Report on Public Consultation on Transmission Development Plan 2018-2027





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Abbreviations
ATR Associated Transmission Reinforcement

Distribution System Operator

DSO



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 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. 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. Based on the responses to the consultation we update the draft TDPNI, SEA and HRA, where necessary, and submit a consultation report alongside the updated TDPNI to the Utility Regulator (UR).

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)



Following this, the UR is obliged to hold a public consultation on the draft TDP⁵.

This document is the consultation report on the SONI TDPNI 2018-2027, SEA and HRA 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 Distribution System Operator (DSO), and EirGrid in its role as TSO in Ireland prior to the draft TDPNI, SEA and HRA being issued for 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. The draft TDPNI was posted for consultation on the SONI website on 27 November 2018 and the consultation ended on 31 January 2019.

Notifications were also published in the *Irish News* and *Belfast Telegraph* editions on 28 November 2018. 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

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 ensure security of electricity supply,

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⁵ European Directive 2009/72 (Article 22)



competitiveness of the economy, and long-term sustainability 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 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 eleven submissions in response to the consultation. These were from:

- Coillte
- Department of Agriculture, Environment and Rural Affairs
- DP Energy
- Department of Communications, Climate Action & Environment (Ireland)
- Environmental Protection Agency (Ireland)
- ESB Generation & Trading
- Moyle Interconnector Limited
- Northern Ireland Electricity Networks
- Northern Ireland Environment Agency
- Northern Ireland Renewables Industry Group
- Renewable Energy Systems Limited



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 divided them into those which relate to the TDPNI itself and those which relate to the SEA and HRA. We have attached the ten submissions to the back of this report.

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

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 - TDPNI 2018 - 2027

Economic benefit of renewable energy sources

NIRIG

"...extension and reinforcement of the network will contribute to economic development, by enabling not only renewables investment but also demand connections in rural areas. As wind energy currently contributes more than £10m annually in business rates alone to local Councils, the economic benefits of investment in a more robust network need to be made clear."

Our response

SONI have a licence obligation to develop and operate an economic, efficient and co-ordinated transmission system. As mentioned on page 21 of the TDPNI, investment in the transmission system is key to the Northern Ireland economy. All transmission system developments are multifaceted and, as the assets are not dedicated or specific to a single user, provide benefits to a multiplicity of users. SONI is responsible for the planning of the transmission system against the criteria set out in the license standards and does not give preference to any one generation technology. In accordance with the guidelines set out in its current



price control, any investment is also tested, where appropriate, to cost benefit assessment and any risk of stranded assets minimised. The economic benefits of any additional renewable generation are primarily for government policy to consider and are beyond the remit of the SONI licence.

European regulatory framework

ESB Generation & Trading

"While it expected the delivery of the projects listed in the Transmission Development Plan would significantly alleviate the presently observed level of Dispatch Down, the Transmission Development Plan should also be viewed in the context of the evolving European regulatory framework. The proposed redraft of the Electricity Regulation (on the internal market for electricity) as published by the General Secretariat of the Council on the 11th of January '19 shows a clear determination that where there is a requirement for the TSO to redispatch generators from their planned generation schedule there should be market based mechanisms in place to select which generators are redispatched. But where non-market based redispatch is required then financial compensation including any forgone out of market support should be paid to the effected generator to the level of their firm connection access by the TSO."

Our response

SONI plan and operate the transmission system in accordance with the SONI TSO licence, the Transmission System Security and Planning Standards (TSSPS), Operating Security Standards (OSS) and relevant legislation. If there is a change to the applicable legislation, then SONI will ensure that compliance is maintained. With regards to the process for considering an investment, SONI carries out, where appropriate, a cost benefit assessment. This endeavours to take account of the cost of operational measures such as generation redispatch against the cost of any



transmission infrastructure. The net present value of the investment is then established, allowing SONI to make a judgment on the value of new investment compared to ongoing operational mitigation. Therefore the TDPNI is automatically reflective of the European regulatory framework and its evolution, as the need and selection of each reinforcement applies the regulatory framework in assessing if an investment is (or remains) justified

Innovation

ESB Generation & Trading

"One aspect of this work that ESB GT believes should be brought into focus is the adoption of more flexible connections incorporating the use of Hybrid Sites (or Colocation)."

NIRIG

"We encourage development of a post-DS3 programme to enable higher SNSP. We also recommend greater emphasis on innovation to enable SONI to continue deliver world-leading levels of renewable penetration."

Our response

With regard to new connections to the transmission system, SONI can only progress connections for which we have received a connection application. The TDPNI only includes customer connections that have subsequently accepted a connection offer and for which there is a contractual commitment. Therefore the inclusion of hybrid sites or any other connection that would be considered flexible or innovative will be included accordingly.



SONI is a participant and a work package leader in the EU SysFlex project⁶, 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.

