Energy for generations

ESB Generation and Trading's Response to the Department for the Economy and Utility Regulator's joint Call for Evidence on a Review of the Connections Policy Framework in Northern Ireland

29/09/2023

Contents

1. INTRODUCTION

ESB Generation and Trading (ESB GT) welcomes the opportunity to respond to the Department for the Economy (DfE) and Utility Regulator's (UR) joint Call for Evidence (CfE) on a review of the connections policy framework in Northern Ireland (NI). Within NI, the Climate Change Act targets 80% of electricity to be generated from renewable energy sources by 2030[1], alongside achieving Net Zero carbon emissions by 2050[2]. The current connection process has enabled NI to achieve 48.5% of electricity consumption to be generation from renewable sources[3]. However, in order to obtain 2030 and 2050 targets, efficient connection policy will be crucial in providing investor confidence in order to deliver the right type of renewable investment, at the pace required. Attracting a range of large-scale investment in low carbon and innovative technologies will be central in ensuring a low-cost transition for Northern Irish consumers. Thus, large-scale change is required to expedite future connection offers.

ESB GT has written the response in four sections, the first is an introduction, the second is an executive summary, the third is a high-level comments, and the fourth section details ESB GT's responses to each of the topics raised in the Open Letter.

2. EXECUTIVE SUMMARY

In this section, ESB GT has summarised its high-level comments relating to the topics presented in the Call for Evidence.

ESB recommendations for NI connection reforms

This CfE seeks feedback and evidence on a wide range of areas within NI Connection policy. ESB GT has outlined key recommendations for reform below:

1. The need for certainty and transparency. Throughout the decision-making process, there must be extensive engagement with industry to ensure that any changes are practical and provide the investor confidence required to obtain 2030 and 2050 climate ambitions.
2. Create consistency across the Single Energy Market (SEM) and preventing discriminatory impacts to generators investing across NI and the Republic of Ireland (RoI) by a move towards the Irish model for network charges. NI would benefit from a consistent SEM approach of introducing a shallow connection with reinforcement costs shared through TUoS charges. This should be implemented to both demand and generation assets. ESB GT does not consider the current

[1] Climate Change Act (Northern Ireland) 2022 (legislation.gov.uk)
[2] Net Zero Strategy: Build Back Greener - GOV.UK (www.gov.uk)
[3] Electricity Consumption and Renewable Generation Statistics | Department for the Economy (economy-ni.gov.uk)

'partially deep' connection boundary to be appropriate as it places a high burden on developers and could potentially disincentivise investment into the NI Energy market. Additionally, due to NI's small population, there would be a disproportionately negative economic impact upon consumers from any direct socialisation of network reinforcement costs. Thus, by socialising cost through TUoS rather than to consumers, it aids in ensuring a just transition.

3. ESB GT believes that NI should retain its current developer led approach for connections and the future siting of generation. Introducing a plan led approach would create substantial delays and increase the extant risk of not obtaining 2030 targets. This is due to the requirement to:
    - Develop a new regulatory regime for the planning body, including a methodology to implement a plan led approach.
    - Invest in additional resources to ensure effective outcomes, including in-sourcing of skills and knowledge and technical resources (i.e. software).
    - Develop a range of new incentives within price control guidance. In developing a plan-led framework, it is vital that a range of effective incentives are in place to ensure optimum outcomes and transparent consequences if decisions are made which negatively impact consumers. An example of this may be directing generation to the unsuitable location
    - The time, effort and cost required to effectively introduce a plan-led system must be taken into account and an Impact Assessment should be undertaken before any decisions are made.
4. ESB GT is supportive of retaining the current 3-month timeframe for SONI and NIE Networks to offer connections. This timeframe provides great certainty to investors and expedites rates of new renewables coming online to the NI grid.
5. There would be benefit in introducing a regular batched process (e.g. every 6 months) to assess connection applications. This would aid in maximising SONI/NEI Network resourcing and provide investors with confidence that connection applications will be known in advance of upcoming support auctions.
6. ESB GT is supportive of planning permission being a pre-requisite to gaining a connection offer. This would act as a filter to prevent speculative applications as it requires substantial economic investment from developers. Moreover, by providing proof of planning permission there is an increased likelihood that those projects entering the connection queue will be more likely to progress to completion

7. NI would benefit from introducing queue management principles within connection reform. The CfE notes that inactive projects are creating challenges to projects who are progressing at the pace required. Projects that are not viable should not be permitted to create delays to projects which are ready to connect and provide sources of generation and/or flexibility. Queue management principles are already being implemented by the ESO, as represented within the ESO's 5-point plan in GB[4] (e.g. Transmission Entry Capacity amnesty). These powers are also proposed to be expanded whereby the ESO has the right to terminate contracted projects which are not progressing against agreed milestones[5].

