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15th June 2020

James Norman,
Head of New Transmission Investment,
Ofgem.

Dear Mr Norman,

Shetland Transmission Link Consultation(2).

On behalf of Sustainable Shetland I wish to respond to your consultation on a possible HVDC link to Shetland.

Environmental group Sustainable Shetland was formed in March 2008 in response to plans by Viking Energy to build one of Europe's largest onshore wind farms on Shetland and has over 800 members. It is now clear from this new consultation that an inter-connector and Viking windfarm are inextricably linked. Therefore Sustainable Shetland continues to oppose a transmission link to Shetland, not only will it lead to Viking windfarm being constructed but could also lead to the construction of other large windfarms. It is highly likely that Shetland will become an industrial site and lose its world reputation as a place with an unspoilt landscape and interesting wildlife. Shetland's UNESCO global Geopark status is unlikely to be retained if the landscape is covered with oversize wind turbines.

Over the past year we have noted that SSE have been driving forward with their plans for Viking windfarm as if all consents were in place and that an inter-connector was certain to be approved. Clearly they are trying to engineer a position where the Viking windfarm and inter-connector is the leading candidate for Shetland's energy solution. Recent publicity about an alternative solution of a gas fired power station would indicate that SHE-T have not been receptive to any other solutions apart from the Viking windfarm. It should be noted the SHE-T and Viking windfarm are both owned by SSE. In effect SHE-T submitted a needs case for an inter-connector based mainly on a project owned by its parent company. Having achieved a foothold by means of partnership agreements in the Viking windfarm with firstly Shetland Islands Council (SIC) and then Shetland Charitable Trust SSE are trying to make the most of the opportunity. We believe that this has led to a situation where other alternatives for a solution to Shetland's energy needs have not been properly considered. SIC continues to support their former partners in their aim for inter-connector approval and they too have failed to consider other alternatives to large scale wind developments. In addition, SIC have consistently failed to display any empathy with the local residents who would be most affected by the inter-connector/Viking Energy windfarm.

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.*

Whilst several windfarms have planning consent only Viking Energy has undertaken ground investigations so far. The proposed windfarm sites on Shetland are predominantly peat covered and are likely to prove difficult and expensive to develop. The existing road network will require extensive upgrading for the very large vehicles associated with the transportation of wind turbine components. Proposed windfarms on Yell will require local subsea cables for connection to any converter station. This will represent an additional cost for developers. There is still a great deal of local resistance to proposed windfarms near to peoples' homes which will influence just how much windfarm development will be tolerated.

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

We feel that the possible demand for power from the oil and gas industry has been overstated. In an industry badly affected by the corona virus the cost implications and lack of reliability surrounding renewable energy make it highly unlikely that the oil and gas industry will seek to go down that route for the foreseeable future.

Question 3: *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.*

The emphasis that a link is essential for Shetland's energy needs is disappointing. More consideration should have been given to on island options with no inter-connector. The initial need for an inter-connector is driven by the scale of the Viking windfarm which would have capacity far in excess of Shetland's needs and therefore would require an export facility.
The chances of a second link to Shetland being approved are fairly remote since the need for a first one is questionable.

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

Any inter-connector across the, sometimes hostile, seas around Shetland is likely to be very costly.
Unfortunately, the cable route selected is close to aquaculture interests in Weisdale Voe at the Shetland end. There have been several strong objections to the works licence application by SHE-T from the fishing interests. It remains to be seen if SHE-T can address these adequately.

Question 5: *What are your views on the CBA put forward by the ESO?*

This is not a very impressive piece of work and, given the extent of redaction, fairly worthless.
A proper CBA should have included other scenarios beyond those that involved inter-connectors.

We have particular concerns about the following approach taken in the CBA:

Section 2.5: *"The savings approach taken necessitates the definition of a 'do-nothing' option to compare the constraint costs against; it is therefore possible to demonstrate the savings obtained by constructing a cable.* ***The implication is that if SHE Transmission were to not construct a cable, and Shetland generation were constructed anyway, the SO would be obliged to constrain off all generation on the island for its lifetime at a considerable cost.***
Whilst the economic calculations of the savings approach reach the same outcome as if an absolute approach was taken (one where no counterfactual is employed), the counterfactual provides a useful reference point of the total to constrain off all generation on the island for its lifetime at considerable cost. "

Section 4.3: "***As discussed in section 2.5 to provide a reference of total constraint costs a counterfactual has been simulated wherein all generation on Shetland is curtailed for all of the time as no cable has been deployed. This leads to very large constraint costs, of which the Shetland curtailment is a significant factor****. This is not the only factor, however - TCC is driven by modelled congestion across the entire GB network. The savings are modelled out to 2038, the end of the 20 year period to which the SO models as standard."*

No developer is likely to develop a wind farm on Shetland if a grid connection is not available so estimating constraint payments for any such possibility is unrealistic. However it is quite clear that included in SSE's plans for Viking Windfarm is the likelihood of constraint payments, i.e. the wind farm will earn money whether or not it provides power to the grid. This cannot represent good value for consumers but could be lucrative for SSE.