⁶ http://eu-sysflex.com/



Interconnection

Moyle Interconnector Limited

"While the draft Transmission Development Plan addresses the planned second interconnector between NI and the Republic of Ireland,...there is no mention of intermarket interconnection. Specifically, the document makes no reference to interconnection between NI and GB, which is currently provided by the Moyle Interconnector but which does not use the full technical capacity of the interconnector. In the context described above the absence of any mention of network developments that would support increased use of the existing available technical capacity on Moyle is surprising...

At this time we await clarity from SONI on the process by which Moyle might obtain additional capacity on the NI transmission system in both import and export directions...

We also understand that SONI/EirGrid plan to contract more capacity exporting from Moyle from 2020 onwards and would welcome clarity on the works and timelines required to maximise export capacity from the Moyle Interconnector."

NIRIG

"We also understand that SONI/EirGrid plan to contract more capacity exporting from Moyle from 2020 onwards and would welcome clarity on the works and timelines required to maximise export capacity from the Moyle Interconnector."

Our response

SONI is aware of the issues regarding the export capacity of the Moyle Interconnector. We are in the process of investigating the investments, if any, that will be necessary to facilitate full import to Northern Ireland and will engage with Moyle in the near future. SONI is aware that there are restrictions in the export capacity at the Scottish end of the link. SONI will engage with Moyle to understand what plans are being put in place by National Grid to make this end physically firm for export. SONI will also review the transient and dynamic implications of changing the Moyle Interconnector's firm access. If a project arises



from these analyses it will, subject to regulatory and governance processes, be included in future TDPNIs.

Non-firm generation

Renewable Energy Systems Limited

"There is now a high amount of connected and committed generation that is non-firm. We suggest that information regarding non-firm generation be included in the TDPNI, together with the associated transmission reinforcements which would make this generation firm. This would increase focus on the delivery of those projects."

Our response

SONI will consider how best to include this in future issues of the TDPNI, given other publications by SONI already available in this regard, such as the quarterly publication of Associated Transmission Reinforcements (ATR).

North-South Interconnector

Department of Communications, Climate Action & Environment (Ireland)

"The SONI Transmission Development Plan, states that the cost of the Northern element of the North South Interconnector is expected to be €123.5m (£109.3m). A submission was subsequently received by the Department querying the accuracy of this figure as the Northern element only amounts to only 34km while the element in Ireland is 103km and is expected to cost €215m, according to EirGrid. This perceived disparity in costs is due to the capital cost of the new 400/275kV substation required at Turleenan. This is required to connect the new 400 kV circuit into the existing 275 kV network. The connection in Ireland is into the existing 400 kV Woodland substation and less work is required and therefore lower costs are incurred. For clarity therefore, it might be worth considering a more detailed breakdown in the Transmission Development Plan of the costs of the interconnector and the significant capital costs of the new substation required at Turleenan."



ESB Generation & Trading

"ESB GT understands the considerable challenges in bringing forward the second North-South interconnector, the completion dates for which have been pushed back from 2017 to 2023. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N-S I/C not be developed as this is impacting a significant amount of MW of existing generation. We would like to understand the contingency plans."

NIRIG

"We understand the challenges in bringing forward the second North-South interconnector, the completion dates for which have been pushed back from 2017 to 2023. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N-S I/C 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 cost of the Northern part of the proposed North – South interconnector does include the cost of the proposed completely new substation at Turleenan. We have now clarified this with the inclusion of footnote 48 on page 133 of the TDPNI. In a public document SONI also needs to be mindful that it does not hinder any competitive tendering process in relation to the procurement of this proposed substation.

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), will allow the sharing of reserve between Ireland and Northern Ireland (thus improving security of supply) and will 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.

Delays to the construction of the North-South Interconnector would require operational mitigation which would increase costs and will not be sustainable in the long term, with the closure of older generation plant that is expected to occur in the next ten years.

Outage programme

NIE Networks

"NIE Networks would suggest....that SONI reviews the feasibility of the transmission system outage programme that would be required to facilitate the proposed plan."

Our response

SONI is aware of the concerns regarding outages and looks forward to further discussion with NIE Networks. We will reflect any changes that result in further updates of the TDPNI.

SONI/NIE Networks Policies

NIE Networks

"There are a number of references to SONI policies and we consider that as the asset owner there are NIE Networks policies that SONI should refer to also."

Our response

SONI adheres to the provisions within the Transmission Interface Arrangements including the policies relevant to the standard designs and technologies used to develop the transmission system. The Northern Ireland transmission network is designed using the SONI and NIE policies considered applicable for each project.



SONI is open to including reference to relevant policies in the TDPNI if these are provided by NIE Networks.

Project timelines

NIE Networks

"In regards to the projects... NIE Networks has a number of concerns over the proposed timing of these projects. We note that these dates were considered in January 2018 and a number of projects have moved on since them...

