National Grid Electricity Transmission (NGET) Response to the November 2008 Joint Ofgem and DECC Regulatory Policy Update on Offshore Electricity Transmission

9 January 2009

NGET is pleased to respond to the joint Ofgem/DECC Regulatory Policy Update relating to Offshore Electricity Transmission. This response is made on behalf of NGET; the Transmission Owner for England and Wales, System Operator for Great Britain, and designate System Operator for the Renewable Energy Zone. The response builds on the material comments that were sent through on the 18th December 2008.

Meeting the UK's renewables targets

In our material comments submission, dated 18th December, we stated that National Grid still had reservations about whether the proposed approach of competitive appointment of offshore transmission owners was the best way to meet the 2020 renewable targets and that we intended to raise this separately with DECC. We have advocated a need to reconsider the current policy and highlighted two particular changes that we believe would increase the likelihood of meeting the 2020 targets in a cost effective manner. These are set out in the first section of our response below:

1. There is a clear requirement for a strategic plan (or routemap) that identifies the onshore and offshore transmission investments to deliver the required generation mix (for instance to meet 2020 renewable energy targets). The likely volume of offshore generation means that it is impossible to accurately consider implications for the onshore network without having clear and firm information about offshore generation. Such a plan could be governed by a joint industry group to ensure that all necessary stakeholders have a say, but there would be benefit in having a single transmission design authority responsible for it. NGET has previously stated that it would be willing to undertake this role.

   The current approach for offshore transmission does not envisage such a strategic plan, and would result in offshore investment being triggered in a piecemeal way (when triggered by generator applications). This will make it impossible to fully co-ordinate the overall design of the onshore and offshore networks and will ultimately result in additional costs to the consumer.

2. The delivery of the required networks to facilitate the bulk transfer infrastructure required by the Round 3 sites represents a significant challenge. The best way to respond to this challenge will be to develop long term strategic partnerships with the supply chain now. The current approach of tendering individual connections does not provide sufficient certainty to allow these partnerships to be developed. Additionally the current approach is leading to overly complicated tendering processes that will introduce additional risk to an already constrained supply chain, which could turn its attention to overseas markets. The current financial climate, and the implications of the EU 3rd Package also mean that the current approach is less likely to succeed. We believe that the best way to meet 2020 targets would be to extend the remits of the existing onshore transmission

owners to install the necessary networks required to support the windfarm developers. Such a change in approach would eliminate much of the complexity, uncertainty and risk that is inherent in the current proposals and gives the Government a greater chance of meeting its renewable targets.

Making these two changes will deliver a lower risk model which in turn will assist in attracting the scarce capital required for such a significant challenge.

Making the current proposals work

Notwithstanding the serious concerns about the regime we have outlined above, NGET has always stated that it is committed to making the current regime work, and we believe that this commitment has been demonstrated by developing the detailed, practical framework and processes that are needed to do this. This commitment has manifested itself via:

- leading industry working groups (GBSQSS, Grid Code, STC) and delivery of policy proposals;
- holding a successful offshore codes workshop;
- the delivery of a significant amount of the industry code drafting that is included in the current consultation;
- the development of offshore charging proposals;
- working closely with Ofgem to resolve numerous practical consequences of the proposed regime;
- presenting at Ofgem/DECC External Communications sessions;
- development of a workable connection process to deliver incremental development of offshore networks; and
- the convening of a successful 'Getting Connected' workshop that allowed key stakeholders in the industry to come together to discuss the practical implications of some of the processes that have been developed to facilitate the regime.

These, along with other activities, have been undertaken over the past two years as we have worked with Ofgem and DECC to deliver the regime as proposed.

Implementing the proposed regime

We are now at the stage where the high level principles of the regime are being finalised. It is inevitable that, as we move through the implementation phase, issues arise that will require resolution to ensure that the industry framework and codes deliver, not only the intent of the policy that has been developed, but also a regime that can be practically operated and allow all parties to meet their statutory, technical and commercial requirements. We look forward to working constructively with Ofgem to develop solutions to these issues as they arise. There are distinct advantages in identifying and resolving any issues ahead of Go-active/Go-live to ensure that we are not left with significant issues at a later date that will need to be resolved via the normal code governance processes.

