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RENEWABLE
POWER

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Project TransmiT: Call for Evidence

Mainstream Renewable Power Response

Mainstream Renewable Power is a leading renewable energy company developing renewable energy projects across several continents. The Company expects to be a major provider of renewable capacity for the UK and has a development pipeline in excess of 5,000MW.

We are developing onshore wind projects in North America, South America, and South Africa. In the German North Sea, we are developing the 1000 MW Horizont project.

In the UK, we are developing two large offshore wind projects. In Scottish territorial waters we are developing the 450 MW Neart Na Gaoithe project. Additionally, through the SMart Wind consortium, we are developing the 4000MW Hornsea Round 3 zone with our partners, Siemens Project Ventures. Transmission charging is a critical area for all generators, and particularly so for offshore renewables.

We welcome the launch of Project TransmiT by Ofgem. This will provide the opportunity to address in a holistic manner a number of important charging and charging related issues that the renewable industry has devoted considerable energies to over the years. The outcome needs to provide a stable basis for charging over the medium/long term, in order to promote confidence. We note that there are several key energy market initiatives either in progress or about to be launched, including:

- DECC plans for fundamental reform of the electricity market
- The developing Offshore Electricity Transmission regime
- The fundamental review of the GBSQSS
- The development of transmission and distribution network investment plans under the new RIIO regulatory framework

It is of primary importance that Project TransmiT is aligned and consistent with these initiatives and crucially, overall government objectives for the electricity sector. We also support the increasing focus by Ofgem on European integration and its work in ensuring the emerging regulatory reforms facilitate UK generation playing its full part in an expanded market. The framework and analysis for Project TransmiT will need to be mindful of the move towards a single European market in electricity, underpinned by increased interconnection and eventual Supergrid.

Our submission is in two sections, comprising responses to the questions contained within the Consultation document, together with a summary. This places these individual responses within the broader context of government energy policy and offshore renewable development.

Summary

A properly designed, robust and effective electricity transmission network is essential to a modern economy. It needs to fulfil a number of objectives, including:

- Ensure that demand is secured
- Enable generation to transport its energy to customers against known technical standards
- Facilitate effective competition in generation and supply
- Facilitate and support government policy with regard to security of supply and low carbon goals – in particular by timely connection of the significant renewable and low carbon generation assets needed over the coming decades

Over the next 10-20 years, the transmission network will require sustained investment on a scale not seen under the privatised regime; and delivering a network which is fit for purpose, flexible and robust is essential to support the above objectives. The magnitude of offshore transmission investment alone will be in the order of £15billion, to connect the more than 30GW of renewable generation needed to achieve the 2020 renewable energy targets. This figure is approximately twice the current regulatory asset value of the current onshore transmission network in England and Wales. A further estimated £4.5bn investment will be required in the onshore transmission system in the UK, potentially with more to come as the network plays a greater role in facilitating a low carbon energy sector.

Existing and future investment will need to be remunerated and we look to the evolving regulatory regime to ensure that transmission investment is incentivised and appropriately rewarded. Recovering the costs of that investment from users will then largely be delivered by the charging regime. It is important that as part of Project Transmit, the overall effects on the path of transmission charges over time from required current and future network investment, are mapped out and communicated.

Scope of Work for Project TransmiT

The project will need to review in a coherent manner the following elements of transmission related charges:

- user commitment (Final Sums and IGUM)
- the basis for and balance between demand and generation charges
- the interaction of transmission with distribution networks and related charges
- offshore transmission charges, interconnector charging and the incentives provided by charges/regulatory framework for greater European interconnection

This is a wide scope and comprises complicated, interactive areas. It is important that any potential changes developed by the project are fully thought through, rigorously modelled and achieve stakeholder buy in, prior to any implementation process being initiated.

The Balance between Network Investment and Constraints

We support the continuing optimisation of overall cost in the provision of transmission services through an appropriate balance between network assets and operational constraint management. The GBSQSS plays a central role in this area, by determining the type and quantity of transmission assets to satisfy the national demand/supply function. Any material changes to the GBSQSS will in turn have significant implications for asset costs which will then be recovered from users, via transmission charges. We support the work done so far on reform of the GBSQSS. However, the Fundamental Review needs to be completed expeditiously so that both Project Transmit and TPCR5 can base their work on its conclusions.

We are also concerned that the current regulatory framework does not appropriately incentivise transmission network providers to make anticipatory investments to alleviate known and projected constraints on the network, to achieve *future* compliance with the standards of the GBSQSS. Whilst investment in the MITS/NETS *may* be less difficult to justify, the requirements on users to secure both anticipatory and immediate investment, require review and reform. Whilst the case for certain anticipatory investments was made by the ENSG process, we remain concerned that this reform has not been further developed to allow investments to proceed more speedily where there is an overriding need. The balance of risk between users, network companies and consumers should be re-examined, given the scale and pace of investment required in future.

Constraints generated by non-compliant portions of the network give rise to a "transmission charge" in the broadest sense in that they increase costs for transmission users. Project TransmiT should include a review and reform of constraint management, charging and alleviation in its scope of work.

