

# SONI Forward Work Plan 2022/23 – Mutual Energy feedback

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A Northern Ireland company  
**working for consumers**

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Mutual Energy Limited (“**MEL**”) welcomes the opportunity to respond to SONI’s Forward Work Plan (“**FWP**”) 2022-23. We make our comments under headings of the key themes to our response.

## Whole Energy System Planning

MEL strongly believes that closer collaboration between the electricity and gas sectors in Northern Ireland is necessary going forward. Currently, Northern Ireland’s (“**NI**”) electricity and gas projected supply and demand assessments are produced separately by SONI and the gas Transmission System Operators (“**TSOs**”) (MEL and GNI (UK)).

The interdependencies between the electricity and gas networks has increased in recent years and this trend is expected to exponentially continue, as more intermittent renewable sources are added to NI’s energy system. The development of a renewable gas market is also likely to impact the planning of the electricity and gas networks at distribution and transmission levels. Therefore, MEL believes it is appropriate that, going forward – and similarly to the proposed future approach in the Republic of Ireland<sup>1</sup> – an annual assessment for electricity and gas capacities should be produced collaboratively and jointly by the operators of the electricity and gas transmission and distribution networks i.e., SONI, Northern Ireland Electricity Networks (“**NIEN**”) and the gas TSO’s and Distribution Network Operators (“**DNOs**”). This joint electricity and gas assessment can consider renewable gases such as biomethane and hydrogen and could lead to greater collaboration and the development of synergies between the energy systems. It can also ensure that the efficient development of the energy system is considered in a holistic manner and that security of supply for the NI energy system, as a whole, is fully risk managed. This is in NI energy consumers’ best interests, both short- and long-term and consistent with SONI (and NIE Networks’) legal obligation to develop an economic, efficient and coordinated transmission system.<sup>2</sup>

**Therefore, our main observation, and suggestion for betterment, in SONI’s Forward Work Programme (“FWP”) 2022-23 is for the addition of a new work plan item regarding the need to establish, and subsequently deliver on an ongoing basis going forward, a suitable joint system planning approach across gas and electricity. The work to scope such – which a supportive framework of regulatory oversight in the production of any such joint assessment should be developed alongside – should commence now and should be a priority to advance / deliver in the FWP 2022-23 period.**

We have, however, responded to previous SONI consultations to outline this view on the need for whole energy system planning. MEL would welcome further engagement with SONI and UR on this at the earliest opportunity.

In the interim, the upcoming revision by SONI of its Tomorrow Energy Scenarios Northern Ireland (“**TESNI**”), which we understand is due to commence in early 2023, presents an opportunity for it to develop its whole energy system approach. SONI’s TESNI 2020 confirms that, in development of its scenarios, SONI coordinated closely with NIEN. Based on our

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<sup>1</sup> <https://www.gov.ie/en/consultation/dbe14-review-of-the-security-of-energy-supply-of-irelands-electricity-and-natural-gas-systems/>

<sup>2</sup> The Electricity (Northern Ireland) Order 1992, Article 12

interpretation of NIE's 'Networks for Net Zero' report<sup>3</sup> (as set out at Appendix 1), the scenarios used by SONI in the TESNI 2020 all assumed a high degree of demand electrification across various sectors (including heat and transport, etc.) and that the "*gas grid would effectively be decommissioned by 2050*".<sup>4</sup> This approach however is not consistent with the NI Energy Strategy, which signals the intention to utilise NI's modern gas infrastructure, recognising the potential to generate and import zero carbon gases and commits to continued engagement with the gas sector to understand viable pathways to gas network decarbonisation. Given the ongoing uncertainty regarding the potential and optimal pathway to net zero energy, evidenced by the NI Energy Strategy, and considering this legal obligation, it would seem prudent for SONI in future to appraise a more diverse range of possible demand scenarios. MEL will proactively engage with SONI in the upcoming revision of its TESNI and would welcome further engagement on this at the earliest opportunity.

