

James Norman
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

NTIMailbox@ofgem.gov.uk

30 May 2019

Dear Mr Norman

Western Isles 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.

Securing investment in new transmission links has been an absolute priority for HIE and its partners for over a decade. In our view the need and case for such investment 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 this to these rural economies is significant and should not be underestimated. We were therefore delighted when SHE-T submitted needs cases to Ofgem for each of the three main island groups. We have previously responded to Ofgem's response to the Orkney proposal, and are also responding today to its Shetland consultation.

We were grateful to Ofgem that its staff were afforded the opportunity to visit the Western Isles recently, to see the proposed cable route, visit Arnish and hear first-hand from island developers and Comhairle nan Eilean Siar. We hope that Ofgem will agree that the commitment shown by island developers, underlined by the very significant sums already invested over many years, is testament to their determination to successfully develop renewable generation there. To do so however requires Ofgem to share this commitment and approve the needs case as proposed by SSEN. We are hugely concerned that any move away from a 600MW connection will fatally undermine anchor projects.

Notwithstanding the above, we are aware that SHE-T has developed a proposal to address Ofgem concerns about protection to consumers in the event that insufficient generation comes forward to justify a 600MW connection. We are entirely supportive of this approach and hope that Ofgem engages further with SHE-T in relation to it.

Our detailed response to the consultation questions is attached. We have also been in dialogue with Scottish Government and fully endorse the points it has raised. We share its concerns about the lack of consistency in the assessment of the individual islands' needs cases (and indeed with mainland investments and developers), and the need to ensure only deliverable options are included and analysed.

We look forward to seeing the results of the consultation in due course.

Yours sincerely

A handwritten signature in cursive script, reading "Elaine Hanton", written in dark ink on a light-colored 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 Western Isles needs reinforcing in order to connect additional generation?

Yes. The Western Isles has considerable potential to contribute to UK and Scottish targets aimed at reducing carbon emissions and increasing renewable energy generation levels. There is currently 34MW of generation connected to the Western Isles distribution network and 418MW contracted to connect (LWP Stornoway: 180MW; LWP Uisenis: 189MW; and Druim Leathann: 49MW), and 88MW of community wind and community pumped storage generation aiming to connect to the grid in 2019.

The existing Western Isles network is running at full capacity and has been effectively closed to new connections since 2016 thereby acting as a barrier to unlocking the Western Isles' renewable energy potential. There is little existing local grid network, so even the existing 34MW of generation is constrained during periods of high generation (high wind). For example, Pentland Road Wind Farm is built at 18MW but is limited to a maximum export of 13.8MW

Given the lack of available capacity on the existing system, the need to manage and constrain existing connected generation and that there is around 500MW of contracted and prospective further generation (much of which is consented), it is clear the current network on the Western Isles urgently requires reinforcement.

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

The SHE-T's generation scenarios, produced by GHD, assume that between 333MW and 638MW of wind generation may connect on the Western Isles by 2032 and that the analysis produced shows that the 600MW link (Option 2) is the 'least-worst regret' option and should be re-considered by Ofgem for approval [2].

The proposed conditions alone (CfD awards of 369MW) meet the requirements of generation scenario 1. However, the wind farms contracted to connect on the Western Isles have a total capacity of 418MW and therefore scenario 2, which predicts that 422MW will connect by 2024, is achievable.

Scenario 3 predicts that the 525MW capacity will be used by 2032. It is our view that this is entirely realistic given the likely increased interest in new connections once the existing system is reinforced. SHE-T's methodology to evaluate the likelihood of future renewable generation on the Western Isles shows a 66% probability that there will be 579MW of generation by 2030. On that basis the 600MW option should be prioritised.

Scenario 4 is the highest generation scenario which predicts 638MW of wind generation will connect on the Western Isles by 2032. We believe that this is credible considering the diversification of renewable resources that the Western Isles has to offer, including the potential for offshore wind off the north and west coasts of Lewis in which there is interest, e.g. from the Equinor Hywind team [3]. Indeed, Marine Scotland's Sectoral Plan

for Offshore Wind identifies two areas of search to the west of Lewis with development expected from 2026, subject to grid investment proceeding.