We note that each project...has a completion date. As NIE Networks' ability to complete load projects is dependent on SONI completing their pre-construction activities, we would suggest that these projects include; (i) the estimated date to obtain pre-construction approval, (ii) the date to have planning approval and landowner consents, (iii) the date to complete construction works."

Our response

In order to be able to practically develop a timely and consistent TDPNI, a freeze date is applied and the best available data at that time is used. This is of course subject to change in the intervening period to publication, and any such changes will be reflected in later TDPNIs.

The accuracy of both the completion date and the phases of development will increase as the project progresses. For example greater accuracy is of course possible on the delivery date for a project once it has progressed through the consents stage. SONI has considered the suggestion for a greater breakdown on phases up to delivery and does not see that the benefit of this level of detail to stakeholders would be sufficient to justify the additional work in their production. SONI does however recognise that stakeholders should be aware of the stage a project is in 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 clear in the plan.

RIDP

Coillte

"Coillte is concerned at the absence of detailed information in your draft Transmission

Development Plan specifically in relation to the Renewable Integration Development Project

(RIDP).

Coillte strongly encourages the TSO to undertake robust analysis of all the infrastructure development options in this region [NW] to enable further renewable deployment in north east Donegal."

Our response

RIDP was a large scale study to determine the reinforcements necessary to enable 40% of electricity to be supplied by renewables by 2020, in line with the Strategic Energy Framework (SEF). The reinforcements that emerged from the RIDP studies had two parts, i.e. a proposed 275kV circuit from Turleenan to Omagh and on to a new substation in Co Donegal, meeting up with a proposed 220kV circuit from Clogher in Ireland. RIDP also included a proposed 275kV circuit from Kells to Coolkeeragh, via Coleraine. Part of the justification of this second circuit was that it offered a connection to large offshore connections that were envisaged at the time. However assumptions that were originally taken in the development of RIDP have changed.

SONI has planned investments in the transmission system which have led to the near achievement of the 40% target, which is likely to be surpassed by 2020.



SONI is also cognisant that those targets must be achieved in the most efficient manner. Northern Ireland also has high levels of fuel poverty and any investment in transmission infrastructure is ultimately funded by electricity customers.

Achievement of the 40% target has been enabled by minimum capital cost to customers. SONI is analysing the remaining technical issues that are currently being managed operationally and has engaged with the renewable industry on these issues. The proposed developments under the "Northwest of NI Reinforcement" project in the TDPNI are, in part, to alleviate these constraints. SONI will also bring proposals forward in due course.

Scenarios

NIRIG

"We recommend rapid progress towards the development of Future Energy Scenarios, as these will inform both the forthcoming NI energy strategy and the TDP. Long-term policy certainty is needed to enable a clear, consistent long-term energy and decarbonisation strategy for Northern Ireland to 2030 and beyond."

Our response

SONI will publish a final set of scenarios and storylines for Northern Ireland in Autumn 2019. This inaugural scenario publication will be informed by feedback gathered as part of an open consultation on a draft set of scenarios. The final scenarios will be used to prepare a system needs assessment report which will be published in Winter 2019. The system needs assessment identifies issues on the electricity transmission grid for each scenario brought about changes to demand, generation, storage and interconnection. Projects in the TDPNI will thereafter be considered using these scenarios.



Strategy

ESB Generation & Trading

"ESB GT is concerned that there is not evidence in the draft Transmission Development

Plan of an urgency to implement a strategic vision for the development of the system to

overcoming the challenges it faces in incorporating increasing levels of renewable

generation, but rather the focus is instead on worthwhile but piecemeal projects that seem

target to maintain the system in its status quo."

NIRIG

"We do not believe that this plan adequately provides for the connection of the new low carbon generation that will be required to meet national and international targets... the draft Plan does not adequately present a long-term network development plan to address these needs."

Renewable Energy Systems Limited

"As some projects in the TDPNI are now overdue and we would suggest that such projects be marked as such to help give greater clarity to other stakeholders such as NIE Networks and the Utility Regulator. As projects only proceed with regulatory approval, it would help if it was clearer to the Utility Regulator, which network development projects were now critically delayed."

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.

Whilst the Future Energy Scenarios are not as yet published for Northern Ireland this current version of the TDP 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 show updated estimated delivery dates and hence reflect any delays.

TSO-TAO/DSO Co-ordination

NIE Networks

"From reviewing the draft TYDP [sic], it is not apparent that NIE Networks is responsible for transmission development. NIE Networks would request that SONI update the draft TYDP to reflect the licence obligations on each party.

We would suggest that the following steps are take prior to [the utility Regulator's] consultation:

- 1. meeting to discuss alignment with the TIA and NIE Networks to provide SONI with detailed comments on the current draft TYDP.
- 2. Workshop(s) to be arranged between both companies to discuss and agree phasing and timing of pre-construction and construction activities for projects.
- 3. Workshop(s) to be arranged to discuss environmental conditions and their impact on the construction phase of the projects."