As mentioned above, NGET recently held an offshore 'Getting Connected' workshop. One of the key themes emerging from industry comments on the day related to the exact roles and obligations of the different participants within the offshore regime. Additionally, questions were raised about the precise order in which certain necessary activities would take place and who would be responsible for undertaking

them (for instance, consenting activities, seabed surveys). It is our view that we have made considerable progress in providing clarity on the role of the GBSO within the offshore regime, but that questions still remain on other aspects of the regime that we are unable to answer.

It is our view that there is an industry desire for further clarity on roles and obligations within the regime. The clarity will ensure that all stakeholders have a clear understanding of how the overall regime, including the tender process, will operate. Further workshops which run through the whole process may be useful in providing this clarity.

NGET Obligations and Funding Arrangements

It is clear that NGET will be central to many of the new processes required for the offshore transmission regime. We will be taking on a range of new activities to facilitate these processes which will be backed up by new code and licence obligations. We are keen to continue working with Ofgem to refine these activities and obligations to ensure that they are appropriate, consistent with the activities and obligations that we have onshore, and to help to provide clarity to industry stakeholders on the role of NGET (and the corresponding roles of other players).

To ensure that we can perform these new activities, and hence discharge our new obligations satisfactorily, we will need to employ additional resources. At the time of submission of forecasts for the current Transmission Price Control, it was made clear that forecasts for any activities associated with obligations arising from the offshore transmission regime were explicitly excluded, and hence any requirement for incremental resources now requires additional funding.

In summary, these new resources are required to:

- Discharge our new obligations in respect of operating the offshore system (and managing new interfaces) in a safe and secure manner;
- Interface with the proposed tender process (provision of information to inform the tender, dealing with issues as they arise etc.);
- Provision of information to prospective offshore users; and
- Overseeing the commercial operation of the new regime.

As further clarity on the exact nature of our new obligations has emerged we have developed a forecast of the resources we will require to discharge them. We have discussed this forecast with Ofgem (along with the associated financial implications) and have now reached a stage where further commitment is required relating to funding, to allow us to start to secure the necessary resources. The lead times for identifying and securing this type of resource are lengthy, and we can only progress with this activity once this further commitment is gained.

We are now finalising our resource forecast and will be providing this to Ofgem in the near future. Once this has been provided we recognise that industry consultation will then be required. We note that the drafting for NGET's Special Licence Conditions includes the new obligations that we will be asked to take on, but does not include a mechanism for providing additional funding to ensure that we can discharge these obligations. It is essential that a mechanism is included in the next draft of these conditions so that funding arrangements to complement NGET's new obligations are in place at the same time that these new obligations become active.

Update on Material Comments

NGET responded to Ofgem/DECC on its view of 'Material Comments' on the consultation on 18 December 2008. This response is contained within Appendix 1. We have discussed this response with Ofgem and considered the issues further. An update is provided for each of the issues below:

Overall approach

Our views on the overall approach for the offshore transmission regime are included at the start of this response.

OFTO of last resort

The alternative OFTO of last resort provisions have significant implications for NGET and we remain of the view that this represents a significant change in policy. Our current understanding of the proposals is as follows:

- Transitional tenders – OFTO of last resort provisions would be invoked if transitional projects have not been successfully tendered
- Enduring tenders – OFTO of last resort provisions would only be invoked as a result of 'abandonment' by the licensed OFTO

If this understanding is incorrect then we would appreciate the earliest possible indication from Ofgem as it would impact on our consideration of how we would prepare for such an eventuality.

Given the importance of these proposals for the industry as a whole, it is essential that all stakeholders have the best possible understanding of how they will work. We would urge Ofgem to work closely with NGET and the industry as it develops the finalised proposals for OFTO of last resort. Ultimately it may be deemed appropriate to publish a guidance note on how the whole process will work.

Initial Connection Offer

NGET has considered this issue further, and an update is provided below.

The connection application process approach for an offshore application envisages an initial connection offer being prepared not later than three months after the connection application. At this stage, NGET will have no knowledge of the offshore transmission network or indeed its final connection point to shore. The initial offer would therefore be based a high level number of assumptions which would need to be reflected in the agreement. This approach is significantly different from onshore connections in which there is some certainty to the point of connection.

Therefore, there will be work for NGET to do once the preferred bidder has been identified before a robust Agreement to Vary can be provided to the offshore user. We may also need to get information from other TOs as a consequence of the OFTO design.

Given the current understanding of how the tender process will take place, it is proposed that 3 months be allowed to perform this work. However, there may be scope for NGET to undertake this work in a shorter timescale if some of it can be done in parallel with the tender process. Further consideration needs to be given to this point as the detail of how NGET will interact with the tender process is developed.

