

Report on Public Consultation on Transmission Development Plan 2020-2029



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Introduction

SONI is the Electricity System Operator for Northern Ireland, we plan and operate the electricity system, the single electricity wholesale market (all-island) and manage the flows on interconnectors with our neighbours. We ensure that electricity is always available when and where it's needed, every second of every day and for decades to come. We do this in the most cost effective way possible and in the interests of all electricity users across Northern Ireland. We do so to meet the needs of all consumers, rather than pursue our own commercial interests.

SONI is an independent entity, 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 Northern Ireland Electricity Networks who build, own and maintain the grid transmission assets.

SONI is regulated by the Utility Regulator for Northern Ireland who determines our funding.

We play a key role in Northern Ireland's economic development, delivering a safe, secure and efficient electricity supply; which is important for Northern Ireland business and for foreign direct investment.

In order to ensure Northern Ireland continues to have a reliable and high quality power supply SONI must continue to upgrade and improve the Northern Ireland transmission grid.

Our Purpose

SONI's work is not limited to supporting economic benefit for Northern Ireland. 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.

By strengthening the electricity grid, by connecting green energy projects and through our world leading innovation in managing electricity from renewable schemes, we have made a significant contribution to Northern Ireland meeting its 2020 renewable electricity targets a year in advance of the timeline.

To build on this momentum we need a strong, resilient and flexible transmission grid. By having this we can help deliver the Economy Minister's ambition of at least 70% electricity from renewables by 2030. Our new corporate strategy outlines our commitment to transforming the power system for future generations¹.

SONI have a unique role to play in making the grid ready for Northern Ireland's low carbon future. This document, The Transmission Development Plan Northern Ireland (TDPNI) 2020-2029 is the blueprint for the development of the transmission network and interconnection over the next ten years.

This ten-year plan presents projects that are expected to meet the operational needs of the transmission network. In addition, future needs that may drive future potential projects are also discussed. We have both statutory² and licence³ obligations to produce this document.

Before the TDPNI can be approved, SONI undertook a consultation on the draft TDPNI² in order to capture the inputs from stakeholders. 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 further public consultation on the draft TDPNI⁴.

This document is the report on the SONI TDPNI 2020-2029 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 of those stakeholders who responded.

¹ <http://www.soni.ltd.uk/about/strategy-2025/>

² EU Directive 2009/72 (Article 22)

³ SONI TSO Licence (Condition 40)

⁴ 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 10 November 2020 and the consultation ended on 11 December 2020.

A notification of SONI's consultation was sent, via email, to the SONI stakeholders subscribed to the info@soni.ltd.uk mailing list. Notification of the consultation was also publicised on SONI's social media channels. Throughout the consultation period, SONI social media channels posted several notifications in order to remind stakeholders of the submission timeline.

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 fifteen submissions in response to the consultation. These were from:

- Ards and North Down Borough Council;
- Armagh, Banbridge & Craigavon Borough Council;
- The Consumer Council;
- Derry City and Strabane District Council;
- The Irish Energy Storage Association;
- Jim Allister MLA;
- Mid Ulster District Council;
- Mid and East Antrim Borough Council;
- Moyle Interconnector Limited;
- NIE Networks;
- Northern Ireland Housing Executive;
- RenewableNI;
- Sinn Féin;
- Smart Grid Ireland; and
- SustainableNI.

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 fourteen submissions with this report.

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

NIE Networks' requested that their response is not published. SONI have discussed the issues raised directly through the new SONI and NIE Networks TDPNI Working Group.

Summary of feedback

Ambition

RenewableNI

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 vital 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...

...The draft TDP does not outline sufficient investment to facilitate the anticipated level of renewable deployment required to decarbonise the Northern Ireland electricity system. RenewableNI 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...

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.

Smart Grid Ireland

We believe that it is essential that the SONI TDPNI articulate an accelerated ambition with a pragmatic pathway of how the Northern Ireland Transmission network can evolve in such a way that guarantees the security and the quality of electricity supply while supporting the critical electricity transmission-related Sustainable Development Goals. Starting with outcomes and working back to what would be needed to deliver these goals in a realistic and cost-effective way from recovery from Covid-19. The investments during the 2020-2029 period should be aligned to a Northern Ireland sustainable recovery plan and policies and the NIE Strategic Network development plan for Northern Ireland...

