

Jon Parker  
Offshore Transmission Team  
Ofgem  
9 Millbank  
London  
SW1P 3GE

Martin Simpson  
Head of New Energy & Technology

Tel: 020 7851 5395  
E-mail: [martin.simpson@thecrownestate.co.uk](mailto:martin.simpson@thecrownestate.co.uk)

26 April 2012

Dear Jon,

**Offshore Transmission: Consultation on potential measures to support efficient network coordination. A response from The Crown Estate**

Thank you for the opportunity to respond to Ofgem's consultation published on 1 March. This response provides some general feedback on the coordination project as well as comments on some of the specific issues raised in the document.

**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.

Given our position in the market, we do not feel appropriate to comment on the specific questions asked in the consultation. Nevertheless we have some general feedback in respect of the conclusions of the Offshore Transmission Coordination Project (OTCP), as well as comments on some specific issues raised in the document.

### **3. General comments on coordinated grid**

The Crown Estate played an active role in the OTCP, sitting on the OTCG and participating in the working groups. As such, we are familiar with the issues and recognise the complex task ahead in developing a regime which delivers an approach which meets the needs of all network users. Nevertheless, identifying workable solutions to these barriers will be crucial to the success of otherwise of network coordination.

#### ***Coordinated grid & cost savings***

Overall, The Crown Estate supports the concept of a more coordinated approach to transmission. The cost savings identified through the OTCP relative to a radial approach are clear, although we note these are subject to new technologies particularly 2GW HVDC cables. We believe that a more realistic design option could have been considered by applying 1GW technology in the early phases, with the adoption of 2GW cables in later phases. Nevertheless, any savings from transmission will be a useful contributor to reducing overall system costs. As you are aware, identifying pathways<sup>1</sup> toward the Government's target of £100/MWh<sup>2</sup> for offshore wind is a key initiative we are currently leading, and on which we expect to publish findings shortly. Achieving DECC's target will require contributions from all parts of the value chain for the sector, including transmission, and therefore these expected savings are, on the face of it, a positive development and every effort should be made to ensure they are captured.

#### ***Other benefits***

We note that the consultant reports published in December 2011 from TNEI/PPA and Redpoint Energy<sup>3</sup> also identified other benefits of a coordinated approach, such as reducing the need to consent significant volumes of onshore transmission infrastructure as more transmission infrastructure (including system reinforcements) are moved offshore. We believe that these are at least equally as important as the potential capex saving, and could also contribute to the £100/MWh target for offshore wind through alleviating potential delays to deployment. We are currently undertaking work to quantify the risks to the deployment of offshore generation from

---

<sup>1</sup> Offshore Wind Cost Reduction Pathways Project

<sup>2</sup> 'UK Renewable Energy Roadmap', DECC, July 2011

<sup>3</sup> 'Energy: Asset Delivery Workstream – Final Report', TNEI/PPA and 'Offshore Transmission – assessment of regulatory, commercial and economic issues and options', Redpoint Energy, both published 15 December 2011

consenting the associated onshore transmission infrastructure across typical radial and coordinated network design strategies. We hope to be able to share the findings from this work with Ofgem and DECC in early summer.

### ***Barriers to achieving coordination***

We broadly agree that the barriers identified in the joint DECC/Ofgem conclusions report capture the key issues that need overcoming if we are to move to a more coordinated approach to grid. It is now essential that these are resolved as quickly as possible - and stakeholders are appropriately incentivised - so that the GB transmission system is an effective enabler for the deployment of the expected volume of offshore renewables.

We consider it is also essential that the solutions are not developed in isolation, but part of an overall framework toward delivering a coordinated approach to grid. We recognise that there are different industry processes, and indeed different parts of Government (such as DCLG in respect of consenting guidelines), which are going to need to solve the issues identified but this needs to be taken forward in a holistic way. We would recommend Ofgem explores undertaking and publishing a mapping exercise which identifies inter-relationships and how solutions might interact. We recognise that this is not a trivial exercise, but believe it would provide further confidence to the market that solutions are being considered in a joined-up way.

