

NIRIG response to SONI draft Transmission Development Plan 2019-2028

The Northern Ireland Renewables Industry Group (NIRIG) represents the views of the renewable electricity industry in Northern Ireland. We provide a conduit for knowledge exchange, policy development, support and consensus on best practice between all stakeholders. Committed to making a positive difference, we promote responsible development, support good community engagement and deliver low-cost electricity generation from sources such as onshore wind, tidal, solar and storage using our greatest natural resources.

NIRIG welcomes the opportunity to feed into the Utility Regulator's consultation on the SONI draft Transmission Development Plan (TDP) and looks forward to working with you on this further.

Rather than restate them, we have included our comments in relation to SONI's consultation on the TDP in an addendum at the end of this response. In this response we have chosen to focus on additional comments as well as responding to SONI's feedback on our previous response.

Live Register on Grid Development Projects

The data freeze date and subsequent gap of over a year before TDP publication is an issue which means that information provided is often out of date and of little benefit to industry. NIRIG believes that it should be feasible and would be beneficial for SONI to publish on its website a live register of grid development projects. The live register would provide information on all ongoing or planned grid development projects as well as Associated Transmission Reinforcements (ATRs). This would be valuable information for industry and we suggest that more detailed information should be provided on project timelines, for example planned milestone dates for projects progressing through each stage of the six-step development process rather than one overall estimated delivery date. This would allow for better tracking of project progress and along with this we recommend that more information is provided on project progress against these steps i.e. if a project hasn't progressed as anticipated then the reasons why should be given.

We note that EirGrid already produce quarterly ATR reports which are more current than the TDP. This would be a welcome first step towards SONI providing more up to date information.

Constraints on Renewable Generators

In our response to SONI, NIRIG highlighted the need for investment in the transmission system to avoid increased constraints and knock on costs to consumers. Lack of grid infrastructure means many renewable projects are already seeing significant constraint levels, as outlined in the addendum, which means lost renewable MWh and higher emissions and system costs for Northern Ireland as additional fossil fuel generation has to be dispatched on and compensated.

We note SONI's contention that the TDP outlines significant investment and that their work on Tomorrow Energy Strategies (TES) will further inform future investment.

NIRIG also responded to the TES consultation and would find it helpful for SONI to outline a timeframe in which the TES will be completed and how the system needs identified will translate into grid reinforcement projects via the TDP and other related documents.

Moyle Interconnector

NIRIG welcomes the increasing of export capacity of the Moyle Interconnector up to 380MW. We note that work is taking place to identify solutions to bring this up to the maximum 500MW capacity and look forward to hearing more detail of this project as it progresses.

NIRIG, along with colleagues in IWEA, have recently began an engagement with Mutual Energy to better understand the operation of the interconnector and ensure that its benefit is being maximised.

Connecting Existing and Future Generation

As highlighted by our colleagues in Scottish Power Renewables, the lack of progress on ATRs for existing generation is an ongoing frustration for the renewables industry. In anticipation of an increased target for renewables in the forthcoming energy strategy there will be a need for significant investment in ATRs for future generation. This is an area where NIRIG would be keen to see improvement of delivery.

North-South Interconnector

NIRIG continues to support the development of a second North-South Interconnector and welcomes SONI's continued commitment to delivering this project.

Conclusion

NIRIG welcomes the continuing engagement we have with SONI and the responses to the key points we have raised in relation to the TDP. It is clear that more detail will emerge as


SONI finalise their work on their TES document. We look forward to the completion of that work.

Yours Sincerely,



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Addendum: NIRIG response to SONI draft Transmission Development Plan 2019-2028

The Northern Ireland Renewables Industry Group (NIRIG) represents the views of the renewable electricity industry in Northern Ireland. We provide a conduit for knowledge exchange, policy development, support and consensus on best practice between all stakeholders. Committed to making a positive difference, we promote responsible development, support good community engagement and deliver low-cost electricity generation from sources such as onshore wind, tidal, solar and storage using our greatest natural resources.

NIRIG welcomes the opportunity to feed into the SONI draft Transmission Development Plan (TDP) and looks forward to working with you on this further.