Smart Grid Ireland would encourage SONI to adopt or promote the Accelerated

Future Energy Scenario recognising that this is policy dependent but if Northern Ireland is to make rapid progress then all stakeholders need to be proactive.

Our response

The TDPNI has been designed based on the anticipated needs of the Northern Ireland transmission network over the next ten years. As these needs are evolving constantly, the TDPNI is reviewed annually and SONI's plans adjusted accordingly. We welcome the Department for the Economy's work on producing a new Energy Strategy for Northern Ireland. However, in the current absence of a strategy, it is not yet possible to examine the TDPNI against any obligations relating to decarbonisation of the power system. We do anticipate an ambitious target of at least 70% renewable electricity by 2030 in the new Energy Strategy, and the TDPNI has been designed with this in mind.

In early 2021, we will publish our first *Tomorrow's Energy Scenarios Northern Ireland System Needs Assessment*, which will include an assessment of the projects included in the TDPNI in relation to the three future energy scenarios introduced in "Tomorrow's Energy Scenarios Northern Ireland"⁵, published in 2020. The outcome of this analysis will inform our network development plans and future editions of the TDPNI. We will also review the Plan once the new Energy Strategy is finalised. In early 2021 we will also publish *Shaping Our Electricity Future* – this is a strategic review of the evolution of transmission network in Northern Ireland the context of 2030 RES-E ambitions. This will complement the work outlined in the TDPNI.

Asset Replacement

Smart Grid Ireland

There are many asset replacement projects referenced which are due to be completed by 2024. SGI has some concern that these all fall due in the same period of time, and that this may cause resource constraint limitations and potential short-term lowering of security of supply parameters. We would support any representation to the Utility Regulator for allowing extra resources to be applied to this work.

⁵ <http://www.soni.ltd.uk/media/documents/TESNI-2020.pdf>

Our response

Asset replacement is the responsibility of NIE Networks, and SONI are obliged to report on the asset replacement plan as part of the Licence condition governing the TDPNI. Those projects listed for completion by 2024 are those that form part of NIE Networks' RP6 price control, which governs the period up to 2024. The exact scheduling of the works is dictated by the availability of resources within NIE Networks and capacity for outages, decided by SONI and NIE Networks. This scheduling is beyond the scope of the TDPNI however it is anticipated that the works will be completed by 2024 and any change to this will be reflected in future TDPNIs. As much of the network (particularly the 275 kV system) was built in a short space of time in the 1960s and 70s, a large amount of transmission assets are due for replacement or refurbishment at the same time. Undertaking this work in a timely manner while maintaining the integrity of the system will be a challenge, particularly in the RP7 period when significant work is anticipated at 275 kV substations and we would agree that it is important that NIE Networks are sufficiently resourced for this.

Creagh/Kells – Rasharkin

Jim Allister MLA

It appears at first glance that you are still undecided about which route the new 110kV line will take. However, in the Renewable Grid Liaison Group Minutes of meeting 03-12-19, Item 8, SONI reports that :

Kells/Rasharkin environmental report complete, SONI in process of submitting TMNP[sic]

In the minutes of the RGLG meeting 03-03-2020 these proposals have been progressed. SONI states:

Kells/Rasharkin proposals currently in process. To be submitted to the UR once complete, followed by consultation.

I see no reference to a Creagh/Rasharkin environmental report or proposals option in these RGLG minutes. Yet you continue to refer to the Creagh/Rasharkin line option in your Draft TDPNI 2020 launched in November 2020.

To clear this up, can you forward me a copy of both environmental reports and drawings: the Kells/Rasharkin environmental Report and drawings; and the Creagh/Rasharkin environmental Report and drawings...

... What community consultation have you carried out to date?

Our Response

The Creagh/Kells Rasharkin project is now known as the Mid-Antrim Reinforcement and this name will now be used in all future references. No decision has yet been taken on the route or nature of this reinforcement; SONI intend to submit a request for preconstruction funding including a report detailing the options considered, and our preliminary preferred option, to the Utility Regulator in early 2021. Included in this will be a desktop environmental assessment of the route corridors under investigation.

Once we have submitted this report to the UR we will make it (including the environmental report) available on the SONI website. We will also be engaging with local stakeholders, including Jim Allister MLA, on our plans for the project and any concerns raised. SONI is committed to early, meaningful and transparent engagement on our project proposals. We will be conducting a robust period of pre consultation engagement in addition to the statutory pre-application consultation requirements. No decision on the final route will be taken nor planning submission made before this vital engagement occurs.