By introducing the above reform, it has the potential to aid investor confidence in NI whilst future proofing regulatory policy for the introduction of a state support scheme to encourage investment in the low carbon generation required to meet 2030 and 2050 climate ambitions.

3. HIGH LEVEL COMMENTS

Risk to NI Connection reform from silo-based policy development

This CfE takes a silo-based and fragmented approach towards connections reform within NI. In order to ensure optimal outcomes, it is vital that the DfE and UR consider the following areas within its reform:

1) **Provision of firm access**: Firm access rules have been outlined within Ireland in 2023[6], yet there has been no information provided on this within NI i.e. if the same rules apply or if a different approach may be taken. This lack of clarity creates a real and emerging risk that NI may fall behind on meeting 2030 climate ambitions, deterring investment due to uncertainty surrounding compensation rules.

2) **Hybrid connections**: ESB GT believes that the introduction of hybrid connections should be a priority. Within this, hybrid co-located technology sites should not be restricted to solely renewables (wind and solar) and battery storage, nor be site specific (i.e. it should apply to both the onshore and offshore network). Instead, the dynamic sharing of the MEC should be extended to all available technology types, including conventional generation (Combined Cycle Gas Turbines and Open Cycle Gas Turbines), hydropower, renewable, hydrogen and flexible technologies (including long duration large scale storage). This would enable market led decisions which have the potential to result in the most economic and efficient means to meet net zero

[4] What are we doing now? Our five point plan | ESO (nationalgrideso.com)
[5] CMP376: Inclusion of Queue Management process within the CUSC | ESO (nationalgrideso.com)
[6] SEM-23-004 SEMC Firm Access in Ireland decision.pdf (semcommittee.com)

ambitions. Given the potential significant benefits arising from hybrid connections for all technologies, the DfE/UR should prioritise the implementation of the reforms set out within the SONI consultation and embrace the opportunities which will arise from this.

3) **Network reinforcement and anticipatory investment**: This CfE outlines the challenges that the NI network create to connections but neglects to consider the potential for the network to also act as a solution to these issues. If SONI were incentivised to develop an anticipatory approach towards future investment (e.g., creating the transmission development plan alongside areas of high generation potential identified by developers) there would be an expedited rate of new connections approved, whilst providing value for consumers by reducing curtailment/constraint costs as increasing levels of new renewable generation come online.

4) **Holistically considering onshore and offshore networks together**: Whilst this CfE states that offshore connections will not be included within this review, by excluding this, there is a substantial risk that future offshore projects either will not be able to connect, or it results in an increased level of constraints on the network to the detriment of other projects. There is a need for the UR to direct a holistic assessment of future network need. An example of the importance of this was represented by the Holistic Network Design[7] in Great Britain (GB), whereby once onshore and offshore reinforcements were assessed together, it was found that an additional £19.8bn investment was needed through the Accelerated Strategic Transmission Investment programme[8] to enable the safe connection of new assets.

By excluding these interlinking policy areas from this review, it creates the risk for disjointed policy development which results in unintended consequence such as increased consumer cost in obtaining net zero ambitions, or disincentivises investors to NI.

4. CALL FOR EVIDENCE QUESTIONS

Question 1: What are the risks and opportunities in relation to the development of micro grids and what issues do these raise for the connections framework in NI?

ESB GT is awaiting clarity on proposals from the TSO on how micro grids may be facilitated and will provide detailed feedback once further information is provided.

[7] The Pathway to 2030 Holistic Network Design | ESO (nationalgrideso.com)
[8] Decision on accelerating onshore electricity transmission investment | Ofgem

Question 2: Do you agree with our guiding principles? Please expand your answer.

ESB GT supports the guiding principles outlined within this CfE. It is vital that NI attains its national energy ambitions whilst ensuring a just transition for consumers, and that regulatory and legislative changes are future proofed to deal with an evolving energy landscape. However, it is vital that these guiding principles are underpinned by the aim of providing certainty and transparency.

Development of renewable generation in NI has stalled since the NI Renewable Obligation (NIRO) scheme ended in 2017[9]. NIRO was the main support mechanism to encourage renewable generation within NI. During this time, funding mechanisms for renewable generation has been introduced in GB through Contracts for Difference[10] (CfD) and within the ROI through the Renewable Electricity Support Scheme[11] (RESS) and Offshore Renewable Electricity Support Scheme[12] (ORESS). NI is currently at risk of not achieving 2030 targets due to the slow pace in creating an investment signal and lack of information surrounding emerging funding schemes. Therefore, it is vital that the DfE/UR sends clear signals to industry that investment is sought after in NI, alongside the certainty and transparency required to develop investor confidence in the market to meet 2030 and 2050 targets.

