

Report on UR Consultation on  
Transmission Development Plan  
Northern Ireland 2021-2030

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## Introduction

SONI is the electricity transmission system operator for Northern Ireland.

This means we plan for the future of the electricity transmission grid and operate it every minute of every day. This includes interconnection to neighbouring grids and running the all-island wholesale electricity market (Single Electricity Market (SEM)).

We ensure that everyone has power when they need it at the most economic price possible. The grid safely brings power from generators and sends it to NIE Networks. They then supply electricity to every home, farm, community and business in Northern Ireland via the distribution grid.

SONI is playing a pivotal role in supporting the delivery of Northern Ireland Executive's new Energy Strategy with its focus on transformative change in the power system by 2030 and beyond to net-zero carbon emissions by 2050.

SONI is committed to delivering the transformation required. The transmission grid needs to be made stronger and more flexible to transport the increases in clean energy generation which we expect to see this decade. It also needs to be secure so that consumers have the high quality and reliable electricity supply they have come to expect.

The projects outlined in this document will ensure the transmission grid is fit for the future; providing for Northern Ireland's environmental, societal and economic aspirations.

SONI is certified as an independent transmission system operator, with no vested interest in the generation or selling of electricity. We don't own the grid infrastructure and have no self interest in adding to it. We work every day with NIE Networks who build, own and maintain the grid transmission assets.

As a monopoly service provider, we are regulated by the Utility Regulator for Northern Ireland. Our funding is provided through a rigorous price control process and each project proposed in this document will be subject to regulatory funding.

## **Our Purpose**

Our purpose is to transform the power system for future generations. The environment and our society are at the heart of what we do and as such, we are committed to delivering a clean energy system as a direct response to the climate crisis.

The Northern Ireland Executive's recently published new energy strategy sets clean energy goals for 2030 - for these to be delivered, industry, government, communities and landowners must collaborate to make it happen.

In order to make the Energy Strategy's vision a reality we need to add more energy from renewable sources to the power system. This means that the electricity grid will need to carry more power from energy sources that vary depending on the weather. This power will also need to be carried over longer distances.

As a result, we need to make the grid stronger and more flexible. The projects outlined in this document will ensure the transmission grid is fit for the future and will also ensure that Northern Ireland continues to have a reliable and high quality power supply.

Northern Ireland's electricity system is world leading when it comes to the integration of renewable energy and SONI's innovation and operations are a key part of that success. For example, the System Non-Synchronous Penetration (SNSP) limit has now been raised from 70% to 75%. SNSP is a measure of the amount of electricity coming from variable renewable sources (like solar and wind) that the electricity system can safely accept at any point in time. This percentage makes Northern Ireland a world leader in the integration of renewable electricity onto the grid. To build on this momentum we need a strong, resilient and flexible transmission grid. Our corporate strategy outlines our commitment to transforming the power system for future generations<sup>1</sup>.

While SONI has a unique role to play in making the grid ready for Northern Ireland's low carbon future, we are also responsible for security of supply for consumers. We manage the balance between supply and demand on a second-by-second basis and model medium and

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<sup>1</sup> [www.soni.ltd.uk/strategy2025](http://www.soni.ltd.uk/strategy2025)

long term adequacy in order to prepare industry and the market for what will be required to keep the lights on.

Northern Ireland has a wealth of natural resources and we expect to see an increase in onshore wind as well as offshore wind, battery technology, new interconnection and cleaner more efficient gas plant coming online in the coming decade and beyond. Northern Ireland can import and export via the Moyle Interconnector. In addition, the Single Electricity Market (SEM) is supported by the East West Interconnector between Wales and Ireland. Interconnection is a critical pillar of today's system and market operation.

In 2021, in preparation for the publication of the Energy Strategy, SONI launched an extensive consultation into how an ambition of at least 70% of electricity from renewable energy sources (RES-E) could be delivered by 2030. This consultation was called Shaping Our Electricity Future. Through this consultation we sought the views of all stakeholders into how renewable energy and new transmission network should be delivered to achieve a RES-E target of at least 70% by 2030.

Following the conclusion of the consultation process, SONI assessed in detail the feedback from the general public and industry – this was then used to prepare a final Shaping Our Electricity Future roadmap which was published in November 2021, and is available on the SONI website<sup>2</sup>. The roadmap identifies a number of projects described in this TDPNI as being critical for delivering a 70% RES-E target in Northern Ireland.

The Climate Change Act (Northern Ireland) 2022 was passed by the Northern Ireland Assembly and received Royal Assent in June 2022. This Act sets targets for the reduction of greenhouse gas emissions; to provide for a system of carbon budgeting; to provide for reporting and statements against those targets and budgets; to confer power to impose climate change reporting duties on public bodies; to provide for reports and advice from the Committee on Climate Change; and for connected purposes. The Act also highlights a more aggressive deliverable of 80% RES-E target in Northern Ireland by 2030.

