

## SONI price control 2020-2025 draft determination consultation

### Introduction

The Northern Ireland Renewables Industry Group (NIRIG) represents the views of the renewable electricity industry, providing a conduit for knowledge exchange, policy development, support and consensus on best practice between all stakeholders. A joint initiative between RenewableUK and the Irish Wind Energy Association (IWEA) we promote responsible development, support good community engagement and deliver low-cost electricity generation from sources such as onshore wind, tidal, solar and storage.

NIRIG is proud that Northern Ireland has generated 48% of its electricity from renewables in the most recent 12 month period.<sup>1</sup> This success was the result of the Strategic Energy Framework, a ten year plan which, through the setting of a 40% by 2020 target saw the alignment of market incentives, a facilitative planning regime and grid investment.

However, there will be no new large scale renewables in 2020 as was the case in 2019 also. This is the result of a policy gap since the closure of the Northern Ireland Renewables Obligation in 2017. Northern Ireland has also seen high levels of constraint and curtailment of renewables, which cost the industry approximately £25m in 2019, with a similar figure having already been reached for 2020. Northern Ireland has become a much less appealing place for investors in renewables as a result of these issues combined with a slow and increasingly restrictive planning regime.

The Department for Economy's new Energy Strategy which is due for publication in November 2021, has the potential to re-energise renewable investment in Northern Ireland. It is clear we will see an increased target over and above our 2020 RES-E goal, in line with the UK's next zero emissions target by 2050 and the Climate Action Plan in the Republic of Ireland. NIRIG has proposed an 80% RES-E target by 2030 as ambitious but achievable and at a minimum we are likely to see it increase to 70%. However, the Energy Strategy will only be a success if the various strands of public policy once again align to create a supportive environment for renewables. Vital to this will be investment in grid infrastructure and system tools to increase the System Non Synchronous Penetration (SNSP) level and reduce the levels of constraint and curtailment.

Based on SONI's *Tomorrow's Energy Scenarios*<sup>2</sup> the achievement of an 80% target would require 2.8GW of additional renewable generation. With 100MW of new connections expected in 2021 and the pipeline only likely to increase once the new Energy Strategy is published, it is easy to see the level of demand that is coming. It is vital we have the systems in place at an early stage to manage

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<sup>1</sup> Department for Economy, [Renewable Generation Statistics](#)

<sup>2</sup> SONI, [Tomorrow's Energy Scenarios](#)

an influx of new projects, rather than being reactive which will result in increased costs that ultimately will be passed on to the consumer.

This price control period therefore comes at an extremely important time as we must be pro-active and start to deliver the changes needed over the next 5 years to put us on the right path to 2030 if we are to have any chance of achieving our long-term goals. SONI will play an essential role in this and NIRIG wishes to see that the TSO is well supported and incentivised to deliver the required changes.

We also stress that Northern Ireland is part of the Single Electricity Market (SEM) and the importance of North-South co-operation cannot be overstated. Through the DS3 programme which has operated on an all island basis, this island has been a world leader in achieving an SNSP level of 65% on what is a small island system. In order to build on that achievement, it is essential that there is co-ordinated approach in both jurisdictions in relation to the funding, incentives and regulation of the grid.

## New Initiatives

Before addressing the individual initiatives in detail, we would note that the price control 2020-2025 is taking place at a time of unprecedented change in the electricity sector. While it is critical that consumer costs are managed efficiently and effectively during this period, it is also clear that the energy transformation cannot be supported without step changes in approach across a range of System Operator business areas. Many of the proposed initiatives in the SONI business plan are what we would deem as low cost/high impact measures and we would strongly support that SONI are adequately funded and incentivised to deliver on these.

It is important to differentiate between cost and investment, particularly when investment in new initiatives can unlock greater savings for consumers by reducing the costs of renewable deployment over the longer-term. It is therefore concerning that many of the proposed initiatives have significant cost disallowances and, while we recognise that there is some uncertainty at present, we are strongly in favour of a robust, transparent and flexible framework that allows SONI to focus on delivering outcomes in a timely manner. While appreciating that there are proposed measures to allow for cost adjustments during the price control period, we would be concerned that this could introduce delays or uncertainty to programmes that are essential for further renewable integration and would dampen investment signals for renewable generators in Northern Ireland.