NIRIG

"We recommend an additional focus on coordination. NIEN and SONI must work together much more to deliver the best outcome for the system as a whole."



Our response

We have now included references to NIE Networks' transmission licence in the TDPNI, and NIE Networks' obligations in relation to transmission development. SONI agree that enhanced co-ordination and data sharing between NIE Networks and SONI can only be beneficial and look forward to working together through the TIA and ahead of the production of future versions of the TDPNI.



Integration of Environmental Issues into TDPNI

EPA

"We acknowledge that the recommendations in the SEA Environmental Report have been clearly integrated into the Plan. The Plan includes specific chapters related to the SEA (and other environmental assessments), and includes tables describing the SEA mitigation measures and SEA monitoring proposed to be carried out over the lifetime of the Plan".

The EPA make a number of recommendations to SONI in the finalisation of the Plan which relate to monitoring of EMF, a joint approach with EirGrid regarding protecting landscape amenity in the border region as appropriate and also including for the protection of key ecological linkage features such as hedgerows in the biodiversity policies.

Department of Agriculture, Environment and Rural Affairs

Section 4.1.7 on Landscape. The policy should also have regard to important landscape designations including AONBs and the World Heritage Site, as well as the Northern Ireland Seascape Character Assessment...

Section 4.1.4 on Biodiversity should also refer to National Nature Reserves. In addition, species protected under legislation should also be referred to, because not all species protected under legislation are priority species

Recommend that the potential need for other consents, such as a Marine License (not just planning consent) are referred to in Part 3 of Section 3.4 of the Plan



Our Response

We are most grateful for the EPA's submission as it relates to the TDPNI and have noted all recommendations. We have added the ecological linkage features to the Environmental Policy ENVP4.

We have amended section 4.17 and 4.17 of the TDPNI in line with the Department of Agriculture, Environment and Rural Affairs (DAERA) submission and included reference to other consents as may be required such as Marine License.

Summary of feedback - SEA and HRA

Three submissions related to the draft Environmental Report and Habitat Regulations
Assessment that form part of the Strategic Environmental Assessment of the TDPNI.

The Department of Agriculture, Environment and Rural Affairs, in their capacity as Environmental Authority for SEA in Northern Ireland, provided supportive and considered recommendations on a number of topics including Biodiversity, Cultural Heritage, Marine environment and Landscape. This submission is expanded below and in the Submissions received table.

DAERA made submissions under the following headings, mainly relating to clarifications in the text and recommendations for considerations in project level work:

Natural Environment/ HRA

Marine and Fisheries

Marine Historic Environment and Heritage Assets and Marine Plan

Climate change unit

Drinking Water

Historic Environment



The EPA submission made two recommendations for consideration in the environmental report related transboundary considerations. Other plans that may be useful from a transboundary perspective were referenced and a recommendation for the provision of maps detailing environmental sensitivities, particularly in the border region was made.

A submission by DP Energy related to Electromagnetic disturbances to mobile / migratory, marine and aquatic species, e.g. Atlantic salmon, from the development of underwater / subsea transmission lines and provided clarification on the scientific evidence that there are no significant impacts of EMFs from marine renewable energy devices on benthic invertebrates.

Our Response

All clarifications submitted by DAERA have been amended in the HRA and Environmental Report. Where submissions are related to project level assessments, these have been noted and will be addressed by SONI as they relate to specific projects in the future.

The Environmental Report will be reviewed and text amended to reflect the transboundary aspect of other plans and programmes as highlighted by the EPA.

We are grateful for the submission by DP Energy related to EMF and underwater cables.