Energy Storage

Irish Energy Storage Association

There does not appear to be any mention of batteries, synchronous condensers or other energy storage technologies in your development plan. We are wondering whether you have considered energy storage as a potentially cheaper alternative to new or upgraded lines and substations in certain circumstances.

Our response

SONI, as Transmission System Operator, are responsible for the operation and planning of the transmission network. We have an obligation to consider all applications for connections to the transmission network but under conditions 12 and 13 of the SONI Licence we may not have a role in the generation or supply of electricity. Therefore SONI's plans and consequently the TDPNI are related only to the development of the network itself, and any work required to connect anticipated generation and demand. The first batteries to the all-island transmission system connected in Northern Ireland in 2020 and we expect that energy storage will play an

important role in the future of the electricity system⁵. Any network reinforcements required to facilitate the connection of contracted storage schemes in future will be included in future versions of the TDPNI.

Innovation and Economic Development

NI Housing Executive

The recent announcement of a UK commitment to electric vehicles indicates that further upgrades to grid infrastructure are required soon.

We suggest that you should investigate the potential to use direct heating loads such as immersion heaters heating hot water to displace the use of higher carbon fuels such as coal and oil, also to improve air quality.

Transmission planning and interconnector project delays and variations in wind outputs between years will also tend to result in occasional local surpluses of power that could be used to alleviate fuel poverty.

Developing the ability to switch between direct electric resistance heating and heating with heating oil/ kerosene can ease the planning of grid upgrades, by making larger capacity increments useful sooner.

Also, to maintain security of supply for households, it will be necessary to limit EV charging loads dynamically. This technology can also control direct electric heating loads.

Using the immersion to heat hot water at night, and especially in summer, is already more efficient and lower carbon than using most oil boilers, which lack controls.

Direct resistance/ immersion heaters can also provide a large fast 'DS3' grid regulation response. E.g. Switching off quickly when wind turbines are shut down fast for safety in rising storm conditions.

There are more of these immersion heaters in rural areas where you would plan to install pylons, so developing a social benefit in decarbonising power should ease planning permissions, reducing project costs and delay.

Smart Grid Ireland

The impact of the Covid-19 pandemic has decimated some industries facing significant job cuts and revenue losses with some of these expected to be long-term

and in some cases transformative...

... Smart Grid Ireland would suggest a sectoral impact assessment be carried out across industry that may show a significant drop in electricity demand...

...It is clear that if the Transmission Development Plan addresses the critical infrastructure sectors to promote a holistic, integrative, and cross-sectoral approach to transmission (along the lines of “Smart Cities”) such as the upgrading parts of the grid in the Belfast Metropolitan area so that it can support long-term economic growth in the city centre, that is to be welcomed. Such an approach should include: relevant “smart” technologies, as well as data analytics, cyber security. Digitalization and communications are vital components of such an approach. Cross-sectoral approaches (or interconnectedness of various critical infrastructure sectors) include:

- the nexus between transmission, communications, and information technology (IT);*
- between renewable energy and water;*
- the growing nexus and interdependencies between transportation electrification, district heating, storage, renewable energy, communications, and IT...*

While community clustering is primarily the responsibility of NIE, we would suggest that the new TDPNI could enhance its plan by promoting of new and smarter ways of generating and using renewable energy technologies while protecting those who are not able or willing to embrace the future energy system or changes...

... , the System operators role needs to evolve, to ensure it is well placed to both respond to and help facilitate the transformation of the electricity system over the coming decades. This would be in the interest of consumers and underpin competitive economic growth.

Our response

SONI acknowledges that the Covid-19 pandemic and associated economic disruption is likely to have an impact on electricity demand in the medium term. Electricity demand was significantly reduced during summer 2020 compared to previous years. The long term impact of the pandemic is not yet known but will be factored into all of SONI’s future work on the TDPNI and *Tomorrow’s Energy Scenarios*. However, before the pandemic we were anticipating **little change** in electricity demand in Northern Ireland until the latter half of this decade, followed by

a steady increase due to the electrification of heat and transport⁶. Most of the projects in the TDPNI are driven by the change in how we generate and use electricity rather than by increasing demand, and we anticipate that the forthcoming Energy Strategy will drive investment in the network to allow for decarbonisation. We agree that sector coupling and the increasing digitalisation of energy are likely to play an increasing role in the future of electricity and cross-sectoral analysis is at the heart of SONI's analysis in *Tomorrow's Energy Scenarios*. The future of energy production and usage will be very different to the traditional, centralised model that existed when our transmission network was first constructed and although SONI have no direct role in the generation or usage of electricity we do have a responsibility to ensure that the network is fit to facilitate scenarios such as the transition to a smarter, less centralised, more participatory grid without reducing the quality or security of supply. The extent and pace of this transition is not yet known but we will update our plans regularly, based on the projections in *Tomorrow's Energy Scenarios*, the new Energy Strategy, and engagement with stakeholders.