Basis of Charging

We support the *principle* of cost reflective charging and this should be retained as the basis on which future transmission [and distribution] charging regimes are designed. Cost reflective charges promote efficient decisions for both network investment and generation/demand connection choices. Working from the principle of cost reflective charging, there are a number of differing methodologies which may be used to deliver final charges to end users. The current methodology used by NGET is but one of these.

The project should include a review of charging methodologies used in other jurisdictions and the pros and cons of these methodologies in order to further inform any proposed reforms for the UK.

We have concerns as to whether the current methodology used to derive transmission charging will provide the appropriate backcloth to deliver the renewable and low carbon objectives mentioned above. TransmiT should include examination of the generation/demand split in recovery of costs, the stability/predictability of charges over an extended timeframe, the effectiveness of "incentives" provided by transmission charges on generators which have little or no choice of location and the appropriateness of an offshore charging regime which appears to be unsupportive of an initiative which is a direct result of government policy.

The need for investment in offshore transmission is driven by government objectives and national policy for the electricity sector. The scale and rationale for that investment mean that it logically forms part of the national electricity transmission system and should be regarded as such, for both planning and charging purposes.

Deep or Shallow Charges

In a heavily interconnected network, all users derive benefit from being connected to the transmission system. We support the continuation of a "shallow" charging approach to transmission charging.

We look forward to engaging further with Project TransmiT on these issues as its work develops.

The Connection Process

Project Transmit urgently needs to examine the appropriate balance of risk between consumers, network companies and connectees. The current arrangements for Grid securities [Final Sums and IGUM] are inappropriate to facilitate either the required investment in offshore transmission capacity or to incentivise the development of a coordinated offshore network. We support the principle of an appropriate level of user commitment, but this needs to be translated into a regime which takes into account:

- aggregate current and future need for the assets
- demonstration of commitment/progress by wider measures than purely financial means alone
- reduction of the current punitive requirements for financial securities to levels commensurate with actual risk
- an equitable re-balancing of risk from developers to network companies and consumers

The current uncertainty surrounding the status and reform processes for both Final Sums and IGUCM user commitment methodologies needs to be resolved quickly.

Measures of commitment which include significant expenditure/third party commitments made by the developer should replace some of the need for financial commitment. We note the process for managing and monitoring the "Grid Queue" which involves a number of required reports and agreed milestones to be met, by the developer. This process should be assessed [and developed as necessary] for applicability to the connection process.

Answers to Questions

Charging

Whether our objectives for Project TransmiT are appropriate; "to ensure that we have in place arrangements that facilitate the timely move to a low carbon energy sector whilst continuing to provide safe, secure, high quality network services at value for money to existing and future consumers."?

The objectives appear appropriate. However, "value for money" is likely to be accompanied by a significant rise in the overall level of charges, driven by required investment. Existing and future investment will need to be remunerated and we look to the evolving regulatory regime to ensure that transmission investment is incentivised, delivered in a timely manner and appropriately rewarded. Recovering the costs of that investment from users will then largely be delivered by the charging regime. It is important that as part of Project Transmit, the overall effects on the path of transmission charges over time from required current and future network investment, are mapped out and communicated.

The GBSQSS plays a central role in this area, by determining the type and quantity of transmission assets to satisfy the national demand/supply function. Any material changes to the GBSQSS will in turn have significant implications for asset costs which will then be recovered from users, via transmission charges. We support the work done so far on reform of the GBSQSS. However, the Fundamental Review needs to be completed expeditiously so that both Project Transmit and TPCR5 can base their work on its conclusions.

Whether the principles on which the current charges are derived remain fit for purpose given the new and emerging challenges that the energy sector faces?

- *Facilitate Competition - that compliance with the Use of System Charging Methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;*

The principle remains appropriate. However, its *application* needs to take into account the increasing interconnection of the UK with Europe and the progress being made towards a single market in electricity [energy]. The charging regime needs to ensure that UK generation is not placed at a competitive disadvantage, through charges which are out of alignment with our European competitors.

- *Cost Reflective - that compliance with the Use of System Charging Methodology results in charges which reflect, as far as reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses;*

We support the *principle* of cost reflective charging and this should be retained as the basis on which future transmission [and distribution] charging regimes are designed. Cost reflective charges promote efficient decisions for both network investment and generation/demand connection choices. Working from the principle of cost reflective charging, there are a number of differing methodologies which may be used to deliver final charges to end users. The current methodology used by NGET is but one of these.

Whether NGET's and NGG's approach is consistent with the principles currently in place, and whether their approach is applied consistently?

We acknowledge that the charging methodology currently used by NGET is based upon the principle of cost reflectivity. This was developed against a background of a very different generation mix and policy objectives than those of the future. As we have noted, there are alternative cost reflective methodologies which we believe would better support the achievement of government targets, the deployment of renewable generation, facilitate the development of an integrated offshore network and provide UK generators with a more equitable footing to compete with their European counterparts in the single electricity market.

Whether the current arrangements deliver value for money to energy consumers?