Provision of Quality of Supply Data to Prospective Offshore Transmission Owners at the start of the Tender Process

Under the proposed off-shore regime the technical performance requirements on the generator will be specified in the Grid Code, those on the OFTO in the STC.

At the beginning of the tender process and in order to support the design of the offshore network by the OFTOs, OFTOs will require information and data from the onshore TO. This will be needed to ensure that the OFTOs comply with the STC and the appropriate clauses in the Grid Code in terms of Voltage Waveform Quality (harmonics, phase unbalance and voltage fluctuations). For example in the case of harmonics the information and data referred to are:

a) Onshore harmonic distortion levels representing the transmission contracted generation background; and
b) A representation of the onshore transmission network and its data that is suitable for the harmonic assessments of the OFTOs.

NGET, acting in its capacity as TO in England and Wales, will provide this data at the start of the tender process into the data room where it is proposed that OFTOs will connect into England and Wales. Clearly the Scottish TOs will need to provide this data for OFTOs in Scotland.

Subsequently, the preferred OFTO will be required to provide the onshore TO with the new Voltage Waveform Quality levels that result from the appropriate addition of the existing levels and any incremental changes identified in the OFTO design analysis.

Overall co-ordination and implications for Round 3

This subject is covered within our comments on overall approach to the offshore transmission regime.

Implications for network design in Scotland/DNOs

NGET is expecting that the existing arrangements within the STC and the provision of Construction Planning Assumptions will ensure that Scottish TOs and DNOs can provide the necessary options analysis to ensure that an optimum design solution is provided to the offshore user.

Mismatch between Transmission and Distribution Limitations of Liability

This mis-match remains, and arises because NGET has to become a 'distribution user' and hence comply with the terms in the DCUSA. We would like to seek justification from Ofgem why it is appropriate to maintain such a discrepancy from a policy perspective.

If this policy remains, then we will need to discuss with Ofgem how it can be satisfactorily resolved to ensure National Grid is not financially exposed to claims resulting from an issue on the Distribution network.

Additionally, we note the proposed provisions within Section 49 of the DCUSA which suggest that NGET could be liable for payments under the ESPR. If this were to be the case then we would expect to back-off any liabilities through to the OFTO (via the STC) or to the offshore generator (via the CUSC/BCA).

Liquidated damages from onshore TO/DNO

We are of the view that issue has not yet been addressed, and that further clarity in relation to what the policy is in this area is required.

Compliance

NGET has considered this issue further.

Under the proposed off-shore regime the technical performance requirements on the generator will be specified in the Grid Code, those on the OFTO in the STC.

Generators have a licence obligation to comply with the Grid Code and NGET has a licence obligation to have the Grid Code in force. As part of this obligation NGET undertakes a role in the compliance assessment of onshore Generators. NGET expects to undertake this role in respect of offshore Generators.

Through their Transmission Licence, Transmission Owners have an obligation to comply with the STC. NGET, as System Operator, does not have an obligation to ensure TO compliance with the STC. Consequently NGET does not undertake any compliance assessment role in respect of any current onshore TO assets or systems and does not expect to undertake such a role for OFTO assets or systems either.

NGET believes that the above approach is consistent with OFGEM's / DECC's intention that the treatment of offshore networks should be consistent with that for onshore networks wherever possible.

However, NGET would expect to make use of established processes within the STC which oblige a TO to provide evidence that its system(s) comply with the necessary technical requirements. It is expected that these processes will allow NGET to gain the necessary comfort that the OFTO is sufficiently robust to become part of the GB Transmission System. It may also be necessary to ensure that provisions exist for the Scottish TOs to gain the necessary comfort relating to offshore networks that connect in Scotland.

At present details of the compliance process for onshore generators rest within a series of guidance notes. A group has been convened under the Grid Code Review Panel to review whether it is appropriate for these provisions to be included within the Grid Code. In terms of the compliance process for offshore Generators, it would be important to ensure that Generators provide appropriate signals of measured offshore quantities at a convenient location onshore to enable NGET to witness such compliance. As and when compliance processes are included in the Grid Code, then it will be important to ensure such a requirement is included.

Reactive

NGET has considered this issue further. Our current thinking is that the most appropriate treatment of reactive assets installed by OFTOs would be to meter any output that they produce, and then remunerate the relevant offshore generator for this provision at the reactive power default payment rate. The exact contractual arrangements to facilitate this will need to be developed, and NGET will consider this further.

