16 New Burlington Place
London
W1S 2HX

THE CROWN ESTATE

Anthony Mungall
Electricity Transmission Team
Ofgem
3rd Floor Cornerstone
107 West Regent Street
Glasgow
G2 2BA

Chuan Zhang
Programme Manager
Transmission Programme

E-mail: chuan.zhang@thecrownestate.co.uk

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Dear Anthony,

Project TransmiT: Electricity Transmission Charging: assessment of options for change. A response from The Crown Estate

1. The Crown Estate

The diverse portfolio of The Crown Estate comprises marine, rural and urban properties across the whole of the United Kingdom valued in total at £7 billion (2011 figures). Under the 1961 Crown Estate Act, The Crown Estate is charged with maintaining and enhancing both the value of the property and the revenue from it consistent with the requirements of good management. We are a commercial organisation guided by our core values of commercialism, integrity and stewardship. The Crown Estate's entire revenue surplus is paid directly to HM Treasury for the benefit of UK citizens; in 2011 this amounted to around £230 million.

Our marine estate comprises virtually the entire UK seabed out to the 12 nautical mile territorial limit, in addition to the sovereign rights to explore and make use of the natural resources of the UK continental shelf, with the exception of oil, coal and gas. We own around half of the foreshore and beds of estuaries and tidal rivers in the United Kingdom. Our expertise includes marine resource management (e.g. marine aggregate extraction, marine renewable energy installations, seabed infrastructure, aquaculture and new activities such as gas storage and carbon capture and storage) and its interplay with other marine activities such as defence, energy, navigation and marine safety. We have a strong understanding of the needs of a broad range of coastal and sea users, as commercial partners, customers and stakeholders.

2. Context for The Crown Estate response

By 2020, the UK must generate 30% of its electricity from renewable sources. Offshore generation is expected to make a significant contribution to meeting this target, and DECC's Renewables Roadmap indicates that offshore wind could have an installed capacity between 11 and 18 GW by 2020. This burgeoning industry is set to become a major UK manufacturing activity, bringing significant new inward investment, businesses and jobs. To help make sure this industry realises its full potential, The Crown Estate is taking a proactive approach. This ranges from co-investment in the consenting of projects to positive engagement with statutory and non-statutory bodies,

regulators, trade associations, local and national governments and representatives of the shipping, aviation and fisheries industries.

The way in which electricity transmission charges are structured can have a significant effect on the viability of generation projects. Given the UK's transition to a more diverse energy mix, we agree it is the right time to review whether the current charging arrangements remain fit for purpose. As such, we welcome the publication of this consultation and we are grateful for the opportunity to provide a response.

Given our position in the market, we do not feel appropriate to comment on the specific questions asked in the consultation, but nevertheless have some general comments in respect of the proposals. We are also taking this opportunity to highlight some more fundamental issues which we believe need to be addressed to ensure that the transmission charging regime does not in any way present a barrier to the expected level of the deployment of offshore generation.

3. General comment on socialised charging

The analysis presented in the consultation document and Redpoint report suggests that under a fully socialised model of transmission charging, around 28 GW of offshore generation could be deployed by 2030. Given The Crown Estate's statutory duty to enhancing the value of its estates, we are disappointed that the socialised approach has been effectively ruled out at this stage. We have a number of observations about the modelling which we hope you are able to consider further before any direction on the transmission charging:

- Under the core socialised model, there is an increased likelihood of meeting Government renewables targets. However, it appears that no monetary benefit is attached to the comfort or lower risk that this provides. It may also maximise exploitation of domestic energy sources, with associated supply chain and economic benefits, which again do not appear to have been considered,

- Given the underlying assumptions, there is a risk that the modelling overstates constraint costs, given that the model runs out of available reinforcements (which are linked to the TO's RIIO business plans). As such, there is an open question as to whether overall costs of the socialised model are over-stated given that reinforcement costs would have replaced constraint costs had they been available,

- The modelling does not seem to take account of the potential for significant cost reductions in offshore wind. This is a key area of focus at present across industry and The Crown Estate has a project ongoing to identify potential pathways towards the Renewables Roadmap target of £100/MWh by 2020. DECC has also established a Task Force of industry stakeholders to set out a path and action plan to reduce the costs of offshore wind, from development, construction and operations to this target. We note that Redpoint identifies that greater savings could be achieved under the socialised model if the costs of offshore wind were to come down[1], and so we would be keen to understand the impact on the outcomes from the modelling if a sensitivity was included which modelled the costs of offshore at this level, and

[1] Page 56 of Redpoint's report

- It appears that there are a number of areas of enhanced socialisation that are not necessarily ruled out in the consultation, including a capacity based model and the treatment of HVDC converters.