## Interconnector capacity

As the Utility Regulator will be aware, in September 2021 SONI began to restrict the capacity of the Moyle Interconnector being made available to the market in the NI to GB direction at the day ahead stage, citing system security concerns. Whilst ensuring system security should be imperative to SONI, it is not clear that the manner in which SONI has taken this action is in line with its legal, regulatory or contractual obligations. In any case, it is not a positive indicator of SONI's performance. This practice continues at the time of writing and has led to a loss for Moyle Interconnector Ltd of significant congestion revenues which have not been compensated and are the subject of an ongoing dispute.

It is also likely that this practice will reduce Moyle's future revenues from the GB capacity market as a result of a less favourable de-rating and potentially failing to deliver on existing capacity market contracts. There is obviously also a loss of socio-economic welfare to the market as a whole as a result of reduced NI to GB trade.

Whilst again recognising the importance of protecting system security, SONI is taking this action ex ante as a preventative measure to avoid having to take alternative actions or potentially declaring amber alerts, and in hindsight it is rarely, if ever, warranted. There have been very few system alerts in either NI or GB over the last year so clearly there has been enough generating capacity across the two jurisdictions in the 50% of trading periods when Moyle's export capacity has been restricted. The implication is that these restrictions represent an inefficient use of interconnection rather than being necessary to keep the lights on.

If SONI were to take alternative actions to manage interconnector flows<sup>5</sup>, rather than restricting the capacity ex ante, the costs of these actions would be recovered through the Imperfections Costs process. By restricting the interconnector export capacity and refusing to compensate Moyle for the lost revenue (which we would also expect to be recovered through imperfections)

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<sup>3</sup> <https://www.nienetworks.co.uk/documents/future-networks/networks-for-zero-net.aspx> (see Tables 2 & 4 within)

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<sup>5</sup> E.g. countertrading to move market scheduled interconnector export flows if required, rather than preventing exports from being scheduled. Closer to real time actions such as Emergency Assistance or Emergency Instructions are also available.

SONI is artificially reducing all-island imperfections costs to the likely wider detriment of NI consumers.

Since Moyle Interconnector Ltd is a mutualised business, any loss of revenue to Moyle is effectively a loss to Northern Ireland consumers. We have previously suggested that any restrictions of interconnector capacity that are initiated by SONI, and their impacts, should be tracked and reported as part of the evaluative performance framework. Whilst this suggestion was not taken on board, it is nonetheless disappointing that there is nothing in SONI's forward work plan to suggest they will try to improve this situation, such as by improving their available interconnector trading tools.

Restriction of interconnector capacity cuts across each of the four SONI outcomes:

- Decarbonisation – cheaper power tends to be cleaner so restriction of exports will result in more polluting generation running in GB. Whilst restrictions generally take place at times of low wind generation in SEM, were they to be effected at other times this could also result in increased wind curtailment.
- Grid security – restriction of interconnector capacity is suggestive of low levels of grid security since a form of demand (exports to GB) is being restricted in order to satisfy other sources of demand whilst avoiding issuing 'amber alerts'.
- System wide costs – as described above, restriction of interconnector capacity results in real costs that will not flow through to imperfections but will ultimately be borne by NI consumers.
- SONI service quality – SONI is supposed to communicate the maximum available capacity of the Moyle interconnector to the market operator as part of its role under the Moyle Interconnector Operation and Agency Agreement, which both parties are required to enter into under their respective licences. SONI's actions in unilaterally restricting the available capacity is not in line with Moyle's service expectations.

## Specific projects

We note the inclusion of a number of projects in the FWP which are directly relevant to our business and comment as follows:

### Moyle HVDC Project FWP015

Given the timing of the publication of the FWP, from Mutual Energy's perspective this project is now complete, and we would like to recognise SONI's contribution to the successful on time delivery of the Moyle control system replacement project as a whole, to which this relates. The SONI team worked diligently and pragmatically with the Mutual Energy team to optimise the required outage schedule, complete the testing schedule and maximise the availability of the interconnector whilst the project was ongoing. Our assessment is that SONI has delivered the desired 'SONI outcomes' as listed on page 44 of Appendix 1 of the FWP.