Net Zero

The UK Government has set in legislation a requirement for a 'net zero' economy by 2050. To achieve this the power sector, which has already made significant strides towards decarbonisation, would have to reach net zero by 2040. It is expected that for other sectors such as heat and transport the transition will be longer hence power having to do the early heavy lifting. Without more renewables, net zero cannot be achieved.

[Latest figures](#) published by the Department for the Economy calculate that 45% of our electricity consumption in Northern Ireland is from renewables. NIRIG notes that the Republic of Ireland has set a target of 70% by 2030 with Scotland aiming for 100% by 2030. With the Department for Economy (DfE) due to publish its energy strategy in 2020, Northern Ireland is yet to set a target. However, with an obligation on all public authorities to facilitate the transition to net zero, NIRIG is anticipating an ambitious strategy that will result in an increase in renewable electricity developments in Northern Ireland with a corresponding increase in requests for connection to the grid.

The Wind Dividend

NIRIG commissioned Baringa to carry out research of the impact of the investment in wind energy between 2000-2020. The Wind Dividend [report](#) highlights that consumers have saved £135m net, over that time period, as a result of the downward pressure that electricity generated from wind has on the wholesale price. In addition to the saving to consumers and the creation of local jobs, £10m per year from the industry is contributed in rates with almost £2m per year in community projects, showing that investment in renewable electricity, and wind in particular creates significant economic benefit. Furthermore 9m tonnes of carbon has already been saved in that time.

Dispatch Down

EirGrid's [Quarterly All Island Dispatch Down Report 2019](#) shows dispatch down (DD) in Northern Ireland to be at 11% in the third quarter of 2019, with DD consistently around this level since quarter 2 of 2018. This compares unfavourably with the Republic of Ireland DD levels of approximately 6% over the same period, putting generators in Northern Ireland operating in the Single Electricity Market, at a significant disadvantage.

Analysis carried out by Mullan Grid (see Appendix 1) calculates the cost to the industry of DD in NI at €18m for the first three quarters of 2019 after taking account of any compensation received. A projected figure of circa €25m for the whole of 2019 is unacceptable.

Over half of the 2019 DD is due to constraints. Constraints can be removed with the further development of the Northern Ireland transmission system. This draft development plan is therefore a critical document for the Northern Ireland renewable industry. It is critical that this plan can substantially reduce the constraints currently being experienced by Northern Ireland windfarms. As this loss of renewable energy and increase in CO² emission is currently already at a high level, it is also critical the plan details clearly how the transmission reinforcements will be delivered in a timely manner.

NIRIG is also concerned that the demand for new connections as a result of the existing renewable pipeline (detailed further in the next section), plus any further increase in the pipeline which could result from favourable government policies, will lead to further increases in the level of DD and the need for transmission development. The draft TDP does not outline sufficient investment to facilitate the anticipated level of renewable deployment required to decarbonise the Northern Ireland electricity system. NIRIG welcomes SONI's stated commitment to 95% System Non-Synchronous Penetration (SNSP) by 2030, however we feel that the investment outlined in the TDP is insufficient to meet this objective.

Pipeline Data

The RenewableUK Project Intelligence resource tracks every renewable electricity application in the UK planning system. Using this information and compiling it with NIRIG's own data from our October 2019 membership survey, has allowed us to produce a data on the pipeline for renewable electricity projects across Northern Ireland, from pre planning to consented projects. See a breakdown by planning authority at the Appendix 2.

Our data shows that there is currently at least 1.6GW of onshore wind and storage projects in the development pipeline. This figure may be higher due to projects in development which NIRIG is not yet aware.

NIRIG would expect this figure to rise with the production of the DfE energy strategy in 2020 and any resultant policies which would encourage the deployment of renewables to help achieve net zero.

NIRIG is concerned that without significant strategic investment in both the transmission and distribution system that levels of dispatch down could increase further negatively impacting upon efforts to meet new renewable electricity targets and increasing consumer costs.

Connecting Existing and Future Renewable Generation

NIRIG 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's supposed to remain available for new connections after project construction (if that is to be the case). This will drive efficiencies for developers and the TSO as it would steer efforts to develop renewable projects as close as possible to network areas with available capacities, improving the network utilisation and therefore getting the best value out of the reinforcement expenditure.

In regards, to the status of the projects, we are particularly hesitant about the actual status of the Agivey Cluster. Publicly available information makes us believe the project is currently in Planning stage although the draft TDP indicates that it has been consented. We would appreciate clarification.

