6 October 2023

RE: A Review of the Connections Policy Framework in Northern Ireland

Energy Storage Ireland (ESI) is an industry representative association comprised of members who are active in the development of energy storage in Ireland and Northern Ireland. Our aims are to promote the benefits of energy storage in meeting our future decarbonisation goals and to work with policy makers in facilitating the development of energy storage on the island of Ireland. We represent 59 companies from across the energy storage supply chain.

Energy storage will play a significant role in facilitating higher levels of renewable generation on the power system and in helping achieve national renewable electricity targets. Storage systems can act in the energy, capacity and system services markets to deliver a wide range of benefits such as wholesale energy price reductions, reduced CO2 emissions and flexible system support services to help manage the grid with higher levels of renewables.

We would like to thank the UR and DfE for the opportunity to respond to A Review of the Connections Policy Framework in Northern Ireland.

Summary

With regards to shallow vs. deep connection arrangements, we would encourage NI to move towards fully shallow arrangements.

Ultimately, all costs are borne by the end user. High connection costs to the developer are already being passed on to the consumer whilst also acting as a barrier to increased renewables, which would lower consumer bills. Should this change with a move to a shallower connections arrangement, customers will see a larger portion of their bill on Use of system charges, however this does not mean that their overall bill will be more expensive. By lowering the barrier to connection to low carbon generators, the actual overall cost to the consumer should be lower. At present, networks and related costs account for around 24% of a consumer's bill, while wholesale costs account for the greater portion of a consumer's bill at 69%.[1] By moving to a more-shallow charging arrangement, this would in turn reduce wholesale costs by reducing the cost of renewable deployment through lower renewable support/CPPA prices.

[1] https://www.uregni.gov.uk/bills-and-prices

We would also ask the UR and DfE to clarify how storage would be categorized with respect to any changes to the current arrangements. While energy storage is often deemed as generation, energy storage contributes a wide range of services to the grid, including congestion management, peaking capacity, alternative network solutions, increasing renewables on the grid, delivering cost benefits to end consumers, and ensuring security of supply, to name a few.

In addition, storage has the ability to charge at times of low demand/excess generation and discharge at times of low generation/high demand, dynamically meeting the needs of the system. However, current arrangements treat storage as a contributor to capacity congestion. In addition, the current arrangements do not provide a level playing field for the provision of reactive power services, as increased energy consumption to deliver these services is not compensated like for other generators.

We believe a review is needed of connection policy relating to storage so that unnecessary restrictions are not placed on storage assets trying to connect to the system. It Is important that energy storage is not faced with demand charges and face double charges and/or delays while it is determined where BESS is categorized after an application has been made and/or accepted.

With regards to UoS charges, we believe a review is needed with regards to the charging arrangements for storage.

ESI would propose an interim solution for network tariffs for storage units, as well as putting forward a long-term solution for the enduring tariff regime. Both proposals seek to reflect the unique characteristics of storage technologies in the market arrangements. Consideration of the flexibility provided by storage assets, as well as the wider system benefits of such, should be carefully considered when formulating the solutions for network charging for storage assets both in the short term and long-run. (Note: ESI promote consistency in tariff design and implementation across the island of Ireland).

<u>Interim Proposals</u>

- Storage units pay DTUoS or DUoS exclusively on the import capacity required for serving house load. (House load refers to the electricity consumed on-site when the storage unit is offline i.e., neither importing nor exporting)

- For metering purposes, the house load would be defined as per the storage unit's connection agreement (plus a potential additional buffer), negating the need for new metering equipment

- No volumetric charges (GTUoS, DTUoS or DUoS) on the electricity volumes withdrawn and later exported back onto the grid (stored energy)
- MIC capacity element of DTUoS/DUoS removed

Long-Term Proposals for Enduring Tariff Regime

We believe the following should be considered as part of the longer-term network charging review:

- Introduce a dynamic tariff rate for storage units which reflects the demands on the system at any given time (will require the development of nodal pricing mechanisms)
- Fixed capacity charge removed
- Storage units subject to a per unit import and export charge, with negative charges also introduced (i.e. TUoS payments) that incentivizes storage/flexibility in certain locations of the grid.
- Allows storage units to import from grid at very low DTUoS/DUoS rates during off-peak times and receive TUoS payments in times of high constraints, excess supply, etc. for example similar to the "No Residual" DUoS tariffs introduced in GB that are applied to sites that are not considered final demand or consumption users.
- Dynamic GTUoS will further incentivize export during times of high demand

Such proposals offer short-and-long term solutions for the enhanced roll-out of storage in Ireland by reducing the unreasonably high network tariffs that units are currently subject to. Implementing the above measures will serve to further enable storage's full participation in the electricity market and allow for units to be adequately compensated for the critical services and value they provide to the system operators and consumers.

With the significant costs of network tariffs reduced, the business case for storage will improve substantially, and incentivize investment in all forms of storage technologies with various reaction and duration capabilities to help support renewable energy capacity, displace fossil fuels and contribute to security of supply, amongst other benefits. This will also incentivize demand side response in a beneficial way for the system and decarbonisation targets.

NIE Networks Flexible Connections Call for Evidence

We note that NIE Networks have recently held a call for evidence on flexible connections and are currently exploring ways by which flexible connections can be accommodated in the NI system. Energy storage is a flexible asset that will aid the operation of the system, reduce renewable dispatch down and displace fossil fuel generation at times of peak demand. The

profile of a storage system i.e. charging at low demand/high wind and discharging at high/demand/low wind should not present additional system demand during periods of congestion.

A policy for flexible MIC should be considered. This is particularly relevant in constrained regions where the SOs may have concerns with allocating additional firm import capacity. This policy would provide capability for a storage unit to access their full desired MIC at certain defined times.

Flexible connections should be considered within the context of this Call for Evidence, and the role of storage should be acknowledged in terms of being a cost-efficient alternative to reinforcement work which should be compensated accordingly.

A policy framework for energy storage

The Department of the Environment, Climate and Communications in ROI completed a consultation on an electricity storage policy framework for Ireland earlier this year. [2] It is anticipated that the framework will be published at the end of 2023, and will include actions for various stakeholders. We would strongly encourage DfE to consider conducting a similar consultation. It is vital that energy storage policy is coherent within the SEM, and that NI does not slip behind ROI when it comes to energy storage policy.

Conclusion

ESI would like to thank the UR and DfE for the opportunity to respond to A Review of the Connections Policy Framework in Northern Ireland.

We are happy to discuss any points included in this response further.

Kind Regards,

Bobby Smith
Head of Energy Storage Ireland

[2] https://www.gov.ie/en/press-release/30887-department-of-the-environment-climate-and-communications-launches-a-consultation-on-an-electricity-storage-policy-framework-for-ireland/