Further detail on this subject is provided in the detailed comments section of this response.

Transmission Access Review

Comment remains as-is.

Charge Setting for 2010/11

NGET has considered this issue further and believes there are two components to consider:

1. GBSO charges levied on offshore generators

There are significant complexities associated with determining and implementing 2010/11 TNUoS tariffs for the offshore transitional projects. Firstly, tenders will not be awarded in time for the two required elements of data to be collated in order to set the charges. The OFTO revenue stream will not be known until tender award and the technical capability data is determined through a STC data request submitted to the successful bidder. In order to determine an accurate estimate before this time National Grid would be required to make many assumptions regarding the successful OFTO's business plan (e.g. rate of returns, lifetime, Opex) which would be further complicated by the fact that there could still be multiple bidders for each OFTO tender.

Assuming sufficient information is made available for National Grid to determine reasonable estimates, reconciliation may be required against the final confirmed tariffs calculated following tender award. Within year reconciliation, which has never been historically performed, would lead to tariff changes for all Users, demand and generation, and therefore may be detrimental to charge forecasting and stability. In addition, the charging and billing system would require modification. Transfer of the over or under recovery amount to the following year may expose National Grid to punitive interest rates (Kt).

2. OFTO and DNO charges levied on the GBSO

It is anticipated that OFTOs will start submitting invoices to the GBSO from the June 2010 go-live date. The total amount charged by the OFTOs will be added to the Maximum Allowed Revenue used to determine TNUoS charges for all onshore and offshore Users. If accurate data is not available prior to charge setting in January 2010, National Grid is financially exposed to the inaccuracy.

Assistance to the tender panel

Comment remains as-is.

Funding

Our comments on funding are provided above.

Detailed comments on the consultation

Energy Losses

We welcome the intention to take account of energy losses associated with each offshore network design when assessing offshore transmission tenders. We note also that the BSC Panel is currently considering the treatment of Transmission Losses under normal governance and that consideration of any application offshore will need to be undertaken.

Business Separation as Applied to NGET

We note the new provisions which we believe accurately reflect policy proposals. We believe that these obligations should be put in place at Go-Active.

Financial Security for OFTOs

We do not believe that security cover is necessary for OFTOs in the event of late payment by NGET. Existing STC procedures deal with incidents of late payment. New security cover arrangements would impose additional costs which we believe are unjustified.

Reactive Power Capability Range

The provision of reactive power by Offshore Generators was initially discussed by the Grid Code Subgroup (convened as a sub-group of the Offshore Transmission Expert Group or OTEG) which made two key recommendations:

1) Offshore generators should meet a minimum requirement of unity power factor only (0 MVAr) with a tolerance of +/- 5% of Rated MW in MVAr at the default offshore Grid Entry Point (ie the LV Side of the Offshore Platform); and
2) The OFTO should ensure a 0.95 power factor lead /lag capability is delivered at the interface point (equivalent to existing arrangements for Power Park Modules).

The group's recommendations were based on a number of studies in which up to 1500MW of offshore generation was connected to a simple radial network (including an offshore substation) of up to 100km in length. The studies illustrated that additional cable capacity would be required to transfer the reactive power generated by the offshore generator to the onshore transmission system together with the uneconomic use of additional reactive compensation.

The group also recommended that Offshore Generators should be able to liaise with an OFTO and provide a reactive capability in excess of the default unity power factor requirement, provided that this capability was fully useable. This Offshore Generator capability could contribute towards the net reactive power delivered to the Interface Point.

The group did not consider the cash flows or commercial arrangements implied by the recommendations and were not aware (at the time) of the mechanism now proposed by which OFTOs would be appointed and engaged in detailed network design.

The Grid Code Subgroup's recommendations have been implemented in the offshore Grid Code and STC drafting by specifying a new minimum reactive power requirement for all Offshore Generators whilst setting out the net reactive capability to be delivered by the OFTO at the offshore/onshore interface within a new section of the STC.

Latterly, proposals have been developed for offshore transmission charging which allocate the costs of the offshore network to offshore users. These include the costs of any reactive compensation equipment on the offshore transmission system necessary to meet the requirement set out in the STC.

CUSC arrangements have not been changed from the baseline versions in drafting for offshore transmission. These define the Obligatory Reactive Power Service for which users receive payment at the default reactive payment rate.

