Offshore Transmission Final Consultation
Department of Energy and Climate Change
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Your Ref:

5th May 2009

Dear Sir or Madam,

Re: Government Response to 'Offshore Electricity Transmission – A further Joint Ofgem/DECC Regulatory Policy Update' Final Consultation Document 23rd March 2009

This letter gives a brief summary of Warwick Energy Limited's (Warwick's) written comments in response to the above consultation document on Offshore Electricity Transmission. A more detailed response is given in the attached document.

The latest consultation document provides welcome detail, and some revisions which help clarify some aspects of the proposed regime. However a number of critical areas concerning the overall regulatory regime are highlighted in our response. Warwick's response to the recent consultation by Ofgem (21/09) also highlights numerous significant difficulties with the proposals, and should be considered part of the present response.

In summary Warwick is opposed to the overall OFTO proposals. Indeed the following issues present an overwhelming case to delay the Go Active date and conduct a full review of the entire regulatory structure:

- The proposed connection application and tendering processes appear to be complex, costly, time consuming and difficult to manage.
- For transitional projects the scope, complexity and late introduction of the Sale and Purchase Agreement (SPA) proposals means that these agreements are unlikely to be in place in a timely manner. This is likely to impact on the viability of the proposed Go Active/ Go Live Dates and the entire transitional regime;
- Revised OFTO of last resort proposals which are still subject to change at this late stage in the day. The latest proposals still appear to preclude the generator acting as OFTO of last resort without actively bidding in the initial tender round. It would be better to allow generators to become OFTO of last resort without having to bid;
- Fundamental changes having a major impact on industry are still under consideration; e.g. EU Unbundling, strategic onshore grid investment, TAR. It

does not seem prudent to introduce an entirely new form of regulatory regime involving fixing income over a 20year period at a time of such fluidity and wide reaching change. Indeed the proposals appear a recipe for time delay, increased cost and risk on projects for little or no tangible benefit;

- The interpretation of EU Unbundling proposals is not yet formed and there appear to be basic changes even in a document describing itself as a "Final" consultation;
- Compliance issues and adoptability criteria for equipment – there is no means of identifying or resolving these for transitional projects within the proposed process. This will add risk and thence cost to bidders' submissions;
- The lack of an overall design stage within the connection application/ tender process to ensure that best value network designs are used for OFTO networks;
- There is little prospect of cost or network sharing between projects – i.e. projects will continue to be designed on a radial standalone basis;
- 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 level playing field when the range of technical solutions could be diverse;
- The timescales taken by the process. Even in the transitional regime a minimum of a full year is envisaged between prequalification and issue of an OFTO License.
- The proposed 6 month ITT stage including clarification and tender assessment stages is unlikely to allow bidders sufficient time to provide firm costs;
- The licence requirements are solely a result of the arbitrary decision to define 132kV as a transmission voltage for Offshore networks. This directly contradicts the approach adopted in England and Wales where no such transmission license is needed;
- The competitive licensed structure for the OFTO regime was sold to industry on the basis of socialisation of cost. The recent changes to the charging regime proposed under the latest version of GB ECM08 mean there is now almost no socialisation benefit to generators from the proposals. This fundamental shift in policy should, on its own, be sufficient to trigger a review of the basic regulatory proposals;
- The generator now has to pay for the entire OFTO network with negligible socialisation. Despite this the generator effectively has no control over how the network is designed, owned, operated or maintained other than via an indirect and tortuous route;
- Major changes will be required to account for interconnected networks – which have not been properly considered in the overall proposals. The present proposals are based on purely radial standalone networks for individual projects;
- It is hard to see how the regulatory approach can possibly result in a lower risk, more cost effective service being provided to the generator than for the existing merchant regime;
- The latest consultations appear to include tacit admission that the regime is unlikely to meet its objectives and will require subsequent amendment.

Warwick notes that Ofgem itself is already indicating that significant changes to the proposals may be required to:

- Achieve overall regulatory goals;
- Encourage new entrants; and
- Introduce an auctioning system, to alleviate Ofgem's apparent concern that the regime will not deliver best value.

This raises a number of issues not least discrimination between early and late comers. It also appears perverse to introduce a new regime with the expectation that after a single tender round the regime will need to be re-designed.

Equally the scope and impact of the issues raised imply that the basic proposals are not fit for purpose; and a fundamental review is therefore required before the proposals are imposed on the industry.

Warwick believes that the above issues present an overwhelming case to either:

- Delay the introduction of the new regime by 2 years and allow developers to own and operate the networks being built as originally intended. The overall regulatory proposals can then be properly reviewed and amended as appropriate in the context of overall offshore requirements and wider policy issues; or
- Allow transitional projects the option to opt out of the regulatory regime on a project by project basis.

Warwick believes that the simplest approach would be to allow developers to apply for exemption from these untried arrangements if they so wish. No explanation has been given as to why such a common sense option has been discarded.

Warwick believes there remain major difficulties with the entire OFTO proposals. Indeed we currently believe that, if a change is needed, 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. It would also provide a more strategic and coordinated solution to this critical challenge for the UK and better facilitate interconnections with other grid systems in the EU.

Despite the numerous fatal flaws in these proposals Warwick continues to make constructive suggestions in response to Government, Ofgem and NGET consultations on the subject. These could help limit the damage if these proposals are imposed on a reluctant industry.

The preferred outcome from this consultation is however that the 'Go Active/Go Live' timetable is delayed whilst a full review is undertaken to ensure that any new regime best meets the needs of the industry and UK consumers, including reviewing the level of voltage that best defines transmission assets.

I trust the comments are clear however please do not hesitate to get in touch if you require any clarification on any of the points made.

