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Dear Mr Norman

Orkney transmission project – Consultation on Final Needs Case and potential delivery models

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 particular 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. With needs cases now having been submitted by SSEN for each of the main island groups, Ofgem's response to the Orkney case is the first to work its ways through the assessment process. 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 forthcoming CfD auction as this is a major step towards achieving these aims. That said however, we are also very conscious that subsidy free development is a real and increasingly likely route for island developers proposing to connect at distribution level.

We were grateful to Ofgem that its staff were afforded the opportunity to visit Orkney recently, to see the proposed route of the cable and to meet and hear first hand from island developers. Those developers very openly shared their plans and challenges with Ofgem, but equally demonstrated the many ways in which they have already and will continue to commit to both project development and infrastructure investment.

We fully support SSEN's proposed approach to securing the necessary investment approval. We are however, hugely concerned that Ofgem's position and its proposed conditionality are such that this investment may never be achieved. We welcome Ofgem's willingness to take views on this matter and seek to reach a solution which works for all parties.

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 blue ink that reads "Elaine Hanton". The signature is written in a cursive style and is positioned above a light blue horizontal line.

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

Question 1: Do you agree that the current network on Orkney needs reinforcing in order to connect additional generation?

Yes. The current network on Orkney is operating beyond 'full' capacity and is therefore creating a barrier for new renewable developments to connect. Transmission reinforcement is imperative to unlock Orkney's vast renewable potential and to facilitate the low carbon transition. Scottish and Southern Electricity Networks (SSEN) have now exhausted their innovative solutions such as Active Network Management to maximise use of available capacity. Therefore, a 220MW transmission link is the more economical solution and will act as a catalyst for other renewable projects on the islands.

Question 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 progressing without subsidy support and the likelihood of tidal generation around Orkney developing to the levels predicted by SHE-T's scenarios.

GHD's new wind generation scenarios S1-S5 are a reasonable basis for assessing the need for a new transmission link to Orkney. We agree with the assessment of probable scale and timing of new renewable energy generation capacity on Orkney. Much of this potential new generation is unlikely to be able to participate in the planned Contracts for Difference (CfD) auction in 2019, secure planning consent or have finance in by the end of 2019. However, we do not believe that the outcome of the 2019 CfD auction is likely to have a significant bearing on the eventual deployment of new generation capacity on Orkney.

Further renewable energy generators beyond that factored into the assessment can be deployed in Orkney, but will only have the opportunity to come forward when there is certainty regarding a new subsea transmission link and wider network access. With the ever growing activity at Orkney's European Marine Energy Centre (which has hosted testing of more wave and tidal energy devices than any other single location across the globe), the progression of the tidal industry and further renewable energy projects planned on Orkney, it is inevitable that a new transmission link would be fully utilised.

The Scottish Government, and its agencies, including HIE, has a strong commitment to support the development of renewable energy, and has invested substantially in marine renewables for close to two decades, not only because of the very significant resource around our coasts, but also the substantial opportunities the creation of a new marine industry will bring to our economy and communities. That investment in marine energy is especially evidence in Orkney – our own independent analysis estimates that the direct and indirect GVA impact to Orkney as a result of investments in EMEC is almost £100m, and GB wide is £284m.

Orkney is also home to more than 500 domestic turbines (around one ninth of the UK total), green hydrogen projects supplying heat, power and transport fuel, several larger scale wind

developments and a large number of community owned turbines. It is hardly surprising then that the people of Orkney are hugely supportive of further renewable energy development. In fact, the Orkney Renewable Energy Forum (OREF) estimates that local residents have invested around £175m towards renewables over the past twenty years (out of an estimated total of £700m which has been invested in Orkney in that period).

Question 3: What are your views on the technical design and costs of the proposed Orkney link?

No comment.

Question 4: Do you agree with our concerns that a constraints-based CBA may not robustly demonstrate the true consumer cost/benefit of a radial extension to the transmission network?

We do not agree with the concerns expressed. The assessment methods used by SSEN, based on established industry methodology, to conclude that 70MW is the minimum generation threshold provides sufficient evidence that the transmission link will be cost effective. We note that SSEN has undertaken additional work with Ofgem to test the applicability of this methodology to radial extensions and by doing so has challenged itself to reach the most robust conclusions.