In addition to the above points, we note that the core socialised model could be considered at the extreme end of the spectrum of potential socialised charging models, with all generation and demand fully socialised by way of energy rather than capacity. It is not clear from the consultation document why this model has been chosen over other potential models. We note that the socialised model policy variant identified in the consultation document slightly reduces the impact on consumer bills, and it may be that there are others which have more significant impacts. In order to give full confidence to stakeholders in the decision-making process, it would be helpful if Ofgem more clearly articulates the reasons for choosing the socialised model it has in the analysis.

4. General comment on Improved ICRP

Notwithstanding the points made above, The Crown Estate has considered the proposals for Improved ICRP, specifically from the perspective of offshore generation. Overall, we consider that there are only limited improvements for the sector compared to the current arrangements. We note that the proposal to split the wider tariff into a peak security and year round tariff (scaled by load factor) has the effect of compressing the wider tariffs, broadly making charging zones in the north of GB relatively more attractive than under the status quo (and vice versa for southern charging zones). However, given that TNUoS charges for offshore generators are largely made up of charges for local assets, this change would appear to have a limited impact for offshore projects, and will be dependent on point of connection to the onshore network. Nevertheless, we recognise that this change better reflects impacts on the transmission system from different types of generation plant.

5. Wider comments on transmission charging for offshore generation

We are concerned that the consultation has not addressed some of the fundamental issues with the charging arrangements for offshore generation. For simplicity, these issues can be characterised as:

- Over-recovery of revenue from local assets,
- Transmission charging for offshore integrated grid, and
- Asset life vs. cost recovery period

Our comments on each of these are set out below.

Over-recovery of revenue from local assets

Under the current transmission charging arrangements determined by Ofgem in March 2009[2], we note that offshore transmission assets are largely categorised as infrastructure local to the connection of the offshore generation, of which only a small proportion (typically 10-20%) socialised. A concern we have with this methodology is that it produces an anomaly because there is a 173% collection of charges in respect of the non-

[2] 'Decision in relation to the Use of System Charging Methodology Modification Proposal GB ECM-08: "Introduction of charging arrangements associated with Offshore Transmission Networks"', March 2009

socialised local assets, with demand customers contributing 73% and relevant generators contributing 100%. Whilst we are aware that there is a re-distributive effect through the residual charge to ensure that there is no actual over-recovery in money terms (and to maintain the overall demand/generation split at 73%/27%), the benefit of the reduction in the generation residual passes back to the all generators and not just those heavy contributors (in particular those located offshore).

The impact of this anomaly will be heightened over the coming years for two reasons. Firstly as and when the demand/generation split is changed to 85%:15%, and secondly as the OFTO component of total Maximum Allowed Revenue (MAR) increases. We note that National Grid estimates this to increase from around £100m in 2012/13 (around 5% of total MAR) to around £700m in 2020/21 (up to 20% of total MAR)[3]. It would be expected that both of these issues would exacerbate the problem.

We estimate that the scale of this anomaly could be in the region of 3-5% of the total revenue of a typical offshore windfarm. As you may be aware, The Crown Estate is leading a significant industry wide project[4] to consider ways in which the cost of offshore wind could be reduced to £100/MWh, which is DECC's target for 2020[5]. In this context, the addition of an unnecessary cost burden on offshore generation as a result of an anomaly in the transmission charging methodology is not helpful and we believe should be addressed.

We do not have a strong view on how this issue is resolved, although there would appear to be a number of options including, but not limited to:

- ensuring that over-contribution from any generator with any local assets is returned to the respective generator;
- recovering only 27% of the costs of the non-socialised local infrastructure from generators; or
- reviewing whether it remains appropriate to categorise the majority of offshore infrastructure as local assets.

We are aware that this over-recovery issue exists for island links and some of onshore generators. Given that this issue is likely to only be exacerbated in a more substantial scale for the reasons outlined above, we do not consider that his can be left unresolved. As such, we would ask that you take the opportunity to re-examine this issue through the SCR process for transmission charging.