Impact on Consumers

The Consumer Council

This document serves to lay out the necessary groundwork required to strengthen the grid while ensuring security of supply. This is a highly technical document, however the end users are all domestic and I & C consumers in Northern Ireland. These groups will be affected by any proposals for network investment. It is essential that SONI understands how these proposals will affect consumer bills and demonstrates this in its proposals. Any network investment must meet consumer needs, must be the most efficient option and must ensure consumer energy costs are affordable...

... The Transmission Development Plan provides details on each programme but the estimated total cost does not elaborate on the overall likely consumer cost borne as a result of the necessary works. Consumers 'typically' pay 2% for TSO running

⁶ This is discussed in depth in *Tomorrow's Energy Scenarios Northern Ireland*, published by SONI in July 2020: <http://www.soni.ltd.uk/media/documents/TESNI-2020.pdf>

costs, therefore SONI must clearly demonstrate how the infrastructure development will translate onto bills.

The Consumer Council therefore suggests that SONI demonstrates within the plan how it takes account of the impact of consumers and that this will deliver value for money for consumers in its updated plan...

The transition to a Net Zero 2050 vision should ensure that consumer interests are protected and the most cost-efficient path to this transition is chosen. The lower population here also means that there are less people to spread the burden of cost. It is vital energy bills are affordable to all consumers especially those that are more vulnerable, for instance, consumers with low incomes...

The Consumer Council acknowledges that the 2030 target requires significant investment and the work schedule should be commenced rapidly however the Final Energy Strategy is not due until November 2021 so it may be judicious to pause until the clear direction of travel is clarified around heat decarbonisation.

Our response

SONI have a duty to plan and operate the transmission system in an efficient, co-ordinated and economical manner⁷. All network development projects undertaken by SONI are triggered by the need to ensure the integrity and adequacy of the system to connect generation and supply demand under all reasonable contingencies. Every project we progress involves a full multi-criteria cost-benefit analysis of all practical options to alleviate the identified need. We then submit our preferred option to the Utility Regulator, who have the power to approve the funding we need to take the project forward. This process is described fully in section 3.4 of the draft TDPNI. The mentioned 2% cost to consumers for TSO running costs refers to our internal costs not the cost of network development projects. SONI have to ensure that the grid is developed economically and the UR verifies this when they assess the funding for each project.

⁷ Condition 16 paragraph 1(b) of the SONI Licence:
<https://www.uregni.gov.uk/sites/uregni/files/media-files/SONI%20TSO%20Consolidated%20Feb%202019.pdf>

For network development projects, 75% of the cost is paid for by consumers over 40 years (which starts after it is energised) the other 25% is paid for by all-island generators. Cost is one of the factors included in our Grid Development Process⁸ but our overriding aim is to produce a solution which gives the best balance of long-term performance, cost, environmental and social impact.

We understand the concerns around the uncertainty relating to the final Energy Strategy for Northern Ireland, which is not yet published. However we do not believe it is prudent to delay our plans until the Strategy's completion. The UK government's commitment to the Paris Climate Agreement and the Climate Change Act 2008 (2050 Target Amendment) Order 2019 set a clear direction for the decarbonisation of the Northern Ireland power system, and we have engaged closely with the Department of the Economy in their work on the new Energy Strategy. In addition, we are encouraged by the ambition of the Economy Minister for no less than 70% electricity from renewable generation by 2030. The projects that will be progressed between the publication of the TDPNI and the final Energy Strategy are required to address existing needs, independent of the Energy Strategy, and cannot be paused in the meantime.

We will review our plans in the context of the final Energy Strategy once it comes into force, and any changes will be reflected in future TDPNIs.