There is a fundamental need to develop a flexible and principle-based approach to connections and network access. Policy must be future proofed to provide clear and comprehensive processes that facilitate all types of connections in a transparent and cost-effective manner.

Integration with Tomorrow's Energy Scenarios

NIRIG appreciated the opportunity to feed into the SONI's consultation on Tomorrow's Energy Scenarios and reiterate our call for the 70% RES-E by 2030 scenario to be the central future scenario. It is important that the final ambition set out by SONI in its scenario planning is reflected in the TDP.

We would welcome an analysis around the suitability of the network reinforcements when considering the TES scenarios to demonstrate that proposals in the TDPNI are in line with facilitating access to the network to low carbon technologies and those can optimally, with acceptable Dispatch Down levels, deliver decarbonisation targets. NGESO undertakes a probability analysis every time they publish their Electricity Ten Year Statement report so something similar could be interesting.

Interconnection

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

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

SONI / NIE Networks Collaboration

NIRIG welcomes the increased co-ordination between SONI and NIE Networks and asks 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. A Joint Planning Committee with the TSO and DSO, such as exists in GB, could facilitate this liaison.

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.

We would also welcome more progress on Flexible Connections along with the Hybrid Sites Working Group. This progress should feed directly into the long-term development plan options, allowing for alternatives, such as connect and manage, to be in place as soon as possible.

Conclusion

NIRIG commends SONI's commitment to facilitating increased renewable electricity generation onto the grid however we believe that greater investment is needed in order for Northern Ireland to play its part in meeting the UK's net zero ambitions. We look forward to working with SONI and other partners, including NIE Networks, to ensure that the development of the grid continues to be world leading.

Steven

Steven Agnew, Head of NIRIG

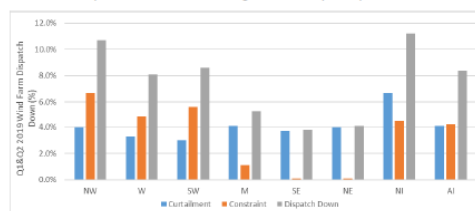
Appendix 1: Mullan Grid Cost Analysis of Dispatch Down November 2019

4. Estimation of Cost of Q1-Q3 2019 Wind Farm Dispatch Down

Key Input Assumptions	Comment
Wind Capacity Factor*	30% for ROI and 28% for NI
Dispatch Down*	Refer to graph below
REFIT I Lost Revenue	€77.67 per MWh (96% of REFIT I reference and balancing 2019 price)
REFIT II Lost Revenue	€77.04 per MWh (96% of REFIT II 2019 price)
Merchant Lost Revenue	€45.80 per MWh (96% of average wind SMP during dispatch down events between Q1 and Q3 2019)
ROC Lost Revenue**	€51.38 per MWh (92% of 2019/20 ROC price (£48.78 x 2019 exchange rate of 0.87))

* = Information obtained from Q3 2019 All-Island Quarterly Wind Dispatch Down Report

** = <https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-ro-buy-out-price-and-mutualisation-ceilings-2019-20>



Wind Region	All Wind Farms									IWEA Working Group Wind Farms	
	Wind MEC (MW)	Curtailment (%)	Curtailed Energy (MWh)	Constraints (%)	Constrained Energy (MWh)	Lost Curtailed Revenue (€)	Lost Constrained Revenue (€)	Total Lost Revenue (€)		Wind MEC (MW)	Total Lost Revenue (€)
NW	425	4.0%	25430	6.7%	42596	€ 1,755,964	€ 2,429,944	€ 4,185,908		306	€ 3,415,154
W	958	3.3%	52609	4.8%	76522	€ 3,784,602	€ 5,287,762	€ 9,072,365		746	€ 7,721,761
SW	1347	3.0%	72798	5.6%	135889	€ 5,463,259	€ 9,853,525	€ 15,316,784		1131	€ 13,701,679
M	542	4.1%	40356	1.1%	10827	€ 3,116,969	€ 836,260	€ 3,953,229		436	€ 3,419,818
SE	363	3.7%	21153	0.1%	572	€ 1,528,008	€ 37,525	€ 1,565,533		215	€ 1,025,584
NE	169	4.0%	10450	0.1%	261	€ 809,277	€ 20,232	€ 829,508		138	€ 729,785
NI*	1108	6.7%	122844	4.5%	82507	€ 11,938,243	€ 6,230,217	€ 18,168,461		832	€ 13,770,073
AI	4912	4.1%	345639	4.2%	349174	€ 28,396,323	€ 24,695,466	€ 53,091,789		3804	€ 43,783,854
Estimated Lost Wind Energy as Percentage of Q1-Q3 2019 All-Island Electricity Sector CO ₂ Emissions**									4.1%		
Estimated Lost Wind Energy as Percentage of Q1-Q3 2019 All-Island Electricity Demand***									2.6%		