Appendix A - Submissions Received - TDPNI

Source	Topic	Comment	Impact on TDP
Northern Ireland Renewables Industry Group (NIRIG)	Economic benefit of renewables	extension and reinforcement of the network will contribute to economic development, by enabling not only renewables investment but also demand connections in rural areas. As wind energy currently contributes more than £10m annually in business rates alone to local Councils, the economic benefits of investment in a more robust network need to be made clear.	rewording of text
ESB Generation and Trading	European regulatory framework	. While it expected the delivery of the projects listed in the Transmission Development Plan would significantly alleviate the presently observed level of Dispatch Down, the Transmission Development Plan should also be viewed in the context of the evolving Eurpoean regulatory framework. The proposed redraft of the Electricity Regulation (on the internal market for electricity) as published by the General Secretariat of the Council on the 11th of January'19 shows a clear determination that where there is a requirement for the TSO to redispatch generators from their planned generation schedule there should be market based mechanisms in place to select which generators are redispatched. But where non-market based redispatch is required then financial compensation including any forgone out of market support should be paid to the effected generator to the level of their firm connection access by the TSO.	for future consideration
ESB Generation and Trading	Innovation	One aspect of this work that ESB GT believes should be brought into focus is the adoption of more flexible connections incorporating the use of Hybrid Sites (or Colocation).	for future consideration
Northern Ireland Renewables Industry Innovation Group (NIRIG)		We encourage development of a post-DS3 programme to enable higher SNSP. We also recommend greater emphasis on innovation to enable SONI to continue deliver world-leading levels of renewable penetration.	for future consideration
Northern Ireland Renewables Industry Group (NIRIG)	Meeting	We would appreciate a meeting with SONI once the consultation closes to discuss this response and the other points above.	for future consideration
Moyle Interconnector Limited Moyle constraints		While the draft Transmission Development Plan addresses the planned second interconnector between NI and the Republic of Ireland,there is no mention of inter-market interconnection. Specifically, the document makes no reference to interconnection between NI and GB, which is currently provided by the Moyle Interconnector but which does not use the full technical capacity of the interconnector. In the context described above the absence of any mention of network developments that would support increased use of the existing available technical capacity on Moyle is surprising.	for future consideration
Moyle Interconnector Limited	Moyle constraints	At this time we await clarity from SONI on the process by which Moyle might obtain additional capacity on the NI transmission system in both import and export directions	for future consideration
Northern Ireland Renewables Industry Group (NIRIG) Moyle constraints		We also understand that SONI/EirGrid plan to contract more capacity exporting from Moyle from 2020 onwards and would welcome clarity on the works and timelines required to maximise export capacity from the Moyle Interconnector.	for future consideration



Source	Topic	Comment	Impact on TDP
Renewable Energy Systems Ltd	Non-firm generation	There is now a high amount of connected and committed generation that is non-firm. We suggest that information regarding non-firm generation be included in the TDPNI, together with the associated transmission reinforcements which would make this generation firm. This would increase focus on the delivery of those projects	none (discussed in ATRs)
Department of Communications, Climate Action & Environment (Ireland) N-S Interconnector N-S Interconnector N-S Interconnector Turleenan. This is into the existing a required and there therefore, it might in the Transmissic interconnector and		The SONI Transmission Development Plan, states that the cost of the Northern element of the North South Interconnector is expected to be €123.5m (£109.3m). A submission was subsequently received by the Department querying the accuracy of this figure as the Northern element only amounts to only 34km while the element in Ireland is 103km and is expected to cost €215m, according to EirGrid. This perceived disparity in costs is due to the capital cost of the new 400/275kV substation required at Turleenan. This is required to connect the new 400 kV circuit into the existing 275 kV network. The connection in Ireland is into the existing 400 kV Woodland substation and less work is required and therefore lower costs are incurred. For clarity therefore, it might be worth considering a more detailed breakdown in the Transmission Development Plan of the costs of the interconnector and the significant capital costs of the new substation required at Turleenan.	inclusion of footnote
ESB Generation and Trading	N-S Interconnector	ESB GT understands the considerable challenges in bringing forward the second North-South interconnector, the completion dates for which have been pushed back from 2017 to 2023. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N-S I/C not be developed as this is impacting a significant amount of MW of existing generation. We would like to understand the contingency plans.	none – explain operational/risk mitigation
Northern Ireland Renewables Industry Group (NIRIG)	N-S Interconnector	We understand the challenges in bringing forward the second North-South interconnector, the completion dates for which have been pushed back from 2017 to 2023. Given these challenges, we believe that SONI should be continuously planning for alternatives should the N-S I/C 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.	none – explain operational/risk mitigation
Northern Ireland Electricity Networks	Outage programme	NIE Networks would also suggestthat SONI reviews the feasibility of the transmission system outage programme that would be required to facilitate the proposed plan	none/outside scope of TDPNI
Northern Ireland Electricity Networks	Policies	There are a number of references to SONI policies and we consider that as the asset owner there are NIE Networks policies that SONI should refer to also.	rewording of text (pending provision of information)
Northern Ireland Electricity Networks	Project timelines	In regards to the projects NIE Networks has a number of concerns over the proposed timing of these projects. We note that these dates were considered in January 2018 and a number of projects have moved on since them.	none - will be updated in future versions
Northern Ireland Electricity Networks	Project timelines	We note that each projecthas a completion date. As NIE Networks' ability complete load projects is dependent on SONI completing their pre-construction activities, we would suggest that these projects include; (i) the estimated date to obtain pre-construction approval, (ii) the date to have planning approval and landowner consents, (iii) the date to complete construction works.	none - outside scope of TDPNI