Interconnection

Moyle Interconnector Limited

[The Moyle Interconnector]'s export capacity has historically been restricted by limitations on the GB system but these restrictions are due to be lifted from April 2022 so the NI system will be the limiting factor on Moyle exports from that point. Our understanding is that this project addresses a risk that is of low probability. To that end we suggest it may be optimal to complete a CBA before April 2022 as a probabilistic assessment may conclude that Moyle's 500MW export capacity can be facilitated even earlier than 2024.

Noting that the SONI team has previously engaged with Moyle on the scope and

⁸ <http://www.soni.ltd.uk/media/SONIs-Powering-The-Future-Grid-Development-Process-brochure.pdf>

options for reconfiguration of the network near Moyle and Ballylumford, Moyle is happy to assist with any associated cost-benefit analysis.

RenewableNI

RenewableNI fully supports the development of the second North/South interconnector... It is noted that a substantial proportion of current constraints of renewable generation in Northern Ireland would be removed when the North/South interconnector is complete. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N/S 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. RenewableNI welcomes the new target date of 2024 for completion of works to allow the full integration of the 500MW export capacity of the Moyle Interconnector. We note however that Northern Ireland has been a net importer of electricity through the Moyle Interconnector during times of constraint. There should also be an opportunity to increase export during curtailment events due to the recent increase in firm export capacity to 250MW. We would ask SONI, through its role as SEM Operator, that it explores ways to improve intraday trading to allow the market to adequately respond in real time to constraint and curtailment events. We also request the SONI maximises any counter trading opportunities on the Moyle interconnector to reduce DD of Northern Ireland renewable generation.

Sinn Féin

*Sinn Féin fully supports the development of the North South Interconnector, recognising that it is an important infrastructural project...
... We believe that the North/ South Interconnector must be undergrounded - a policy position agreed by our members at our Ard Fheis. We have also listened closely to the concerns of the communities most affected by the decision and believe undergrounding this project is the right approach.*

It is important that large scale infrastructure projects should garner the support of local communities so that everyone sees the benefits they are intended to provide.

Smart Grid Ireland

SGI welcomes the recent planning approval for the second North/South Interconnector project portion in Northern Ireland and the SONI response to this, with a winter 2023 completion date stated in section 7.4.6. The plan references the North South interconnector being commissioned by 2023. SGI would question if this is realistic?

Our response

Interconnection is extremely important to security of supply and in reducing electricity prices for the Northern Ireland consumer. We recognise that upgrading the network to allow full utilisation of the Moyle interconnector is key to maximising the use of local renewable electricity by allowing it to be exported at times of high generation, as well as to improve the integration of the Single Electricity Market with other markets. We have reprioritised this project this year and have brought the expected completion forward to 2024. We will be engaging with Moyle Interconnector Limited early in 2021 to progress to project.

The North-South Interconnector is a vital piece of transmission infrastructure for Northern Ireland brings several critical benefits. The electricity transmission network operates on an all-island basis. However, there is currently only one interconnector linking both jurisdictions. This restricts the amount of electricity that can flow from north to south and vice versa, creating a bottleneck that adds costs to consumer bills.

The second North South Interconnector will remove this constraint and allow the all-island network to operate much more efficiently. This will have a positive impact on electricity prices and will create significant savings for consumers in both jurisdictions.

The proposed North South Interconnector is also required to make sure we have access to enough electricity to meet supply in Northern Ireland in the coming years. As things stand, the Single Electricity Market's capacity auctions provide short –to-medium term security of supply. The North South Interconnector remains critical for electricity security in the long term as it will allow the sharing of reserve between Ireland and Northern Ireland (thus improving security of supply) and to facilitate the deployment of renewable generation. An overhead line is the only technically

feasible and secure method of delivery for a project of this scale and importance to enhancing the all-island grid.

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.

At that time of the freeze date for TDPNI 2020-2029, it was considered that the North South Interconnector would be operational by 2023. However, due to delays in the receipt of planning approval in Northern Ireland and subsequent legal challenge, SONI anticipates that the North South Interconnector will be operational in 2025. The draft TDPNI has been updated to include this information.

Kells Interbus Transformers

Jim Allister MLA

I am pleased to see that you have made a little progress on the noise mitigation at the Kells Substation however no date is given for this. It is disappointing that it has taken this long and that what would seem to be necessary, which is the replacement of both transformers, is only going to be the replacement of one transformer in 2025. What about the other transformer?

In this context, given the strain on the electricity system caused by an increase of renewable power going through the transformers at the Kells Substation, can you advise which other Substations or infrastructure are similarly showing signs of stress that you should be factoring into your plan now so that these do not become future sources of community distress?