A key finding from the OTCP was that there is currently a lack of clarity on the regulatory treatment of assets that involve combinations of onshore reinforcements, offshore generation connections and interconnectors. There is a clear need for the different regulatory regimes to be more aligned if the benefits of a coordinated approach are to be fully realised, and to enable generators to connect to grid offshore. We made representations on this point in our response to the OFTO enduring regime in February, and we welcome the recent launch of the Integrated Planning and Transmission Regulation project. We firmly believe that the issues flagged in Ofgem's open letter of 23 March 2012 need fully exploring, and regimes aligning where possible, if offshore generation is to be able to benefit from connecting offshore. Not addressing is likely to continue to frustrate innovative concepts such as offshore generation projects connecting into "bootstraps", as well as specific projects such as the proposed Moray Firth "hub".

### **4. Comments on specific issues raised in consultation**

The following comments are on the specific issues raised in the consultation document.

#### ***Planning an efficient, economic and coordinated network***

The OTCP identified that modifications to industry processes are likely to be needed to enable the NETSO to better identify coordination opportunities, and that this may be better facilitated through reforming network planning documents such as the Seven Year Statement (SYS) and the Offshore Development Information Statement (ODIS).

We support the underlying principle of improving the network planning process and any moves to evolve existing arrangements are welcomed. Any changes to the connection process should be progressed through normal industry governance processes to enable due participation and process. As part of this, developers should retain

the ability to negotiate terms of individual agreements and not have arrangements imposed on them which could affect the commercial viability of projects.

We also support the principle of reforming the SYS and ODIS. Both of these documents have served a useful purpose historically, but it is the right time for them to be reviewed and we agree they should be combined into a single network planning statement. Continued separation reinforces a misleading view of the delineation between onshore and offshore transmission, which is not reflective of how the transmission system is expected to develop as the industry moves forward, particularly if developers are able to connect to the transmission system offshore.

### ***Anticipatory investment***

We fully agree that enabling anticipatory investment in grid is a necessary pre-condition to the development of a more coordinated approach to offshore transmission. At a high level, we wish to make two points:

- (i) in developing detailed process mechanics, Ofgem must not lose sight of the need to appropriately incentivise behaviours across all stakeholders (developers, transmission companies as well as consumers). Investing on an anticipatory basis in transmission will require developers and other parties to take difficult investment decisions which are in addition to their primary investment decision on generation. In order to encourage positive behaviours, it will be important that those that take investment risk are appropriately rewarded – which in terms of transmission means security arrangements and ongoing use of system charges, and
- (ii) any mechanism should provide sufficient levels of certainty such that developers and other stakeholders can make the necessary investments in full knowledge of the risks to that investment, for example in terms of how costs will be assessed and how asset stranding risk is allocated.

Given we expect that the detailed process for AI will take some time to be established in a comprehensive way, we believe that it is urgent to develop a transitional process which would allow projects to make the most basic AI investments (such as allowing two 500MW projects to develop a 1GW link).

### Types of AI

We broadly agree with the separate identification of works which are focussed on the connection of individual projects and works which provide wider network benefits. This explicitly recognises the different types of offshore transmission assets that will be required going forward, and is broadly consistent with the current categorisation of assets for charging and security arrangements.

### Identification of AI

We note the proposal that AI should be identified through the existing connection application process. By its nature, the connection process is reactive, and may not be the most appropriate vehicle to identify need in all cases. We also note that current major onshore reinforcement projects are identified and progressed outside of

the TO price control process (although are typically included in TO business plans). Whilst these reinforcements are informed by individual connection requirements, they are separate from the specific industry standard connection process. We suggest Ofgem explores a similar process for AI for wider network purposes. This would be an effective utilisation of established onshore principles in an offshore context.

Question 8 asks whether other parties should be able to identify opportunities for AI. Given our unique position in the market and standing as a public body, we believe The Crown Estate is well placed to play a key role in this process, and we note this was explored to a limited extent in Redpoint's report<sup>4</sup>.

Our core remit is responsibility for managing the seabed across a range of industries including but not limited to minerals extraction, natural gas storage, telecoms cables, marine biomass and carbon capture and storage. This is in addition to offshore generation activities and associated transmission infrastructure. We have developed sophisticated tools to assist overall management of the seabed across all these sectors, and which we use to assist wider marine planning. Further, our proactive approach to the Round 3 offshore wind programme is facilitating the delivery of Government energy policy with respect to renewables. A key element of this is de-risking development activity, and the principles of this may fit well with anticipatory investment in grid. We are keen to explore further this further with you and will liaise separately over the coming weeks.