Question 3: Do you agree with our proposed scope in relation to this connection review? this includes:

- **Are there other issues which you consider we should take into account. If so, please explain why**
- **Are there any connection areas we should remove from the scope of our review? If so, please explain why**

ESB GT believes that the scope of this connection review may not be adequate in achieving the guiding principles that are set out within the CfE. These guiding principles cannot be achieved by looking at regulation and policy in isolation. Therefore, ESB GT have set out key areas below which should be taken into consideration when determining the connection policy.

1. **Firm connection offers**

ESB GT has concerns surrounding the lack of information on firm access rules within NI. Firm Access is primarily related to receiving compensation payments when dispatched down, a unit which has no

[9] Northern Ireland Renewables Obligation | Department for the Economy (economy-ni.gov.uk)
[10] Contracts for Difference - GOV.UK (www.gov.uk)
[11] gov.ie - Renewable Electricity Support Scheme (RESS) (www.gov.ie)
[12] gov.ie - Government approves Terms and Conditions for first offshore wind auction under the Renewable Electricity Support Scheme (www.gov.ie)

firm access will be exposed to the balancing market price. Firm access is defined by the SEM as "*Generators connecting to parts of the network with available capacity receive firm access, while generators in parts of the network with limited capacity can connect on a non-firm basis*"[13]. Yet there has been no information provided on this within NI i.e. if the same rules apply or a different approach may be taken. This lack of clarity creates a real and emerging risk that NI may fall behind on meeting 2030 climate ambitions, deterring investment due to uncertainty surrounding compensation rules.

Within GB, firm access is provided with connection offers[14]. However, the Electricity System Operator (ESO), in conjunction with Ofgem, are considering offering non-firm connection agreements whilst providing with a date for gaining firm access[15]. The CRU also proposed a similar approach within its recent Firm Access Methodology consultation[16]. This is beneficial in 1) expediting connection timelines, 2) creating flexibility around connection dates and 3) providing certainty of firmness to developers.

ESB GT requests that the DfE/UR engage with industry on all potential solutions in order to provide greater investor certainty and ensure security of supply to all customers. Within this the priority must be the provision of a reasonable firm access date with all connection offers.

2. Hybrid connections

In order to meet climate ambitions, hybrid connections should be prioritised. SONI recently published a consultation[17] considering the concept of hybrid connections. However, this consultation limited hybrid connections to onshore wind/solar and battery storage. In contrast, the CRU published a consultation which enables the dynamic sharing of MEC between wind and solar units[18]. Whilst this is a step forward, ESB GT believes that that hybrid co-located technology sites should not be restricted to solely renewables (wind and solar) and battery storage, nor be site specific (i.e. it should apply to both the onshore and offshore network). Instead, the dynamic sharing of the MEC should be extended to all available technology types, including conventional generation (Combined Cycle Gas Turbines and Open Cycle Gas Turbines), hydropower, renewable, hydrogen and flexible technologies (including long duration large scale storage). This would enable market led decisions which have the potential to result in the most economic and efficient means to meet net zero ambitions. An example of this could be a solar farm producing and exporting energy during the day, and then a hydropower station sharing

[13] SEM-23-004 SEMC Firm Access in Ireland decision.pdf (semcommittee.com)
[14] Connections Offer Process | ESO (nationalgrideso.com)
[15] Connections Reform | ESO (nationalgrideso.com)
[16] Firm Access Detailed Methodology | CRU.ie
[17] NI Over Install Consultation (draft 2.0) (soni.ltd.uk)
[18] CRU202388_-_Installed_Capacity_Cap_Consultation_Paper_2023.pdf (divio-media.com)

the connection point, producing and exporting energy at night. Thus, utilising the connection at all points of the day, resulting in improved security of supply and value for consumers.

This dynamic sharing of MEC could also enable optimised use of existing and new infrastructure through the siting of demand such as electrolysis; reducing constraints whilst attaining future government objectives[19], including decarbonisation of industry, innovation and reduced network reinforcement which enables a low-cost transition. Thereafter, by expanding this policy to wider technologies it would aid in expedited attainment of climate targets, a low-cost transition and security of supply through maximised utilisation of MEC.

Given the potential significant benefits arising from hybrid connections for all technologies, the DfE/UR should prioritise the implementation of the reforms (dynamic sharing MEC hybrid connections) set out within the SONI consultation and embrace the opportunities which will arise from this.