Our Response

Asset replacement is the responsibility of NIE Networks, and we report on their Asset Replacement Plan in the TDPNI. We understand that the noise mitigation at Kells is scheduled for 2021 and have separately sent Mr Allister contact details for NIE

Networks to discuss.

NIE Networks do not consider it necessary to replace both transformers at Kells as their condition does not necessitate this, and the noise mitigation being installed will address the noise issue at that site.

Condition of existing equipment is monitored constantly by NIE Networks and refurbishment or replacement plans are updated regularly. These are reported on in the Asset Replacement section of the TDPNI. With regard to SONI's network development projects and new connections to the transmission system, the impact of new assets or connections on existing assets is taken into account as we develop a project. Any upgrades or replacements that arise are factored into the costs and programme for a project, and will be discussed with stakeholders as we progress through the Grid Development Process⁹.

Local Development Plans

Ards and North Down Borough Council

In terms of a general comment, the Planning Service welcomes the commitment to early, meaningful, transparent engagement and the consultation processes that have been put into place by SONI. Early engagement with ANDBC's Planning Service for all proposed grid development projects is encouraged – particularly where these are located within sensitive landscapes.

It is noted that policies and objectives as set out seem to be broadly in line with the Strategic Planning Policy Statement (SPPS) and extant policy...

ANDBC's Planning Service welcomes the new approach to planning for the grid on a future scenario basis which incorporates increased use of renewables to contribute towards net-zero emissions targets...

We welcome focus on sustainable development in the development of SONI grid projects...

ANDBC's Planning Service welcomes the approach [to Consultation and Engagement] but note that it could benefit from explicit mention of local councils as the planning authorities and key stakeholders with whom early engagement is essential.

⁹ <http://www.soni.ltd.uk/media/SONIs-Powering-The-Future-Grid-Development-Process-brochure.pdf>

Derry City & Strabane District Council

Generally, this necessary electricity transmission infrastructure is very much to be welcomed to support the ongoing growth of this District and Region, but strong environmental safeguards, including Planning, do need to be in place and respected at all stages of the decision-making processes.

It is not immediately clear what the visual impact would be – of these new lines or poles or

pylons and equipment and upgrades or re-fits. It is appreciated that this is a forward planning, strategic document and is not intended to be a Planning submission.

Ultimately, it is anticipated that most of these projects would be assessed as Planning applications, where applicable, by the Council or possibly by DfI. However, there will inevitably be Planning implications and concerns, especially visually, due to the impact of an increased number of electricity pylons/lines/equipment across the District. (Given the large scale of the projects, there is also likely to be a disproportionate impact on the rural parts of the District.) Any such Planning applications will be subject to public consultation at that time – which will be important.

Therefore, in principle, the Council would be supportive of the development and upgrading of the electricity infrastructure to meet the future business and development needs of the District, as well as its social progress...

Overall, subject to the Planning comments above, the draft Transmission Development Plan 2020-2029 is welcomed by this Council.

Mid & East Antrim Borough Council

Council supports the planned investment by SONI to upgrade the electricity network infrastructure in the Borough and wider mid-to-north County Antrim region, where the electricity grid is currently at near full capacity. As the traditional heartland of Northern Ireland manufacturing, energy plays a significant role for the Mid and East Antrim business base. Green projects are proposed as a means of economic recovery from the Covid-19 pandemic and of “levelling-up” the regions of the UK.

This investment will improve the electricity network and secure the supply for local industry, particularly businesses in rural areas. It will also unlock grid connection for potential expansion and increase flow of electricity from renewable sources such as

wind and solar to be integrated to the network.

Such investment supports Council's vision that "Mid and East Antrim will be a strong, safe and inclusive community, where people work together to improve the quality of life for all". The proposed investment also aligns with one of Council's key priorities regarding the environment, as set out in the Corporate Plan 2019-23 and ultimately, more renewable generation will contribute to the decarbonisation of our economy.

Mid Ulster Council

Our DPS [Local Development Plan - Draft Plan Strategy] recognises the importance of overhead cables in a District like Mid Ulster because they enable a good electricity network to support new and existing rural homes...

... We wish to highlight that our Local Development Plan – Draft Plan Strategy ... states;

Outside of Special Countryside Areas and Areas of Constraint on Wind Turbines and High Structures telecommunications development (including necessary enabling works) and overhead cable development will conform with the Plan where; In the case of overhead cables, the chosen route follows the natural features of the environment and in urban areas, wirescape is kept to a minimum with preference being given to undergrounding.

