

Unlocking Orkney's renewable potential

An alternative approach

Background

Orkney is home to some of Europe's greatest renewable energy resources, from established technologies such as onshore wind; to emerging, innovative wave and tidal energy.

Following the significant growth in the volume of onshore wind connecting to the Orkney electricity network over recent years, SSEN introduced the world's first Active Network Management system to allow additional generation to connect and maximise the existing system's capability. However, the existing network infrastructure on Orkney is now at full capacity and network reinforcement is required to accommodate additional renewable electricity generation.

With significant volumes of new renewable generation looking to potentially connect, both at transmission and distribution level, there is a clear need to provide a transmission connection from Orkney to the main GB transmission system to allow this renewable electricity generation to be transmitted to areas of demand.

An alternative approach

To proceed with a transmission connection first requires regulatory approval from Ofgem due to the level of financial investment required. This in turn requires contracted developers to financially commit to their projects. In many cases, this is likely to be dependent on developers receiving the necessary government policy support to underpin their investment. The current regulatory framework also requires capacity to be allocated in chronological order, based on respective developers contracted position.

Over the past decade, SSEN has explored and developed a number of options to provide a transmission connection to Orkney based on the generation requirements at the time. Due to a number of factors over recent years, such as changes in government policy or the readiness and commercial viability of renewable energy projects across Orkney, it has not been possible to proceed with the transmission connection to date.

To try and overcome the current impasse and help Orkney realise its vast renewables potential, SSEN is considering an alternative approach to allocate the necessary volume of capacity that is required to underpin the investment case for the proposed 180MW Phase 1 transmission connection. This approach would see capacity allocated on a ready to connect basis, whereby those developers who are ready to commit to their projects would be allocated capacity.

Building on established industry principles capacity is expected to be made available to customers in line with their contracted position, but if those developers are unable to commit, the capacity would then be offered to subsequent developers in the queue until such time the available capacity is filled.

This innovative pilot, the first of its kind in GB, would first require approval from both the energy regulator, Ofgem, and the System Operator, National Grid.

Financial securities

As part of the grid connection offer process, developers are required to provide financial securities to underwrite the cost of the transmission reinforcement. The Orkney transmission connection is unique as there are a number of smaller generation customers looking to connect who are being asked to provide significant financial securities to underwrite the transmission investment.

Due to the level of investment required to provide a transmission connection, the security payments required by developers are considered prohibitive in many cases. Following feedback from its customers and other stakeholders, SSEN is currently evaluating the security payments required and is actively exploring ways of reducing this financial burden.

SSEN has a licence obligation to ensure that all customers are treated in a fair and consistent way and any changes to the financial underwriting would be applied to all customers looking to connect. The outcome of this review is expected in mid-December.

Next steps

Over the coming weeks SSEN will engage with all interested stakeholders to develop a draft set of rules related to the alternative approach which will then be subject to public consultation in January 2018. It is expected that the rules will build on existing industry work in this area, such as industry wide proposals being taken forward by the System Operator, National Grid, which are expected to be introduced in future years; as well as work already established from the Electricity Networks Association.

Following the outcome of the consultation, SSEN will consider the feedback received and will then make a formal request to Ofgem and National Grid to consider the alternative approach pilot in early 2018. Subject to approval, the outcome of the alternative approach to the queue management for Orkney is expected to strengthen the investment case to provide a transmission connection to Orkney, helping the islands build on its renewables legacy and realise its vast potential.

For more information on the proposed Orkney transmission reinforcement, please visit <http://www.ssen-transmission.co.uk/projects/orkney/>