3. Network reinforcement and anticipatory investment

The Northern Irish electricity network is highly constrained[20]. This is the result of a reactive approach towards network reinforcement, arising from SONI's Transmission Development Plan's (TDPNI)[21]. The CfE notes that many of the challenges which developers face in gaining a connection offer arises from scarce network capacity. However, the CfE neglects to consider the potential for the network to also act as a solution to these issues. If SONI were incentivised to develop an anticipatory approach towards future investment (e.g., creating the transmission development plan alongside areas of high generation potential) there would be an expedited rate of new connections approved, whilst providing value for consumers by reducing curtailment/constraint costs as increasing levels of new renewable generation come online.

This approach is currently being considered within Ofgem's Centralised Strategic Network Plan[22] (CSNP) in GB. Within this, the Future System Operator[23] (FSO) will consider system need out to 2050 (currently network requirements are assessed for the next 10 years), aligning network investment to known areas of future investment such as large connections of generation and demand which are tied to UK government targets, for example 50GW of offshore wind[24] by 2030. Moreover, the CSNP seeks

[19] The Path to Net Zero Energy. Safe. Affordable. Clean. (economy-ni.gov.uk)
[20] Connections Capacity Map Northern Ireland Electricity Networks (nienetworks.co.uk)
[21] Transmission-Development-Plan-Northern-Ireland-2021-2030.pdf (soni.ltd.uk)
[22] Centralised Strategic Network Plan: Consultation on framework for identifying and assessing transmission investment options | Ofgem
[23] Future System Operation (FSO) | Ofgem
[24] British energy security strategy - GOV.UK (www.gov.uk)

to optimise network use through the co-location of wind generation with electrolysis plants. Thus, reducing the need for network investment, constraint costs and enabling security of supply.

Furthermore, Article 21 of the Electricity (Northern Ireland) Order 1992[25] states that NIE Networks do not have to make a connection within 3 months where there is a lack of network capacity. Developers are already facing connection delays due to insufficient network capacity and ESB GT has concerns that these challenges will worsen once the proposed Renewable Energy Support Scheme[26] is introduced within NI. This has the potential to see large-scale new generation connected to the network, and if a proactive approach to network reinforcement is not implemented, it risks high consumer cost from dispatch down payments (curtailment and constraint).

There is a need to futureproof this policy by holistically considering network requirements alongside new connections, through an approach of anticipatory investment aligned with developers. This will ensure a low-cost transition for consumers, whilst providing clear signals to investors that they will not be detrimentally impacted due to which sit outside of their control.

4. Holistically considering onshore and offshore networks together

By excluding offshore from this review, the DfE/UR are implementing a silo-based approach towards future policy development which creates the substantial risk of sub-optimal outputs upon both consumers and investors. By excluding offshore connections, there is a substantial risk that future offshore projects either will not be able to connect, or it results in an increased level of constraints on the network to the detriment of other projects. As noted in point 3, there is a need for the UR to direct a holistic assessment of future network need. An example of the importance of this was represented by the Holistic Network Design[27] in Great Britain (GB), whereby once onshore and offshore reinforcements were assessed together [28], it was found that an additional £19.8bn investment was needed through the Accelerated Strategic Transmission Investment programme to enable the safe connection of new assets. This shows the need for a joined-up approach towards development of the onshore and offshore network, and potential detrimental economic consequences of taking a siloed view of network need in the future.

[25] The Electricity (Northern Ireland) Order 1992 (legislation.gov.uk)
[26] Design considerations for a Renewable Electricity Support Scheme for Northern Ireland | Department for the Economy (economy-ni.gov.uk)
[27] The Pathway to 2030 Holistic Network Design | ESO (nationalgrideso.com)
[28] The Pathway to 2030 Holistic Network Design | ESO (nationalgrideso.com)

Question 4: Do you consider the current 'partially deep' connection boundary in NI appropriate? Please explain your rationale further and provide evidence.

ESB GT does not consider the current 'partially deep' connection boundary to be appropriate as partially deep charges place a high burden on developers. Under this approach, they are required to raise funds upfront for generation and connection assets, and the cost to reinforce the network at both the connection voltage level and one level above. As noted within the CfE, this represents a substantially higher charge than within RoI (shallow with reinforcements socialised through Transmission Use of System charges (TUoS) and GB (shallow-ish with higher cost cap). The lower upfront cost, which aids to substantially de-risk investment, may act as a key incentive to invest within RoI and GB, in comparison to NI. Furthermore, developers across the world are already facing increased economic risk due to rising supply chain costs. This can be represented by the Norfolk Boreas offshore wind project, which secured a contract through GB's CfD scheme and ceased construction after facing increased costs of up to 40% due to supply chain inflation[29]. Thus, representing the need to reduce cost to developers if energy targets are to be obtained.