### Moyle 275kV Reinforcement FWP039

We welcome the commitment from SONI to deliver a TNPP by January 2023, which will represent tangible progress on this project which we understand should permit full use of Moyle's technical 500MW capacity – we note that this project is referred to as relating to Moyle export in the text of the FWP but understand that it will facilitate increased flows in both

directions. Moyle's export capacity has historically been restricted by limitations on the GB system, but these restrictions have been lifted since April 2022, so the NI system limitations mean the maximum export that can currently be facilitated is 400MW whilst import is limited to 450MW.

We note that the estimated completion of this project is 2024 in SONI's TDPNI, which appears to be a challenging timeframe. As we understand it, this project addresses a contingency risk that is of low probability (being a double circuit trip of the Hannahstown to Ballylumford line). SONI and Mutual Energy have had some recent welcome engagement on potential early increases to Moyle's import capacity limit via the use of operational tools. In the event of delays to this project or in parallel to it, we believe there is merit in exploring similar non-build solutions (even on a temporary basis) or derogation to deliver 500MW flows in both directions as early as possible and this work (including that which is already underway in relation to imports) should be recognised in the FWP.

## Appendix 1

### Mutual Energy understanding of scenario alignment in SONI's 'Tomorrow's Energy Scenarios Northern Ireland' and NIEN's 'Networks for Net Zero'

<u>Element Energy "World" as used in NIEN 'Networks for Net Zero' report</u>		<u>SONI TESNI Scenarios</u>
<b>World A</b> This is the least ambitious scenario with a rate of change insufficient to meet Net Zero carbon emission in 2050 with a 60% Renewable Energy Source (RES) target by 2030.	<ul style="list-style-type: none"> <li>• 60% RES-E at 2030</li> <li>• Heat: Med</li> <li>• EV: Med</li> <li>• Solar: Low</li> </ul>	<b>Modest Progress</b>
<b>World B</b> This scenario achieves significant decarbonisation, consistent with the UK reaching a Net Zero carbon emission energy system by 2050 with a target of 70% RES by 2030, through a high degree of electrification of both heat and transport demands.	<ul style="list-style-type: none"> <li>• 70% RES-E at 2030</li> <li>• Heat: High E</li> <li>• EV: High</li> <li>• Solar: Med</li> <li>• Gas Grid: Decommissioned by 2050</li> </ul>	<b>Addressing Climate Change</b>
<b>World C</b> This scenario achieves significant decarbonisation, consistent with the UK reaching a Net Zero carbon emission energy system by 2050 with a target of 70% RES by 2030, through deep electrification of transport and decarbonisation of the gas grid.	<ul style="list-style-type: none"> <li>• 70% RES-E at 2030</li> <li>• Heat: Low E &amp; H2</li> <li>• EV: High</li> <li>• Solar: Med</li> <li>• Gas Grid: Post 2040, Hydrogen and other Low Carbon Gases, available to 550k customers</li> </ul>	
<b>World D</b> This scenario achieves significant decarbonisation, consistent with the UK reaching a Net Zero carbon emission energy system by 2050 but is extremely ambitious with a 2030 target of 80% RES. It is similar to scenario world B in which there is deep electrification of demand; but in this scenario there is even more rapid electrification of passenger vehicles.	<ul style="list-style-type: none"> <li>• 80% RES-E at 2030</li> <li>• Heat: High E</li> <li>• EV: Very High</li> <li>• Solar: High</li> <li>• Gas Grid: Decommissioned by 2050</li> </ul>	<b>Accelerated Ambition</b>
<b>World E</b> This scenario is very ambitious and compatible with Net Zero emissions by 2050. The only difference between Scenario worlds E and D is the way in which heat demand is met, with the focus on a repurposed natural gas grid to distribute hydrogen (as with Scenario World C) rather than high levels of electrification.	<ul style="list-style-type: none"> <li>• 80% RES-E at 2030</li> <li>• Heat: Low E &amp; H2</li> <li>• EV: Very High</li> <li>• Solar: High</li> <li>• Gas Grid: Post 2040, Hydrogen and other Low Carbon Gases, available to 550k customers</li> </ul>	