Source	Topic	Comment	Impact on TDP
Northern Ireland Renewables Industry Group (NIRIG)	Project timelines	We recommend an approach whereby timeframe commitments are more rigorously adhered to, in order to provide confidence to consumers, customers and stakeholders.	for future consideration
Renewable Energy Systems Ltd	Project timelines	Projects are reflected in TDPNI with expected completion dates with no clear information of timing of various stages. We suggest that a few more key milestones be added to project timelines (e.g. development completion, planning consent and construction) as this provides a high level programme which if adhered to would help deliver the projects on time	none - outside scope of TDPNI
Coillte	RIDP	Coillte is concerned at the absence of detailed information in your draft Transmission Development Plan specifically in relation to the Renewable Integration Development Project (RIDP).	for future consideration
Coillte	RIDP	Coillte strongly encourages the TSO to undertake robust analysis of all the infrastructure development options in this region [NW] to enable further renewable deployment in north east Donegal.	for future consideration
Northern Ireland Renewables Industry Group (NIRIG)	Scenarios	We recommend rapid progress towards the development of Future Energy Scenarios, as these will inform both the forthcoming NI energy strategy and the TDP. Long-term policy certainty is needed to enable a clear, consistent long-term energy and decarbonisation strategy for Northern Ireland to 2030 and beyond.	none – Scenarios due for publication later in 2019
ESB Generation and Trading	Strategy	ESB GT is concerned that there is not evidence in the draft Transmission Development Plan of an urgency to implement a strategic vision for the development of the system to overcoming the challenges it faces in incorporating increasing levels of renewable generation, but rather the focus is instead on worthwhile but piecemeal projects that seem target to maintain the system in its status quo.	for future consideration
Northern Ireland Renewables Industry Group (NIRIG)	Strategy	We do not believe that this plan adequately provides for the connection of the new low carbon generation that will be required to meet national and international targets the draft Plan does not adequately present a long-term network development plan to address these needs.	for future consideration
Renewable Energy Systems Ltd Strategy		As some projects in the TDPNI are now overdue and we would suggest that such projects be marked as such to help give greater clarity to other stakeholders such as NIE Networks and the Utility Regulator. As projects only proceed with regulatory approval, it would help if it was clearer to the Utility Regulator, which network development projects were now critically delayed	none - beyond SONI control
Northern Ireland Electricity Networks	TSO-TAO/DSO coordination	From reviewing the draft TYDP, it is not apparent that NIE Networks is responsible for transmission development. NIE Networks would request that SONI update the draft TYDP to reflect the licence obligations on each party.	rewording of text
Northern Ireland Electricity Networks	TSO-TAO/DSO coordination	We would suggest that the following steps are take prior to [the utility Regulator's] consultation: 1. meeting to discuss alignment with the TIA and NIE Networks to provide SONI with detailed comments on the current draft TYDP. 2. Workshop(s) to be arranged between both companies to discuss and agree phasing and timing of pre-construction and construction activities for projects. 3. Workshop(s) to be arranged to discuss environmental conditions and their impact on the construction phase of the projects.	for future consideration
Northern Ireland Renewables Industry Group (NIRIG)	TSO-TAO/DSO coordination	We recommend an additional focus on coordination. NIEN and SONI must work together much more to deliver the best outcome for the system as a whole.	for future consideration



Appendix B - Submissions received - SEA

Source	Docume nt	Page	Comment	Recommended Action	Action- SONI
	TDPNI	48	Section 4.1.7 on Landscape. The policy should also have regard to important landscape designations including AONBs and the World Heritage Site, as well as the Northern Ireland Seascape Character Assessment	These landscape designations were included in the assessment within the SEA Environmental Report. Recommend SONI review this Policy in TDPNI with potential to amend if appropriate.	SONI reviewed and amended
	TDPNI	46	Section 4.1.4 on Biodiversity should also refer to National Nature Reserves. In addition, species protected under legislation should also be referred to, because not all species protected under legislation are priority species.	These biodiversity considerations were included in the assessment within the SEA Environmental Report. Recommend SONI review this Policy in TDPNI with potential to amend if appropriate.	SONI reviewed and amended
	HRA	N/A	Regarding in combination effects, it should be noted that new local development plans are being progressed by the councils.	Comment noted for future working and assessment by SONI.	Noted
	HRA	82	Disturbance to peat soils and reseeding with native species – where reference is made to possible re–seeding with native species to stabilize peat and accelerate recovery of vegetation, this should be clarified in terms of the use of species of native provenance.	Comment noted for future working and assessment by SONI.	Clarification to be provided- suggest use of species of native provenance where possible
	HRA	83	Regarding species which can move outside a European site, reference should be made to flight lines for species such as Whooper Swan.	RPS to amend text in HRA to reflect this comment.	agree
DAERA	SEA ER	N/A	Note that the number of ASSIs in Northern Ireland has increased to 394.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	N/A	Note that DAERA is currently consulting on 2 additional Ramsar sites: Derryleckagh proposed Ramsar and Teal Lough proposed Ramsar	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	5	It should be noted that DAERA is the Consultation Body for SEA in Northern Ireland	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	33	Section 5.2 - the baseline should include the Biodiversity Strategy for Northern Ireland to 2020 and the NI State of the Environment Report for 2013. It should also refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive and the UK Article 12 report for the Birds Directive.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	26	Section 3.3 - recommends that additional priority habitat and species information available from the NIEA Natural Environment Web Viewer should be included within the model	All information available at a nationally consistent level used within the constraints modelling. This data will however be used in future detailed assessment of the TDPNI proposals.	noted
	SEA ER	N/A	Comments with further recommendations / considerations for marine mammals – including relevant legislation, mitigation and recent screening advice relating to SACs which have seals as a site selection feature	RPS to amend text in SEA ER / HRA to reflect this comment, where appropriate.	agree