Indeed, Northern Ireland is already at a competitive disadvantage across these islands due to a number of factors including lack of an effective route to market, longer planning timelines and high levels of constraint and curtailment. The Department for Economy has talked about creating a 'supportive environment' for renewables in advance of the publication of its Energy Strategy and NIRIG feels that this price control is the first test as to whether DfE's policy vision can be effectively delivered.

In the following sections we put forward comments in relation to some of the new initiatives proposed by SONI and the Utility Regulator's proposed determinations.

### Smarter Outage Management

NIRIG welcomes the Utility Regulator's proposal to allow the full cost allowance for this initiative. Outages are a significant contributor to dispatch down and, while we recognise that many of these are attributable to renewable development, it is the length and cost impacts of outages to renewable

generators that are concerning. Therefore, we welcome this initiative to improve outage management processes and we look forward to engaging with SONI on its implementation.

### System Planning

NIRIG welcomes the Utility Regulator's proposal to allow the full cost allowance for this initiative. We agree that this is an important area given the constrained nature of the Northern Ireland grid at present and the need to progress new grid development and alternative network solutions to integrate increasing levels of renewables.

### Clean Energy Package

NIRIG welcomes the Utility Regulator's proposal to allow the full cost allowance for this initiative. Recognising that this is an area that is quite uncertain at the moment, we support an approach that provides for flexibility on the part of SONI to adapt to needs and new requirements as they arise as this is an area that is likely to require greater investment over the next number of years.

### Renewable Strategy, DS3+ and Control Centre Tools

These are areas we would have particular concerns regarding the consultation proposals and we would take the opportunity to emphasise the importance of these programmes and the need for their pro-active delivery. Timing is a very important consideration in this regard as we look to the publication of the Energy Strategy and the development of a new route to market for renewable generation.

One of the key challenges in reaching higher RES-E targets in a cost-effective manner for consumers, will be finding ways to effectively manage and mitigate renewables curtailment. Developing the electricity system, including strategies, programmes and tools such that it is capable of operating at SNSP levels of up to 95% and conventional generation at levels below 400MW, will be critical to ensuring that curtailment is kept at manageable levels.

This is a very important signal for industry and we would emphasise it is highly likely that Northern Ireland will be moving towards an auction based renewable support scheme, similar to those in GB and ROI, to deliver on the ambitions of the upcoming energy strategy. What this means is that consumer costs in terms of funding the support scheme will be dependent on generators' estimates of future curtailment more so than on the actual outturn values. As such, industry is very sensitive to the signals emerging from the price control process in relation to future curtailment. Under the current market arrangements renewable generators are not compensated for curtailment, regardless of their level of firm access. In any future auction, generators will be bidding in their forecast cost of curtailment over the lifetime of the project. This is likely to be different to the actual outturn curtailment values, which the System Operators are best placed to manage rather than placing the risk on generators. In an auction context if this was to result in an actual or perceived increase in curtailment of even 1%, then generators would need to price in the impact of this over a 25-30 year project life. These prices are then locked in for the length of the support even if the SOs ultimately succeed in limiting curtailment to lower values.

The successful delivery of DS3+ and associated enabling initiatives will be a significant challenge for SONI. The track record of the TSOs in this space is excellent and as such, if properly funded, industry would have a high degree of confidence that the required transformation of the power system could be achieved. However, it will be difficult for industry to have full confidence in the delivery of the objectives of DS3+ and associated initiatives, while there is uncertainty around the adequacy of funding and associated resources being made available to them. It is important that work is progressed on these initiatives as soon as possible so that the right investment signals are there for

industry in advance of any new renewable support scheme that is put in place. Given the fact that the request appears relatively modest in the overall scheme of the price control we would suggest that there is a considerable consumer interest in fully funding these requests

It is important to note that the Clean Energy Package Electricity Regulation that came into effect on 1 January 2020 will have a material effect regarding the treatment of renewable generators in relation to dispatch down and compensation for constraint and curtailment. The Regulation has yet to be implemented in the SEM and there is still considerable uncertainty as to how the rules will be adopted with potentially significant repercussions for new renewable projects, which may see greatly elevated levels of dispatch down compared to existing wind farms, without being fully compensated.

### Partnership and Engagement

NIRIG is deeply concerned that the Utility Regulator is proposing to disallow all SONI's submissions for partnership and engagement. The difficulty of progressing the North-South Interconnector through the planning system, has been a lesson for SONI in the importance of early, positive public engagement.