Section 2.7 The predicted demand for electricity in Shetland into the future would appear to be grossly overstated in this section and bears no relation to the actual pattern of energy demand over the past decade. The post virus effect on the economy is likely to reduce potential energy demand, especially from oil and gas installations.

The additional documents made available on 12th June add little clarity to the CBA evaluation since they also are heavily redacted.

It would have been useful to see the estimated costs for an inter-connector, windfarm, required local grid alterations and backup power station totalled. It would be fair to say that it would be well in excess of £1 billion.
We note that the estimated cost of gas fired power station plus LNG terminal is estimated at around £60million with minimal disturbance to the existing local grid. Also of significance is the fact that in 2014 Ofgem rejected a replacement power station in Lerwick costing £200million on the grounds of cost. How can expenditure of £1billion plus now be justified?

Question 6: *What are your views on other approaches we have taken to assess the costs and benefits to GB consumers?*

Careful consideration should have been given to whether or not transmitting power produced in Shetland, hundreds of miles to where there may be demand for it, would represent good value for energy consumers nationally. It is clear that any energy solution here will have to be paid for by those consumers and that renewable energy from Shetland will be far from cheap.

The interest here in windfarms is driven by the profit motives of people who see economic opportunity rather than any great desire for green energy. Even with the huge expenditure on an inter-connector and associated works the result would be an unreliable power source. The often quoted "world class wind power" in Shetland is a myth. Wind power here is as unreliable and unpredictable as anywhere else. Also the very real prospect of cable failure ensures that on-island backup will still be required at all times

Additionally there are doubts that the grid infrastructure on mainland UK is adequate to accommodate additional power from further North via HVDC inter-connectors. This is even highlighted on the HVDC Research Centre website but there is no indication on the website if this can be successfully overcome. We note that this centre is run by SSE but is funded through Ofgem, perhaps a questionable arrangement when Ofgem is supposed to be looking after the interests of consumers. SSE clearly want an HVDC link to Shetland for their own ends.

There has been much publicity recently about constraint payments to wind farms when low demand coupled with high winds threatened a system overload. Constraint payments are an additional cost which have to be met by consumers.

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

i) 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?

For reasons already stated we disagree with the proposal.

ii) 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?

Clear evidence that the financial package for the works is in place should be provided. Moving the Viking Windfarm forward on a merchant basis is a high risk strategy which may deter investors.

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

No, benefits to all UK consumers have yet to be justified.

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

Whilst agreeing that the move towards greener energy is highly desirable the cost implications of this must be taken into account. If the move to green energy is very costly then it can only make fuel poverty worse. It is also the case that so called "green energy" is not always as green as proponents proclaim. Viking windfarm largely planned for peatland is a case in point. In this case it seems like a proposal to "save the planet" by first destroying it. The construction phase of a windfarm like Viking Energy will be anything but "green" and carbon payback very dubious.

In the scenario where an inter-connector is not approved the alternative of a gas fired power station should be considered. Whilst not being carbon zero, it would be a lot less polluting than the existing power station and would help towards meeting emissions targets. The provision of an LNG terminal would also help reduce emissions from the transport industry as vessels increasingly convert to LNG power.

Question 8: *Do you agree with the findings of our analysis?*
No, for the reasons already stated we feel the analysis is incomplete.

Question 9: *Are there any additional factors that we should consider as part of our analysis and/or decision on whether to apply the CPM for the Shetland transmission project?*
We have no comment to make about the CPM.

In conclusion we would ask that you give due consideration to the much cheaper and much less disruptive alternative solution of a gas fired power station for Shetland's energy needs into the future. To justify the inter-connector + Viking Windfarm on the grounds of net zero carbon by 2045 is dubious. By 2045 the windfarm will be near the end of its working life. There is a high probability that, by then, wind power will have been rejected as a major energy source in favour of something more reliable and cheaper.
The debate about the pros and cons of an inter-connector and Viking windfarm have gone on now for about 15 years so clearly it cannot be a "must have". Sadly, the debate has caused divisions within communities and, whatever the outcome, these will take time to heal. Viking Energy has moved on from being a community windfarm project to being just another story of a ruthless developer trying to take advantage of an opportunity.