As noted within response to Question 3, the NI transmission system requires large levels of investment in order to facilitate the new generation required to meet 2030 and 2050 targets. In the past, the partially deep connection boundary may have been an appropriate approach to network reinforcement due to the smaller number of yearly connections. However, this is no longer an effective approach. In particular, ESB GT has concerns about the potential for long connection timeframes once the future NI RESS scheme is implemented. NI RESS has the potential to encourage large-scale investment in new generation to NI and if SONI/NIE Networks continue to largely limit network reinforcements to connection applications, there is a substantial risk that either the network is underdeveloped, resulting in increased constraints, or new generation faces substantial delays until the network is reinforced.

Question 5: Do you consider a shallow connection boundary to be appropriate in the NI context? Please explain your rationale further and provide evidence.

If so, which of the following connection types should have a shallow connection boundary;

- **Demand only**
- **Generation only**
- **Demand and Generation**

[29] Norfolk Boreas: Work on offshore wind farm stops over soaring costs - BBC News

- **An alternate connection type (for example Domestic/Non-Domestic connections)**

Please explain your rationale further.

ESB GT believes that NI would benefit from the RoI approach of introducing a shallow connection with reinforcement costs shared through TUoS charges. This should be applicable to both demand and generation assets. This would encourage investment within NI, whilst protecting consumers from increased cost as generators would fund the reinforcements through network charges. This is particularly important as NI has a population of 1.9million, so the impacts of any socialisation would have a marginally higher impact on NI consumers than, for example, British consumers whereby any socialisation is shared across the population of ~67 million. Network charges already current constitute 20-25% of domestic consumer bills within NI[30]. If this was to increase by even 1% this may result in a disproportionately negative economic impact upon consumers due to the smaller population density. Thus, even a small increase in charges upon consumers could vastly increase energy bills. This is particularly important during a time whereby consumers are already facing high energy costs with an increase of up to 76% in gas and 45% in electricity bills[31].

As outlined above, the RoI socialises reinforcement costs through TUoS charges. Within this, charges are split across generation (25%) and demand (75%)[32]. ESB GT believes that there would be benefit in NI applying this approach, creating alignment across the SEM. This transition would have the potential to create multiple benefits such as:

- Increased investment due to lower upfront costs, providing consumers with access to cheaper energy in comparison to fossil fuels
- Prevention of discriminatory impacts to generators across the SEM
- Reduced consumer cost in comparison to direct socialisation upon consumer bills.

Question 6: Do you consider a shallow-ish connection boundary to be appropriate in the NI context? Please explain your rationale further and provide evidence.

If so, which of the following connection types should have a shallow-ash connection boundary;

- **Demand only**
- **Generation only**

[30] Northern Ireland Electricity Limited Price Determination: Summary of report (publishing.service.gov.uk)
[31] Cost of living: How have Northern Ireland's energy bills changed in 2022? - BBC News
[32] Statement-of-Charges-2022_23-_final_draft-v.1.0_clean.pdf (eirgridgroup.com)

- **Demand and Generation**
- **An alternate connection type (for example Domestic/Non-Domestic connections)**

Please explain your rationale further.

As noted in response to Question 5, ESB GT believes that NI should move towards shallow connections, charging network reinforcement costs to generators through the TUoS methodology.

Question 7: Do you believe that moving to a more shallow connection boundary in NI will deliver NI renewable targets that otherwise would not be met? Please provide evidence to demonstrate your answer.

ESB GT believes that moving to a shallow connection boundary will enable NI to deliver renewable targets at an expedited rate as it creates a stronger investment case by reducing upfront investment cost in new low carbon generation. Currently, NI has a small number of generation connections within its queue, totalling 10[33]. This is compared to RoI which, due to the large number of connection applications, has limited the number of new generation connections to 85 generation projects per year within its batch system[34] and GB, which currently has over 280GW of new generation waiting to connect[35]. This represents a stark difference in investor appetite to GB and ROI in comparison to NI, whilst also showcasing the challenges facing NI in meet its climate targets. Whilst GB and the RoI each have a CfD/RESS scheme in place, attracting investment in large-scale renewables, both nations also have substantially lower connection charging regimes which aids to reduce investor risk.

Moreover, it is important to note that the higher connection cost in NI may also prevent smaller businesses investing within NI. Partially deep connection charges may have the unintended consequence of reducing competition by acting as a disincentive to small organisations as they may not be able to raise the additional capital required. This reduced competition will detrimentally impact consumers in the transition to net zero, with this increasing as the NI RESS scheme is introduced.