There is an opportunity to tap into the renewed enthusiasm that exists for action to address the climate crisis as a result of the public campaigning of the likes of Greta Thunberg and David Attenborough, as well as the evidence provided by the Intergovernmental Panel on Climate Change (IPCC) and the signing of the Paris Agreement. This has resulted in a UK net zero requirement by 2050 showing that the public mood is being matched by political action.

While renewable technologies such as wind turbines and solar panels are already well established in the public mind as solutions to the climate crisis, grid infrastructure such as electricity pylons are not. Inevitably all energy infrastructure projects face some public opposition, however the Department for Business, Energy and Industrial Strategy's (BEIS) Public Attitudes Tracker<sup>3</sup> shows a high level of support for renewables, particularly in Northern Ireland which has 93% in favour.

The levels for grid infrastructure are likely to be much lower as the public perception is one of pylons being ugly and industrial and a blight on the landscape. That perception can only be changed through public engagement at all levels, from working with local communities where projects are proposed, to wider marketing campaigns which ensure that the door is at least ajar when development proposals are being presented, as opposed to coming in cold.

NIRIG recognises that the Utility Regulator does not wish to fund the creation of a brand for the sake of the brand, but we would argue that efficiently navigating the planning system reduces costs and benefits the consumer. We would challenge the argument that NIE Networks is the established brand as we would contend that the public perception is still very much of NIE as an electricity supply company. We would ask the Utility Regular what evidence it has for a strong, positive, public attitude towards NIE Networks?

The SONI and EirGrid advertising campaigns are making the link in the public minds between clean energy and electricity pylons. This is not easy and must be sustained in order to be effective. We are not aware of any similar campaigns being carried out by NIE Networks. Now is the time for SONI to place itself at the heart of decarbonisation and a green recovery, in both the minds of the public and policy makers. Not for the sake of it, but to ensure a positive public attitude to new grid development.

NIRIG would urge the UR to reconsider its approach to this aspect of its draft determination.

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<sup>3</sup> BEIS, [Public Attitudes Tracker](#)

## Performance Framework

We note that the draft determination provides incentives for SONI to deliver a more “outcomes focused” approach to performance.

We agree with this objective and while the draft determination pushes back against financial incentives that are too mechanistic, we highlight three areas - renewable dispatch down, SNSP and RES-E where we believe annual targets should be introduced. These would not be prescriptive in determining exactly how SONI would achieve these targets rather they are outcome focused and allow SONI to best determine how to innovate and deliver on the targets.

We also strongly emphasise the need for all-island alignment in this area between SONI and EirGrid. The ongoing CRU draft determination consultation on EirGrid’s price control (2021-2025) proposes annual targets for dispatch down and SNSP. We do not believe these targets should, or even can, be progressed on a jurisdictional basis as SONI/EirGrid operate an all-island system. Divergence in incentive targets and objectives also leads to an uneven playing field for industry and could potentially distort investment signals on the island.

### Dispatch Down

NIRIG supports the objective of incentivising SONI to minimise the dispatch down of renewable generation. In the context of the points made previously regarding the cost implications of generators bidding in forecast constraint and curtailment estimates in renewable support scheme auctions, a specific incentive to minimise dispatch down would be very welcome and provides a positive signal to industry that these issues are being focused on and that the TSO is being incentivised to manage them. This is particularly welcome if it is combined with approved funding for key strategic enabling initiatives and is one of a number of inputs that developers can use in their financial models to determine their bid prices.

We believe that the incentive should reward performance for dispatch down reductions below the baseline annual target and likewise there should be a downside with a penalty that increases for dispatch down above the target. This reduces the potential for a ‘cliff-edge’ mechanism and helps ensure the TSO are incentivised to minimise dispatch down as much as possible. Dispatch down is an all-island issue and we strongly suggest that the Utility Regulator engages with the CRU on the best means of developing such an all-island incentive mechanism.

We note that there are variables outside of the TSO’s control that will impact the level of annual dispatch down (e.g. high/low wind years, changes in electricity demand) therefore we believe there may have to be allowances in the incentive mechanism to account for these so as not to unduly reward or punish the TSO. This is why we believe there are other incentive mechanisms that, in combination with the dispatch down targets, will help ensure the TSO are incentivised to operate the system effectively and manage what they can control (e.g. SNSP and Minimum Generation levels).