Question 5: What are your views on the ‘additional CBA’, outlined in this chapter, which has been used to sense check the results of the original constraints-based CBA?

The additional Cost Benefit Analysis (CBA) methods and the outcome does not appear to be reinforced by robust evidence.

It is not clear why the additional CBA was undertaken and is therefore difficult to comment whether it is worthwhile. Ofgem’s reasoning for carrying out an additional CBA is based on their concerns that consumers might pay for a ‘significantly underutilised link’. However, the reality is that if grid capacity is made available then it will be used – we have no doubts on this point. Ofgem also states concerns that a 70MW threshold provides limited benefit to Great British (GB) consumers. However, SSEN has sought to clearly show that no more than 70MW is necessary and that this figure is reinforced through evidence based on similar transmission investments across GB.

We also share concerns raised by Scottish Government in its response that certain costs have been over stated and benefits understated within the additional CBA. In particular, we are concerned that the cost of CfD has been included, and carbon savings and money paid by generators for TNUoS excluded. CfD funding has been approved by UK Government to support the development of renewables, and will be allocated and costs will pass to consumers regardless of whether Orkney developers are successful in the auction (if indeed they compete within it, which we know not all intend to do). On carbon emissions, it is counter intuitive not to include this given the clear policies of UK

and Scottish Government to support the growth of renewables as part of the drive to reduce carbon emissions. While distribution connected generators do not currently contribute to transmission costs to the same extent as transmission connected generators, Ofgem's Significant Code Review does include a focused review of transmission charges and how they are applied across different generator types and sizes. Given this policy direction it seems appropriate that some allowance for transmission charges be included within the additional CBA.

Finally, we wish to question the assumptions made in relation to replacement of existing cables connecting Orkney, and indeed the savings associated with removing the need for Kirkwall power station to operate should this investment proceed. A whole system approach is needed to ensure that any savings that can be achieved in the current Orkney system, including its ageing mainland connections, as a result of this proposed new investment, should be taken into account.

Question 6: What are your views on our proposed conditions of approval? Specifically:

- i. Do you agree with our view that the information available does not demonstrate that building a 220MW connection to Orkney would be beneficial for GB consumers if only 70MW of generation came forward to use the link? Do you agree with our proposal to set a minimum-generation threshold of 135MW?**

135MW as a minimum-generation threshold increases the overall risk because it reduces the probability that enough projects will come forward (and in fact is unachievable with a December 2019 deadline). We believe that 70MW is a more realistic target considering the number of generators that are ready to connect to the future link.

SSEN's additional assessment work demonstrates that the volume of generation required to justify the investment is 70MW. This threshold is considered to 'break even' - it is cost effective because this level of connected generation with constraint costs equate to the expenditure for the 220MW transmission link. The methodology used by SSEN is based on industry best practice. It is therefore unclear why Ofgem would need to use an alternative approach and largely ignores the assessment undertaken by SSEN. Section 2.48.2 demonstrates the proposal of 135MW as the minimum-generation threshold, but this figure is not evidence based. This appears to be generated from the midpoint between SSEN's well-established industry best practice (70MW) and Electricity System Operator's (ESO) CBA (199MW). We therefore disagree that 135MW is required to ensure cost efficiency to GB consumers because the calculation of that figure lacks transparency. We also believe the Ofgem proposal will increase the current misalignment between regulatory and project timescales.

In summary, we believe that the conditions set by Ofgem are too tight and that 135MW by December 2019 is both an unachievable target and increases uncertainty for projects.

ii. Do you agree that the fact of a generator signing up to SHE-T's 'Alternative Approach' does not provide an adequate level of certainty that the generator will progress to full commissioning?

No. The 'Alternative Approach' can be used to reduce risk to the consumer by allowing projects with the highest certainty to progress. Although we note that SSEN's proposal of meeting milestones within a certain timescale creates more arduous conditions for less established technologies (e.g. tidal) to progress to full commissioning, there are stronger reasons to support the Alternative Approach because it allows the least risk projects to essentially 'jump the queue' and therefore reduces the risk of stranded assets.