The CUSC defines the service with reference to the Grid Code (CC.8.1 System Ancillary Services which in turn refers to CC.6.3.2 where the minimum generator reactive capability requirement at the user's interface with the transmission system (ie the Offshore Grid Entry Point) is defined). Further definition is supplied within CUSC Schedule 3. The service definition precludes provision of the Obligatory Reactive Power Service from synchronous or static compensation except where this equipment is part of a Power Park Module.

Under current drafting, offshore generators would therefore only receive an income for reactive power generated in meeting their own contribution to the net reactive capability of the offshore system, and this would only apply if they provided a reactive capability range in excess of the minimum requirement.

However, offshore generators would be paying all of the costs of the reactive contribution made by the OFTO on their behalf both in terms of the initial investment and ongoing operations and maintenance. They would also contribute towards the reactive power payments made to other generators through their BSUoS charge which is spread across all transmission users.

This arrangement is inconsistent with current onshore arrangements in that the Offshore Generator would have to meet the costs of a minimum reactive power capability obligation but could not receive the income that an onshore generator would receive through the default reactive power payment mechanism.

<u>Proposed Alternative Approach</u>

One alternative approach is to measure the reactive power delivered at the interface between the offshore and onshore systems and to treat this input as if it were generated directly by the generator. The generator would be paid the default reactive power payment rate for the net reactive power service whilst in turn funding any reactive compensation provided by the OFTO in meeting the obligated requirement through its TNUoS charge. Payments to the offshore generator would be funded through BSUoS.

This arrangement has the advantage of being consistent with current mechanisms for generators sited offshore and would mean that transitional developments would be subject to arrangements for reactive power under the new regime which are similar to current arrangements. The service would be readily measurable at a well defined point.

We recommend that this approach is adopted through modification of the CUSC (Schedule 3) and minor changes in the STC and Grid Code Connection Conditions.

We recognise that a number of alternative approaches are feasible and would be happy to discuss these with Ofgem and the wider industry.

Revenue Stream Profile

We believe that a flat revenue stream profile (subject to appropriate indexation) in respect of individual offshore transmission tenders would aid stability of transmission charges and would facilitate the implementation of an effective performance incentive in the later years of the revenue stream.

Review of Codes

CUSC

The proposed CUSC drafting presented within Annex 3 of the consultation substantially reflects the policy proposals outlined within the consultation document and its predecessors.

One area of exception to this is in the linkage between offshore network performance incentives and the compensation that could be paid to offshore generators under the CUSC should they benefit from full or partial redundancy in their connection arrangement. This has not been fully articulated in the proposed CUSC drafting. Such a proposal could be implemented within the CUSC by reference to the appropriate incentive parameters in defining compensation arrangements for offshore generators.

In our previous responses in this area, we have recommended that offshore generators should be entitled to the same level of compensation as onshore generators for a comparable level of redundancy in their connection arrangements.

The proposal to cap offshore generator's compensation at a level set by an offshore network performance incentive would seem to limit offshore generators entitlement and hence we do not support the inclusion of this mechanism within the CUSC.

We also note that further changes may be required within the CUSC to implement our proposed changes to the Transmission Network Use of System Charging Methodology relating to embedded transmission arrangements. These include the definition of a new embedded transmission charge within the CUSC and a facility for the management of disputes.

In addition, changes will be required to the CUSC (schedule 3 in particular) if our recommendation relating to the treatment of reactive power provision offshore as described above is adopted.

We will be providing detailed code drafting which we believe is necessary to facilitate the charging issues in the near future.

With the exceptions of these issues, we believe the proposed CUSC drafting represents an effective and appropriate implementation of the relevant policy proposals.

Distribution Codes

The proposed drafting within Annex 4 and Annex 5 would seem to reflect the policy proposals set out in the consultation document and its predecessors.

We have already highlighted our concerns over the mismatch between STC and CUSC limitations of liability and those set out in the DCUSA.

Our further general comment on the DCUSA and Distribution Code drafting for offshore transmission is that, whilst fit for purpose (and not inconsistent with current onshore arrangements), it does not set out clearly the implications for offshore transmission users connected via embedded transmission, particularly in terms of the access restrictions that they may be subject to.

We anticipate working closely with the relevant distribution companies in order to deliver effective arrangements to accommodate embedded transmission through the necessary bilateral agreements. However, these bilateral arrangements will mean that different offshore generators will be subject to different terms and conditions in respect of their connection to the GB Transmission System.