Note: Energy figures outlined above are likely to not include lost energy due to outages, and further engagement is required with EirGrid & SONI on the data presented in their reports

* = Accounts for large scale wind in Northern Ireland and therefore excludes 168MW of uncontrollable small scale wind

** = Based on 2016 electricity emissions factors of 482.8g CO₂/kWh (ROI) and 492g CO₂/kWh (NI), and the total 2016 electricity emission figures of 12.6Mt CO₂ (ROI) and 4.02Mt CO₂ (NI)

with ROI figures obtained from SEAI Energy in Ireland 2017 Report and NI figures obtained from <https://www.daera-ni.gov.uk/publications/northern-ireland-carbon-intensity-indicators-2018>

*** = Based on Q1-Q3 2019 all-island demand figure of 27,163GWh obtained from EirGrid's "System-and-Renewable-Data-Summary-Report" spreadsheet on their website

Appendix 2: Wind & Storage Pipeline Data by Local Planning Authority

Antrim & Newtownabbey Borough Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	15.225	0.85	0	0	16.075
Storage (MW)	0	25	0	0	25
Total (MW)	15.225	25.85	0	0	41.075

Ards & North Down Borough Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	0	1.15	1.775	0.25	3.175
Storage (MW)	0	0	0	0	0
Total (MW)	0	1.15	1.775	0.25	3.175

Armagh City, Banbridge & Craigavon Borough Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	0	5.1	9.055	0.25	14.18
Storage (MW)	0	0	25	0	25
Total (MW)	0	5.1	34.055	0.25	39.18

Belfast City Council

	Pre Planning	In Planning	Consented	Under Construction	Total

Onshore (MW)	0	0	4	0	4
Storage (MW)	0	0	0	0	0
Total (MW)	0	0	4	0	4

Causeway Coast & Glens Borough Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	140.2	121.1	98.675	16.1	
Storage (MW)	0	*	0	0	
Total (MW)	140.2	>121.1	98.675	16.1	>376.05

*3 storage projects in planning, capacity unknown.

Derry City & Strabane District Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	113.4	9.225	89.41	0.25	212.285
Storage (MW)	50	0	0	0	50
Total (MW)	163.4	9.225	89.41	0.25	262.285

Fermanagh & Omagh District Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	30	11.725	153.25	1.375	196.35
Storage (MW)	0	0	20	0	20
Total (MW)	30	11.725	173.25	1.375	216.35

Lisburn & Castlereagh City Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	0	0.5	1.95	0.25	2.7
Storage (MW)	50	*	0	0	>50MW
Total (MW)	50	>0.5	1.95	0.25	>52.7

*1 storage project in planning, capacity unknown.

Mid and East Antrim Borough Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	90	25.925	50.4	0	166.325
Storage (MW)	100	0	0	0	100
Total (MW)	190	25.925	50.4	0	266.325

Mid Ulster District Council

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	30	62.625	33.55	0	126.175
Storage (MW)	0	0	*	0	>0
Total (MW)	30	62.625	>33.55	0	>126.175

*1 storage project consented, capacity unknown.

Newry, Mourne and Down District Council

	Pre Planning	In Planning	Consented	Under Construction	Total

Onshore (MW)	0	3.35	3.9	0.225	7.475
Storage (MW)	50	0	0.25	0	50.25
Total (MW)	50	3.35	4.15	0.225	57.725

Strategic Planning Division

	Pre Planning	In Planning	Consented	Under Construction	Total
Onshore (MW)	50.4	148	36.025	0	234.425
Storage (MW)	0	*	0	0	>0
Total (MW)	50.4	>148	36.025	0	>234.425

*1 storage project in planning, capacity unknown.