We believe that the 'Ready to Connect' approach provides greater certainty and allows more generators to progress to full commissioning. Over the past decade, there has been extensive pre-planning and site assessment work undertaken and with the aid of the Alternative Approach, there is a very strong likelihood that those projects can proceed. With a plethora of projects in the pre-planning stage, this means that if one developer drops out then there are others that can progress.

Overall, we believe that the Alternative Approach provides certainty beyond the status quo because current industry standards restrict the ability of ready to connect projects to come forward.

In terms of underwriting, we would support adjustment of the financial arrangements to which small independent developers on Orkney are subject. This would allow substantially more of the new generation planned to come forward. Therefore, if Ofgem relax its expected financial commitments from Orkney, temporarily, then this would provide an opportunity for developers to obtain the financial security that Ofgem needs to progress, and ultimately create an adequate level of certainty that generators will progress to full commissioning. However, it must be noted that the current securities and liabilities imposed on Orkney are also experienced by other island communities. Therefore, there could be transferable learning and an opportunity to extend the derogation in some way to other islands facing similar grid constraints.

If Ofgem does not allow a temporary adjustment to securities and liabilities arrangements, the methodology for which builds in consenting risk, then there should be no additional need for a consent condition to be imposed on Orkney developers.

Regardless of whether Ofgem accept this derogation in relation to Orkney, existing issues around the securities and liabilities methodologies do need to be resolved.

- iii. **Do you agree that the award of a CfD to a generator would provide an adequate level of certainty that the generator will progress to full commissioning?**

Yes, where appropriate. Section 2.50 makes it clear that the award of a CfD by 2019 would create favourable conditions for a generation project to progress to full commissioning.

- iv. **Do you agree that, in the absence of a CfD, a generator securing planning consent and finance to construct a project is a good indicator of a project's likelihood of progressing to commissioning?**

These factors are not the only indicators of likelihood of progression and should not be used as such. These proposed conditions, taken with the generation level requirement and deadline of December 2019, are unachievable and therefore prohibitive to progress being made by developers on Orkney.

A number of Orkney based projects are unlikely to bid for CfD for a number of reasons, including the extreme challenge of trying to compete with offshore wind, the cost of the actual bid process, and the likelihood that subsidy free will offer a financially more viable option (for distribution connected projects). During Ofgem's recent visit to Orkney developers made this point strongly and offered to share project specific financial information with Ofgem to evidence this.

We therefore strongly believe that Ofgem's proposed criteria, based on secured planning consent and finance by December 2019, simply does not work. The investments required to secure planning consent are considerable – the Orkney Islands Council planning fee alone is £125k. That, along with the collection of all other data required to support an application, is considerable and for Orkney developers, most of whom are small, locally based businesses, the financial investment needed to meet these conditions is impossible without some certainty that transmission investment will proceed. Indeed, it is unreasonable to expect Orkney developers to achieve FID at such an early stage in their projects – certainly developers elsewhere would not be expected to do so. It is this misalignment between developer and regulatory timescales which prompted SSEN to suggest an alternative approach in the first place.

In addition, it is worth noting that because a renewable energy project has not secured finance or planning consent does not mean that it will not go ahead. Evidence suggests that a high percentage of onshore wind developments rejected at Local Authority level are subsequently approved by Scottish Ministers. Further, achieving planning consent can typically take up to 2.5 years which further renders the December 2019 deadline unachievable. We understand that an extension of the deadline to April 2020 would work for the majority of developers on Orkney.

We strongly urge Ofgem to further consider its proposed conditions in conjunction with SSEN and Orkney developers to find a solution which works for all parties, and provides Ofgem with the confidence it needs that developers have made or are making financial commitments (at a scale commensurate to the scale of their business) and can progress within realistic timescales.

v. If you answered no to questions (iii) and (iv) above, can you propose any alternative ways to assess, to an adequate level of certainty, whether a generation project will progress to commissioning?

As mentioned earlier, the industry standard methodology for securities and liabilities factors in the risk associated with securing planning consent. It recognises that 4 years in advance of connection projects are unlikely to have planning consent or finance in place, and the securities requirement is altered to reflect this. For developers signing up to this process and posting securities they accept that they are liable for any costs incurred. This methodology is therefore intended to protect GB consumers.

