

Response to Consultation

**Offshore Electricity Transmission
Competitive tender process**

on behalf of

**Siemens Transmission and Distribution
Limited**

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Siemens Transmission and Distribution Limited

Siemens Transmission and Distribution Limited (STDL) is the UK's largest transmission substation contractor, employing around 750 employees in the UK. Headquartered in Manchester, STDL also has principal sites and offices in Hebburn (Tyneside) and Garforth (Leeds) as well as a number of other locations around the UK.

STDL designs and constructs AC and DC substations for UK generation, Transmission and Distribution companies and Industrial customers. In addition it provides services covering all stages of Transmission and Distribution asset lifecycles including power network studies, operation and maintenance and de-commissioning. Siemens also offers a full range of substation equipment including switchgear, transformers and protection for all network voltages.

We are committed to supporting the Renewables industry in the UK and have already built or provided equipment to several onshore and offshore wind farm connections. We are currently working on design and build contracts for three British Round 2 offshore wind farm connections, a total of 1,460MW with the following scope:

- Thanet – 2 x 132kV export cables, 2 transformer offshore substation and 2 onshore SVCs
- Greater Gabbard – 3 x 132kV onshore cables, 2 offshore substations and 3 onshore SVCs
- London Array - 2 offshore substations and 4 onshore SVCs

These projects are being built on a merchant basis, prior to the commencement of offshore transmission licensing. In due course the assets we are now building will be transferred to OFTOs under the transitional regime.

Siemens is one of a small number of contractors with the capability and scale to design and build offshore transmission assets. We are keen to support the rapid development of a mature and stable offshore transmission industry; hence our participation in the licensing consultation process to date and our response to this consultation.

Siemens Response

This document is Siemens Transmission and Distribution's response to the Ofgem consultation of 6th October 2008. In it we respond on a chapter by chapter basis to the consultation.

Siemens Transmission and Distribution has responded on wider aspects of the Offshore Transmission regime in previous consultations. Our concerns remain over the ability of the proposed regime to deliver connections for individual offshore wind farms in a timely or cost effective manner and we believe the incremental approach is not appropriate to deliver the significant programme of offshore wind required to meet UK Government 2020 targets. The basis for this view was set out in our February 2008 response¹ and is not re-stated here.

We welcome the further detail of the transitional regime provided in the consultation and reaffirm Siemens commitment to work with Ofgem, DECC and other stakeholders to make the process work as well as possible.

¹ Please see our response to the January 2008 Offshore Electricity Transmission – Regulatory Policy Update. This is on the Ofgem web site along with other responses to that document. www.ofgem.gov.uk/Networks/offtrans/pdcd/cdr/cons2008/Documents1/Siemens%20Response%20to%20Consultation%204_08.pdf

We believe the greatest test of the regime will be the delivery of grid connections under the enduring regime. We look forward to the further detail of the enduring process in due course.

In the mean time the projects we are working on now are faced with uncertainty over adoptability. We know of several cases where our customers have felt obliged to make design choices where the normal engineering and commercial considerations are overridden by a desire to meet the expected or feared requirements of the new regime. These have included the otherwise unnecessary segregation and duplication of systems and equipment on offshore platforms. We urge Ofgem and BERR to develop the remaining details as quickly as practical to limit this period of uncertainty. We also request that Ofgem and the GBSO declare that they will take a pragmatic approach to the ownership of assets whose use must be shared by the future OFTO and generator. We would be happy to discuss examples of this issue with Ofgem.

Comments on the consultation document

Our comments are referenced to the Ofgem document in chapter order.

3.10 Adjustments to the Revenue Stream

We see regulatory risk as a significant factor in the bid revenue stream and therefore welcome Ofgem's intent not to pre-define reopeners for 'unknown unknowns'.

