

Nicholas.Harvey@nationalgrid.com
www.nationalgrideso.com

08/02/2019

Orkney Consultation: Consultation on Final Needs Case and Delivery Model

Dear James,

We welcome the opportunity to respond to the above consultation.

National Grid Electricity System Operator (NGESO) becomes a legally separate entity on 1 April 2019. As the ESO we use our unique perspective and independent position to facilitate market based solutions which deliver value for consumers.

Within this response, we hope to clarify the purpose of the original Cost Benefit Analysis CBA provided by the ESO and our views on the additional CBA.

Responses to some of your specific questions are appended to this letter.

We welcome the opportunity to further discuss the points raised within this response. Should you require any further information or would like clarity on any of the points outlined in this paper then please contact Tomas Poffley in the first instance at tomas.poffley@nationalgrid.com

Yours sincerely

Nicholas Harvey
Network Development Manager

Responses to your questions

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

As per the most recent Future Energy Scenarios released in July of 2018, we see potential for significant generation to connect on the Orkney Islands that would not have a route to the main GB mainland without transmission reinforcement. As it is currently within license conditions to ensure this generation is given a route to generate, we agree that the network on Orkney needs reinforcing if a significant amount of generation wishes to connect.

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?

The Strategic Wider Works (SWW) methodology is not intended to evaluate the consumer cost/benefit any network reinforcement. Once a need is identified for increased network capacity, given an increase in future generator capacity, the purpose of the SWW CBA is to select the best reinforcement option to support the transfer of power in an area of the network. A constraints based CBA is considered the best approach to evaluating the relative merit benefit of each option due to their ability to relieve network congestion costs. The ESO is obligated to offer a connection agreement to any generator that wishes to connect to the network. The SWW CBA ensures that the best reinforcement is selected by modelling future changes to Balancing Mechanism costs under each option.

All options are measured against a counterfactual in the SWW approach to give a Net Present Value (NPV) which is used to compare each option. In the case of Orkney, there is no existing transmission connection to the grid, and hence the counterfactual considers a scenario in which the generation on the island connects but has to be continually constrained in the Balancing Mechanism. As stated in the original report, this counterfactual is almost hypothetical as it is very unlikely generation would connect on the island without a new transmission connection to mainland GB:

“The implication [in the CBA] is that if SHE-T were to not construct a cable, and the Orkney generation were constructed anyway, the ESO would be obliged to constrain off all generation on the island for its lifetime at a considerable cost... this is unlikely to be the case in reality.”

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?

We agree that the additional CBA provides a good sense check in the value of the project to consumers. It is worth noting that the wholesale price reduction in this CBA that results in the consumer value figures is not specific to additional generation in the Orkneys. If the same level of generation were to connect anywhere in the GB market (with identical load factors), it would result in identical consumer value. As such, this should be considered carefully when evaluating the merits of the Orkney generation and network reinforcement project as a whole.

It should also be noted that the consumer value calculated from wholesale price reductions does not include the additional cost to consumers from increased Balancing Mechanism costs for connecting additional generation in a congested area of the GB network. There may also be other costs/benefits that have not been quantified such as changes to capacity mechanism payments. If these were to be considered it may reduce the consumer value figures calculated in the report.