Yours faithfully,

Mark Petterson
Director
Warwick Energy Limited

Warwick Energy Limited

Comments on "Government Response to 'Offshore Electricity Transmission: A further Joint Ofgem/DECC Regulatory Policy Update' 23 March 2009"

Scope

This document summarises Warwick Energy Limited's (Warwick's) comments to the Ofgem/ DECC Consultation Document entitled "Government Response to 'Offshore Electricity Transmission: A further Joint Ofgem/DECC Regulatory Policy Update'" dated 23rd March 2009. This latest document follows on from earlier consultations by Ofgem/DECC, in particular Consultation Document References: 153/08 and URN 08/1185

The Warwick reply deals with some key aspects of the overall proposals. Warwick has considered its response to the earlier Consultation Ofgem 153/08; DECC URN 08/1185 in preparing this response. Since much of the policy is unchanged the contents of the earlier response should also be considered as part of this response.

The result of the detailed review of the Annexes 6-8 (STC, Grid Code and GB SQSS only) is given in section entitled "Additional Comments on Draft Codes".

High Level Comments

Implications of EU Unbundling Requirements

The clarification that generators can bid to become OFTOs at least initially is welcome. As noted elsewhere this change in policy position means that generators should also be allowed to become OFTO of last resort for transitional projects. This would seem sensible given that generators will have already designed and built transitional networks under the merchant regime. Hence generators will already have considered the need to own and operate the associated electrical system. In the light of the latest interpretation of EU Unbundling Ofgem should reconsider the proposals for OFTO of last resort. Warwick notes that the original proposals allowed generators to become OFTO of last resort. However this was changed due to Ofgem's then interpretation of EU Unbundling which has since changed. Warwick therefore believes that allowing generators to become OFTO of last resort, would help protect projects from either stranding or uneconomic bids from OFTOs.

We note the new position that generator affiliates (whether ring fenced or not) are not expected to be permitted to be eligible for OFTO of last resort status. 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.

Tender Process

Warwick has commented at some length on the latest tender proposals. Despite some revisions from previous proposals the structure for both connection applications and tender process remain unduly complex, unwieldy, time consuming and difficult to manage. The tender arrangements and overall proposals are unlikely to deliver best value solutions, and will introduce complexity, risk and delays in an emerging industry. Warwick continues to believe this to be a major failing of the overall regulatory regime which should be subject to an urgent and fundamental review. See also Warwick’s extensive response to the latest consultation document 21/09 on the tender process.

OFTO of Last Resort

Warwick continues to disagree with the stated policy position that there should be no OFTO of last resort in the enduring regime. The consequence is that certain projects which could be developed on an economically viable basis (including the necessary Offshore transmission network) may not be able to proceed due to a lack of bids (or “competitive” bids) from potential OFTOs. This position is quite simply ridiculous – especially given that transitional projects will benefit from an OFTO of last resort. The proposed approach is also discriminatory against Offshore projects in comparison to Onshore projects. In the latter case there are Licence obligations on Onshore TOs and DNOs to offer connections to all projects irrespective of cost. In this context Ofgem’s policy of not including an OFTO of last resort in the enduring regime is plainly discriminatory, anti-competitive and against wider UK interests. These issues are not merely detail but a fundamental problem with the proposed enduring regime. The proposed policy should be revised to correct all these deficits.

Warwick also believes that while other OFTOs may provide an efficient OFTO of last resort for at least the first tender round there will be no existing OFTOs. Furthermore the proposed use of Onshore TOs as OFTO of last resort is reliant on these organisations entering a new field of business – i.e. Offshore work. Set against this background the pragmatic solution would be to allow the developer/ generator the option to become OFTO of last resort. This would help increase competition in the event of the OFTO of last resort mechanism being invoked. In addition given that the developer/ generator will have Offshore access arrangements in place for turbine maintenance there would be notable synergy savings potentially available. Warwick therefore continues to believe that the best approach would allow generators the option to become OFTO of last resort alongside any OFTO or TO offer. This should apply to both transitional and enduring regimes.

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 the associated Ofgem Impact Assessment (Ref: 07/09). In summary Warwick 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 of socialisation of costs 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 lack of an economic proposal this will become longer still;

- The proposed 6 month ITT stage is to include bid preparation, clarification of requirements and bids as well as tender assessment by Ofgem. This period appears insufficient particularly in the enduring regime to allow bidders sufficient time to provide firm costs. However as firm costs will be required to fix the revenue stream potential OFTOs will need to build in considerable risk premiums to account for uncertainty in 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 to meet the same condition that applies for an Onshore connection – except at a remote point on the network; i.e. at the OFTO Onshore TO/ DNO interface point. Hence the reactive equipment provided by an Offshore project needs to meet a far more onerous technical condition. 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 and the associated connection conditions are 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 (or Offshore) connection point. The monies thus raised could then used to fund reactive compensation equipment placed at the most appropriate point in the network. This equipment could be in the same zone as the generator to provide the optimal value for money. Such an approach would avoid the potentially wasteful requirement under the present regime to place reactive compensation equipment at OFTO/ TO or OFTO/DNO as well as generator/ OFTO 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

Warwick notes that Section 7.7(5) refers to the issue of Licence exempt generators – however the consultation wording is unclear and Warwick is concerned that there has been no revision to the previous stance; i.e. such projects will be required to obtain an OFTO License. This seems perverse as it will add significant cost and complexity to existing successfully operating projects with no tangible gains.

As noted in previous consultation responses, 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. Inclusion of Licence exempt projects within the OFTO regime is clearly discriminatory and should be reviewed for this reason.

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 rational 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.