Source	Docume nt	Page	Comment	Recommended Action	Action- SONI
	SEA ER	N/A	Comments with further recommendations / considerations for Marine European Protected Species - including reference to regulation 34 of the Conservation Regulations (Northern Ireland) 1995 (as amended).	Comment noted for future working and assessment by SONI.	SONI reviewed and amended
	SEA ER	N/A	Comments with further recommendations / considerations for Marine National Protected Species - including reference to Articles 10, 11 and 13 of the Wildlife (Northern Ireland) Order 1985 (as amended). Specifically highlights that a licence may be required for any operations which might impact on protected species under this order.	Comment noted for future working and assessment by SONI.	SONI reviewed and amended – note that these are necessary licences that would be required in any event if such works /impacts were likely
	SEA ER	26, 27	Table 3.5 - add :historic shipwrecks and other marine heritage assets	Comment noted for future working and assessment by SONI.	SONI reviewed and amended
	SEA ER	45	Para 1 (heritage) add: In Northern Ireland territorial waters there are c. 340 known historic wrecks and some c. 2,700 recorded marine losses. Further to this there is the potential for previously unknown archaeological material of importance to be discovered during the course of construction activities on or below the seabed, particularly during excavation and/or dredging.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	45	Para 3 (heritage) Amend: The potential impact of underground and submarine cables	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	45	Para 4 (heritage) Add: marine historic environmental records	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	86	Heritage Para -Recommends more detail is added to mention of wrecks.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	90	Heritage Para - recommends mentioning the potential underwater archaeological resource as reflected in the 'Marine Losses' data.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	94	Heritage Para – recommends mentioning the potential underwater archaeological resource as reflected in the 'Marine Losses' data.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	190	For 29 (potential for loss of or damage to known and Unknown heritage features in the development of transmission infrastructure) Under Proposed Mitigation add: Site-specific surveys may need to be undertaken to prevent any loss to the marine archaeological resource.	RPS to amend text in SEA ER to reflect this comment.	agree
	TDPNI	40	Recommends that the potential need for other consents, such as a Marine License (not just planning consent) are referred to in Part 3 of Section 3.4 of the Plan	Recommend SONI review this in TDPNI with potential to amend if appropriate.	SONI reviewed and amended
	TDPNI	Section 4	Recommends that objectives outlined in this section take account of the marine impacts recognised in the SEA and include the relevant environmental marine considerations outlined in Chapter 2 the UK Marine Policy Statement.	Recommend SONI review this in TDPNI with potential to amend if appropriate.	SONI reviewed and amended
	All	N/A	All references to DAERA Marine Environment Division should be amended to DAERA Marine and Fisheries Division across all documents	RPS to amend text in SEA ER to reflect this comment.	agree



Source	Docume nt	Page	Comment	Recommended Action	Action- SONI
	SEA ER	50	Table 6.1 - recommends that the Marine Act (Northern Ireland) 2013 is included as national level legislation and the draft Marine Plan for Northern Ireland is included as a regional level plan	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	43	Recommends that 2007 United Nations Intergovernmental Panel on Climate Change quote is replaced with a more updated quote (e.g. publication in 2018)	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	50	The Northern Ireland Climate Change Adaption Programme 2014 is quoted twice – one should be removed. Also, this programme is for the years 2014–2019 so text should be amended to reflect this.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	50	Recommends the following amendment; insert "UK Climate Change Risk Assessment 2017" and remove the term "UK Climate Change Risk Assessment Programme 2017"	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	246	Northern Ireland Climate Change Adaption Programme 2014 should be amended to "Northern Ireland Climate Change Adaption, 2014–2019". Also it is not a programme – references to programme should be removed.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	252	Comment on the UK Climate Change Act 2008 should be amended to "requires 80% cut in UK GHG emissions".	RPS to amend text in SEA ER to reflect this comment.	
	All	N/A	Recommends that the developer should engage with Northern Ireland Water Ltd to ensure that it has identified all relevant drinking water protected areas.	Comment noted for future working and assessment by SONI.	noted
	All	N/A	Recommends that the developer should ensure appropriate scoping and assessments are undertaken to ensure any development does not impact on either the sufficiency or quality of private water supplies that may be used as drinking water sources or in food production.	Comment noted for future working and assessment by SONI.	noted
	All	N/A	Provides contact details to attain information on registered water supplies. It should be noted that private water supplies to single domestic dwellings are not required to be registered with the Inspectorate and a separate scoping exercise should be undertaken to establish if any such supplies are within the development area.	Comment noted for future working and assessment by SONI.	noted
	SEA ER	45	Para 3 - recommends consideration of the impact of construction of transmission infrastructure on the setting of heritage assets.	RPS to amend text in SEA ER to reflect this comment.	agree
	SEA ER	48	Last para - disagree that with the lack of the Plan there will be neutral/no impacts (as per table 8.1, Do Nothing Scenario, pg 71) on the historic environment. Suggest allowance for 'slight' to 'significant' impacts to heritage assets may occur especially if development proceeds in an ad hoc manner rather than to a fully considered strategic plan.	RPS to amend scoring in SEA ER to reflect this comment. No significant change anticipated.	agree
	SEA ER	195	Table 9.3 (heritage) - recommends changes to 'possible data and responsible authority'	RPS to amend text in SEA ER to reflect this comment.	agree



