

FrontierPower



**CERULEAN
WINDS**

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Our Reference FPIL230713-02

Dear Bartosz and Kevin

RE: response to the consultation on the Market Arrangements for Multi-Purpose Interconnectors

Cerulean Winds ("CW") and Frontier Power ("FP") (together "CW/FP") have, jointly, been successful in securing 3 sea bed leases from an auction by Crown Estates Scotland to install floating offshore wind farms to power offshore oil and gas facilities as part of the nation's journey to Net Zero through decarbonising oil and gas production. INTOG (Innovation and Targeted Oil & Gas) leasing aims to attract investment in innovative offshore wind projects in Scottish waters, as well as help decarbonise North Sea operations.

Phase 1 of the INTOG project will see some 600 MW of floating offshore wind constructed across 3 sea bed lease areas joined together using AC offshore cables and then connected to oil and gas platforms whose operators intend to enter into power purchase agreements with CW/FP. The constellation of phase 1 offshore wind farms will be connected to the GB transmission system as demand to enable power to flow to the oil and gas facilities at those times when insufficient offshore wind generation occurs to meet the demand exhibited by the oil and gas facilities.

In subsequent phases of the project the offshore wind farms will be scaled up to c.6GW of capacity in total and these will be connected to the GB and German transmission systems to enable power to flow from the wind farms to GB or Germany and for power to flow between GB and Germany.. Consequently, CW/FP believes this phase of the INTOG project firmly meets the proposed definition of an MPI set out in the consultation.

Therefore, the publication of the consultation on the market arrangements for Multi-Purpose Interconnectors ("MPIs") is timely as it would appear to directly impact the development of the INTOG project initiated by Crown Estates Scotland leasing competition.

Response to DESNZ and Ofgem Joint Consultation

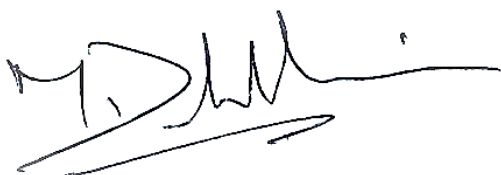
CW/FP response to the questions raised in this consultation are made against this background. Market arrangements which are implemented should seek compliment the already advanced initiatives of Crown Estate Scotland in accelerating decarbonisation of offshore oil and gas. Furthermore, the economies of scale this project offers through colocation of additional offshore wind should be encouraged given the potential to reduce the support costs GB consumers will be exposed to compared to other standalone development projects.

Our response is set out in the subsequent sections in line with the summary question template provided as part of the consultation.

If you would like to discuss any aspect of this submission please do not hesitate to contact me at m.williams@frontierpower.biz.

This submission is not confidential.

Yours sincerely



Meurig Williams
On behalf of Cerulean Winds and Frontier Power



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Q1. Do you agree with the ranking of options (OBZ-implicit, HM-implicit, HM- explicit, OBZ-explicit) presented in the table?

The ranking is based on a perception of efficiency where the most efficient is ranked first and the least last. However, the ranking and models identified do not seem to cater for the INTOG concept for which the Crown Estate Scotland has just awarded seabed leases. This project would see offshore wind farm output (even as part of an MPI) being traded bilaterally on long term contracts with operators of offshore oil and gas platforms. These arrangements have to be possible given this is the basis of the original auction of the sea bed leases under the INTOG process created by Crown Estates Scotland.

Notwithstanding this, there may be some political issues from Brexit that could prevent the most efficient implicit trading solutions being implemented. In such a scenario the only options that would be possible would be where the offshore wind farm bids into the Home Market ("HM") or where it is treated as an Offshore Bidding Zone ("OBZ"). Both of these could be coupled with explicit trading of capacity. Of these two possibilities it is not clear that OBZ would necessarily be less efficient than the HM solution given that it could lead to greater capacity utilisation and flows across the MPI than under the HM model.