Warwick has raised the above issue in previous consultation responses. It is disappointing that the latest consultation makes no reference to this, or offers any explanation or proposal to resolve the difficulty highlighted.

Initial 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 details further comments on this area later in this document.

Warwick notes that there are few 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.

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 removal of the requirement for double busbar switchgear at the Offshore substation is welcome. However there are still excessive requirements at the Onshore substation – where double busbar equipment is required in all cases. Warwick notes that for connections to existing transformer feeder circuits, there is likely to be no benefit from double busbar switchgear but that costs will be increased. Furthermore the treatment of busbar outages as part of demand criteria is not in accordance with normal onshore practice for the levels of load concerned. Further revisions to the GB SQSS are required to address both these issues;
- 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 revision in wording to the GB SQSS in terms of possible boundaries for the OFTO network is welcome. Warwick now understands that the original proposals, allowing the interface between the OFTO and generator could be on either the HV (132kV) or MV (33kV) side of the Offshore transformers, have been restored. Warwick supports this proposal;
- In relation to the above Warwick notes a concern regarding the wording of the enabling Act referring to operation of a 132kV transmission system becoming illegal without a Transmission Licence. The GBSQSS sub-group recommended that flexibility be retained to allow generators to select either an HV or LV connection point. It is not clear how short connections at 132kV and above will be treated and a specific statement should be included that such connections and where appropriate generator owned switchgear are permissible under the proposals.

Derogations

The comments made in Sections 8.137 with respect to possible derogations being considered in advance of the transitional tenders are welcome. One obvious difficulty is that given that the Codes are not yet finalised it is not possible to decide what elements of a project may require a derogation. Warwick also 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 that networks will need to be fully code compliant in the future. This will lead to increase costs in OFTO bids to mitigate against such risks.

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. There is some facility now included to allow for changes to the STC, however the OFTO would still potentially be exposed to changes in other codes; e.g. GB SQSS. This risk 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.

Specific Questions

Question 1 - We would welcome respondents' views on the supply chain and skills capacity. In particular, we would welcome views on the extent to which Ofgem, when granting OFTO licences, should take into consideration the policies and processes proposed by each bidder for developing and maintaining the appropriate skills necessary for them to discharge their licence obligations.

Answer 1 – There is a clear lack of expertise in the industry in the UK. The supply chain is severely constrained by the small numbers of companies able to supply the range of equipment necessary. For instance there is noticeable lack of effective competition in Offshore cable supply, supply of main components such as transformers and switchgear, DC equipment and the expertise to design and build Offshore electrical infrastructure. Warwick believes that lack of competition in the supply chain will be a fundamental problem in a regulatory regime which relies so heavily on competition. Indeed it seems likely that suppliers will cherry pick projects of greatest interest leaving others with no connections. The insistence by Ofgem of using tender windows to concentrate all project applications in a year together in terms of tendering will make this situation worse.

Question 2 - In particular, we would welcome any further views on:
a) our approach to dealing with predefined adjustments for 'known unknowns';
b) the OFTO of last resort proposals; and
c) business separation requirements.

Answer 2(a) - See Warwick's response on the consultation on the proposed tender process (Ref 21/09);
Answer 2(b) – See elsewhere in this response and earlier consultation replies from Warwick;
Answer 2(c) – No comment.

Question 3 - Specifically, we would welcome comments on how clear respondents consider the criteria for an OFTO of last resort direction (as set out in Annex 1) are and whether and in what ways the criteria could be made clearer.

Answer 3 – See elsewhere in this response for detail.

Question 4 - We would welcome comments on the activities identified in the Offshore Implementation Plan and feedback on any activities that should be undertaken in the Implementation Period that are not included in the Offshore Implementation Plan.

Answer 4 – See comments below:

- Determination of the basis of transfer – transfer terms (or at least an indicative set) need to be available at the tender round stage. Leaving this until the preferred bidder stage is too late as bidders will need to account for these terms in submissions;

- The proposal to carry out a RAV assessment before Go Active is unnecessary due to the inherent delays introduced by the initial stages of the tender process. The RAV is not required until later in the process and delaying would allow transitional projects greater time to respond to this key issue;
- Sale and Purchase Agreements – the late introduction of these, and Ofgem's own concerns that both developing and agreeing these with generators and OFTOs will be "challenging" is of concern. These agreements are an essentially part of the transitional process and leaving their development so late in the day is likely to be a major stumbling block;
- Decisions on derogation requests – it is not clear how developers who necessarily cannot hold a transmission license can make a derogation request under the present rules. This issue has been raised previously;
- Review standard framework – the overall proposals need a fundamental review before Go Active. If this means delaying the Go Active date by 1 or 2 years then this should be done. A review post Go Active will amount to window dressing and once the regime is in place will not be able to address the fundamental difficulties with the entire regime;
- Further designation decisions – Warwick is concerned that normal governance will not be applied for 18months after Go Active exposing the industry to yet more arbitrary Government intervention without the possibility of proper industry comment being taken into account;
- The requirement for Generators to submit information on RAV before Go Active is unnecessary and does not allow adequate time for this important task;
- Similarly developing terms of transfer, the extent of items to be transferred, suitable schedules and information for the tender process is likely to be time consuming. The proposed timescale is too short;
- Timescale for the OFTO to agree terms of transfer is too short – there will be little time available post preferred bidder selection. It would seem sensible to start such discussions earlier in the process – or delay the Go Live date to allow for this;
- Interface Agreements – OFTO/Generator and OFTO/ TO/ DNO. The time allowed for this is far too short given that the preferred bidder will not be identified until soon before Go Live;
- There is a need for active engagement by the GBSO in terms of the technical requirements necessary for OFTOs/ Generators networks. At present there is insufficient level of detail on specific aspects of the new regime to allow developers to be sure that projects will meet such detail requirements. This issue is partly due to the date for Go Active being too close to finalisation of the overall proposals for the regime. Warwick believes that a delay in the Go Active date would help address such issues as well as allowing a proper fundamental review of the regime proposals to be carried out.