To the extent that the current arrangements are both cost reflective and facilitate competition, energy consumers should derive benefits through a reduction in total cost. However, this does not mean that the current arrangements are the *most* effective in achieving this end, particularly where consumers have an interest [via government policy] in achieving security and sustainability objectives efficiently.

Whether the current arrangements facilitate appropriately the connection of low carbon generation including renewables and any other new generation, preferably with evidence of impacts of transmission charges on such generation?

We have concerns as to whether the current methodology used to derive transmission charging will provide the appropriate backcloth to deliver the renewable and low carbon objectives mentioned above. TransmiT should include examination of the generation/demand split in recovery of costs, the stability/predictability of charges over an extended timeframe, the effectiveness of "incentives" provided by transmission charges on generators which have little or no choice of location and the appropriateness of an offshore charging regime which appears to be unsupportive of an initiative which is a direct result of government policy.

The need for investment in offshore transmission is driven by government objectives and national policy for the electricity sector. The scale and rationale for that investment mean that it logically forms part of the national electricity transmission system and should be regarded as such, for both planning and charging purposes.

Whether there are particular issues associated with transmission charging that should be prioritised?

The project will need to review in a coherent manner the following elements of transmission related charges:

- user commitment (Final Sums and IGUCM)
- the basis for and balance between demand and generation charges
- the interaction of transmission with distribution networks and related charges
- offshore transmission charges, interconnector charging and the incentives provided by charges/regulatory framework for greater European interconnection

This is a wide scope and comprises complicated, interactive areas. It is important that any potential changes developed by the project are fully thought through, rigorously modelled and achieve stakeholder buy in, prior to any implementation process being initiated. As such we would suggest a focus on coherence of any proposed changes, rather than prioritisation.

Connection Arrangements

Whether our objectives for Project TransmiT are appropriate?

The objective *"to ensure that we have in place arrangements that facilitate the timely move to a low carbon energy sector whilst continuing to provide safe, secure, high quality network services at value for money to existing and future consumers."?* appears appropriate. We also refer to our comments on the overall objectives, in the Charging section.

Whether there are practical problems hampering connection to the network? If so, we would welcome evidence of the problems and suggestions for resolution;

Project Transmit urgently needs to examine the appropriate balance of risk between consumers, network companies and connectees. The current arrangements for Grid securities [Final Sums and IGUCM] are inappropriate to facilitate either the required investment in offshore transmission capacity or to incentivise the development of a coordinated offshore network. We support the principle of an appropriate level of user commitment, but this needs to be translated into a regime which takes into account:

- aggregate current and future need for the assets
- demonstration of commitment/progress by wider measures than purely financial means alone
- reduction of the current punitive requirements for financial securities to levels commensurate with actual risk
- an equitable re-balancing of risk from developers to network companies and consumers

Previously, the requirement to secure "wider works" has been a major obstacle in the process of project development, with levels of security been totally disproportionate to the project size. The removal of the requirement to secure non-local works should continue. The current uncertainty surrounding the status and reform processes for both Final Sums and IGUCM user commitment methodologies needs to be resolved quickly.

We believe that the level of securities required under both these processes is inconsistent with both the actual risks of "asset stranding" and the government's objectives for the deployment of renewable energy. We have previously stated our view that offshore transmission is logically part of the National Transmission System. The requirement for offshore developers to provide security is currently based on the premise that the transmission connection comprises "local works" and leads to a wholly disproportionate requirement for securities. Demonstration of commitment/progress needs to be expanded to include by wider measures than purely the provision of financial securities alone.

The requirement for parties without an adequate credit rating to put in security by means of cash or a banker's draft can be punitive and places these companies at a competitive disadvantage compared to companies with an established credit rating. Measures of commitment which include significant expenditure/third party commitments made by the developer should replace some of the need for financial commitment. We note the process for managing and monitoring the "Grid Queue" which involves a number of required reports and agreed milestones to be met, by the developer. This process should be assessed [and developed as necessary] for applicability to the connection process.

Whether the current arrangements ensure fair treatment of system users?

Apart from the need to reform the security/commitment arrangements above, we have concerns regarding the process of obtaining a connection date. Different parties will have different capabilities with regard to assessing connection offers/dates made available to them by National Grid. On the basis of that assessment, depending on their negotiating/lobbying skills, they may also be more or less successful in obtaining a more favourable [i.e. earlier] date. Whilst we understand that any advancement in the date of connection to the system is likely to be the result of additional significant effort on the part of NGET, we would wish to see a system which delivered consistent outcomes, irrespective of the type of applicant.

Whether there are particular issues associated with connection arrangements that should be prioritised?

In line with our comments on charging reform, we would suggest a focus on coherence of any proposed changes, rather than prioritisation. However, existing user commitment arrangements are an urgent issue which needs to be addressed now.

Governance?

We look forward to the Charging Methodology being operated under open governance. Given that charging is, and will remain, a complicated area we look forward to arrangements that will allow parties with less resource to make their contributions effectively.

The Final Sums/IGUCM process for providing securities and also the requirements on existing parties to provide ongoing user commitment need to be brought under a proper governance framework

I hope that you find this response useful. Please do not hesitate to contact me if you require further information or clarification.

Yours faithfully

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