Question 8: Please provide evidence on the potential impacts on energy affordability in NI if reinforcement costs where socialised further? What would the impact on energy affordability be in NI if household bills where to increase per annum by;

[33] Connections and Applications (soni.ltd.uk)
[34] CRU20060-ECP-2-Decision.pdf (divio-media.com)
[35] ESO End of Year Report May 2021 (nationalgrideso.com)

- **1-3%**
- **4-7%**
- **7-10%**
- **>10%**

Until a decision is made on which charging regime should be taken forward, a quantitative analysis cannot be made. Instead, following this CfE, modelling should be undertaken of the potential impacts from increased socialisation. This should be transparently published within the next stage of the consultation process, enabling thorough analysis of the potential impacts to consumers from a wide range of stakeholders. However, as noted within response to question 5, due to the small population within NI, any increase in socialisation will have a large and detrimental impact upon energy affordability. In 2016, it was reported that 22% of the NI population were in fuel poverty, rising to 45% in 2022[36]. Whilst the cost of obtaining Net Zero will be high, it is vital that no unnecessary additional costs are placed on consumers at a time when many are already facing economic difficulties.

Question 9: Can NIE Networks differentiate between RP6 allowances, RP7 business plan connection requests and how these differentiate and have been factored into the analysis that has been done on potential reinforcement connection costs analysis NIE Networks have completed?

The CRU are currently undertaking reform on both connection policy[37] and price control methodologies[38]. There may be benefit from working with the CRU in determining best practice in developing a price control methodology under uncertainty. Both NI and RoI are undertaking extensive reform which may have unforeseen consequences upon current and future price control allocations. This could be facilitated through working groups across regulatory authorities. Further, re-opener mechanisms, as utilised within GB Price Controls[39], can aid in creating flexibility within the process and managing any additional risk or costs which emerge between price controls.

Question 10: Do you think that a developer led or plan led is the best approach for the future development of connections in NI? Please explain your answer.

[36] Fuel Poverty in Northern Ireland - National Energy Action (NEA)
[37] CRU202341_Electricity_Generation_and_System_Services_Connection_Policy_Call_for_Eviden.PDF (divio-media.com)
[38] CRU2023105-EirGrid-Offshore-Revenue-Model-Call-For-Evidence.pdf (divio-media.com)
[39] Re-opener Guidance and Application Requirements Document (ofgem.gov.uk)

ESB GT believes that NI should retain its current developer led approach for connections and the future siting of generation. Introducing a plan led approach would create substantial delays and increase the extant risk of not obtaining 2030 targets. This is due to the requirement to:

1) Develop a new regulatory regime for the planning body, including a methodology to implement a plan led approach. Any framework to facilitate this would have to be extensively publicly consulted upon to ensure transparency, certainty and ensure effective design. Thus, introducing a plan led system has the potential to create extensive delays in comparison to the current developer led approach. This represented by the CSNP in GB, whereby the first consultation was published in 2021[40], and the regulatory framework and underpinning methodology is still being developed. Within this, the ESO will be required to develop multi-vector energy plans, titled Strategic Spatial Energy Plan's[41]. Whilst Ofgem and the ESO are aiming to finalise this by 2024, as the ESO transitions to FSO, there is a risk that this may not be in place to facilitate this transition. Thus representing a timeline of at least three years to construct a plan-led system.

2) Invest in additional resources to ensure effective outcomes, including in-sourcing of skills and knowledge and technical resources (i.e. software). In order to ascertain the most appropriate locational factors for efficient generation, an assessment is required on a range of factors including, but not limited to wind class, optimal wind speed across different turbine technology, the structural stability of the soil through geotechnical assessment and use of advanced software such as Geographical Information System for modelling. It may not be realistic to expect SONI to have this knowledge, expertise or resource in-house, nor for them to have funding available to out-source these skills. If this does not exist already, it would require high levels of public investment in order to source this knowledge. Moreover, as seen within the Department of the Environment Climate and Communications' (DECC) recent consultation on ORESS 2 auction design[42], there are large levels of data required in order to introduce a plan-led system, which takes time to source, and if not provided, it may have detrimental impacts such as reducing the clarity and certainty required to sufficiently de-risk an auction. Thus, this risks the potential for detrimental economic impacts to current and future consumers. Instead, developers should continue to lead in identifying sites for future development. Moreover, by retaining a developer led process it ensures value for money for consumers as locations will be selected which provide the greatest economies of scale and generation capabilities, providing more generation at a lower cost.