In reference to Paragraph 48 (Compliance with Codes), it may be necessary to include further references to compliance with the STC.

Grid Code

The proposed drafting within Annex 6 of the consultation substantially reflects the policy proposals set out in the consultation document and its predecessors. There are a number of issues that we would like to highlight at this stage which are outlined below.

Equipment Standards

We believe it is important to highlight that the Grid Code (CC.6.2.1.2) sets out that the Bilateral Agreement between National Grid and Generator will specify the standards and technical specifications applicable to the equipment at the connection point.

It should be noted that it is the responsibility of the OFTO to specify the standards applicable at the Offshore Grid Entry Point (under the STC). At the Interface Point (i.e. where the OFTO connects to the Onshore Transmission System) the standards / specifications would be specified by the onshore licensee. In the case where the offshore network is connecting to National Grid's onshore network, the Relevant Electrical Standards (RES) would be specified.

Reactive

We note that in view of the charging discussions, there will be a need to introduce minor changes to the reactive power provisions. There may also be a consequential change to the STC as a result of these modifications.

Fault Ride Through

We also believe that there is a requirement to review drafting for the fault ride through requirements, particularly in respect of Generators Connected to an OFTO which utilises HVDC Converter technology. There would also need to be a

consequential change to section K of the STC. The principal aim of which is to simplify the provisions and improve the flexibility of the drafting.

Frequency Response Threshold

As we have raised in our previous consultation responses, all Generating Units and DC Converters (both Onshore and Offshore) which are part of a Large Power Station (i.e. greater than 10MW Offshore or greater than 10 MW (SHETL) or greater than 30MW (SPT) and connected in Scotland) are required to meet the full frequency response requirements.

However, under the proposed Grid Code drafting, Power Park Modules connected Offshore or in Scotland, even if they are part of a Large Power Station are required to have the required frequency response capability if the Power Station has a registered Capacity of 50MW or greater. In the offshore environment, the default Offshore Grid Entry Point is expected to be at the LV side of the Offshore Platform.

Since the active power export per string of wind turbines is only expected to be between 20 - 50 MW it is possible that a large number of strings could register as individual power stations without the need to provide any form of frequency response. The Grid Code subgroup recommended the introduction of a 10MW threshold for Offshore Power Stations and we believe the requirement for frequency response for all Large Offshore Power Stations should be equally applicable.

Review of Terms and Definitions

We note that a number of terms and definitions within the Grid Code contain potential inconsistencies with terms and definitions within other codes and licence documents as highlighted in our discussions with Ofgem. Some of the differences are not material; however we recommend that definitions in the following areas are reviewed:

- External interconnections, Grid Supply Point and Network Operator - to be consistent with GBSQSS drafting and assumptions these references could be changed to apply to the onshore transmission system rather than the GB Transmission System as at presents

- Offshore Power Park Modules - with the requirement under the proposed GBSQSS drafting to install double bus bars at the HV and LV side of the Offshore Platform, the definition of Offshore Power Park Module will require amendment. The Grid Code Subgroup recommended that Offshore Power Park Strings should have the ability to be aggregated into larger Power Park Modules. The current definition of Offshore Power Park Module permits any number of Power Park Strings to be aggregated provided they are connected to a busbar that cannot be electrically split. With a double busbar arrangement this would make it increasingly difficult to achieve the required aggregation objective. With this in mind we are considering alternative definitions.

Offshore Distribution

Under the terms of reference and assumptions adopted by the Grid Code Subgroup, the Offshore Transmission Regime does not provide for Offshore Distribution Connections (ie Offshore Embedded Generation connected to an Offshore Network Operator which in turn connects to an Offshore Transmission System). There are two points to note here. Firstly the issue of Offshore Distribution will need to be introduced through the Grid Code Review Panel once Offshore Transmission has

been implemented and secondly it is recommended that the definition of Network Operator is adjusted to make it explicitly clear that it only applies to Onshore Systems.

STC

The proposed drafting within Annex 6 of the consultation substantially reflects the policy proposals set out in the consultation document and its predecessors. The proposed modifications to Section D in particular are key components in the implementation of a successful offshore transmission regime under current proposals.

Our most pressing concern in respect of STC drafting at this stage is to see finalised proposals in the areas of securities and liquidated damages between transmission licensees such that they can be implemented effectively, if necessary, within the STC.

GBSQSS

We believe that the drafting presented in Annex 8 again represents an effective implementation of the policy proposals presented within the consultation document and its predecessors.

