

## Warwick Energy Limited

### Initial Comments on Ofgem/DECC Consultation Document References: 153/08 and URN 08/1185

#### Scope

This document summarises Warwick Energy Limited's (Warwick's) initial comments to the Ofgem/ DECC Consultation Document entitled "Offshore Electricity Transmission: A further Joint Ofgem/DECC Regulatory Policy Update" Ref: Ofgem (153/08), DECC (URN 08/1185).

The following deals with some key aspects of the overall proposals. Warwick has not examined the Appendices or Annexes in any detail at this stage. Further comment will be made once the full documentation has been examined.

#### Initial High Level Comments

##### *Implications of EU Unbundling Requirements*

We note the new position that generator affiliates (whether ring fenced or not) are not expected to be permitted to bid for an OFTO Licence. The majority of transitional projects have been developed on the basis that the developer can act as the OFTO of Last Resort. Such arrangements give certainty and control over a vital part of project infrastructure.

The new legislation is only relevant to Offshore networks because of the arbitrary UK Government decision to define all 132kV assets Offshore as a "transmission" system purely on the basis of voltage. This is in direct contrast to Onshore networks where 132kV systems remain (in general) distribution systems and may also form private networks. Onshore generation developers may presumably still choose to own and operate 132kV networks irrespective of EU Unbundling but this will not be possible Offshore. This is a clear case of discrimination against Offshore projects in UK Legislation.

In respect of Round 1 and Round 2 projects, which may qualify as part of the transitional regime, the networks comprise purely radial connections with little or no scope for integration into a wider Offshore grid. As such it is difficult to justify classifying the networks as "transmission" since their function is purely for local connection to the existing Onshore networks.

In view of the above Warwick believes that the decision to classify Offshore networks operating at 132kV and above purely on the basis of voltage as transmission systems should be revised in line with England and Wales Onshore practices; i.e. default voltages of 275 kV and above are defined as transmission.

This approach would also remove the perverse effect on embedded radial projects that an OFTO and a transmission licence is required to operate what is essentially a passive non-switchable network.

##### OFTO of Last Resort

Warwick notes the Ofgem views expressed in the recent National Grid/ Ofgem workshop on the connection process (1/12/08). In particular the view expressed that existing vertically integrated transmission/generator companies will be allowed to continue without divesting assets appears discriminatory.

Warwick notes that Section 2.8 of the latest consultation indicates that the possibility of obtaining a derogation to allow undertakings to remain vertically integrated exists. In respect of the OFTO of last resort Warwick sees no reason why generators may not qualify on a similar basis to act as OFTO for their own projects.

The above possibility is however excluded from the proposed regime – and no justification for this is given.

### ***Transmission Charges***

The issue of charging is not directly addressed by the present consultation. However this is an issue which is clearly of key importance to the success of the whole regime. Warwick has commented extensively on National Grid's latest consultation document under GB ECM08 and does not believe the latest revisions are acceptable.

The original charging proposals allowed socialisation of Offshore Substation costs as part of infrastructure. Indeed socialisation of costs was one of the main justifications used by Government to sell the entire proposed regulatory regime to the wider industry. It is therefore extremely disappointing that Ofgem gave a clear steer to National Grid (open letter of May 2008) to remove the main socialisation benefits from generators. This represents a major change in Regulatory philosophy and Warwick believes this should be subject to revision.

Warwick also notes that the proposed charging rules appear to allow for development of purely radial networks. While this may allow the charging regime to deal with transitional projects, the scope does not appear wide enough to cover future OFTO developments. This is particularly true for possible interconnected networks. Issues to consider include: socialisation of cable costs (as occurs for Onshore networks); treatment and charging for reactive power compensation equipment (simple pro-rate approach is discriminatory); and interconnection of separate OFTOs to form part of the Main Interconnected Transmission System (MITS).

Warwick believes the present charging arrangements as framed in GB ECM08 are unacceptable. Furthermore the proposals represent such a shift away from the original policy position that there is no longer any justification for the entire regulatory regime. As such a fundamental review of the entire License Regime should be carried out.

### ***Overall Connection Process***

There is a requirement for the developer to sign an agreement with National Grid committing to any necessary Onshore reinforcement works prior to the tender process commencing. For an Onshore project such a commitment guarantees access to the transmission system. For an Offshore project no such equivalent access rights are offered. This is because there is no guarantee that any OFTOs will bid to provide the connection – let alone satisfy Ofgem's criteria that their proposal is economic and efficient. The lack of access rights for Offshore projects is clearly discriminatory in comparison to Onshore projects and this aspect of the proposal should be revised.

