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Dear James

Shetland transmission project: Consultation on Final Needs Case and Delivery Model

Our responses to Ofgem's consultation document in relation to the Shetland transmission project are given below.

We would like to thank you for providing us with the opportunity to respond to your consultation. Should you have any questions regarding our response we would be pleased to discuss these further in an open and constructive manner with Ofgem.

Yours sincerely,



Iain Cameron

Chief Operating Officer

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

Response 1:

Yes. Shetland has a wealth of largely undeveloped renewable energy resources. These resources could significantly benefit both Shetland and the nation if developed. Frontier Power believes that the creation of new HVDC links to Shetland is essential if the benefits of additional generation (renewable generation) are to be realised.

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 on the Shetland developing to the levels predicted by SHE-T's scenarios.*

Response 2:

There exists a high interdependence between confidence in transmission capacity availability and development of new generation, especially renewable generation. The likelihood of achieving the higher generation figures of circa 800MW and above become far more likely if, from the outset, developers are confident transmission capacity will be available. The development appetite for new generation will tend to be capped by the stated transmission capacity expectations. It is understood that expectations for new wind generation already exceed 750MW.

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

Response 3:

The range of options considered is reasonable, however it may have been worth considering the additional benefits a larger link might release if a link to Norway were also to be developed.

Question 4: *What are your views on the CBA put forward by the ESO?*

Response 4:

The LWR analysis points to option 2 at £50m as compared to an LWR figure of £122m for option 3. This appears to be an important saving until we consider the dramatically higher figures of the other options. To the extent any delay costs associated with extra build time for a larger (800MW) link may be included, there would need to be more evidence to validate that a 800MW link would take a materially longer time to complete than a 600MW link if such costs were/are to be included in the assessment. Option 2 remains short-sighted in that it stifles further new generation development due to a subsequent need for another link. Frontier Power considers option 3 to be a better way forward unlocking more renewable potential at minimal cost. (i.e. building a second link later, for a further ~200MW, would appear sub-optimal)

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

Response 5:

Wider industry views suggest a 1000MW link would cost around 12% more than a 600MW, with 67% more capacity than a 600MW link it may be considered 48% more cost effective.

Question 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?*

Response 6:

Frontier Power considers the sizing of the link at 600MW to be sub-optimal and as such imposes an unnecessary impediment to new renewable generation for a relatively small reduction in the LWR figure when considering the total costs associated with the new wind generation and cost of the link. Frontier Power would however agree with Ofgem's proposal if the capacity of the link were not so limited.