

Roger Morgan
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10th February 2014

Dear Roger,

Diamond Transmission Corporation

Re: Response to Consultation – Offshore transmission Cost Assessment: Development Proposals

We would like to thank you for providing us with the opportunity to respond to your consultation.

Diamond Transmission Corporation (DTC), a wholly owned subsidiary of Mitsubishi Corporation, is part of the Blue Transmission consortium comprising Barclays Infrastructure Funds Management Limited and DTC.

Blue Transmission Investments Limited is the owner of four Offshore Transmission (OFTO) businesses: Blue Transmission Walney 1 Limited, Blue Transmission Walney 2 Limited, Blue Transmission Sheringham Shoal Limited and Blue Transmission London Array Limited and our response set out below is based upon experience gained in bidding for, completing the transfer and running the OFTO assets of these four businesses:

If you have any follow up queries please do not hesitate to contact me on 07785 527154 or at gary.thornton@diamondtransmissioncorp.com.

Regards,



Gary Thornton B Eng(Hons), C Eng, FIET

Technical Director – Diamond Transmission Corporation

Questions for response
CHAPTER: Two
Question 1: Are there any factors, other than those mentioned, that we should consider in relation to developing the cost assessment process?
Please refer to response to question 2 and 3.
CHAPTER: Three
Question 1: What are your views on the appropriate dataset to use for deriving benchmarks and how they could be used in the cost assessment process? What are your reasons for this preference?
The DFVT details the actual costs incurred by the Developer prior to any 'economic and efficient' adjustment by Ofgem i.e. the FVT. Therefore the DFVT is the total 'factual' costs incurred which include unforeseen costs during construction and as such should be the data-set used for deriving benchmarking. Using the FVT may 'mask' costs which are being assessed by Ofgem as not 'economic or efficient' but are being incurred on every project and as such should be used in deriving the benchmarking.
With regard to paragraph 3.16 care needs to be taken in ensuring all cost differences between onshore cost assessments and offshore costs assessments are taken into account e.g. the additional installation and commissioning costs (weather delays, transfer costs etc.) of the offshore substation.
Question 2: What are your views on the appropriateness of total project cost benchmarking? If you believe it is an appropriate approach, what should be the cost driver(s) to be used for such benchmarking?
Total project cost benchmarking is not an appropriate approach to employ. This type of approach is not robust enough to take account of different technologies which may be employed such as HVDC or design criteria requiring reactive compensation e.g. Static VAR Compensation (SVC) or harmonic filters etc.
Question 3: What are your views on the appropriate measures for benchmarking each of the individual component cost drivers?
Land Cables: An adjustment for urban landfall will be required (it is accepted that cables to date have come onshore in rural areas but this may not be the case in future projects). In addition an allowance for cables of different ratings will be required as future projects may employ larger capacities. The onshore network should provide additional benchmarking data.
Onshore Substations: As stated in the consultation onshore substation costs can vary dependent upon equipment used HVAC, HVDC, AIS, GIS, busbar design and the requirement for reactive compensation and harmonic filters. A simple £ / MW driver will require adjustments in order to take account of these variations in order to make the cost assessment robust. The onshore network should provide additional benchmarking data in this area.
Offshore Substations: Whilst we agree with Ofgem's assessment that installed capacity can be the cost driver for offshore substations there may also be a requirement for project specific adjustments. To date the transition projects have been designed with very simple busbar configurations. As the wind farms become

larger and more integrated there may be the need for more complex busbar designs to allow for additional redundancy in the system in order to maintain reliability and hence availability. Another project specific factor is the basic design and the cost differences between HVAC and HVDC offshore platforms, this is due to the driver to change to HVDC technology being cable length rather than capacity of the offshore substation.

Offshore Cable Supply:

The benchmarking will need to take into account HVDC cables which will be installed on projects that are located further offshore.

Offshore Cable Installation:

Benchmarking for cable installation costs is difficult. Costs can vary dependent upon the marine environment and also the required cable burial depths which can change significantly. This is probably the reason why there is a comparatively weak regression co-efficient. In order to obtain benchmarking in this area factors need to be development to adjust for cable burial depths and different marine environments. A further complication is these two factors can also vary along the cable route e.g. greater burial depths in a port area.

CHAPTER: Four

Question 1:

What are you views on the options for Ofgem engagement discussed in this chapter? Are there any other approaches to engagement through the various project stages that you think we should be considering?

No.

Question 2:

Do you agree with our views on the advantages and disadvantages of the options presented? Which option offers the best way forward for the enduring regime, and why?

DTC agree with Ofgem’s views on the advantages and disadvantages of each of the cost assessment options considered. We therefore agree that Option 1 (current process with minor clarifications) is the most optimal choice.

CHAPTER: Five

Question 1:

What are your views on whether and how to develop incentive for generator build projects?

Incentives, designed correctly, drive the correct behaviour and improve performance and hence efficiencies. Therefore the development of incentives is correct but must be carefully considered prior to implementation.

There are difficulties, as demonstrated in Section 3, in applying benchmarking costs and as Ofgem state in Section 5 benchmarking would need to be developed further to ensure it is robust, credible and also stays relevant e.g. takes account of variation in commodity prices which can be more volatile than inflation as measured by RPI.

The target cost data and methodology once developed further could be applied to historical projects to ensure the process provides reliable outputs. An assessment methodology will also need to be developed to test the incentive methodology against future larger wind farm projects with differing technologies such as HVDC prior to implementation.