N/S

⁴ <http://www.soni.ltd.uk/media/SONIs-Powering-The-Future-Grid-Development-Process-brochure.pdf>

interconnector not be developed as this is impacting a very significant quantity of existing generation. We would like to see these contingency plans included in the final version of the Plan.”

Our response

The North–South Interconnector is a vital piece of transmission infrastructure for Northern Ireland and is necessary to maintain security of supply. It is needed to ensure efficient operation of the Single Electricity Market (SEM), to allow the sharing of reserve between Ireland and Northern Ireland (thus improving security of supply) and to facilitate the deployment of renewable generation.

Risks and uncertainties are assessed at every stage of SONI projects and appropriate mitigation measures are put in place.

Any delays to the construction of the North–South Interconnector would require operational mitigation. We are already managing these limitations in the most economic manner available to us and will continue to assess all options that would help relieve this constraint in the short term. However all of these options introduce costs that will be avoided once the North–South Interconnector is operational.

Integration with Tomorrow’s Energy Scenarios (TES)

NIRIG and Scottish Power Renewables

“It is important that the final ambition set out by SONI in its scenario planning is reflected in the TDP. We would welcome an analysis around the suitability of the network reinforcements when considering the TES scenarios to demonstrate that proposals in the TDPNI are in line with facilitating access to the network to low carbon technologies and those can optimally, with acceptable Dispatch Down levels, deliver decarbonisation targets.”

Our response

Following on from the Tomorrow's Energy Scenarios Northern Ireland 2019 consultation, SONI will undertake an analysis of the implications of the TES for network development and will publish the TES Needs Assessment in 2020. The TDPNI will be reviewed against the outcome of the Needs Assessment. Whilst work is ongoing to assess the TES scenarios, TDPNI 2020 will be based on a freeze date of 1 January 2020. TDPNIs from 2021 onwards will reflect the outcome of the TES analysis.

TSO-TAO/DSO Co-ordination

NIRIG and 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. This includes coordinated planning and operational processes, data management, and transparency, to enable efficient system decisions i.e. whether an investment at a transmission or a distribution level is in the best interests of consumers. A Joint Planning Committee with the SO and TO with transparent governance, such as exists in GB, could facilitate this liaison.”

Our response

SONI and NIE Networks work together through the Transmission Interface Arrangements process. We are continually working to improve our data sharing and joint processes. When planning the network, we work together to decide whether transmission, distribution or combined transmission-distribution options provides the best solution to a problem.

With NIE Networks, we are considering the connection of existing generation on the distribution system and whether these can be transferred to cluster sites. One recent example of this is the Gort Main 2nd transformer project; this is a project triggered by constraints on generation on the distribution system near Omagh which will be solved by a combined transmission and distribution investment. Not only will this alleviate constraints on

the distribution network, it will also reduce the loading on the transmission system at Omagh and provide benefits to the transmission network as well.

Appendix 1 - Consultation Response

Mutual Energy (Received by email)

Dear Sir/Madam,

Re: SONI's Draft Transmission Development Plan for Northern Ireland 2019-2028

Please find below one response from Moyle Interconnector on the draft Transmission Development Plan for Northern Ireland. No part of this submission is confidential and it may be published in full.

Moyle Interconnector Limited ('Moyle') welcomes publication of the draft Transmission Development Plan for Northern Ireland. It is clear that the proposed £500m portfolio of projects has the potential to transform the network in support of emergent policy direction, not least relating to decarbonisation.

Previously Moyle submitted comments on the draft 2018-2027 Transmission Development Plan, noting regulatory policy which requires a long-term solution to constrained interconnector capacity. Interconnection has an important role to play in decarbonisation, facilitating higher penetration of renewables, and maximising interconnection remains a priority across Europe.

This year Moyle welcomes inclusion of a project in the plan – 'Moyle 275 kV Reinforcement (NEW)' in section 7.4.6 – which would permit full use of Moyle's technical 500 MW export capacity. We agree that this project would benefit market integration, security of supply and RES integration.

Noting that the SONI team has already engaged with Moyle on the scope and options for reconfiguration of the network near Moyle and Ballylumford, Moyle will continue to support SONI's engineering and any associated cost-benefit analysis.

Please do not hesitate to contact us if you require any further information.

Yours faithfully,

Tim.

Tim Cox
Senior Commercial Analyst

Mutual Energy Ltd / Moyle Interconnector Ltd