Ofgem has stated it's concern that no further Western Isles wind generators have planning consent secured or grid connections in place, but this does not mean that projects will not progress, especially given that the majority of the community (81%) welcome wind farm development [4]. The lack of current grid access acts also deters developers, particularly of smaller or community owned projects, since they are unable to underwrite the associated liabilities and security requirements attached to future transmission links. These projects are therefore reliant on the larger wind farm developments to underwrite the new transmission investment. Once the link is secured, it will stimulate the development of these smaller projects. Indeed, experience in Scotland suggests that whenever new grid is built to create capacity new projects appear in order to take advantage of the opportunities created

3. What are your views on SHE-T's approach to optioneering, specifically relating to the routes and link capacities considered, and are there other options that SHE-T could have considered?

We agree that SHE-T has provided an appropriate range of technical options and that no other options should have been considered.

4. What are your views on the CBA put forward by the ESO, particularly in relation to the results it produces?

Under the updated ESO's CBA, the least worst regret option remains as the 450MW HVDC cable (option 1) [6]. However, the CBA does note that this could change depending on the outcome of the CfD auction, after which there will be more certainty on the future wind generation in the Western Isles. Accordingly, the Steady State scenario will be eliminated if the proposed conditions are met (CfD awards of 369MW). Given this proposed conditionality and the fact that the Steady State will never happen, it should be removed from the analysis (as it has been in the case of the Orkney and Shetland needs cases). Once removed the CBA clearly shows that the 600MW link is the 'least-worst regret' option and on that's basis alone should be re-considered by Ofgem for approval.

The CBA shows that the 600MW option is the most cost-effective option under higher generation scenarios S3 and S4. These scenarios predict that approximately 500MW of generation will progress to full commissioning by 2030 which we believe is an entirely reasonable forecast for the reasons outlined above.

We therefore firmly believe that the 600MW offers the greatest and most cost-effective means by which the renewables resource of the Western Isles will be developed. A decision to proceed with a 450MW connection, as noted in the consultation, increases the risk of anchor projects becoming uncompetitive and unable to successfully compete in the CfD auction. This significantly risks any interconnector investment going ahead, and the loss of the islands' renewable potential contributing to UK targets. In which case there will also, of course, be no consumer benefit achieved at all.

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

We have no comments, but our independent consultants have confirmed the technical design appears reasonable. From HIE's own construction experience, we know that ground conditions, terrain and the remoteness of the area all serve to increase the costs above similar projects elsewhere.

We would, however, urge Ofgem to work with island developers and SHET to provide as much certainty as possible to developers on costs before the CfD auction window closes. This is essential to enable them to accurately predict TNUoS charges within their cost models and therefore bid appropriately. Not doing so further increases the risks associated with the bidding process for island developers and could fatally undermine the needs case.

6. What are your views on the following points:

i. Do you agree with our minded-to position to reject the 600MW link conditional on only the two Lewis Wind Power projects securing CfDs?

We strongly disagree with the minded-to position to reject the 600MW link. We believe that the award of the CfD by 2019 would enable the two proposed transmission-connected generators to progress to full commissioning. Combined, the LWP projects have a capacity of approximately 342MW, and there is also Druim Leathann at 49MW. Further, as already discussed, there is a strong likelihood that other developers will come forward once the link is in place, with the hope that there will be enough capacity to allow them to connect. Many renewable developers will not and cannot commit until the link is in place, as has already been outlined in this response.

ii. What are your views on our analysis of the information, which suggests a 450 MW link would represent the best outcome for existing and future consumers if only the two LWP projects secure CfDs?

The 450MW link is going to cost consumers significantly more in the long term and risks jeopardising the transmission reinforcement and generation projects as SHE-T will most likely need to re-tender the reinforcement. We expect that this would lead to a delay of 12-24 months and would result in increased costs thereby eroding any perceived cost savings. This will risk developers not being able to compete in the CfD auction and is therefore counter-productive.