We note however that some cross referencing and table numbering has been corrupted throughout the document.

Following discussions with Ofgem over the consistency of definitions between documents, we suggest that the following definitional changes should be considered:

- Large Power Station - the following new text is require to capture offshore power stations - "4. In an offshore transmission system where such power station has a registered capacity of 10MW or more."

- Small Power Station: As above, additional text is required.

- User System - it is noted that a User System takes on a different meaning in the GBSQSS to that in other transmission documents. The GBSQSS uses the term to refer to a distribution system whilst other documents distinguish between a distribution system making use of the onshore transmission system and an Offshore Transmission System connecting to a distribution system.

- Registered Capacity - an offshore gas turbine is included within the definition of Generating Unit (and Offshore Generating Unit). Similarly Offshore Power Park Module is included within the definition of Power Park Module. Accordingly, there is no need to mention Offshore Gas Turbine within the definition of Registered Capacity. It is recommended that that the reference to ‘or offshore gas turbine’ is removed from items (a) (b) and (c) of the definition of Registered Capacity.

Review of Licence Drafting

We have the following comments in relation to the text presented as proposed Transmission Licence Drafting in Annex 1 and 9 and would be happy to share our more detailed technical and typographical comments in an electronic form.

- Condition A1, "incremental investment threshold" – this definition needs to be made clearer by referring to the specific transmission system concerned and be being clear on the meaning of 'original investment'.

- Condition B12, Paragraph 6 (b) (iii) – proposed drafting in the STC refers to a 'proposer' which may need to be included here.

- Condition B17, (Network Output Measures) – we note the addition of text which includes transmission systems located offshore as necessitated by OFTO of last resort proposals.

- Condition B18, (Offshore Transmission Owner of Last Resort) – in line with our comments above, we think that this condition could be clarified and we would be happy to discuss the various ways of achieving this.

- Condition C1, "offshore works" – this definition is not consistent with the definition provided within the proposed CUSC drafting by virtue of including consequential changes on any other STC Party's transmission system.

- Condition C8, Paragraph 9 – this paragraph (concerning identification of an OFTO) should make more specific reference to the offshore network in question.

- Special Condition D4 (Pass Through Items) – we note the definition of a new term (OFET) required to deal with charges relating to Embedded Transmission. This term has been omitted from the pass through term equation and needs to be included.

APPENDIX 1

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NGET Material comments on Ofgem/DECC consultation

These comments reflect NGET's initial view of the material issues arising in the latest OFGEM/DECC consultation on the offshore transmission regime. We intend to make a further response to meet the overall deadline for comments of 9 January 2009.

Overall approach

National Grid still has reservations about whether the proposed approach of competitive appointment of offshore transmission owners is the best way to meet 2020 renewable targets and intends to raise this separately with DECC .

However, we have always stated that we are committed to making the current regime work and in this regard we believe we have made progress in further developing the role of the GBSO within the regime. NGET does, though, have a number of comments on the latest consultation, some of which we believe to be material.

OFTO of Last Resort

The consultation document contains revised provisions for OFTO of last resort which represents a significant change in policy. Given the implications of the Third Package unbundling proposals and the current financial climate, there appears to be a reasonable chance that NGET may be called upon to perform the TO of last resort.

If NGET were to have OFTO of last resort provisions in its licence, then it would be necessary to understand how likely it would be that it would have to undertake the role. In the absence of this information it is difficult to envisage how we can resource up, and secure the necessary supply chain, to discharge the obligations.

Further information about the terms under which an OFTO of last resort would operate (e.g. would the TO of last resort be enacted if bids from the tender came in high than a regulated 5 year price control solution), or indeed whether the OFTO of last resort is an enduring or transitory arrangement, is required.

Initial Connection Offer

The connection application approach proposed for an offshore application envisages an initial connection offer being prepared not later than three months after the connection application. This offer will be based on a number of high level assumptions, and it needs to be stressed that significant work will need to be undertaken to finalise this offer once a preferred OFTO has been identified. The timescales associated with this will need to be recognised in the transmission licence drafting. The precise technical requirements and design of the offshore network and hence implications on the OFTO can only

be finalised further to detailed technical analysis and this finalisation does have the potential to impact on the OFTO's and the offshore generator's overall costs. Consideration will need to be given as to whether the OFTO is permitted to revise its tender once the offshore network design have been finalised.