Question 6 - We propose that the Secretary of State makes the changes set out in the annexes to this consultation, subject to evidence to the contrary. We would welcome respondents' views.

***Answer 6* – Warwick does not agree with the proposal to implement the OFTO regime without carrying out a fundamental review of the aims, objectives and likelihood that these will be achieved by the present proposals. It appears that the present proposals will hinder Offshore developments by adding risk, complexity and delays to projects. In view of the significant changes needed in the wider industry – such as strategic onshore investment, developing an integrated Offshore strategy, transmission access review, EU Unbundling and fundamental changes to charging mechanisms it appears extremely unwise to introduce the OFTO proposals and fixed 20year licences at this critical stage.**

Additional Comments on Draft Codes

Annexe 6 - Grid Code

As noted elsewhere Warwick is concerned regarding the overall scope and lack of time given to these consultations. It has not been possible to carry out a proper review of the proposed detailed wording within the time frame allowed.

Aside from points made elsewhere in the response Warwick would raise the following issues.

Glossary and Definitions

The definitions for both Onshore and Offshore Transmission Systems are essentially the same; i.e. both imply that fully interconnected systems are possible. Warwick notes that the main consideration to date in the consultation exercise (and supporting work such as GBSQSS subgroup) has been based on the presumption of radial circuits from a single onshore connection point.

These assumptions limit the validity of the proposals to such radial systems and these limitations are not properly reflected in the codes. This issue needs to be addressed by:

- Specifically excluding interconnected networks (accepting that Round 2 and Round 3 proposals may lead to interconnected networks being developed and this will therefore trigger further work); or
- Greatly increasing the necessary work; e.g.
  - cost benefit analysis for GBSQSS;
  - charging issues where a single zone per OFTO/ project would potentially no longer be applicable;
  - split of locational/ non location costs;
  - reactive compensation - where the way in which reactive power constraints are met at onshore connection points cannot be disaggregated.

Given the already ambitious timescales the specific exclusion of interconnected networks seems the only pragmatic way forward without incurring significant delays.

Offshore Transmission System – It is not clear why an Offshore Transmission System cannot be connected to external interconnectors. Indeed it would make sense from an overall network perspective to allow such developments to take place. The wording should be revised accordingly.

Small Power Station – It is not clear why the 10MW limit is specified for offshore networks – when the limit Onshore is either 30MW or 50MW. This is a clear case of discrimination against Offshore generators. The limits should be the same as the relevant Onshore transmission system. Warwick has raised this issue in previous consultation responses and no adequate response has yet to be published.

Planning Code

PC6.3 – The wording implies that technical and design standards may vary between different OFTO networks. This approach will tend to prevent an overall co-ordinated approach to network development since different standards may prevent networks being interconnected in the future. This reinforces Warwick's belief that the regime is intended for radial connections and will require significant modification before it is a fit basis for developing potentially more efficient interconnected networks. It seems perverse to introduce a regime knowing that it will require significant modification in the short term to meet overall industry objectives.

Planning Code Appendix E

E1.1(i) – The requirements do not make sense. The paragraph states – *"In the absence of any relevant* ***Electrical Standards***…. [all equipment shall be]*…. Fully compliant and suitably designed to any relevant* ***Technical Specification****"*. Surely if there are no Electrical Standards there will be no Technical Specifications either?

E1.1(ii) – This is overly prescriptive. There is no requirement for all equipment to be suitable for use in an Offshore environment if it is located Offshore in a suitable environmentally protected area. For instance switchgear used Onshore may equally be used Offshore without modification if it is located within a suitable environmentally controlled container on the Offshore substation. Similarly Warwick is not aware of code restrictions on equipment for Onshore applications located for instance in polluted areas or those prone to salt fog. Such cases are dealt with on their own merits rather than by conditions in the various codes. There therefore appears no justification for adopting such a specific approach for Offshore networks. The requirement is overly prescriptive and unnecessarily onerous and should be revised.

E1.2 – There are no voltage criteria applicable to Power Quality (e.g. flicker, harmonics) defined in this Appendix or in the GB SQSS for Offshore Transmission Systems – in particular the normal power quality standards ER P28 (voltage flicker), ER G5/4-1 (harmonics) and ER P29 (voltage unbalance) are only applicable at the interface point; i.e. for Offshore networks there are no planning criteria. For connection of more than 1 generator (or inclusion of demand customers) on an OFTO network or interconnected OFTO networks, this will lead to potential for adverse effects on other connectees and dispute. This issue has been highlighted previously by Warwick – suitable processes need to be put in place to allow for possible future interconnected networks.

Connection Conditions

CC.6.1.5(a) – As noted elsewhere Warwick does not understand why it is considered acceptable to define required standards on a bilateral basis since this may prevent networks being interconnected in the future. Defining different standards between networks could also be seen as discriminatory.

CC.6.1.5(b) - The difference between acceptable voltage unbalance of 1% in England and Wales and 2% in Scotland is clearly discriminatory. The requirements of P29 allow variations above 1% for short time periods only and it is unclear why this is considered acceptable all the time in Scotland. This appears a clear case of discrimination between different groups of Onshore users. The proposal to allow Offshore voltage unbalance to be defined on a bilateral basis is a further inconsistency with Onshore practice and may also prevent interconnected networks being developed.