In addition Warwick notes the following points:

- There is no Licence condition on OFTOs to offer connection for additional generation projects – unless the capacity increase is less than the notional 20% figure proposed. Clearly this means that sharing of networks between developments becomes less likely and the possibility of achieving an integrated and least cost network is minimal;
- There is little prospect of cost or network sharing between projects – i.e. projects will continue to be designed on a radial standalone basis;

- The lack of an overall design stage within the process to ensure that best value network designs are used for OFTO networks;
- Lack of clarity on how technical content of the ITT is to be developed – and what level of detail will be included;
- How bids are to be compared on a levels playing field when the range of technical solutions could be diverse;
- The timescales taken by the process are likely to adversely impact on development of new projects. Even in the transitional regime a minimum of a full year is envisaged between prequalification and issue of an OFTO Licence. Even this assumes that the process goes smoothly – if additional ITTs are required due to lack of bids or an economic proposal this will become longer still;
- The proposed 4 month ITT response in the enduring regime is unlikely to allow bidders sufficient time to provide firm costs.

## ***Reactive Power***

Under the proposed regime an Onshore generator is required to provide reactive power at the connection point. In contrast under the proposed Offshore regime the generator is required to fund 100% of the costs of reactive compensation equipment at a remote point on the network; i.e. at the OFTO Onshore TO/ DNO interface point. A difference in reactive costs charged to the generator therefore occurs even if an identical overall generator scheme is located Offshore rather than Onshore. In particular additional equipment will be required in the Offshore situation to compensate for the connecting OFTO cable and transformer network. This is clearly discriminatory.

Warwick has pointed this inequality out on several previous occasions – however there is still nothing included in the latest proposals to address this clear case of discrimination.

The suggestion that reactive power services can be provided to NGET from the compensation equipment is noted. However since the compensation equipment is proposed to be 100% funded by the generator any payments for reactive services should also be passed to the generator. However the equipment concerned is not within the control of the generator and there is therefore a risk that the OFTO will fail to deliver the appropriate services. The area of reactive payments seems unnecessarily complex and should be reviewed.

There is no fair means of allocating reactive power costs between generators connected to a single OFTO, or indeed interconnected OFTO to OFTO network. The simple pro-rate approach proposed by NGET makes no account of possible different generator characteristics or the different lengths and characteristics of the passive network (cables and transformers). Warwick believes that there is in fact no simple or equitable solution to this problem. The fundamental difficulty is that the reactive power equipment is located at a remote point from the connection point.

Warwick believes that one approach that could help would be to adopt a proper planned approach to reactive compensation. A cost contribution could be provided by the generator to account for any deficit in its theoretical contribution at an Onshore connection point. The monies thus raised could then be placed at the most appropriate point in the network in the same zone as the generator to provide the optimal value for money. This approach would avoid the potentially wasteful requirement under the present regime to place reactive compensation equipment at OFTO/ TO or OFTO/DNO interface points. Clearly further work on such an approach is needed to arrive at a suitable cost reflective proposal which benefits all parties concerned.

Overall Warwick believes a fundamental review of reactive power issues is required.

## ***132kV Connected Licence Exempt Offshore Generators***

As noted elsewhere there is no real justification for including these projects as part of the Offshore Transmission regime. The networks concerned are purely radial and if located Onshore would be connected to a DNO network and exempt from TNUoS charges.

Existing projects have been designed, built and financed on the basis of the present charging regime. It seems unfair and unnecessary to go to the expense of artificially splitting successfully working projects into an OFTO and a generator. This will almost certainly increase ongoing O&M costs due to loss of natural synergies as well as increasing complexity of agreements and interfaces. On top of all of this the proposal is to significantly increase the charges by imposing TNUoS charges. The rationale for the entire approach to these projects should be reviewed at a fundamental level.

Warwick believes the pragmatic method of dealing with such projects is to exclude them from the entire OFTO regime.

## ***Consents***

Warwick notes that the OFTO will require separate consents from the generator. Existing and transitional projects are typically covered by overall consents for both generator and potential OFTO assets. Warwick understands that it is not possible to split certain types of consents between different (new) owners for the new regime e.g. FEPA and CPA consents. As such the OFTO will need to apply for consents post licence award. This area needs to be addressed in the overall proposals – failure to do so will result in project delays and increased risk that generators will be left stranded while OFTOs apply for new consents.

## ***Detailed Comments on Code Drafts***

The extent of the consultation is such that considerable work is needed to review the documentation and identify potential problem areas. Warwick will revert on these aspects of the consultation in a further response document by the appropriate date.

Warwick notes that there are no significant revisions to the requirements of the GBSQSS in comparison to that published in the previous consultation Reference 84/08 (Ofgem) and URN 08/730 (BERR).

Warwick commented in some detail on the proposals in response to the previous consultation. It appears that other respondents to the consultation made similar comments. It is disappointing that little or no account of industry views appears to have been taken in the latest documentation.