While most of our District can adequately accommodate public utilities and high structures although it is important that our most vulnerable and distinctive landscapes are protected. Therefore, an SCA [Special Conservation Area] has been introduced on the top of the Sperrins and Slieve Beagh as well as along the loughshore [Lough Neagh]. This SCA will exclude all surface level public utilities. In some slightly lower areas which are still classed as prominent ridge...an additional layer of protection has been added in the form of an Area of Constraint on Wind Turbines and High Structures (AOCWTHS). We recognise that smaller structures below 15m height and essential electricity lines below 25m may still be required in these areas and these will be permitted within the AOCWTHS.

SustainableNI

Generally, this necessary electricity transmission infrastructure is very much to be welcomed to support the sustainable growth of the Region, but strong environmental

safeguards, including Planning, do need to be in place and respected at all stages of the decision-making processes. In this respect, local authority Planning policy proposals and local energy strategy objectives should be taken into account. For the most part, these generally seek to have the infrastructure to facilitate growth of population, homes and jobs, as well as to protect any AONBs and other sensitive locations, with limited electricity undergrounding expected and for all renewables applications to be accompanied and assessed together through using the principles of sustainable development, with their required electricity network...

...However, there will inevitably be Planning implications and concerns, especially visually, due to the impact of an increased number of electricity pylons/lines/equipment across the Region, which may present a disproportionate impact on rural communities. Any such Planning applications will require public consultation.

Our response

We welcome the opportunity to have had an input into the Local Development Plans of councils throughout Northern Ireland. Councils are key partners in all of our projects and the Local Development Plans and all of the appropriate safeguards are taken into account at every stage of the Grid Development Process. Once we have come up with a preferred option to solve an identified need, we will consult with councils and other local stakeholders to discuss the need for the project, the rationale behind our preferred option, and any concerns, before taking the project forward to preconstruction. We are committed to considering your feedback before we finalise our approach. Where projects require a Planning submission, we will engage with Councils and all relevant stakeholders including community and landowners, in a meaningful, robust and transparent programme of pre-application community consultation.

With look forward to working together with Councils as we develop a sustainable, affordable and reliable power system for everyone in Northern Ireland, fit for 2030 and beyond.

Network Capacity and Transparency

RenewableNI

RenewableNI believes 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 is 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.

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 (TYTFS¹⁰). The TYTFS analysis is based on development projects which have passed Part 1 of SONI’s Grid Development Process.

Offshore Generation

Renewable NI

RenewableNI notes that both SONI’s Addressing Climate Change and Accelerated ambition scenarios include a level of offshore generation. It is important that SONI collaborates with industry to ensure that as developers are planning offshore projects that SONI is simultaneously putting in place the infrastructure needed to bring projects onshore.

¹⁰ <http://www.soni.ltd.uk/media/documents/All-Island-Ten-Year-Transmission-Forecast-Statement-2019.pdf>

Our response

Offshore wind generation has become an important part of the generation portfolio in Great Britain, and there are a number of large offshore wind farms planning to connect to the Irish transmission system in the coming years. We anticipate that Northern Ireland will follow suit as we have the same conditions as our neighbours. Northern Ireland is also well suited to the deployment of tidal energy. Access rights for offshore generation in Northern Ireland's waters are the responsibility of the Crown Estate. We are currently not aware of any plans to auction these rights but if such an auction does occur and a developer brings forward an application to connect to the Northern Ireland transmission system we will assess their application in accordance with our Connections Process¹¹.

The Planning Process

Mid & East Antrim Borough Council

...page 46 of the draft document refers to SONI submitting planning applications with the relevant planning authority and goes on to state "the planning authority will make a legally binding decision on the project. It may grant full planning permission, grant permission on the basis that we make changes or refuse permission". Council do not think "may grant permission on the basis that SONI make changes" is an accurate reflection of the planning permission process as any changes should be made as part of the planning application before permission is granted. Conditions may be imposed on a permission but there should never be a scenario where permission is granted whilst changes are still to be made.

Our response

SONI agrees with the Council's point. We have updated the above mentioned text to state:

"The planning authority will make a legally binding decision on the project. It may grant full planning permission, request that we make changes or refuse permission."

