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Dear Mr Norman

Shetland transmission project – Consultation on Final Needs Case and Delivery model

Thank you for the opportunity to respond to the above consultation.

The Scottish Highlands and the Islands off the north and west coast represent a large geographical region. The region has a low population density with many pockets of population spread across areas that are often remote. The region is home to a large volume of renewable energy power stations – from small scale, local developments to very large commercial installations. There are many more sites across the region that could be exploited to provide yet more cost effective, low carbon, renewable energy.

Highlands and Islands Enterprise, along with its local partners - the democratically elected local authorities covering the north of Scotland and the islands; Shetland Islands Council, Orkney Islands Council, Comhairle nan Eilean Siar, The Highland Council and Argyll & Bute Council, makes representations to key participants on behalf of industry to influence the way in which regulation of the energy industry is managed in order to ensure the needs and interests of the Highlands and Islands are understood and taken into consideration. HIE also works closely with Scottish Government in relation to regulatory matters.

This consultation is of considerable interest to us, having worked jointly for over a decade to support the case for investment in new island transmission investments. In our view the need for investment in new transmission infrastructure to each of our main island groups is unquestionable, and without it the ability of the islands to fully develop their substantial renewable energy resource will simply not happen beyond current levels. Development of this resource offers a significant opportunity to secure long term, and transformational, economic and community benefits to these areas, the importance of which should not be underestimated.

This has been our long held view and is the reason we have worked so hard over many years with network owners and operators, Scottish and UK Governments to ensure that a policy solution would be implemented to support renewable energy aspirations and opportunities. We were delighted when UK Government announced that Remote Island Wind would be eligible under the

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forthcoming CfD auction as this is a major step towards achieving these aims.

We fully support SSEN's proposed approach to securing the necessary investment approval, and Ofgem's minded to position to approve a 600MW connection to Shetland, subject to Viking Wind Energy securing CfD in the forthcoming auction.

We are aware that Ofgem is currently consulting on SHEPD's proposal to contribute to the cost of island transmission links. We are entirely supportive of this proposal and will respond fully to that consultation in due course.

Our detailed response to the consultation questions is attached. We look forward to seeing the results of the consultation in due course.

Yours sincerely

A handwritten signature in black ink that reads "Elaine Hanton". The signature is written in a cursive style and is positioned above a light grey rectangular background.

Elaine Hanton
Head of Energy: Emerging Technologies and Regulation

In partnership with: -
Shetland Islands Council
Orkney Islands Council
Comhairle nan Eilean Siar
The Highland Council
Argyll & Bute Council

1. Do you agree that the current network on the Shetland Isles needs reinforcing in order to connect additional generation?

The subsea interconnector is essential for wind farm development such as the scale of Viking Energy Wind Farm (VEWF) which is likely to be one of the world's most productive onshore wind farms and the third largest in the UK [1]. We therefore strongly agree that the current network on the Shetland Islands needs reinforced.

In addition to the current network constraint, there is an imminent energy supply challenge with the Lerwick Power Station, which is responsible for most of Shetland's supply, now reaching the end of its operational life. Further to Ofgem's decision to reject the Shetland New Energy Solution last year, there is an urgent need to ensure future energy security on Shetland in an economically viable way. We therefore believe that the Shetland Needs Case represents a robust case for reinforcement and provides the best possible opportunity to facilitate the development of more sustainable forms of energy generation, as well as ensuring security of supply on Shetland.

2. What are your views on the generation scenarios developed by SHE-T? We are particularly interested in views on the likelihood of wind generation on Shetland developing to the levels predicted by SHE-T's scenarios.

The generation scenarios developed by SHE-T appear reasonable for assessing the need for a new transmission link to Shetland.

Given that Viking Energy (now consented at 457 MW), Peel Energy's Beaw Field (72 MW) and Energy Isles (120 MW, but with section 36 scoping for up to 200MW underway) are already transmission-connected contracted generators and have been for a long time, we believe that GHD scenarios 2 and 3 represent an accurate representation of the future wind generation capacity. Viking Energy and Beaw Field are expected to be operational by the end of March 2024 [2]. Peel Energy's Mossy Hill project (50 MW) secured planning consent on 15th April 2019 and has an open offer from National Grid Electricity System Operator (NGESO) and Scottish Hydro Electric Transmission (SHET) where they can use the 600MW link with curtailment when it may be overloaded, or, they can opt for capacity on a second link. On that basis we believe generation scenarios 2 and 3 are entirely reasonable.

GHD scenario 1 assumes the generation capacity will plateau at 400MW, which we believe underrepresents the generation potential on Shetland. Given the high level of securities and liabilities set out under the CMP192 user commitment methodology [3] and uncertainty over future TNUoS charges, further interest in connecting is only likely to come following a decision to progress the interconnector when some of the risk

associated with connection are removed. Given the substantial resource on Shetland we would expect to see further onshore wind and offshore projects, including wave, tidal and floating wind, come forward. In fact, Marine Scotland has already identified two areas off Shetland as being suitable for offshore wind development. While marine renewable technologies are still being developed, Shetland has already been identified as a prime area for future build out. This is evidenced by Nova Innovation's tidal energy project in the Blue Mull Sound, between the northern most islands, which has been generating since 2016 and is being expanded further with the support of European funds [4]. In our view, the interconnector will be important in facilitating the future development of offshore renewable energy technologies.