It is our view that developers on Orkney already face considerable challenges over and above those seeking to connect on the mainland, and therefore to require additional commitment beyond that required through this standard methodology, is inequitable and places them at a further disadvantage.

In our response to Ofgem's consultation on SSEN's Alternative Arrangements proposal, we argue in support of its proposed temporary derogation from standard securities and liabilities arrangements. However, should Ofgem not approve that derogation then our strong view is that the 'Ready to Connect' process, alongside the industry standard methodology for securities and liabilities, provides certainty to Ofgem, without the need for additional conditions to be imposed on island developers compared with those seeking to connect on the mainland.

Q7: Do you agree with our assessment of the Orkney project against the criteria for competition?

No Comment.

Q8: Do you agree with our proposal not to competitively tender the Orkney project using the SPV model or under our CATO framework unless there are significant delays to the delivery timelines?

We agree with Ofgem to not competitively tender the Orkney project using the SPV model due to deliverability challenges. We would be concerned that the SPV model would not meet the energisation date of the transmission project.

Further, there are many limitations associated with the additional costs that accompany the SPV model. The estimated implementation costs are £4-£6 million, as stated in Section 4.4 of Ofgem's Impact Assessment. There are additional costs applied to the design of the regulatory model. The Impact Assessment also considers Ofgem's tender costs to be between £0.5-£1 million. Further, Ofgem state that bidders will incur costs through engaging with the supply chain and undertaking due diligence. For these reasons, we agree that the SPV model is not suitable for the Orkney Project.

With regards to the CATO framework, Ofgem makes it clear that this option brings with it a potential consumer cost risk which contradicts Ofgem's principle encompassed under the Electricity Act 1989 and Ofgem's Forward Work Programme - a commitment to make a positive difference for all energy consumers, now and in the future. However, Ofgem are proposing to use the CPM delivery model and we highlight our concerns with the CPM below.

Q9: Do you agree that the Competition Proxy Model would deliver a favourable outcome for consumers relative to the existing SWW delivery arrangements?

We disagree due to our concerns regarding the risks associated with using the CPM on Orkney without any previous implementation. Ofgem proposes that the costs associated with the subsea transmission link could be reduced by using the CPM. Although we are aware that the CPM has been applied to the National Grid's Hinkley C connection, we are concerned that it has still not been fully developed by the regulator.

Ofgem has stated that it does not expect any delay or deliverability challenges with the CPM. However, due to the CPM model not being fully established, there could be possible unforeseen delays at different stages of the project. Ofgem's Impact Assessment highlight possible barriers which include: delays in planning consent; insolvency and lack of supply. These risks are high in the development of new, separable and high value projects, and therefore, it is imperative that there is a well-established delivery model in place to deal with them.

To that end, we support use of the existing SWW delivery arrangements which is well-established, and risks and challenges understood by all parties.

Q10: 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 Orkney Project?

We understand that the CPM 'assumes' the full construction expenditure and subsequently estimates where these costs occur at different stages of the project. So essentially, the CPM forecasts the project's capital/operational costs and calculates savings of approximately £12-£25 million in comparison to the status quo industry arrangements.

However, these calculations are founded on 'modelling assumptions' used for analysing the financial impact of the Orkney project. Orkney represents a unique scenario with different constraints to the Main Integrated System and therefore, we believe that modelling the financial impact on the Orkney project is precarious considering that the CPM delivery model is not a well-established method.

In addition, Appendix 2 acknowledges that there is uncertainty around future regulatory arrangements and therefore states the estimated savings from the CPM are only 'illustrative'.

Again, our concerns reflect the risks associated with the implementation of a new model that has not been previously 'road tested'. The inevitable delays that are associated with new high value projects are not considered and therefore, under the CPM model, both the transmission owner (TO) and affected generators could be subject to considerable unforeseen costs.

For these reasons, we are not confident that the CPM model will deliver favourable outcomes and therefore, we disagree with Ofgem's proposal on the CPM model and favour the existing SWW delivery arrangements.