Pending full analysis of the documentation Warwick notes the following points:

- The standards appear to apply to all Offshore transmission systems, including interconnected systems. No cost/ benefit analysis has been carried out to provide any criteria to apply Offshore for networks that may be regarded as part of the Main Interconnected Transmission System (MITS);
- The requirement for double busbar switchgear at Onshore and Offshore connection points. Warwick notes that this issue was specifically excluded from the cost justification carried out on behalf of the GBSQSS sub group. (See SEDG Report Reference URN 08/1144 entitled “Cost Benefit Methodology for Optimal Design of Offshore Transmission Systems”, Predrag Djapic and Goran Strbac, July 2008);
- In view of the above it seems questionable that there was ever any justification for including a requirement for double busbar switchgear (particularly on the Offshore platform) in the draft GBSQSS;

- Warwick notes that Ofgem has now requested NGET to carry out analysis on single versus double busbar arrangements. However there is no reference in the consultation document to this work having been published or being subject to wider industry scrutiny. This therefore does not seem a satisfactory or transparent basis to define a security standard which should be subject to industry review and comment;
- Ofgem requests further information on cost differences between single and double busbar switchgear. However it is worth emphasising there are also significant cost differences due to the increased size and weight of double busbar switchgear on the Offshore platform and foundation costs;
- Warwick notes that during a 20 year Licence period there is likely to be at most one or possibly two occasions when busbar maintenance on modern 33kV switchgear is required. In any case it is expected that co-ordination of busbar, transformer and other switchgear outages (e.g. WTG feeder breakers) will mean there is no additional loss of generation output. i.e. use of double busbar switchgear will not improve network availability or generator output;
- There are likely to be other more pragmatic issues of design that could affect system reliability to a far greater extent – particularly in the event of faults occurring; e.g. segregation of switchgear, treatment of alarms (e.g. is a transformer switched out if a winding temperature alarm occurs or is a constraint applied) etc. Warwick believes that since, quite rightly, there is no requirement to include such issues within the GBSQSS or other codes there should be no requirement for double busbar switchgear;
- Warwick's position remains that inclusion of a requirement for double busbar switchgear is both over prescriptive and unnecessary and will impact adversely on costs without any real benefit to OFTO or generator;
- The requirement for Offshore generators to provide reactive compensation at a point remote from the connection point is discriminatory in comparison to Onshore systems. Similarly there is no proposal for a cost reflective means of providing reactive compensation if more than one project connects to an OFTO network. Both these issues should be addressed;
- The consultation and informal discussions with NGET indicate that the OFTO regime proposes that the interface between the OFTO and generator may be on either the HV (132kV) or MV (33kV) side of the Offshore transformers. Warwick notes that since the operation of a 132kV system will become illegal without a licence the use of a 132kV interface point between OFTO and generator is by definition not permissible. The consultation does not address this issue.

## ***Derogations***

The comments made in Sections 4.86 and 4.87 with respect to possible derogations being considered in advance of the transitional tenders are welcome. However Warwick notes that historically Ofgem's approach to derogations is that there is a general reluctance to grant derogations. Furthermore derogations are usually either time limited or may be revoked if the derogation subsequently has an adverse material impact on a third party user. As such the stated "minded to" grant a derogation approach will not eliminate risk to the OFTO and therefore bid prices will still need to be inflated.

A further point is that given the number of potential transitional projects designed before publication of even the draft GBSQSS there may be multiple derogations required. Warwick believes that there will be considerable work required from both project owners/developers and Ofgem to identify potential non-compliance issues. A further process of applying for assessing and granting/ rejecting derogations is then necessary. Clearly Ofgem may reject a derogation request and there is no means of dealing with this situation proposed.

It seems far simpler to adopt the more pragmatic solution as suggested previously by Warwick i.e. there should be some form of "gandfathering" arrangement for transitional



projects. This would allow a permanent exemption from Codes to be granted based on the as designed or as built equipment and topology.

Warwick also notes that the requirement to bid a 20 year revenue stream means that the OFTO is exposed to possible future code changes. This will also be built into bids in the form of additional cost premium. This aspect of the regime is discriminatory in comparison to Onshore networks where the 5 year Regulatory Review allows licensees the opportunity to recover costs from Code changes. This issue requires further review.

## **Summary**

Despite progress in a number of areas there remains much to be done if these proposals are to be made into a positive addition to the UK regulatory framework. Due to the number and complexity of the unresolved issues we would request an extension to the deadline for full responses to this consultation.

Much has changed in the offshore wind sector in the last 4 years during which the time proposals have been debated. The increasing targets set for the industry, the greater need for early delivery of new capacity, the size of the Round 3 campaign, the challenges facing capacity reinforcement onshore and now the latest EU directives all suggest that a rethink is needed. Implementing a flawed regime that doesn't address the major challenges that face us will be a major 'shot in the foot' for the UK.

Overall though Warwick believes there remain major difficulties with the entire OFTO proposals. Indeed we currently believes that extending the existing onshore transmission franchises under the 'connect and manage' ethos would best match the stated aims of connecting major increases in offshore wind capacity in a timely and efficient manner and would be consistent with the new approach onshore. This would allow a more strategic and holistic approach to be developed for both onshore and offshore grid networks to the benefit of all UK consumers. A major HVDC offshore grid, owned and operated by National Grid, will provide the industry with the best opportunity to meet its targets and to allow interconnection with continental networks.