SHE-T has demonstrated that 418MW of wind energy is already consented (the two anchor projects and Druim Leathann) and there is currently more than 180MW of generation that is already interested in connecting to the link. This includes 88MW of community wind and community pumped storage which aims to be contracted imminently, plus further potential for offshore wind off the west and north coasts of Lewis. Proceeding only with a 450MW transmission link would prevent further development and ultimately may mean a second transmission link would need to be progressed with significantly longer timelines and increased costs. Therefore, it does

not make sense to reduce the capacity of the link so that only a further 32MW of generation could connect over the operational lifetime of the cable.

We believe that the cost differential between the 450MW and 600MW links is marginal when the socio-economic benefit and the opportunity for renewable growth are taken into consideration. To illustrate, according to SHE-T, the cost differential between the 450MW and 600MW link is only 5% of the total investment where 150MW is made available and there is 33% more capacity. It therefore makes sense to invest the relatively small extra sum now for the future capacity that is likely to come along, otherwise the Western Isles will be faced with major uncertainty, delays to new generation projects, and the prospect of additional needs cases for further new transmission capacity at costs likely to be in the hundreds of millions (not the circa. £30M differential between 450MW and 600MW).

To that end, we believe that Ofgem should reconsider the wide-ranging analysis that underpins the 600MW option including the economic analysis produced by SHE-T.

- iii. **Do you consider that consumers could be appropriately protected from the costs of funding a potentially significantly oversized link if we were to approve the needs case for a 600MW link? If so, how could this be achieved?**

The reality is that if grid capacity is made available then it will be used. We believe that renewable projects will fill the 600MW capacity link and therefore it is in consumers' interests for the larger link to be constructed now and the need for a future second interconnector avoided.

Notwithstanding the above, we are aware that SHE-T has been in dialogue with Ofgem in relation to its statement that Ofgem would '*... consider the case for a 600MW transmission link to the Western Isles if consumers were more appropriately protected from the additional costs of funding a potentially significantly oversized link...*', and that SHE-T has developed an alternative solution.

We understand that this proposal would make funds available to bridge the cost differential between the 450MW and 600MW options, which can be drawn down only in the event that insufficient levels of generation were to turn up on the island. We agree with SHE-T that this would fully address Ofgem's concerns by:

- Removing Ofgem's perceived risks in supporting 600MW link;
- Ensuring consumers do not fund an underutilised link;
- Providing developers with the confidence that a link is built for now and the future.

We fully support this proposal and urge Ofgem to consider this further with SHE-T.

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

No comment.

8. Do you agree with our proposal not to competitively tender the Western Isles 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 Western Isles project using the SPV model or CATO framework due to the project's delivery 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 existing SWW delivery arrangements?

We support proposals that will that bring down the costs (particularly in the later years of the asset lifetime) for electricity consumers and for the proposed generation projects that will be 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 CPM and the associated implementation risks. The CPM has still not been fully developed and 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 this, and to that end it is important that the delivery model does not introduce additional barriers.

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 Western Isles project?

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

Under the 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. We believe that Ofgem should use relevant benchmark cost data to enable it to assess the appropriate level of capital costs for the Western Isles link taking into account locational challenges.

However, we do note 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] UK Government, "Climate Change Act", 2008.
- [2] SHE-Transmission, "Transmission Reinforcement between the Western Isles and the Scottish Mainland: Cost Benefit Analysis Study", August 2018.
- [3] Hebrides News, "Talks over new Western Isles offshore wind farm", 31 05 2018. [Online]. Available: <http://www.hebrides-news.com/offshore-windfarm-31518.html>.
- [4] EDF Energy, "Remote Island Wind Power", 2019. [Online]. Available: <https://www.edfenergy.com/future-energy/energy-mix/wind/remote-island-wind-power>.
- [5] Scottish and Southern Energy Power Distribution, "Western Isles Connection", October 2015.
- [6] National Grid Electricity System Operator, "Western Isles Strategic Wider Works Needs Case: Cost Benefit Analysis", 02 April 2019.