3. What are your views on SHE-T's approach to optioneering, are there other options that SHE-T should have considered?

We agree with SHE-T's approach to prioritise the 600MW option because this option is capable of being delivered within the parameters of the current planning consent. This includes the 412 MW VEFW and Peel Energy's 72MW project for south Yell, which are expected to be operational by the end of March 2024. In addition, projects such as Energy Isles (120 MW) and Mossy Hill (50 MW) further supports the 600 MW option. We believe that it is more cost effective to have a 600MW link which simultaneously addresses energy security and climate change mitigation issues.

We note that the project has been designed to connect into the HVDC cable running between the Caithness and Moray coasts. This avoids the cost of an additional convertor station, and maximises use of that pre-existing asset.

4. What are your views on the CBA put forward by the ESO?

We believe the CBA put forward by the ESO is reasonable. The CBA indicates that the 600MW option is the preferred option driven by generation scenarios 2 and 4, which we agree are the most realistic forecasts, as described above.

A 600MW capacity link is the best option to realise the potential of renewable energy from the Shetland Isles as it provides more opportunity for renewable generation after the 2019 CfD auction and in the future. Due to the intermittency of wind, there is the possibility that more than 600MW of generation will be able to use the link. This is already evidenced by the current grid connection contracted capacity which is 649MW. This increases the utilisation of the link and improves its economics.

Further, given the geographical remoteness of Shetland, the wind generation output profile is likely to be distinct/diverse, in part at least, to the output from other onshore wind in Scotland – potentially reducing the need for further onshore transmission

system reinforcements compared to onshore wind deployment on the mainland. This is another potential benefit not considered within the CBA.

Finally, the overall costs for a 600MW link compared to a 450MW link is marginal when the potential to add further generation in the future is taken into account.

5. What are your views on the technical design and costs of the proposed Shetland link?

Any benchmark data, including cost data, used by Ofgem should be based on relevant and analogous experience elsewhere, such as the Caithness - Moray link.

6. What are your views on our minded-to position to conditionally approve the Needs Case? Specifically, do you agree with our proposal to approve a 600MW link if Viking Energy Wind Farm secures a CfD in 2019?

We agree with Ofgem that if Viking Energy wind farm is built sufficient additional generation will be constructed on Shetland before 2035 for a 600MW link to provide the most beneficial outcome for consumers. Considering the scale of Viking Energy's project and that it is already consented, this provides protection for consumers as it decreases the risk of paying for a link that is bigger than necessary. Subsequently, once the link is in place, this will act as a strong financial incentive for other developers to progress to full operation. Peel Energy's Beauw Field project (72MW) is also expected to be operational by March 2024 and its Mossy Field project (50MW) secured planning consent on 15th April 2019.

Overall, we agree with the minded-to position to approve the Needs Case on condition that Viking Energy secures a CfD in the 2019 allocation round. This would connect Shetland to the mainland GB grid for the first time and provide an asset of long-term national strategic importance to the UK, whilst ensuring the security of supply to Shetland in the future.

7. Do you agree with our assessment of the Shetland project against the criteria for competition?

No Comment.

8. Do you agree with our proposal not to competitively tender the Shetland project using the SPV model or under our CATO framework unless there are significant delays to the delivery timescales?

We agree with Ofgem to not competitively tender the Shetland project using the SPV model or CATO framework due to the project's deliverability schedule and the

challenges associated with aligning these timescales with the SPV tender and CATO framework by 2020.

9. Do you agree that the Competition Proxy Model would deliver a favourable outcome for consumers relative to the status quo RIIO SWW delivery arrangements?

We are supportive of proposals that will that bring down the costs (particularly in the later years of the asset lifetime) for electricity consumers and for the proposed projects that will funding the cost of the connection through TNUoS charges.

However, as detailed in our response to the Orkney Needs Case, we continue to have concerns around the Competition Proxy Model (CPM) and the associated implementation risks. The CPM has still not been fully developed - the Impact Assessment provided alongside the Orkney Needs Case highlighted several obstacles including delays in planning consent, insolvency and lack of supply. These risks are high in the development of projects such as the Shetland interconnector. It is therefore important that the delivery model does not result in additional barriers or delays.

10. What are your views on the way in which we have applied project specific updates to the Competition Proxy Model methodology to account for the specific characteristics of the Shetland project?

We believe that the project specific updates on the CPM are reasonable. HIE is supportive of the approach that results in the Shetland transmission link being built with the lowest costs to consumers and users of this infrastructure.

Under CPM, Ofgem would set revenue terms intended to reflect the outcome of an efficient competitive process for the financing, construction and operation of the project. That said, we believe that Ofgem should use relevant benchmark cost data to enable it to assess the right level of capital costs for the Shetland link (for example, data from Caithness-Moray link) and should carefully consider relatively unique aspects of delivering such infrastructure in north west Scotland.

However, we do note that the CPM is disjointed in that TNUoS is separate to the CPM and therefore, it is not clear how any future generation investments are being accounted for in the proposed shorter life span of the transmission asset. We would like to see more clarity on this from Ofgem and NGESO.

References

- [1] Viking Energy, "The Project", 2019 04 08. [Online]. Available: <https://www.vikingenergy.co.uk/the-project> .
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- [3] National Grid Electricity System Operator plc, "The Connection and Use of System Code (CUSC) Section 15 - User Commitment Methodology", 28 July 2015.
- [4] Shetland News, "Tidal energy projet's lease extended to increase capacity", 17 05 2018. [Online]. Available: <https://www.shetnews.co.uk/2018/05/17/tidal-energy-project-secures-lease-extension-to-increase-capacity/>.
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