[40] Consultation on the initial findings of our Electricity Transmission Network Planning Review | Ofgem
[41] Electricity Networks Commissioner letter to Secretary of State for Energy Security and Net Zero (publishing.service.gov.uk)
[42] gov.ie - Consultation on ORESS Auction Design (www.gov.ie)

3) Develop a range of new incentives within price control guidance. In developing a plan-led framework, it is vital that a range of effective incentives are in place to ensure optimum outcomes and transparent consequences if decisions are made which negatively impact consumers. An example of this may be directing generation to the unsuitable location (e.g. selecting location due to capacity rather than generation ability such as wind speed), restricting levels of generation and reducing consumer benefit. Within GB, the ESO's price control incentives framework had to be substantially altered in order to introduce new system planning roles and responsibilities[43]. This created the need for a new round of consultation, creating additional delays to the process.

The time, effort and cost required to effectively introduce a plan-led system must be taken into account and an Impact Assessment should be undertaken before any decisions are made.

Under a developer-led approach, project developers spend years investing time and money into undertaking large-scale assessments of the geographic capabilities of land in order to make investment decisions. If transitioning to a plan-led system, these costs would need to be incurred by the state, which may not bring the consumer savings and protections proposed within the guiding principle of this CfE. Moreover, ESB GT is unsure why a plan led approach is being proposed as this was already discounted within Shaping our Energy Future[44].

Question 11: Do you think the current 3-month timeframe for SONI and NIE Networks to issue a connection offer is appropriate? Please explain your answer.

ESB GT is supportive of retaining the current 3-month timeframe for SONI and NIE Networks.[45]. As experienced within GB[46], this timeframe provides great certainty to investors and expedites rates of new renewables coming online to the grid. However, it may be beneficial to consider a batched system to maximises SONI/NEI Network resourcing, and to enable an approach of anticipatory investment as outlined in response to Question 3. This approach is currently implemented within Ireland[47] and is proposed to be introduced within GB through the ESO led connection reform[48]. However, within GB the ESO is proposing a more regular batch, taking place every six months, rather than yearly as within RoI. This enables the benefits of a more coordinated approach but prevents the risk of substantial delays if projects are not included within that batch.

[43] ESO roles guidance (ofgem.gov.uk)
[44] Shaping our Electricity Future (eirgridgroup.com)
[45] Connections Offer Process | ESO (nationalgrideso.com)
[46] Connections Offer Process | ESO (nationalgrideso.com)
[47] Enduring Connection Policy (eirgridgroup.com)
[48] Connections Reform | ESO (nationalgrideso.com)

Within RoI, the introduction of a batched system has brought greater efficiency in gaining connections, reinforcing the network and provision of certainty to developers. However, the yearly process means that at times developers are forced to wait for over two years in order to gain a connection agreement[49] if excluded from that yearly batch. Often, this results in generators missing opportunities to participate in support auctions, creating lower competition and poor outcomes for both generators and consumers. Moreover, if introducing a batch system these should not be limited to arbitrary numbers e.g., 100 projects or 10 batteries. This approach, of not limiting number or type of connections, has also been proposed within GB Connection reforms. Instead, the TSO should consider megawatt (MW) generation and the build time of proposed low carbon generation, and aligning system services, in order to ensure that all technology that is required to be in place for 2030, will be. Otherwise, there is a risk that climate goals will not be achieved.

Consequently, when considering reforms to the current connections process, the DfE/UR should consider a developer led approach which is combined with a batched system that enables an anticipatory approach towards network investment to ensure the most efficient outcomes.

Question 12: If our legislation facilitated it, should obtaining planning permission be a pre-requisite in order to receive a grid connection? Please explain your answer.

ESB GT is supportive of planning permission being a pre-requisite to gaining a connection offer. This would act as a filter to prevent speculative applications as it requires substantial economic investment from developers. Moreover, by providing proof of planning permission there is an increased likelihood that those projects entering the connection queue will be more likely to progress to completion. As experience in the SEM Capacity Market, the weakening of qualification requirements (such as planning permission), places a significant amount of risk on the project and increases the chance of failure. The inclusion of planning permission as a pre-requisite should assist in preventing grid hoarding.

Question 13: If our legislation facilitated it, do respondents consider any other issues associated with the current queue process? Or that a different approach to managing the connection queue, would result in quicker connections? If so, what would that be? Are there any lessons to be learned from other jurisdictions?

[49] "*When considering the time between batches and the additional time for the processing of applications before an offer can be issued, the overall timelines for grid permitting can be more than two years from grant of planning for some applications*."

There would be benefit in including queue management principles. The CfE notes that inactive projects are creating challenges to projects who are progressing at the pace required. Projects that are not viable should not be permitted to create delays to projects which are ready to connect and provide sources of generation and/or flexibility. Queue management principles are already being implemented by the ESO, as represented within the ESO's 5-point plan in GB[50] (e.g. Transmission Entry Capacity amnesty). These powers are also proposed to be expanded whereby the ESO has the right to terminate contracted projects which are not progressing against agreed milestones[51].

