



## **SMART GRID IRELAND RESPONSE TO:**

# **A REVIEW OF THE CONNECTIONS POLICY FRAMEWORK IN NORTHERN IRELAND**

**September 2023**

**Membership Sample**



**Submitted by:** Bob Barbour, Secretariat, Smart Grid Ireland

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## **RESPONSE TO DEPARTMENT OF ECONOMY (DfE) & UTILITY REGULATOR**

Smart Grid Ireland is pleased to have the opportunity to submit a response to this important consultation. As an industry stakeholder group we represent a range of organizations who are involved directly with electricity connections and distribution networks on the island of Ireland. We would like to make it clear from the outset that the views expressed herein reflect the general views of our members.

We welcome this review in particular due to the growing amount of renewable energy and storage requiring connections to the grid including the investments going into grid modernization to support these connections. Delays in grid connection, whether it be for the requirement for studies and assessments, determining the cost for the connection to the user or delays due to the need to reinforce the grid, are putting an economic burden on the customer and negatively impacting economic development.

We note the current connections policy framework covers a range of connection types and capital investment costs over a range of operational parameters which are deemed to be out of synch with the need to provide a levelling up approach between the current socialized cost framework and costs currently applied to businesses and developers. It is our view that the costs associated with connections to a modern customer centric electrical energy infrastructure needs to be fair and equitable.

It is also a point of reference that customer connection costs to the distribution network in Northern Ireland are much greater than those in both the Republic of Ireland and the rest of Great Britain where the cost of reinforcement is socialized. Unless this is addressed the current connection charging regime will continue to impact customer and community investments in renewable and storage technologies that could significantly contribute to achieving the decarbonizing goals legislated for 2030.

On 1<sup>st</sup> April 2023 Ofgen instructed the Great Britain distribution network owners regarding changes to their current connection charges so that no reinforcement costs would be charged to the connecting customer and that the new charging regime would include safeguards to protect customers from the previously high costs for connections.

Going forward Smart Grid Ireland is of the view that the current connections policy review is only part of a greater need for an overall system design approach towards Grid Capacity and decarbonizing energy, heat, and transport, delivering of solutions for cities and the region. Redesigning of the regulatory policy framework should help ensure that the Grid is fit for the future and the widescale deployment of a decentralized smart grid. We believe that this will help authorities meet the challenge of the energy transition. Our electricity systems need to transform at an unprecedented pace to achieve decarbonization objectives by connecting decentralized renewable energy production and new assets (energy storage, electric vehicle chargers, heat pumps, electrification of industrial processes) to the power grid in a significant scale. Smart Grids will play a central role in this transition.

## **RESPONSE TO THE CALL FOR EVIDENCE**

### **Q1. 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?**

One of the important concerns for future electricity grids is the issue of resiliency. This is becoming increasingly critical with climate change and the electrification of heat and transport. Microgrids have an important role in an overall strategy for addressing resiliency. As deployment of distributed renewables at the customer and community levels becomes increasingly attractive economically, they provide the potential to provide significant benefits to customers and communities, including economically disadvantaged customers. At the same time, these resources can be part of a resiliency solution with energy storage, managed loads and electric vehicle charging. A microgrid structure to support local resilience adds to the value of these investments as well as still allowing these resources to provide decarbonized electricity and flexibility to the grid.

The risks in accelerating the deployment and support for local microgrids is that the design, installation and ongoing support of the electrical infrastructure of the microgrid may not meet the same standards as the overall regulated electric grid. This could have safety and reliability implications for the local microgrid. However, these risks can be overcome with policies that help assure the safety and reliability of the design and operation for the local microgrids, regardless of ownership structures.

The rollout of microgrids is currently on high demand from the customer base not only to speed up decarbonization, reduce operating costs while having more control over supply & demand peaks and troughs – importing and exporting electricity to and from the grid as required. We would assume that this would require significant changes to the regulatory / tariff regime from a volume related framework to a capacity charging framework including socialization of much of the network costs. Smart Grid Ireland supports the acceleration of microgrid development as part of the future distributed network.

### **Q2. Do you agree with our guiding principles? Please expand your answer.**

Smart Grid Ireland agrees with the guiding principles of the “Call for Evidence” and would add some additional comment. Connection charges should be aligned with the additional benefits flowing to the economy and the energy transition through the government’s 10X and Climate Change policies. Our members and stakeholders are prepared to invest in an attractive economic operating framework when connections are easier to obtain and the costs are not prohibitive as currently is the case for some. The current connection charging methodology in Northern Ireland is acting as a barrier to these investments compared to Great Britain.

**Q3. 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.**

Smart Grid Ireland stakeholders welcomes this Call for Evidence by DfE and UREGNI in seeking to address, in our opinion, the current and belated connection charging regime faced by our stakeholders and customers. Until now the “do nothing” approach compared to Great Britain and the Republic of Ireland has had a significant negative impact on the ability of Northern Ireland stakeholder and customers to invest selectively in expanding their operations and improve productivity and competitiveness. There is also no mention in the Call for Evidence on the impact of connection charging relative to the cost if any, on renewable generation and the bidding costs to recover those costs in electricity markets such as through ISEM or DS3 System Services & Flex.

