By e-mail, sent on 20/11/2014

Dear OFGEM,

Siemens thank you for the opportunity to comment on your ITPR Draft Conclusions Document.

As a supplier of power transmission systems for offshore windfarms we have a large amount of experience in the optioneering, tendering, design, construction and maintenance stages of windfarm grid connection projects and our comments include insight we have gained from the customer interaction we have had in these processes.

While we understand and support the philosophy of creating a coordinated approach to offshore windfarm connections to minimize the overall costs to UK consumers we are also conscious of the issues that Developers face in getting their projects to the Final Investment Decision stage and beyond and as such we see issues in your proposals that may deter investment in offshore windfarm projects. Without this investment the UK will not meet its renewable energy targets.

An example taking inspiration from what is happening off the Scottish East Coast:

A Developer wants to build a 500MW windfarm and the least cost/risk solution to connect it to the National Grid is an AC radial connection.

The SO believes that a 1GW HVDC solution with the capability for multi-terminal connections to other schemes will give the lowest overall system cost.

The radial AC connection may take $2^{1}/_{2}$ years to build from order placement and the multi-terminal HVDC solution is likely to take 4+ years to build and also involves significantly more technical risk.

If the Developer builds the HVDC link he needs to raise more money, which could be at a higher finance rate because of the additional risks, and his windfarm will be commissioned maybe 2 years later than if he had built the AC link to shore.

As such building the HVDC link will lead to a lower CfD value for the energy generated by the windfarm, significantly reducing its return on investment.

There is no indication in the current ITPR proposals as to how the Developer would be compensated for taking on the additional risk and for sacrificing the higher CfD value that he could have received.

Who has the final say in the choice of connection design in this case? In section 2.36 your document says that the "SO would include the WNBI in the Developer's connection offer and be responsible for considering whether the WNBI should be taken forward", however in section 2.67 you say that the "SO's enhanced role is largely in a supporting rather than directive capacity" and that prospective asset owners "retain the ability to put forwards their preferred solution". Also in section 4.7 you say that "the SO's proposed enhanced role is largely an advisory one – TOs/developers and OFGEM where relevant will retain decision making responsibilities" If the Developer cannot get a grid connection offer that will support his preferred solution because it does not align with the SO's view, assuming of course than their preferred solution will satisfy the technical connection requirements, then they don't really have the final decision. How will this be resolved? Will there be an appeals process?

In section 2.37 you say that "we would commit to not disputing the rationale for inclusion in our cost assessment subject to no material change to the needs case". If the Developer is incorporating WNBI in his grid connection and the needs case for the WNBI changes leading to a need to re-engineer the connection solution, how will the developer be compensated for the additional work and delays to his project for example?

Comments on particular questions and other text:

Section 2 Q1 A coordinator may be a good idea if they speed up rather than slow down the implementation of offshore wind.

Section 2 Q4 If the SO is leading these gateway assessments they should have obligations to maintain a certain completion programme.

Page 22 footnote 21 – the developer needs greater certainty on the valuation of their assets a long time before the transfer process. There should be assessments during the design and construction process that allow the developer to confirm that they will get full reimbursement of costs.

If we are to continue to develop a secure electricity generation system for the UK utilizing a variety of low carbon generators including offshore wind we must attract investment and in our view the current proposals in the ITPR create greater uncertainty for Offshore Windfarm Developers.

If you have any questions about the above, please do not hesitate to contact me.

With best regards, Nigel Platt System Engineering Manager

Energy Management

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