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YOUR REF./DATE:
23 April 2020

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Shetland Energy Isles

PLACE/DATE:
18/06/2020

Shetland transmission project: Consultation response on the final needs case and delivery model.

It is noted that Ofgem “particularly welcomes responses from generators and local stakeholders on Shetland”. Statkraft is developing the Energy Isles windfarm in Yell, Shetland in association with over 50 mainly Shetland based companies¹. The project secured 120.3MW of transmission connection capacity on 13.09.2018 and expects to secure additional capacity according to the planning, turbine selection and site design processes. The planning application was submitted 13.05.2019 and is progressing through consultations.

Overview

Statkraft is strongly supportive of a transmission link to Shetland and responded as such to Ofgem’s previous consultation dated 19 March 2019.

Statkraft does not support a 450MW link and strongly supports a 600MW link as the other option offered. A transmission link is vital to unlock the considerable renewable generation potential on Shetland, to replace the aging power station and to supply the islands’ energy demand; including the growth in electricity demand required to meet the Scottish and UK Governments’ Net Zero legislation in 2045 and 2050 respectively. The value of renewable generation in Shetland is considerably strengthened by the high windspeeds and by the geographic separation from most GB generation, with the associated low correlation; meaning that it is often windy in Shetland when it is less windy in other parts of GB. This value is demonstrated by the NGENSO study which states that “the 600 and 800MW HVDC link options, combined with the 638, 705 or 810MW generation capacity, produce lower LCOEs than the equivalent offshore windfarm”².

There is one very important caveat to Statkraft’s support. The CBA is made on the assumption that constrained generation receives market level compensation under the

¹ <https://www.statkraft.co.uk/media/news/2019/statkraft-delivers-certainty-for-shetland-project-energy-isles/>

² NGENSO Levelised Cost of Energy Analysis 9 June 2020.

Balancing Mechanism. The CBA shows the lowest costs for consumers for connecting 818MW of generation is to use 450MW or 600MW links. This is also true in scenarios where additional load in Shetland does not materialise and where generation is constrained under the balancing mechanism. Therefore, Statkraft's support for a 600MW link is conditional on the ESO and SHE-T contracting at least 818MW of generation with market based balancing mechanism constraint compensation.. If the outcome of this process were to limit generation connection to less than 818MW, and/or to apply other discriminatory measures such as queue or network management to capacity below 818MW, this would contradict the CBA assessment undertaken and invalidate the consultation.

Question 1: *What are your views on the generation scenarios developed and updated by SHE-T? We are particularly interested in views on the likelihood of wind generation on the Shetland Isles developing to the levels predicted by SHE-T's scenarios and any further changes or updates since SHE-T's October 2018 Final Needs Case submission that you think should also be considered.*

The highest generation scenario of 818MW is an improvement on the 704MW in previous consultation, however it is still too low.

The generation scenarios presented do not grow beyond the year 2026 which, given Scotland's legislated 2045 Net Zero Target, is not realistic – i.e. generation will continue to grow to some degree or other. This point was made by Statkraft and many other responders to the previous consultation. It is disappointing that this point has neither been addressed or acknowledged.

Question 2: *What are your views on the demand sensitivity explored by SHE-T?*

SHE-T and NGESO have estimated a potential demand of 250-300MW and have assumed a demand growth of 200MW by 2034 whereas demand growth was not assumed or considered in the last consultation. SHE-T and NGESO are the only parties in a position to assess demand as they are the counterparties for those seeking demand connections. Given these discussions are confidential, and there is no published register³ we are not in a position to comment and must take the forecast demand as given.

We note that the demand sensitivities in the CBA all result in a 450 or 600MW link as optimal, even with 818MW of generation.

Question 3a : *What are your views on the link options considered by SHE-T? We are also interested in views on the options proposed by SHE-T to mitigate against the risks of a second link being needed.*

We would like to have seen a 1000MW option to cater for longer term renewable energy generation growth on Shetland above the 818MW maximum considered by SHE-T. We note that SHE-T have only progressed the 600MW option so that at this stage there are no real options apart from 600MW.

Question 3b : *We are also interested in views on the options proposed by SHE-T to mitigate against the risks of a second link being needed.*

³ Unlike the TEC register published for generation.

The SHET statement referenced in 2.40 is unacceptable and totally contradicts the CBA analysis presented, which clearly shows that an 800MW link (let alone a second link) is not required for 818MW of generation.

The CBA analysis clearly shows that in all scenarios it is cheaper for the consumer to connect at least 818MW of generation to the 600MW link rather than build an 800MW link. Therefore SHE-T must contract at least 818MW of generation before any mitigation measures apply.

With regard to the specific measures proposed we note:

- 2.40.1 > ANM Automatic Network Management – this is only acceptable with constraint compensation as per the CBA presented in this consultation.
- 2.40.2> demand connections from oil and gas – these are already accounted for in the CBA including scenarios where the demand does not appear.
- 2.40.3> Development of storage – this is out with the control on SHE-T so is not relevant as a mitigation.
- 2.40.4> Connection Queue Management – this is totally unacceptable for generation connections of less than 818MW and is not developed or approved for implementation. In a recent request, SHE-T were unable to provide the current connection queue for Shetland, so there can be no understanding of what “queue” they are planning to manage.

Question 4: *What are your views on the technical design and costs of the proposed Shetland link?*

An 800MW converter station at Kergord would be the same size as the existing 800MW converter at Spittal, which, as a repeat, should be a lower cost design and delivered more quickly with more certainty. In addition there would be a communality of spares leading to savings.

Question 7: *What are your views on our minded-to position to conditionally approve the revised Final Needs Case? Specifically:*

7.1 *Do you agree with our proposal to approve a 600MW link subject to Ofgem being satisfied, by the end of 2020, that Viking Energy Wind Farm is likely to go ahead?*

Yes, provided that Ofgem, NGESO and SHE-T follow the CBA assessment which clearly shows that the 600MW link can connect at least 818MW of generation with constraint compensation as the lowest cost scenario (even with no additional demand) and that the SHE-T statement in 2.40 should therefore be rejected.

7.2 *Do you have any views on the type of evidence we should expect to see that would confirm that Viking Energy Wind Farm is likely to go ahead?*

We note recent press reports that the investment is approved subject to certain CUSC modifications. We would expect Ofgem to have confirmation from the Board of Directors.

7.3 *Do you agree with the factors we have considered to reach our minded-to position?*

In their decision regarding this consultation Ofgem should make it clear to SHE-T that the CBA shows that there is no case for a second HVDC link until at least 818MW generation has connected and that SHE-T must connection at least 818MW of generation, all on the same basis of firmness and constraints.

7.4 Are there any other factors that you consider we should take into account when assessing this proposal?

The CBA shows that the optimal connection for 818MW of generation with constraint compensation in the balancing mechanism is 450 or 600MW. The NGESO report on LCOE shows that only 600 and 800MW links produce an LCOE less than offshore wind, therefore the 450MW link should be rejected. It is imperative that Ofgem, ESO and SHE-T follow through by connecting (if requested) at least 818MW of generation, all on the same terms, with regard to constraints and operation in the balancing mechanism.

Yours sincerely,