3.13 Indexation

In the enduring regime there is a long time between the start of the tender process and construction. The tender process will take 1 year with construction typically 3 years. (There may be a further delay for consent if this is not already in place.) Given the recent volatility in commodity prices any fixed price bid will have to fully reflect commodity risk at each level of the contracting chain. We believe a better outcome for electricity customers would be achieved over the long run if key commodities such as steel and copper are indexed between OFTO bids and construction. We request that Ofgem consider commodity indexation in the joint document.

3.18 Capacity delivery incentives

On existing projects where the generation developer has engaged the supply chain they have understandably focussed on delivery date as a key selection criteria. We note that generators always seek liquidated damages for lateness in addition to the delay in payment that would result. We feel that a capacity delivery incentive is therefore necessary to reflect the importance of delivery to the end user of the asset.

We have a general concern that the role of Ofgem comes between the two parties who have most interest in the connection asset – i.e. the generator and the OFTO. In any normal transaction that direct relationship would drive efficiency by ensuring both parties place appropriate emphasis on all relevant factors, including timeliness of delivery.

Customers select contractors on a balance of cost and risk. They value capability and experience as well as price. We are concerned that Ofgem has no stake in the success of any OFTO it selects and will therefore give less consideration to risk of delivery or quality than to price. It would not be in the interests of generators or electricity customers for Ofgem to select a series of low bidding OFTOs who then provided assets late, or sub standard, or ultimately failed.

3.19 Operational incentives

The availability target of 98% appears arbitrary. The cost benefit analysis developed for setting SQSS showed that it is economically efficient to have a lower availability as distance from shore increases. We believe any operational target should reflect the actual cost benefit of improving efficiency by adding more assets. Please also see the comments on value of energy constrained rather than capacity availability in our February response.

3.20 Late delivery of onshore transmission assets

We note that this proposal differs from existing onshore practice. If an incentive is applied care must be taken to ensure it does not simply drive TOs to offer longer and more comfortable timescales for the onshore connection. There should perhaps be a 2 way incentive to achieve a more timely connection.

4.5 Design of [transitional] process

We note the recognition that this process is unique and does not follow precedent. This is not a traditional PFI type process. Please see our comments on the BERR regulatory impact assessment in our February response.

Whilst we recognise the need for Ofgem to run a transparent process there will be an inevitable reduction in efficiency of communication between the generator and the potential OFTO because of the requirement for all communication to go via Ofgem. We see no way round this issue, given the nature of the regime, but urge Ofgem to ensure communications are as efficient as possible.

We observe that some parties in the industry are already limiting otherwise useful communications during the construction of assets for fear of prejudicing the later OFTO process.

6.3 pre-conditions in the enduring regime

Given the durations of the process of selection of the OFTO and then construction of transmission assets it may not be possible for the stated pre-conditions to be met against a reasonable overall project timescale.

We believe it would assist all parties to draw up a timeline similar to that in appendix 2 but including all aspects of a typical offshore wind farm and its grid connection. We have long advocated a walk through of this process with interested parties to highlight some of the precedence relationships and issues of costs vs. detail of information available at the various stages of project development.

We hope that the 1st December Getting Connected workshop might start this process. We would be happy to work with Ofgem and others to produce such a timeline.

6.13 Invitation to tender stage

In our February 2008 response we raised the issue of interaction of HM Treasury rules implementing the EU utility procurement directive with the competitive selection of OFTOs. Para 6.13 implies that OFTOs will either include or already have selected contractors at the tender stage. If this means that no further public procurement process is required we welcome this common sense interpretation. It will avoid successive competition and will allow expert contractors to become involved at an early enough stage to bring innovation.

6.14

Perhaps our greatest concern over the proposed regime is the way it discourages co-ordination between separate generating projects. The simplest example is for two projects in close proximity, but developing to timescales 1 year apart. It is clearly more efficient for them to share a connection which would also be likely to result in higher availability than two separate connections. It is our understanding that any provision in the design of the first connection that could benefit the second would be entirely funded at the first OFTOs risk. The second project cannot support the OFTO in taking this risk as this would prejudice the future selection of the OFTO for the second connection. In this respect co-ordination is even harder under the regulated regime than would have been the case were the various parties able to contract directly.