Queue management principles are key in ensuring that inactive projects do not create a barrier to NI climate ambitions or developers who operate using best practice.

Question 14: Do you have any other information relevant to the subject matter of this Call for Evidence that you think we should consider?

In addition to the response to Question 3, ESB GT believes it would also be beneficial to provide the cost of the connection with the connection offer. This would provide certainty and reduce the requirement for developers to hedge cost when participating in future RESS schemes, protecting consumers from unnecessary additional cost due to a lack of transparency.

Question 15: Please list any connection issues you have raised in order of priority. Please explain your reasoning behind your priority.

1. The need for certainty and transparency. Throughout the decision-making process, there must be extensive engagement with industry to ensure that any changes are practical and provide the investor confidence required to obtain 2030 and 2050 climate ambitions.
2. ESB GT believes that NI should retain its current developer led approach for connections and the future siting of generation. Introducing a plan led approach would create substantial delays and increase the extant risk of not obtaining 2030 targets.
3. Firm access rules have been outlined within Ireland in 2023[52], yet there has been no information provided on this within NI i.e. if the same rules apply or if a different approach may be taken. This lack of clarity creates a real and emerging risk that NI may fall behind on meeting 2030 climate ambitions, deterring investment due to uncertainty surrounding compensation rules.

[50] What are we doing now? Our five point plan | ESO (nationalgrideso.com)
[51] CMP376: Inclusion of Queue Management process within the CUSC | ESO (nationalgrideso.com)
[52] SEM-23-004 SEMC Firm Access in Ireland decision.pdf (semcommittee.com)

4. ESB GT is supportive of planning permission being a pre-requisite to gaining a connection offer. This would act as a filter to prevent speculative applications as it requires substantial economic investment from developers. Moreover, by providing proof of planning permission there is an increased likelihood that those projects entering the connection queue will be more likely to progress to completion

5. ESB GT believes that the introduction of hybrid connections should be a priority. Within this, hybrid co-located technology sites should not be restricted to solely renewables (wind and solar) and battery storage, nor be site specific (i.e. it should apply to both the onshore and offshore network). Instead, the dynamic sharing of the MEC should be extended to all available technology types, including conventional generation (Combined Cycle Gas Turbines and Open Cycle Gas Turbines), hydropower, renewable, hydrogen and flexible technologies (including long duration large scale storage). This would enable market led decisions which have the potential to result in the most economic and efficient means to meet net zero ambitions.

6. NI should retain its requirement to provide a connection offer within 3-months. This timeframe provides great certainty to investors and expedites rates of new renewables coming online to the NI grid.

7. Move towards the Irish model for network charges, creating consistency across the Single Energy Market (SEM) and preventing discriminatory impacts to generators investing across NI and the Republic of Ireland (RoI). NI would benefit from the RoI approach of introducing a shallow connection with reinforcement costs shared through TUoS charges. This should be implemented to both demand and generation assets.

8. There would be benefit in introducing a regular batched process (e.g. every 6 months) to assess connection applications. This would aid in maximising SONI/NEI Network resourcing, enable an approach of anticipatory investment which would enable an expedited rate of new connections approved, whilst providing value for consumers by reducing curtailment/constraint costs.

9. By excluding offshore connections from this review there is a substantial risk that future offshore projects either will not be able to connect, or it results in an increased level of constraints on the network to the detriment of other projects. There is a need for the UR to direct a holistic assessment of future network need, considering the onshore and offshore network together.

10. NI would benefit from introducing queue management principles within connection reform. The CfE notes that inactive projects are creating challenges to projects who are progressing at the pace required. Projects that are not viable should not be permitted to create delays to projects which are ready to connect and provide sources of generation and/or flexibility. Queue

management principles are already being implemented by the ESO, as represented within the ESO's 5-point plan in GB[53] (e.g. Transmission Entry Capacity amnesty). These powers are also proposed to be expanded whereby the ESO has the right to terminate contracted projects which are not progressing against agreed milestones[54].

11. This CfE outlines the challenges that the NI network create to connections but neglects to consider the potential for the network to also act as a solution to these issues. If SONI were incentivised to develop an anticipatory approach towards future investment (e.g., creating the transmission development plan alongside areas of high generation potential) there would be an expedited rate of new connections approved, whilst providing value for consumers by reducing curtailment/constraint costs as increasing levels of new renewable generation come online.

[53] What are we doing now? Our five point plan | ESO (nationalgrideso.com)
[54] CMP376: Inclusion of Queue Management process within the CUSC | ESO (nationalgrideso.com)