Source	Docume nt	Page	Comment	Recommended Action	Action- SONI
			information.		
	TDPNI	N/A	Acknowledges that the recommendations in the SEA Environmental Report have been clearly integrated into the Plan.	Comment noted.	
	TDPNI	N/A	Noted that the coordinated all-island approach to transmission planning between SONI and EirGrid will help ensure the continued security and stability of an all-island grid network, capable of supporting both jurisdictions over the Plan's lifetime, in conjunction with EirGrid's Gris 25 Implementation Plan 2017-2022.	Comment noted.	
	TDPNI	53	Acknowledges the general commitment in Policy PDP2 to promote the development of a sustainable grid by balancing technical, economic, environmental, social and delivery goals and priorities.	Comment noted.	
	TDPNI	99-109	Welcomes the inclusion of Table 9.1 Proposed SEA Mitigation Measures in the Plan	Comment noted.	
EPA	TDPNI	N/A	Notes that the Plan acknowledges that SEA-related monitoring could be used to inform annual environmental reporting, and this will provide a mechanism to assess the implementation and effectiveness of the relevant SEA mitigation measures. Notes that this monitoring should also assist in assessing potential cumulative effects that may arise in implementing projects arising from the Plan over its lifetime.	Comment noted for future working and assessment by SONI.	noted
	TDPNI	N/A	Recommends that in finalising the Plan, it may be useful for SONI to consider EMF related monitoring in a transboundary capacity, as appropriate.	Comment noted for future working and assessment by SONI.	noted
	TDPNI	N/A	Recommends that SONI considers supporting a joint approach, with EirGrid, regarding protecting areas of high landscape amenity in the border region, as appropriate.	Comment noted for future working and assessment by SONI.	noted
	TDPNI	47	Recommends amending ENVP4 to also include the protection for key ecological linkages corridors.	Recommend SONI review this Policy in TDPNI with potential to amend if appropriate.	SONI reviewed and amended
	SEA ER	Section 5	Baseline and Relevant Environmental Issues – recommends providing relevant maps in this section showing the location of both environmental sensitivities within and adjacent to the Plan area (including RoI), as this is relevant in the context of assessing potential for transboundary environmental effects	Comment noted that more mapping could be added. Mapping was provided within Section 5 and 8 to demonstrate environmental sensitivities, including transboundary.	noted



Source	Docume nt	Page	Comment	Recommended Action	Action- SONI
	SEA ER	Table 6.1	Other Key Plans / Programmes to consider – recommends including the following plans as they may be useful to consider from a transboundary perspective: the National Planning Framework, Draft Regional Spatial and Economic Strategies (for the Northern and Western Region and the Midland and Eastern Region), National Adaption Framework, National Mitigation Plan, National River Basin Management Plan for Ireland 2018–2021. Additional key national plans currently being prepared which may also be useful to consider include the Draft National Energy and Climate Plan, the Renewable Electricity Policy Development Framework and Ireland's National Marine Spatial Plan.	RPS to review text in SEA ER.	agree
DP Energy	SEA ER	Pg1	Section 10.2 "Specific Mitigation", namely in relation to Potential Impact no. 6, "Electromagnetic disturbances to mobile / migratory, marine and aquatic species, e.g. Atlantic salmon, from the development of underwater / subsea transmission lines" regarding the Fair Head Tidal Project. This is a 100 MW tidal energy park under development by Fair Head Tidal Energy Park (FHTEP) Limited in the waters offshore of Fair Head. The project was awarded an Agreement for Lease by the Crown Estate in 2012 and is significantly advanced through the environmental impact assessment process with offshore surveys complete. Chapter 7 of the "Fair Head Tidal Environmental Statement" examined the electromagnetic effects of the project and concluded that based on scientific evidence to date there are no significant impacts of EMFs from marine renewable energy devices on benthic invertebrates.	Comment noted, however mitigation is specific to migratory species such as Atlantic salmon, and not benthic invertebrates.	noted