CC.6.1.8) - The proposal is that voltage flicker requirements can be made up on a network specific basis. This is hardly likely to facilitate interconnection of networks into an integrated grid system as benefits Onshore Users.

Warwick notes that while the Power Quality proposals are necessary – and the issue has been raised in Warwick's previous consultation responses – the proposals appear to be a fudge to allow the OFTO proposals to proceed without proper conditions being in place. It is clear from a technical perspective that further work is needed on these key issues and this is yet another reason why the OFTO regime should not be introduced in its present form.

CC.6.2.1.1(b) – It is not clear why an Offshore network connected in Scotland is required to operate with an earth fault factor of 1.4 when the corresponding Onshore system operates with a factor of 1.5. Warwick believes this issue needs further consideration.

CC.6.3.2(e)(i-iii) - The requirement to meet zero reactive power transfer at the LV boundary may not be achievable within the specified tolerance at low or zero real MW outputs. This is because the charging current for long cable circuits may be significant, particularly for low rated MW Power Park Modules; and the inherent generator reactive capability at such outputs may be negligible. Use of separate reactive compensation for such scenarios does not appear economically justified and the code should reflect these concerns. The wording of items (i-ii) appears overly restrictive and will potentially lead to additional costs for the generator for no tangible benefit to the overall system or OFTO network. There is in any case in clause (iii) the ability to agree reactive transfer on a bilateral basis. Given this clauses (i-ii) appear redundant and should be removed.

CC.6.3.7(a) - The requirement for Offshore generators of less than 50MW to be fitted with such equipment is discriminatory in comparison to Onshore plant where there is no such requirement. This problem is introduced due to the 10MW limit proposed Offshore. This should be revised as it is a clear case of discrimination against Offshore generators.

CC6.3.8(b) – The requirement to control voltage is incumbent upon the generator but appears to allow some variation in requirements which can be defined in a Bilateral Agreement. Such agreements appear to allow the possibility for overall voltage control taking place at a point remote from the Offshore Connection Point; e.g. at the OFTO/ Onshore TO or DNO network interface. In this case the most efficient overall network design may utilise reactive capability from both the generator and the OFTO network (e.g. Onshore SVC equipment) to achieve an overall voltage control system. Indeed Warwick is aware of transitional project(s) where such a design philosophy has been adopted. There appears to be no means in the code to allow sharing of responsibility for overall voltage control between OFTO and generator. This appears to be a deficiency which could lead to over investment. Warwick believes the code should be modified appropriately to address this issue and the obvious concerns over splitting of responsibilities.

CC6.3.15 Fault Ride Through – Warwick's initial view is to support the principle that the offshore generator should be able to choose between meeting requirements as for onshore generators or based on generic requirements. However one concern with this approach is how will OFTO networks where there is more than 1 generator connected be treated? In particular will it then be necessary for all generators to comply with either the generic requirement or a requirement to ride through a fault on the Onshore network? A further issue to consider is how OFTO networks which form

part of the MITS will be treated. It is not obvious to Warwick how these cases are to be treated and further explanation and review of the codes in these areas is requested. It is disappointing that this concern, raised in previous consultation responses, has not been addressed in the latest consultation document.

The Grid Code onshore requirements for asynchronous plant were subject to extensive and time consuming scrutiny by consultation with wider industry. Warwick believes that this should also apply to any generic offshore requirements and is concerned that the manner of introduction of the present proposals means the proposals are not subject to this same level of scrutiny.

Warwick therefore believes that wider and separate consultation on generic fault ride through (and connection conditions offshore) is required. Warwick therefore opposes the drafting of the code in these areas on a matter of principle at this stage.

Warwick notes that the offshore generators would need to choose between an offshore or onshore fault ride through option within 28 days of signing the offer unless a different timescale can be agreed with NGET. Since the turbine type and characteristics are unlikely to be known at this stage the 28 day timescale of this decision is unrealistic and arguably unnecessary at this early stage anyway. Warwick believes that the period of 28 days is wholly unrealistic. It seems preferable to redraft the wording either to extend this period considerably or more simply to rely on a Bilateral Agreement for the timescale of this decision in all cases.

Figure CC.A.7.2.2b – This diagram implies that sites are required to provide reactive capability on a continuous basis when the network is operated both above and below statutory limits. This is unnecessary and will lead to additional costs. Warwick has commented on this on numerous previous occasions including in the original Consultation in which this diagram was introduced into the Grid Code. It is unclear why these concerns have been ignored both by NGET and Ofgem. It is clear that providing reactive capability for voltages above statutory limits would lead to increased costs for no benefit since the system cannot be run in this way. Warwick notes that the latest consultation states that such changes are subject to normal Governance and that a modification proposal can be submitted. However Warwick has already submitted objections to the requirement prior to their introduction – and it is clear that normal Governance has allowed these obvious problems to be ignored by both NGET and Ofgem. As such the suggestion that normal Governance is the answer does not seem appropriate.

In any case Warwick is objecting in the current consultation under normal Governance to the new proposal to include this same diagram with the STC KB.3b. As noted above it is perverse to deliberately and knowingly introduce a new and unnecessary requirement which will add to user and OFTO costs for no gain.

Annexe 7 – STC

Section D

Item 2.1.1.2 – Each OFTO network will necessarily be a standalone License due to the proposed structure of the overall Regulatory Regime. Further there is a cap of 20% increase in capacity without a new OFTO License being required. In this context the usefulness of development plans prepared by individual OFTO Licensees must be questionable.

Warwick believes the basic Regulatory Regime by its very nature will hinder overall network development and prevent a co-ordinated approach to planning being used.

Ultimately this lack of planning will significantly increase costs for no benefit to generators, OFTOs or wider demand customers. While a requirement to produce development plans is desirable in the overall context of the OFTO regime and lack of an overall planning process its usefulness is likely to be extremely limited.