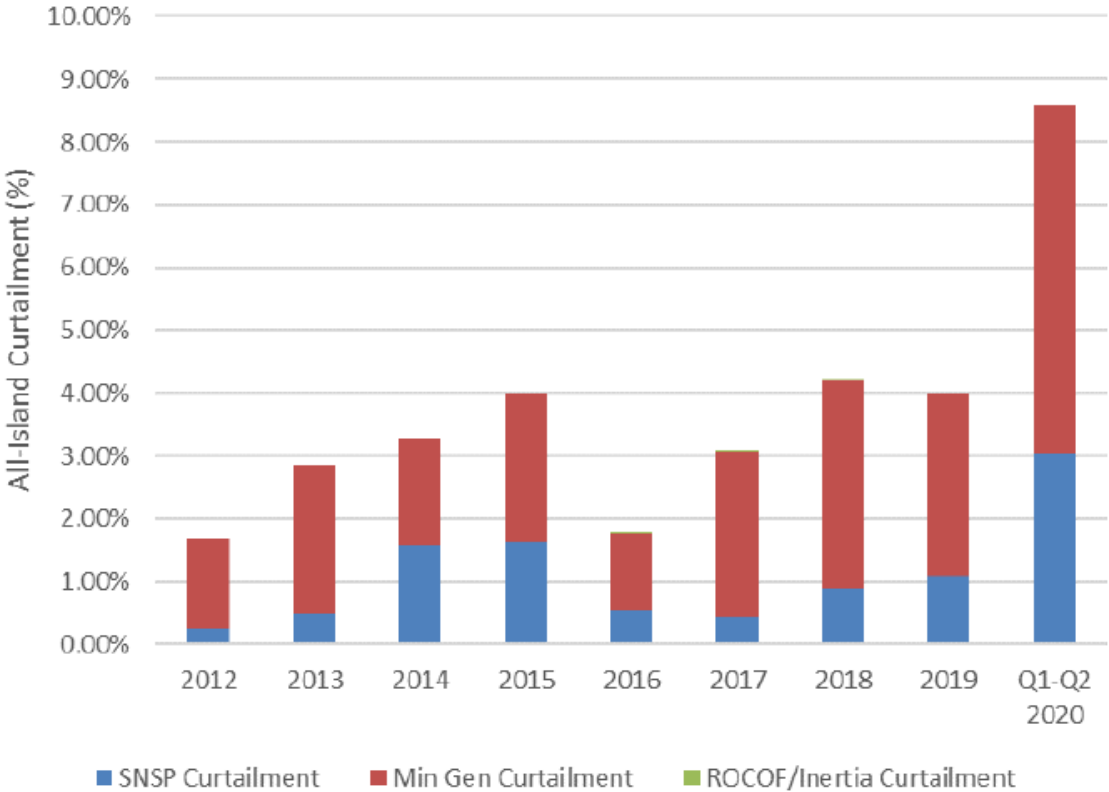
### SNSP & Min Gen

NIRIG would welcome an incentive on the TSO to achieve annual SNSP increases with an overall target of achieving 85% SNSP by 2025. We believe this incentivises the TSO to manage what is in their control and will facilitate the integration of renewables on the system. Again this focuses the TSO on achieving positive outcomes for consumers and the renewables industry.

However, we note that conventional unit minimum generation (Min Gen) levels are the main drivers of curtailment over the last number of years as the graph below demonstrates. Analysis by MullanGrid shows that there are a lot of conventional units operating well in excess of their declared minimum generation levels. We would stress that an SNSP incentive should be progressed in

combination with an incentive on the TSO to reduce minimum generation levels out to 2025. This would be a more effective means of addressing the causes of renewable curtailment. We would propose that the incentive would target a certain MW reduction year on year in system Min Gen (currently estimated at around 1400-1500MW all-island). We propose the aim should be to reduce the Min Gen operational constraint by half by 2025. The same logic for the dispatch down incentive would be good to apply where the TSO is incentivised on a sliding scale to deliver beyond this target and penalised for poor performance.

## 2. Drivers of Wind Curtailment



### RES-E

While appreciating that there are factors outside of SONI’s control that may influence the level of RES-E achieved year on year, it is NIRIG’s position that there is no other stakeholder in Northern Ireland that has as much control over the level of annual RES-E achieved than SONI. From grid connections to grid development, managing the system and putting in place the tools and services to integrate renewables, it is clear that SONI has a significant impact on the level of renewable energy on the system. Indeed, putting in place an annual RES-E target incentive would be a holistic, outcome focused approach that incorporates a number of business areas under SONI’s management. In the absence of an energy strategy and 2030 RES-E target, we would welcome further engagement in this area but do recognise that any target should be ambitious and above and beyond business as usual processes.