We also note that the Offshore Generator will need to provide sufficient information to the data room in order for an optimum offshore network to be designed. We would also envisage that clearly defined responsibilities between Offshore Users and OFTO's would need to be specified either at this stage or during the Tender process.

Overall co-ordination and implications for Round 3
The connection application process as envisaged will result in an incremental development of the offshore transmission system. The onus will be on offshore generators to coordinate the timing of their applications to ensure any potential benefit from co-ordination is achieved.

It should also be noted that incremental changes may be required to the codes as they have currently been drafted on the basis that the offshore networks would be radial in nature and no longer than 100km offshore. We envisage that the Round 3 projects could exceed this criteria and suggest that such changes could be managed through the normal governance process of the Codes.

Implications for network design in Scotland/DNOs
The proposed connection application process requires an overall assessment of onshore and offshore costs to derive an optimum network solution. NGET in its role as GBSO will co-ordinate this assessment and for offshore generators that connect into England and Wales will also undertake the onshore assessment.

For offshore generators that connect into Scotland, or indeed close to existing offshore transmission infrastructure, and assessment of the likely impact on that third party's transmission system will be required. This will need to consider a number of options to ensure that an optimum solution is provided. The relevant obligations need to be clear in the STC to ensure that this input is provided.

Additionally there will need to be clear obligations on DNOs when connection of an OFTO to a distribution system is being considered.

Mismatch between Transmission and Distribution Limitations of Liability
The arrangements proposed for dealing with embedded transmission envisage NGET applying to a DNO for connection. This gives rise to a mismatch in respect of limitations of liability whereby NGET will remain liable for a maximum of £5m and the DNO is only liable for a maximum of £1m. This mismatch gives rise to an unacceptable risk for NGET and will need to be addressed via bilateral arrangements between NGET and the relevant DNO.

Liquidated damages from onshore TO/DNO
The consultation envisages that an onshore TO may be liable for liquidated damages (via the STC) should late delivery of onshore assets occur. It is our view that if this proposal is implemented then it would necessitate a review of the onshore price control arrangements for TOs as it would significantly increase the risks faced.

These arrangements will need to be considered in the light of any revisions to the transmission access arrangements.

Compliance
Clarification is required on NGET's exact role in respect of ensuring that OFTOs are compliant with the necessary codes and standards. Currently NGET has no role in respect of certifying compliance of Scottish Networks. NGET is expecting that a process of effectively self-certifying will apply to OFTOs.

Reactive
NGET notes the comments made in the consultation about the treatment of, and subsequent payment for, reactive assets and their utilisation. We are currently considering a number of options for the treatment of reactive power and the associated charging mechanisms and expect to have further discussions with Ofgem in this regard.

Transmission Access Review
The offshore transmission regime will need to be assessed against the eventual outcome of the Transmission Access Review.

Charge setting for 2010/11
Indicative charges for the charging year 2010/11 will be published at the end of December 09 and National Grid has a licence obligation to publish final tariffs 60 days before the start of the year (e.g. published at the end of Jan 2010). Under the proposed offshore charging methodology, an offshore generator's TNUoS charges are derived from the OFTO allowed revenue stream and using technical data. It can be assumed that the revenue streams will be known at the award of the contract for the successful tender and this will then be followed by a data request (under a STCP) to the successful OFTO for the technical data.

The issue arises around transitional projects where the award of the tenders for the existing offshore projects will not happen until Dec 09 at the earliest. Even if this is achieved this does not allow any time for the data request and subsequently undertaking charge setting. If estimates are used for charge setting, National Grid is exposed to any over or under recovery with punitive interest rates (Kt). Inaccurate data would not only affect offshore tariffs but onshore tariffs for both generation and demand as it would effect i) Total MAR ii) the split of generation revenue to be collected between onshore and offshore iii) total revenue to be collected from demand.

Assistance to the Tender Panel

Standard Condition C25 gives NGET obligations to provide assistance to the tender panel. The condition is non-specific in nature and it is difficult for NGET to accurately understand the nature and level of this assistance. We believe that further discussions are required with Ofgem in this regard to gain a mutual understanding of likely requirements, and hence enable us to identify the resource required to discharge this obligation.

Funding

This consultation, and others before it, highlight the additional roles and obligations that NGET will take on under the offshore transmission regime. NGET is developing a forecast of the resources that will be required to enable us to discharge these obligations. It is essential that timely agreement of these forecasts and funding mechanisms are agreed with Ofgem to allow us to identify and recruit the resource prior to the additional obligations becoming active.