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<sup>2</sup> <https://www.soni.ltd.uk/the-grid/shaping-our-electricity-f/>

SONI are now working on a review of Shaping Our Electricity Future – this version 1.1 will build on the Roadmap from late 2021 and will reflect the latest 80% RES-E by 2030 target in Northern Ireland. We are targeting completion by end 2022.

The Transmission Development Plan Northern Ireland (TDPNI) 2021-2030 is the blueprint for the development of the transmission network and interconnection over the next ten years.

Shaping our Electricity Future outlines the reinforcements needed to reach our RES-E targets by 2030. The TDPNI is a ten-year plan that presents projects that are expected to meet the operational needs of the transmission network. The plan also outlines future needs that may drive future potential projects. We have a license<sup>3</sup> obligation to produce this document.

Before we develop or add to the grid, we work with those who may be affected by our plans. We aim to make grid development a consultative process with communities and landowners at the heart of it.

We have a three-part grid development process which puts public consultation at the heart of how we upgrade and improve the transmission grid<sup>4</sup>. On each project, we want to engage with the community, elected representatives and other stakeholders with a goal of finding the best possible solution, and key to this is understanding local concerns.

In order to provide a balanced solution, we aim to ensure that our approach minimises costs to the consumer while also contributing to Northern Ireland’s clean energy targets and supporting security of supply. By working with these principles at our core, we can transform the power system to deliver for consumers and our economy, while keeping Northern Ireland’s switch to clean energy on track.

Before the TDPNI can be approved, SONI undertook a consultation on the draft TDPNI<sup>5</sup> in order to capture the inputs from stakeholders. Based on the responses to the consultation

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<sup>3</sup> SONI TSO Licence (Condition 40)

<sup>4</sup> [Have Your Say \(soni.ltd.uk\)](https://www.soni.ltd.uk)

<sup>5</sup> EU Directive 2019/944 (Article 51)

we updated the draft TDPNI, where necessary, and submitted a consultation report alongside the updated TDPNI to the Utility Regulator (UR).

Following this, the UR held a further public consultation on the draft TDPNI.

This document is the report on the UR's TDPNI 2021-2030 consultation. It describes the consultation process and provides an overview of the submissions received and our responses to the issues raised. We would like to thank all stakeholders who responded.

## Description of Consultation Process

The draft TDPNI was posted for public consultation on the SONI website ([soni.ltd.uk](http://soni.ltd.uk)) on 18 January 2022 and the consultation ended on 15 March 2022. It was published to the SONI consultation ([consult.soni.ltd.uk](http://consult.soni.ltd.uk)) portal on the same date, enabling stakeholders to access all relevant material and make a submission in the same place.

SONI then produced a consultation report which was submitted to the UR. This report and the responses received were published on the SONI website.<sup>6</sup>

The UR then undertook a consultation on the updated TDPNI from 23 May – 24 June 2022. This report details SONI's response to the responses received in 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 Environmental Appraisal Report of the TDPNI against the Strategic Environmental Assessment for TDPNI 2018-2027.

## Purpose of the Transmission Development Plan

Local and UK 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

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<sup>6</sup> <https://www.soni.ltd.uk/the-grid/projects/tdpni/related-documents/>

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

The UR received 7 public submissions and 26 confidential submissions in response to the consultation. The public submissions were from:

- RenewableNI
- NIE Networks
- Mutual Energy
- Consumer Council NI (CCNI)
- Energy Saving Trust
- Mr Dennis Hutchinson
- Mr Brian Todd

We would like to thank all parties for their responses. The public responses can be viewed on the Utility Regulator's website.

A number of points were raised in these submissions which do not relate directly to the TDPNI. Some of these involve queries for the Utility Regulator, who will engage directly with the respondents.

The rest of this report deals with the issues relevant to the TDPNI 2021-2030 raised in these submissions. In the following sections we summarise and respond to the issues raised.

## Summary of feedback

### Collaboration with NIE Networks

#### **NIE Networks**

*We are fully supportive of SONI's plans as they aim to progress the ambitions of the Energy Strategy and indeed the Climate Change Bill NI. We are committed to continuing engagement and collaboration as we seek to meet these challenging targets as well as our own regulatory objectives.*

#### **Our Response**

We welcome the support of NIE Networks in the TDPNI 2021-2030. Continued engagement and collaboration will be key in helping to reach the NI climate targets.