### Infrastructure Delivery

This is very important area for NIRIG as there is a clear need for grid reinforcement at present which will only increase as we move towards 2030. Constraints in Northern Ireland for the first half of 2020 are now above 7% having reached 5% for the whole of 2019.

We believe this is an area where incentives should be introduced and these should be based on both a qualitative and quantitative framework that ensures that not only are SONI developing the 'right' projects but that they are progressing these through the various grid development stages in a timeframe that will allow us to deliver on our 2030 target.

We propose that there should be a qualitative and quantitative assessment of overall adequacy, i.e. are sufficient projects being brought forward in time to meet the needs of existing policy and is due consideration being given to the longer term policy trends (i.e. full decarbonisation) for reinforcements that are very likely to have long delivery times.

While this would look at a whole of system approach and could form an independent analysis of end to end SONI processes, we also propose that metrics could be introduced in tandem to help ensure the TSO is incentivised to progress projects that contribute towards policy aims against a range of adequacy assessment criteria.

For instance, it is fully plausible that in some circumstances, a cheaper capex solution with slower deployment timelines, might have greater consumer cost impacts than a higher cost capex solution that could be deployed more quickly onto the system (the consumer cost impacts could be through higher dispatch balancing costs or higher constraint assumptions being factored into auction bids).

In order to ensure that incentives drive forward projects with the most benefits, the following quantitative metrics could be useful to consider in this regard:

- % constraints for wind and solar projects with targets by area and year (this would have the added benefit of generating some degree of investor confidence in constraint assumptions – risks of higher than forecast constraints are extremely difficult for developers to quantify and price in auctions)
- % contributions to RES-E targets
- % emissions reductions
- Dispatch balancing costs attributable to network constraint issues
- Another metric which is a good performance barometer for the TSO is the volume of Firm Access Quantity (FAQ) issued every year. This could be linked to the reinforcements that are due to be completed under the price control and focuses the TSO on reinforcements that provide the most FAQ. It should be possible to calculate the volume of FAQ released by the grid reinforcements that are scheduled to be completed each year.

It is important to provide transparency and up to date information to the renewables industry on ongoing and future grid development. We would propose that a programme is established for every grid reinforcement once the need has been established. This would be a joint SONI/NIEN programme. The first stage is covered off by the Tomorrow's Energy Scenarios and System Needs Assessment but once a need has been established SONI should then be incentivised to complete the optioneering phase within a fixed time period. After this step the project should have enough definition to allow a high-level programme to be developed mapping out how long it will take for the project to pass through each of the remaining stages until it is handed over to NIEN. The TSO should be incentivised to meet or better these timelines but would be penalised if they exceed the agreed maximum duration. We would suggest a sliding scale incentive mechanism so there is no cliff-edge that would then remove the incentive on the TSO to progress the project. Some consideration would also have to be given for potential delays outside of the control of the TSO in the design of the incentive mechanism.

Finally, we suggest that quarterly reporting for all grid reinforcement projects could be achieved via a live register published and maintained on the SONI website.

## Stakeholder Engagement

NIRIG believes that a customer satisfaction survey for generation customers should be introduced with KPIs to measure outcomes and incentives against performance targets. We suggest an annual survey should be introduced on generator customers experience of the System Operators' stakeholder engagement activities and this could be a means of measuring and incentivising improvements in outcomes for renewable generators connecting to the system.

We are happy to provide more information on what such a survey could like.

## Emissions Reporting

We strongly recommend that the TSOs should be required to measure and report on energy market and non-energy market (i.e. non-energy action) emissions as part of the existing quarterly dispatch down reports. The TSOs often position units away from the energy market schedule in order to meet system service requirements. These are known as non-energy actions. The recommendation is for the TSOs to model electricity system CO<sub>2</sub> emissions to compare energy market emissions and actual electricity generation emissions to calculate the non-energy market emissions contribution. Or in other words, the emissions solely related to actions that are required to ensure the electricity system remains stable. As new low carbon system service and other flexible technologies come on the system it will be important to track and measure how these are being utilised and their impact on power sector emissions. Right now this is not being measured and so it cannot be managed.

## Conclusion

In conclusion, we would like to thank the Utility Regulator for the opportunity to respond to this consultation. The next five years will be critical for us if we are to have any chance of achieving our 2030 targets and we emphasise the importance of SONI being adequately funded and incentivised to deliver the changes needed to put us on the right path to 2030.