**Q4. Do you consider the current ‘partially deep’ connection boundary in NI appropriate? Please explain your rationale further and provide evidence**

NO

Connection cost issues as already outlined include high upfront costs – a barrier to adoption.

Current requirement is that the customer is charged only for the section of the grid associated with their connection instead of the upgrade being viewed more holistically as part of the network upgrade as a social cost. This approach only multiplies the number of times the network needs to be attended to.

Rural connections more likely to be discriminated against with higher quote values with less take up.

Current approach deemed to be stifling competitiveness especially for first-time connections in the network area.

**Q5. 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 -An alternate connection type (for example Domestic/Non-Domestic connections)**

YES

Examples are available throughout Europe where costs are based on a percentage subsidy however for alignment purposes the practical approach would be to align with the current connection arrangement in Great Britain

Definitely for demand customers as a starting point but there should be fair and proportionate connection policy for both demand and generation. Vulnerable customers must be protected at all times.

**Q6. Do you consider a shallow-ish 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-ish connection boundary;**

YES

Difficult to articulate due to the number of choices to be considered when developing new connection types with some of them being socialized and the approach taken. This is something that can be considered on the round when all factors are brought into play such as rebates, follow-on connections, impact on grid performance, resiliency issues and value, etc.

**Q7. 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.**

YES

We know from experience working with customers and potential customers that the gateway costs and the length of time to achieve a connection is much too long and costs too high so that it negatively impacts investment in renewable energy sources. It is essential that connection costs are much more affordable and surveys and upgrade time compressed. It is also evident, based on the current consumption from renewable energy sources at around 38%, that unless the connections regime is changed, the additional 40% to meet the 80% commitment is unlikely to happen.

**Q8. Please provide evidence on the potential impacts on energy affordability in NI if reinforcement costs were socialised further? What would the impact on energy affordability be in NI if household bills were to increase per annum by: • 1-3% • 4-7% • 7-10%**

No data available at hand to provide a specific response. We can only make assumptions based on evidence of customers on the ground. However, it is important to note that reinforcement investments to the grid support a wide variety of goals associated with decarbonization and reliability – connection of distributed renewables, electrification of transport (both customer and public charging requirements), electrification of heat and resilience of the grid. This supports increased socialization of investments except for large renewable installations that have investment requirements that do not have other long-term benefits. The excellent strategy if NIE of “only touch

the grid once” also is an important consideration to achieve the most economical overall grid modernization strategy.

**Q9. 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?**

Question for NIE Networks.

**Q10. 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.**

SGI recommends a plan-led approach that provides a modernized fgrid that can support broad deployment of distributed renewables, realizing that final decisions on renewable investments will be at the customer, community and developer level. This is consistent with the designed in systems approach catered for in RP7. The Developer led approach based on a series of applications in our view would be inefficient, lead to sub optimal solutions, cost more, inefficient resources utilization and take much longer to achieve desired outcomes.

**Q11. Do you think the current 3- month timeframe for SONI and NIE Networks to issue a connection offer is appropriate? Please explain your answer.**

YES – As often stated in the commercial world - TIME = VALUE. From a utility perspective they may wish an extension and while we recognize that some connections can be extremely complex, we would suggest that the time frames are varied depending on complexity between two weeks for simple small scale connections and up to a maximum of 4 months on complex installations with potential overall grid impacts.

**Q12. If our legislation facilitated it, should obtaining planning permission be a pre-requisite in order to receive a grid connection? Please explain your answer**

YES. This would facilitate planning, prioritization, resource management, reduce accumulation of capacity on a congested network and provide a level of assurance. It would also give a balanced approach knowing the timelines needed for the planning process.

**Q13. 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?**

ESB Networks take a batch approach to processing application at both transmission and distribution levels. They have established times when applications are to be submitted with established conditions for acceptance and when an offer will be released. This approach may need legislative changes if applied to Northern Ireland,

however it would enhance the current process applied by NIE Networks. There are also opportunities for application of advanced tools for fast assessment of hosting capacity issues and evaluation of investment alternatives to solve hosting capacity issues. Support for application and assessment of these kinds of tools through innovation funding would be appropriate.

**Q14. Do you have any other information relevant to the subject matter of this Call for Evidence that you think we should consider?**

NO; apart from the urgent need for improvement to the connections process.

**Q15. Please list any connection issues you have raised in order of priority. Please explain your reasoning behind your priority.**

SGL has raised some at the request of member companies. Small sample: - Aiken factory extension - sub-station, Coleraine. Mater Hospital emergency battery storage, North Belfast, £72K cost and delays in processing application and ordering component parts. Inward Investment - Atlantic Hub Data Centre, Maydown, delays in survey work and pricing by SONI etc, All of these causing frustration to customers and a significant slowing down of investment.

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