Government policy implies the construction of around 33 GW of offshore wind by 2030. If each connected separately this would result in around 100 offshore substations with 200 AC cables to shore and 100 onshore connections. This is both impractical and uneconomic. We

believe a more strategic approach to design of the offshore network will be necessary for Government policy to be realised. Construction and ownership of offshore assets can be delivered through a range of competitive processes, but the design and outline consenting process needs to be managed and co-ordinated rather than incremental.

In our view a strategic plan for the network to connect offshore renewables is vital for the ability to deliver government targets. The expertise to do this lies mainly with the GBSO, but ideally an industry consensus view on the key elements should be developed. We believe the revitalised ENSG is a possible vehicle for this.

For very practical reasons offshore substations cannot be extended or modified as easily as onshore substations. Any future extension or interconnection has to be designed in to the asset when it is first built.

For example a new cable circuit from an existing platform would require additional space on the platform for an extra circuit breaker, for the routing of the cable around the platform and through a new J tube to the sea bed. The layout of the array cables on the sea bed would also have to allow space for this new cable.

The extra platform space and weight would have to be allowed for in the topsides structure and in the design of the foundation. Typically an extra tonne of equipment leads to an extra tonne of structure and a further two tonnes of jacket. The extra weight will drive the choice of foundation structure and further limit the selection of installation vessel. Reducing cable spacing on the sea bed might force the use of larger cross section cable for thermal considerations. All these provisions for future flexibility significantly affect capital cost.

As an example we recently costed such a retrofit for a Round 2 project. The total cost of retrofitting around £1M of additional equipment (a damping network) offshore was estimated at around £25M.

Building in flexibility for the future is expensive and is not reimbursed under the proposed regime. Any OFTO that does so could be competing with another who has priced only the basic minimum. Unless Ofgem allows costs associated with providing future flexibility in the RAV we cannot see any OFTO providing them.

6.15 Variant bids

Given the above costs of designing for future flexibility, the process for assessing variant bids becomes critical to any hope of coordination between projects. We feel this is an important area to develop a whole industry view. We recommend a specific stakeholder workshop on this topic that should include input from those with practical experience. We would also be pleased to discuss the issue on a bilateral basis with Ofgem.

6.24 During the tender process

Please see comment 4.5 above on need for efficient communication.

The requirement for NGET to notify Ofgem of direct communications is understandable. It should also be recognised that the host TO for the onshore part of the connection will be preparing drawings and constructing assets adjacent to the OFTO. There will thus be a whole chain of contractors who inevitably have privileged information about the connection for legitimate reasons outside the scope of the OFTO selection process. Many of these are also potentially involved in the OFTO's scope.

6.26

We note the desire to keep anonymity. In practice the proprietary nature of some manufacturers' equipment is likely to mean that any informed party could quickly deduce where a proposal has come from.

6.29 Tender Windows

We would again urge Ofgem to consider separating tender windows for separate regions to different times of year to smooth out the significant workload peaks for all elements of the supply chain.

6.31 Consents and leases

There will be significant commercial issues associated with contractors and OFTOs reliance upon information provided by others. These will vary from project to project depending on the type of information and its significance. Where an OFTO relies on information provided that turns out to be inaccurate it is likely to seek a reopener for additional costs. We feel that industry standards for the level of detail required in for example a cable route survey would help all parties take the best view of these risks.

We thank Ofgem and other stakeholders for the significant work done so far to develop this regime. Siemens Transmission and Distribution will continue to work with all parties to make the best of the process. We also believe a strategic approach to planning the offshore network will be required in addition to the proposed OFTO regime.

For further information on this response please contact Matthew Knight or Bryan Dakers of Siemens Transmission and Distribution Ltd. Tel: 0161 446 5600