Item 2.3.1 – Wording should be revised since the sentence is not grammatical.

Item 2.3.2 – In the event that changes to NGET's system require a change of greater than 20% in an OFTO network the OFTO will not be able to co-operate as a new tender process will be required. Warwick believes this to be an example of why the 20% cap on network extension is inappropriate.

Items 2.3.3 and 2.3.4 – Warwick is unsure why both of these clauses are included. Is Item 2.3.3 alone sufficient? The same comment as applies to Item 2.3.2 is also relevant here.

Item 3 - The wording contains no modifications to cater for the planning boundaries for OFTO networks. This should be checked and revised as necessary to cater for the possible scenarios.

Item 4.5.3 – It does not seem appropriate that the design and operational criteria for an embedded site should be decided by NGET.

Item 8 – The amount and purpose of the Construction Securities referred to in this section is unclear to Warwick. If the OFTO fails then it will be the entire revenue stream and future access of the generator that is lost – not merely a construction cost. This issue and the purpose and amount of the securities require further work and explanation.

Section J

Offshore Construction Secured Amount – It is not clear why this is limited to 20% of the expected construction cost plus any liquidated damages.

Section K

Item 2.1 – The proposed pro-rate reduction in reactive capability for an OFTO network where there are multiple generators connected is not necessarily equitable. This is because the effect of the passive network would normally be supported by all the generators, however if 1 generator is out of service the (fixed) element to compensate for the passive network would fall entirely on the other generators. Warwick believes this problem is inherent in the regime due to the requirement to provide reactive support at a point remote from the connection point. This issue needs to be addressed by a fundamental review of the entire approach to reactive compensation as highlighted elsewhere in this response.

Appendix KB

The responsibility for meeting reactive power at the Onshore boundary rests with the OFTO. For an efficiently designed network it may be that the overall requirement is partly provided by the OFTO and partly by the generator. It is not clear to Warwick how such efficient designs are to be treated given that the stated requirements (and hence risks of non-compliance) fall entirely on the OFTO.

As explained under comments above under CC6.3.8 this creates a responsibility problem for cases where reactive requirement and voltage control is met by a combination of generator and OFTO equipment. Warwick believes that revision to

the codes is needed to address this issue – total reliance on Bilateral Agreement in this area does not seem workable particularly for an OFTO network connecting more than 1 generator or with more than 1 Onshore connection point.

Warwick notes the diagram Figure KB.3b is analogous to that provided in the Grid Code discussed above. It implies a requirement for OFTOs to provide reactive capability and normal operating points outside the statutory voltage limits of ±10%. This should be corrected to limit the operating capability requirement to statutory voltage limits for the reasons given elsewhere; i.e. those parts of the operating characteristic outside the ±10% range should be replaced with a horizontal characteristic at the appropriate range limit.

Annexe 8 – GBSQSS

***General* – The document includes a Glossary and Definition section in which specific words and phrases are defined. References to these terms are not consistent in their formatting throughout the rest of the document. For instance National Electricity Transmission System is a defined term, whereas in the text the term is not capitalised. There are many other similar definitions (e.g. Secured event, Registered Capacity) where capitalisation is not consistent. These inconsistencies should be revised throughout the document.**

Section 1 Introduction

Item 1.15 – It is not clear why ownership of the Onshore substation affects the security criteria applied. It seems more logical that the functional purpose of each part of the system should determine the applicable security standard. This wording should be reconsidered/ revised accordingly.

Item 1.17 – The revision to allow the generator to choose the connection voltage is welcome This is in line with the original work of the GBSQSS sub-group which indicated that it is preferable to allow both HV and LV connections to be chosen. Warwick believes that connection at 132kV should also be permissible – so long as the system owned by the generator at this voltage is small. For instance for a 132/33kV Offshore substation the generator should be able to select a connection voltage of 132kV and own relevant parts of the system including where appropriate local switchgear. This interpretation should be clarified since there could be a conflict with the present wording of the Energy Act and definition of transmission as 132kV. Warwick believes that 132kV connections should be allowed and that the wording should be revised to explicitly permit this

Item 1.18 – The choice of connection point between either HV or LV side of the Onshore substation should be an OFTO choice and not dictated by the GB SQSS. Selection of the connection point allows greater design/ procurement flexibility with potential consequential cost benefits while continuing to meet generator requirements.

Item 1.25 – For the example given the application of MITS criteria to the OFTO network would only be applicable if the network were designed to parallel the separate busbars. Warwick is aware of designs where paralleling of circuits between different GSPs in a single Offshore network is explicitly prevented by suitable interlocking measures on the Offshore network. In such cases MITS criteria are clearly irrelevant. The wording should be amended to reflect this situation.

Section 7 Generation Connection Criteria Applicable to an Offshore Transmission System

Section 7.2.5 – The explicit identification of the limitations of the analysis work and scope of the underlying the Offshore part of the GB SQSS is welcome. However it is not clear that the MITS criteria in Section 4 should apply to interconnected networks. This is particularly true since no analysis has been carried out of such networks. The proposals should include wording that interconnected network criteria need to be developed in accordance with the economic appraisals.

Section 7.4 – interconnected offshore systems are to be subject to the same criteria as onshore systems. However the cost/ benefit analysis justifying this has not been carried out.

Section 7.8.1 – the case of multiple connections using different technologies at a single offshore substation is omitted and should be included. This applies both here and elsewhere in the GB SQSS. The definition of Power Park Module includes any intermittent power source but the analysis of the original GB SQSS sub-group covered wind technology only. The conclusions reached regarding capacity limits may not be applicable for different intermittent sources. The wording should be revised accordingly.