### 80% RES-E by 2030 Target

#### **RenewableNI**

*In their Report on Public Consultation on Transmission Development Plan Northern Ireland 2021-2030 SONI note:*

*'The TDPNI presents projects that are expected to meet the operational needs of the transmission network. Once the next versions of the Transmission Investment Plan (TIP) and Tomorrows Energy Scenarios Northern Ireland (TESNI) have been compiled to show the projects necessary to reach a review, the necessary iteration of TDPNI will then be updated accordingly.*

*The TDPNI 2021-2030 was compiled based on assumed Energy Strategy targets. Future versions of TDPNI (2022 onwards) will be reviewed and assessed in accordance with the Energy Strategy.'*

*In essence, the current draft TDPNI is unlikely to be sufficient to meet the requirements needed in order to achieve 80% RES-E by 2030. If the revised TDPNI cannot be amended to*

*reflect the 80% target accordingly, then we request that some reference to this is included in the new Section 1.8 'Changes Since the Freeze Date'.*

### **Energy Savings Trust**

*Having passed Final Stage on 9th March, the Climate Change (No. 2) Bill will increase NI's renewable electricity generation target, upon receipt of Royal Assent. The Bill states: "15.— (1) The Department for the Economy must ensure that at least 80% of electricity consumption is from renewable sources by 2030." We are aware that currently this development is being considered, and the revised TDPNI although written prior to this development should really be revised further to be reflective of it.*

### **Our Response**

The table in Section 1.8 is meant for project changes that occurred between the data freeze date for the document and submission to UR for consultation (11<sup>th</sup> May 2022).

The TDPNI presents projects that are expected to meet the operational needs of the transmission network. Once the next versions of the Tomorrows Energy Scenarios Northern Ireland (TESNI) and Transmission Investment Plan (TIP) have been compiled to show the projects necessary to reach a review, the TDPNI will be updated accordingly. SONI are now also working on a review of Shaping Our Electricity Future – this version 1.1 will build on the Roadmap from late 2021 and will reflect the latest 80% RES-E by 2030 target in Northern Ireland. We are targeting completion by end 2022.

### **Engagement with UR**

#### **Mutual Energy**

*Mutual Energy therefore recommend engagement with UR would be beneficial on the expectations and structuring of cross-sectoral network planning which will promote delivery of outcomes in the interests of NI consumers. Formalising the engagement will also help, in the longer term, with delivery of the NI energy transition, including management of any*

*security of energy supply risks and may help to inform future relevant energy and related policy considerations.*

### **Our Response**

We acknowledge the importance of alignment across the sectors in Northern Ireland and agree that this will increase as the energy transition accelerates. SONI continues to work closely with Mutual Energy across its various roles. However, these interactions are broader than the production of the TDPNI and any additional formalisation, if necessary, should take place in a holistic and strategic forum.

### **Minimising of cost impact to consumer**

#### **CCNI**

It is imperative that infrastructure development is optimised to reduce the cost impact on the consumer. It is also essential that planning continues to be undertaken in consultation with end users at a regional and local level to ensure consumer needs are met.

However, we also note the benefits of such infrastructure investment, including the reduction of constraints on wind generation and increased viability of power export. Ideally, the increase in indigenous renewable generation will result in stable or lower consumer bills and indigenous security of supply in the long term.

### **Our Response**

Infrastructure development is carried out to meet transmission system operational needs and to facilitate new connections such as new renewable generation. In meeting these needs, the cost impact on the consumer is minimised as much as is possible. We welcome the acknowledgement on the benefits that the infrastructure investment outlined in the TDPNI brings to the NI consumer.

### **Rosebank – Castlereagh Line Queries**

Concerns were raised in a number of confidential responses, along with Mr Dennis Hutchinson and Mr Brian Todd, on the status of the de-commissioned Rosebank-Castlereagh line.

## **Our Response**

Routine capital maintenance was scheduled by NIE Networks for the Rosebank to Castlereagh line before the end of RP6. The normal planning cycle was followed, with NIE undertaking the standard surveys. In February 2022 (after the SONI consultation on the TDPNI), SONI and NIE Networks agreed that SONI would undertake a technical review of the Rosebank-Castlereagh line to assess the advantages or disadvantages of re-energisation, or indeed, its removal.

In May 2022, SONI finalised the scope of the review of the Rosebank-Castlereagh line and this information was shared with key stakeholders, including residents from the Marlborough Heights Residents Association and elected representatives who had previously been in contact with SONI over this matter. The review will consider the following:

- The transmission reinforcement needs for Belfast, including what capacity may be needed, future plans for Castlereagh and Rosebank substations, and the impact on other projects e.g. Airport Road.
- Assess the condition of all aspects of the existing Rosebank-Castlereagh circuit.
- Consider the impact of the works required to refurbish or remove the line and compare with the approach for Belfast Metropolitan Redevelopment Project.

At this time, SONI also reiterated its commitment to meet with residents to discuss their concerns over the re-energisation of the line and also provided details of the Utility Regulator's TDPNI 2021 consultation, which provided a further opportunity for the public to provide feedback to the proposals set out in the TDPNI 2021.

A long-standing commitment by SONI and NIE Networks to meet with Marlborough Heights residents was fulfilled in July and, both organisations have agreed to meet with residents once the review has been completed. Any project arising from the review will be included in the next iteration of the TDPNI, which will be consulted upon by SONI and the UR in due course.

## 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

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## 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.