¹¹ <http://www.soni.ltd.uk/customer-and-industry/becoming-a-customer/generator-connections/>

Progress in Network Development

RenewableNI

Since the 2019-2028 TDP there has been 1 project cancelled, 1 project's connection offer expired, only 1 new project and many more projects being delayed. The rate of grid development does not match the rate of new generation connections.

RenewableNI 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.

Smart Grid Ireland

There is also the need to ensure deliverability of the plan, in terms of resources, system limitations (e.g. outages to complete the work), the approval process (planning permission and UR funding) and design. The timescale for delivering many of the projects have slipped since the previous plan. Both SONI and NIE Networks should be accountable for delivering the plan, with key milestones set out for each project to get through the various stages to completion. The plan is very ambitious in terms of what has to be delivered over the next 10 years but there is very little progress on actual delivery and very few projects are at the construction stage. SONI should be given more resources, if needed, to get the delivery of this plan moving urgently, otherwise Northern Ireland will not meet the target of at least 70% renewable electricity by 2030...

... SGI notes with concern that, on page 94, no preferred option has yet been selected for the East Tyrone Reinforcement Project and urges that this work gets priority.

Our response

We agree with both respondents that the programme of network development described in the TDPNI will be very challenging for both SONI and NIE Networks and welcome that this is recognised by key stakeholders. The network development portion of our price control submission to the Utility Regulator for the period 2020-2025 was based on the TDPNI 2019-2028, and we believe that our submission makes provision for the resources we will need over the next 5 years to deliver on

the Plan. NIE Networks, in their role as both Transmission Owner and Distribution Owner and System Operator, will detail the resources that they need to undertake their part of the Plan in their price control submission to the UR for the upcoming RP7 regulatory period.

Both SONI and NIE Networks see the East Tyrone Reinforcement Project as high priority and both organisations have assigned resources to progress this project in early 2021.

SONI/NIE Networks Co-operation

RenewableNI

RenewableNI welcomes the increased co-ordination between SONI and NIE Networks as well a good level of engagement with the renewables industry. We would ask only that this continues to develop to ensure 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. Furthermore, we believe that coordination of network planning must take into account the all-island nature of the electricity market, and in particular the importance of circuits to the West and into Donegal.

Our response

SONI agree that co-operation between NIE Networks and ourselves is key to the effective management and development of the power system, and both companies are committed to further building upon our collaboration and developing the co-ordination our plans. Through the Transmission Interface Arrangements (TIA), we co-operate on operations, planning and connections. Where a network need could potentially be addressed by either transmission or distribution solutions, we work with NIE Networks to produce a joint analysis on the best performing option for the whole power system.

Likewise, we work with our colleagues in EirGrid on projects to improve the integration of the all-island market and to design solutions that provide the best value to all consumers on the network, such as the North-South Interconnector and Coolkeeragh-Trillick projects. Areas such as Donegal have similar needs to address

constraints as adjacent areas in Northern Ireland, and when considering options to address these needs we investigate whether cross-border infrastructure can provide a joined-up solution.

SONI Independence

Jim Allister MLA

I have raised concerns before about the independence of SONI, the fact that SONI is owned by EirGRID and that EirGRID is owned by ROI who has their own separate economic model that supports the big technology industries with their required data centres and expanding electricity demand to the level of 1/3 of all of Ireland's electricity demand by 2027. By contrast Northern Ireland's electricity demand for the foreseeable future remains fairly stable.

Our Response

SONI notes the comments by Mr. Allister. Mr Allister will be aware that the Utility Regulator is reviewing SONI governance. We continue to engage constructively with the Utility Regulator in relation to this process.

The South-East Planning Area

Jim Allister MLA

You state:

There is strong 275 kV infrastructure in this area, with significant spare capacity for generation and demand. In contrast to the North and West area, demand is greater than generation in the South-East.

The statement you make and the diagram you present as illustration appear to be at odds.

The diagram illustrates that in the South East Planning Area generation is higher than demand. Contradicting this, your statement claims the exact opposite. Please provide an explanation.

Our Response

We apologise for the error in the TDPNI. The statement that demand exceeds generation in the South-East planning area was previously true in TDPNI 2018 and 2019 but generation that is now contracted means that this will no longer be the

case. The figures presented in the diagram are correct under our current understanding. The statement mentioned has been now removed from the draft TDPNI. We will put in place additional peer review of the document in the draft stage to prevent such an error occurring in future.

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.