Section 7.8.3 – Warwick has previously commented that this requirement for double busbar switchgear (particularly on the LV side of the platform) is over prescriptive, unnecessary and not cost effective. The revision to allow single busbar switchgear is welcome.

Section 7.13.1.1 – The case of mixed intermittent and gas turbine source generation is not catered for and should be.

Section 7.13.1.1 – The wording is unclear, confusing and should be revised. In particular it is stated that: *"following a planned outage or a fault outage of a single AC offshore transformer circuit at the onshore AC transformation facilities".* It is not clear how an Offshore transformer outage will relate to an Onshore transformation point. Further the text should read "smaller" not "smallest".

Section 7.13.3 – The deterministic criteria applied appears overly prescriptive - and is presumably based on current market prices and a cost /benefit analysis. Warwick believes that such issues would better be dealt with on a project specific basis with the analysis being carried out by the OFTO according to principles set out in Appendix E. For example there are network 132kV topologies possible where there will be no justification for a double busbar arrangement; e.g. extension of existing DNO 132kV transformer feeders from onshore substation to an offshore network.

Section 7.14.2 –The presumption that the reactive transfer will normally be zero at maximum active power output may lead to under use of generator reactive capabilities and over design of the OFTO network. Warwick is aware of existing designs which require the transfer to be non zero to allow turbines to contribute to Onshore reactive capability. This issue needs further consideration. Comments under Grid Code and on Section K of the STC above are also relevant to this paragraph.

Section 7.16.8 – The loss of overall export capacity following a single outage is accepted. Warwick assumes that the unacceptable overloading condition referred to would only apply post fault after any generator constraints necessary have been

applied; i.e. there may be a short time period when overloading is possible and suitable protective measures must be in place to prevent damage to equipment.

Section 7.21-7.24 – the applicability of Design Variations to transitional projects is not clear. Since transitional projects may pre-date the proposed GB SQSS their designs should be treated as a Legacy rather than a Design Variation (since no variation request can by definition have been made in such cases). If treated as a Design Variation then OFTOs would be exposed to the risk situation in Section 7.23 that a new customer could trigger the need to significantly modify the network. It is unfair to penalise or add risk for a generator or an OFTO as a result of a standard being introduced post event.

Warwick notes also in this respect a general reluctance on the part of Ofgem to grant derogations – which is another potential way around the problem. In any case Ofgem would doubtless wish to impose some restriction on any derogation issued rendering it of little real comfort to the OFTO or generator.

While Ofgem has made some move to address these concerns (see comments elsewhere) the proposals fall short of the necessary assurance to allow legacy designs enduring exemption from requirements.

As the proposals now currently stand different transitional projects may need to apply for a number of derogations. Whether these can be treated as legacy rather than design variation needs to be confirmed.

Warwick believes that the above issues are probably outside the remit of National Grid in drafting the GBSQSS and should be addressed by Ofgem.

Section 8 – Demand Connection Criteria Applicable to an Offshore Transmission System

Warwick supports the principle that there should be demand connection criteria offshore. These should in the short term cover demand of the OFTO network itself (offshore substation auxiliaries) and any demand required by the generator. Warwick notes that the deterministic criteria applied to demands in excess of 1MW may drive design of the entire OFTO network. This seems perverse given that there may be more innovative alternative means of meeting generator requirements without the need for additional transmission circuits.

Section 8.7 – The requirement to consider busbar outages for demand connections is excessive for the type of networks being considered. As detailed in previous responses Warwick believes this requirement is unnecessary and should be removed.

Section 8.9 – It is difficult to see how a condition on “unacceptable voltage conditions” can be included for operational switching when there are no common or agreed voltage flicker or step change criteria for an Offshore network.

Section 8.10 – The wording is not clear. Warwick assumes the intention is that for a radial network both power station demand groups will be summated for certain outages before applying the demand criteria. This would be the usual practice for similar networks onshore.

Section 8.12-8.15 – Similar comments to those listed under Design Variations under Section 7 above are applicable.

Section 9 - Operation of an Offshore Transmission System

Table 9.1 – The meaning and definition of *"operational specified time to restore supply capacity"* is not clear. The time will have an impact on the required design philosophy. The time should be flexible for agreement with the generator however some expected targets should be included to assist OFTOs in the interpretation of the standard.

Section 9.1 **– Should the reference to NGC be corrected to NGET? Warwick notes there are inconsistencies elsewhere in the GB SQSS where reference to NGC is also included; e.g. Section 5. The majority of the Grid Code refers to NGET - however there remain references to NGC in several of the Operating Codes. It would appear sensible to rationalise all these references where appropriate.**

Section 10 – Voltage Limits in Planning and Operating an Offshore Transmission System

The inclusion of steady state voltage criteria is a welcome addition to previous consultation exercises.

Warwick notes that there are no voltage step limits analogous to those applicable to onshore system defined in the GB SQSS. The only design criteria are defined in the Grid Code in particular Planning Code Appendix E. This states that ER P28 (voltage flicker), ER G5/4-1 (harmonics) and ER P29 (voltage unbalance) are only applicable at the interface point; i.e. for Offshore networks remote from the interface point there are no planning criteria.

In any case issues such as voltage step change are an area for potential conflict. The following illustrate some key issues:

- For typical offshore networks it is unlikely that the networks will comply with normal onshore standards for public networks (i.e. P28);
- This in itself is not necessarily a problem for the generator – so long as the initial design allows for this and there are no significant adverse effects on site operation;
- The above situation is analogous to the approach adopted on many private and industrial systems (which may themselves have both generation and demand connected);
- In the event that a second User (generation and/or demand) connects at the offshore substation then there is obvious potential for conflict;
- As there are no offshore voltage step change limits then the second-comer will presumably have to design its system to cope with any pre-existing step change conditions on the network (irrespective of whether these lie within onshore limits).