#### Funding of AI

The OTCP conclusions report noted that the existing charging and user commitment regimes do not appropriately cater for coordinated grid, but that there are industry processes which are the appropriate vehicles for making changes to these. We are disappointed that these could not have been considered within the Project TransmiT process, although note there has been some progress over recent months with the National Grid's initial thoughts published in January<sup>5</sup>. We believe the design of these arrangements will be central to the success or otherwise of more network coordination, given that they provide direct commercial incentives to parties. We believe it is essential that the charging arrangements strike the right balance between protecting the needs of consumers and positively incentivising or enabling industry participants to make the necessary investments in transmission infrastructure to deliver the expected volume of offshore generation over the coming decades. Ultimately this may mean consumers bearing more risk than they do at present.

We note that both the consultation and the supporting Redpoint report are based on an understanding that generators are the only direct beneficiary of cost savings from AI and thus generators should be responsible for AI related asset stranding risks and other burdens. We would like to point out that as the demand side also pays local charges directly, consumers would also directly benefit from any cost savings through AI. This issue needs to be explored fully in the context of the appropriate balance of risk.

---

<sup>4</sup> 'Offshore Transmission – assessment of regulatory, commercial and economic issues and options', Redpoint Energy (section 6.2.2), 15 December 2011

<sup>5</sup> 'Charging for integrated onshore-offshore transmission', NGET, January 2012

## AI guidance

We note in paragraph 3.50 that you are considering providing guidance on how the process for assessing anticipatory investment. We support the introduction of such guidance and believe this would be a positive step toward ensuring the transparency of the process and enable developers and other stakeholders to participate with a better understanding of key risks. In order to optimise value from any such guidance, we believe it is essential that it covers cost assessment as well as mechanics for the AI process, as this is a key area of uncertainty at present and something that will continue to be so as the regulatory framework develops further. Furthermore, this guidance should also cover the appeals processes. We would recommend that you consult on key aspects and a draft of this guidance. Adopting this approach should have a dual effect of facilitating the development of more robust guidance at the outset following a constructive dialogue process as well as providing greater confidence in the process thereafter.

## Who undertakes AI?

We recognise and broadly agree that pre-construction works and construction works can be separated out. One issue which we believe should be re-considered however is with respect to the party which can undertake construction works. Section 3.59 of the document and section 1.17 of the Impact Assessment in Appendix 2 seem to preclude an existing transmission licensee (TO or OFTO) from undertaking these works, and it is unclear why this is the case.

We recognise that developers may well be best placed to undertake construction for assets which are offshore-generator focussed (subject to the right incentives), but it is not clear that developers are well placed to take on this additional responsibility for AI assets that are for wider system benefit. This would suggest that the only option is for these assets to be tendered under the OFTO Build model. Given that this model is still currently under development and no assets have yet been constructed by an OFTO, leaving this as the only alternative option would appear unnecessarily risky. The consultation does not explore the option of construction of these assets by an incumbent licensee whereas these assets would appear to be something they are well placed to deliver. We are aware that onshore TOs are restricted by the geographical extent of their licence, but there is precedent for extending this remit into offshore waters, for example with the Western HVDC Link. We are also aware that definitions in the Electricity Act require a competitive process for transmission assets that connect offshore generators, although it is not clear how this applies to works which provide wider transmission system benefit. It would be helpful for Ofgem to clarify why this seems to have been ruled out at this stage.

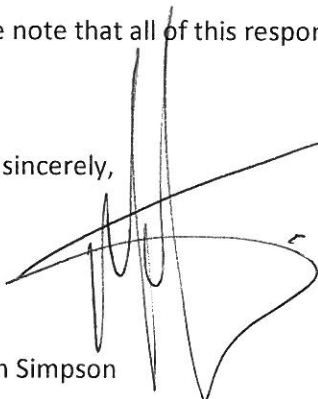
## 5. Conclusions

We trust that you find these comments helpful in developing your thinking on how to deliver a more coordinated approach to developing transmission infrastructure. 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 consultation.

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](mailto: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,



Martin Simpson

**Head of New Energy & Technology**