[3] Based on a National Grid presentation to the TCMF on the impact of RIIO price control on transmission charges, 31 January 2012 (in 2009/10 prices)

[4] Offshore Wind Cost Reduction Pathways Project

[5] See UK Renewable Energy Roadmap, DECC, July 2011

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Transmission charging for offshore integrated grid

Offshore transmission infrastructure to date has typically been developed on a point-to-point (or radial) basis, reflecting the characteristics of the early generation projects (such as those developed under our Round 1 and Round 2 leasing rounds) as well as other factors such as technology constraints. As you will know, in parallel to Project TransmiT there is an ongoing Ofgem/DECC project considering how future offshore transmission infrastructure may develop, specifically in terms of 'coordinated' or 'integrated' grid. This has been ongoing since early 2011 and has involved significant stakeholder input including from The Crown Estate. As part of this work, Ofgem/DECC published their consultant's reports in mid December 2011[6]. We note that Redpoint's report identified a number of potential changes that may be needed to the current charging arrangements in order for them to be fit for purpose for integrated grid offshore, including in respect of anticipatory investment and shared assets.

Against this backdrop, it is not clear why the TransmiT consultation did not consider how the transmission charging methodology needs to evolve to take into account the potential for integrated offshore transmission infrastructure. In the decision on GB ECM-08, we note that the decision was considered a short to medium term development for the emerging offshore transmission regime, and for radial connections through single circuits or circuits with partial redundancy. Whilst there are uncertainties given the DECC/Ofgem coordination project has not yet concluded, we would have thought that the SCR process was the appropriate juncture to start to consider base principles – for example how shared assets offshore could be treated or how the costs of anticipatory investment could be recovered through transmission charges to preserve an appropriate balance of cost recovery between early and later projects.

We note that National Grid has recently published its initial thoughts on this issue on its website, identifying certain specific changes that may be required to charging arrangements to accommodate integrated offshore grid. Whilst this is helpful, we understand that the formal route open to considering this in detail is through a separate modification, which could be a long process. Given TransmiT has not yet concluded and that charging arrangements under integrated offshore transmission is a live industry issue, we ask you to consider the scope for establishing some key principles within the current consultation process. This would provide a greater degree of confidence to stakeholders, not least that formal consideration is being given as to how two key industry initiatives (i.e. charging and the coordination project) interact.

Asset life vs. cost recovery period

Under the offshore transmission regime, OFTOs are granted a revenue stream for 20 years. This period has fed through to the period over which costs of local offshore infrastructure are annuitised and recovered through charges. This compares to 50 years for onshore assets. An effect of this is that the offshore local tariff generators face is relatively more expensive than those faced by their onshore counterparts. Whilst we are aware that there are good reasons for the determining the OFTO revenue period as 20 years, it is not clear why these costs are recovered over the same period, given the expected life of transmission assets is significantly longer than this.

[6] "TNEI/PPA Energy: Asset Delivery Workstream – Final Report" and Redpoint Energy: "Offshore Transmission – assessment of regulatory, commercial and economic issues and options", both published 15 December 2011

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This issue was raised in a recent industry workshop we held considering potential cost reduction opportunities in transmission, as part of the wider contribution to the £100/MWh target for offshore wind, and so is gaining some traction within industry.

We note that Redpoint modelled local tariffs for the Scottish Islands as offshore local tariffs, but annuitised the costs over 50 years. Whilst this was specific to the characteristics of island charges, we would ask that due consideration is given to similar modelling for offshore wind, with a view to addressing this inconsistency in treatment between offshore and onshore transmission costs.

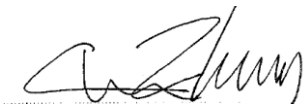
6. Conclusions

We trust that you find these comments helpful in concluding the consultation on transmission charging and formulating your direction on the transmission charging. Whilst many of our comments are outwith the specific questions asked in the consultation document, we consider that they are sufficiently important to raise at this point given the context of the review against wider industry uncertainties.

We would be willing to provide additional information and assessments on any of the points we have raised above and be pleased to discuss these matters with you further. Please contact my colleague Richard Clay on 020 7851 5336 or richard.clay@thecrownestate.co.uk as necessary in the first instance.

Please note that all of this response may be put into the public domain.

Yours sincerely,



Dr Chuan Zhang

Programme Manager, Transmission Programme