Warwick believes that clarification of these issues is required as the consultation moves forward.

Impact Assessment

The Impact Assessment published under Reference 08/1185 contains a number of items which merit some comment.

Summary

Why is Government Intervention Necessary? – Contrary to the stated position the proposed OFTO regime has introduced greater uncertainty into a developing industry. There is no means of providing a co-ordinated or integrated approach to

overall network development. This will add cost, complexity and risk to the development of the entire industry. In Warwick's view the industry would be better served either by a continuation of the existing merchant approach or by extension of the existing Onshore Transmission Licensees remit to cover offshore networks. No comparable analysis of such options is presented to justify the overall approach adopted.

What are the policy objectives and the intended effects? – It is difficult to see how the regime can meet the stated objectives or intended effects.

The potential connection of up to 33GW of offshore wind projects to UK Electricity Networks represents a massive change in terms of both location and technical characteristics of power sources. The proposed Regulatory Regime has no real mechanism to provide overall co-ordination of offshore networks. The use of tender windows is the only possible means by which co-ordination can be provided – and then it is wholly reliant upon generation projects reaching viability and applying for connections in similar areas within a short space of time of each other. Such a reliance on blind chance to develop a co-ordinated approach, with consequential cost savings by sharing of assets, is not credible. Warwick believes that this aspect of the proposed regime is fundamentally flawed and requires major re-examination and restructuring.

In relation to the onshore grid there are obvious concerns. The level of investment and timescales for the necessary reinforcement of the transmission system are significant. Given that Crown Estate lease areas will soon be confirmed there is a strong case for reinforcement of the existing transmission system on a strategic basis (as is already being considered in Scotland). Such reinforcement could be undertaken as part of the Regulated Capital Programmes of the various transmission companies. A further benefit of this approach is that it would potentially help spread the asset replacement and upgrading of the main 400kV and 275kV systems over a longer time period – thereby alleviating the issue of currently being faced that large parts of the network will reach replacement age within a relatively concentrated time frame.

Warwick believes that a strategic approach to development of onshore network capacity is essential to success in meeting Government targets for renewables. There is no means in the proposals of addressing such issues – and this appears to be another fundamental flaw.

Policy work stream 1

The estimated one off cost for each transitional project to enter the regime is stated as between £10-15million. Under Section 5.188 the capital cost for the 24 projects under consideration for this part of the regime is stated as £2.5-3billion; i.e. average cost of each OFTO network of £104-125million. It is difficult to see how an effective increase in capital cost of up to nearly 15% will ever be recovered by savings from on-going operations and maintenance activities. This is particularly true given the potential loss of synergy between generator and OFTO in terms of access issues. There is also potential increased cost due to the additional complexity of operating split responsibility sites (e.g. Offshore substations).

For existing license exempt projects capital values of the OFTO network are likely to be significantly below the above average costs. The £10-15million one off expenditure is especially difficult to justify in this context given the loss of the existing

exemption from TNUoS charges will add further to the financial burden on such projects.

Policy work stream 2

There is an estimated saving from use of an OFTO of last resort mechanism in the transitional regime of £12-33million. If this benefit is real why is the OFTO of last resort not available in the enduring regime?

Policy work stream 4

The key benefit of £3,314million relates to savings associated with reactive power and frequency services. It is worth noting that under the existing merchant led regime similar benefits already accrue. A further point is that the cost savings relate mainly to the wider economy and therefore do not act as a driver to encourage offshore investment.

Policy work stream 6

The key benefit of £158-395million is associated with supposed benefits in terms of increased speed of connection and consequent utilisation of the transmission system. A brief review of previous consultation responses from across the industry indicates a general concern that connections will in fact be delayed. There is further comment that actual capital costs will rise due to increased risk faced by OFTOs and generators alike due to the Regulatory Regime. In this context it is difficult to see how the alleged benefits can be justified – indeed the reality is that delays to connections will lead this to become a net cost rather than a benefit.

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 requested an extension to the deadline for full responses to this consultation. While recognising Ofgem has offered some flexibility to Warwick in responding, we believe that extra time would have lead to more extensive and better feedback from the wider industry.

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.

Warwick notes in particular Sections 8.17 and 8.18 which indicate a willingness to review the entire regulatory regime. Warwick would strongly urge Ofgem to take this opportunity before the present proposals are imposed on a reluctant industry. The present time scales for Go Active and Go Live mean it will be difficult to carry out such a review without it being unduly influenced by the flawed process which will imminently be implemented. As such Warwick would request the entire implementation process be delayed by between 1 and 2 years while a proper review is carried out. This could take into account other key developments affecting the industry such as Round 3, strategic onshore investment, transmission access review and charging. It would also afford a greater opportunity to develop a coherent and integrated planning process that is a fundamental requirement of economic and efficient network investment.

In relation to the Impact Assessment Warwick is concerned that the entire document appears to have been constructed around a predetermined agenda to put a positive spin on the proposals. Responses to previous consultations from across the industry indicate a general concern that in fact the OFTO regime will increase risks and costs as well as delaying project development. In this context Warwick is sceptical that the alleged benefits will accrue – and in practice the regime will have a detrimental effect in terms of both delays to projects and additional costs of connections.

Overall therefore 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.

Whether the above structure is the considered the best outcome or not Warwick strongly recommends that the 'Go Active/Go Live' timetable is delayed whilst a full review is undertaken to ensure that any new regime best meets the future needs of the industry and UK consumers.