Q2. Do you believe that some of the permutations not workable and should be ruled out? Why?

Only those permutations that involve true implicit trading are not presently workable due to Brexit. However, in time implicit trading (or MRLVC) may eventually be implemented and so should not be entirely ruled out.

Q3. Which of the four options is preferred, and why?

Option 1 – OBZ and Implicit trading (loose volume coupling) as this will maximise the use of the interconnector and ensure the greatest amount of offshore wind is generated as possible.

Q4. Under implicit trading (loose volume coupling), which bidding zone configuration (HM or OBZ) best supports:

- a) market efficiency? OBZ
- b) consumer benefits? OBZ
- c) integration of renewables? OBZ

Q5. Under explicit trading, which bidding zone configuration (HM or OBZ) best supports:

- a) market efficiency? OBZ
- b) consumer benefits? OBZ
- c) integration of renewables? OBZ

This is because more often than not the OBZ will, be deemed, to be flowing counter to the natural direction of price arbitrage i.e. flowing to the lowest priced region when the interconnector flows will normally flow from the low priced region to the high priced region which implies surplus capacity rights should exist for the offshore wind farm to acquire in a suitable time frame. Only on those periods where the use of explicit rights is counter the conditions exhibited close to the settlement period will inefficiencies become magnified.

Q6. Do you think that a transition from HM to OBZ is possible and/or desirable?

Transitioning from one to the other will create a more risky perception to developers than sticking with one solution over another. As developers would then need to determine whether their investment is more or less likely to be at risk than if the arrangements were stable.

Q7. What conditions must be met so that a transition from explicit-HM to implicit- OBZ configuration would be viable for developers?

This is not a desirable outcome and fundamentally affects the risk reward balance between all parties from the offshore wind farm owner and MPI owner.

Q8. How does this relate to other areas such as regime design or charging arrangements?

The basis for calculating the cap and floor could be changed part way through as migration from one trading arrangement to another occurs.. This will potentially cause developers to seek a higher risk premium if the changes became more risky resulting in a drop in expected returns and ultimately developers will look to consumers to increase support payments to compensate. OR, if known at the outset it will change the risk premium and it will already be higher than in circumstances where the arrangements were not planned to be changed. This essentially bakes this higher risk premium into hurdle rate the project economics will need to pass. Ultimately this could lead to fewer projects being taken forward which may impact the ability to deliver the targets set by government.

Q9. How do you envisage long-term, day-ahead and intraday trading arrangements working for MPIs under both HM-explicit and OBZ-implicit scenarios? Can explicit capacity allocation work with OBZ configuration, if yes how?

Yes it can. In the same way MRLVC works ahead of implicit trading. The OBZ arrangements would need to be coupled with explicit capacity rights to allow the “trade” to complete ahead of the implicit trading period so the results can be taken account in the implicit algorithms just as the MRLVC outcomes would be. In addition OBZ can simply be included in the MRLVC process which concludes ahead of application of the implicit algorithm being deployed for EU members.

Q10. What are your views on using either PTRs or FTRs in the long-term timeframe? Will OWFs have an active role in long-term capacity allocation?

We have not considered this issue and have no fixed view.

Q11. Which timeframe is the most vital/relevant for MPIs and why?

Developers would prefer to have sold all their capacity on an explicit basis on long term contracts with investment grade counterparties. Whilst this may prove less efficient than allowing flows following implicit trading on a short term basis it does have the benefit of developers understanding their revenue flows are secure for the long term. Short term implicit trading can lead to higher revenues in some periods and lower revenues in other periods which requires developers to rely more on the surety of the floor to convince investors of a project’s viability and risk level.

Therefore, what developers would prefer is not necessarily what an MPI or consumers might prefer. There needs to be a way to better balance this risk and reward – a developer which has a clearer and more certain chance of achieving the required rate of return under a range of scenarios will ultimately require a lower the risk premium than if the minimum return is set too low to create a question of viability for any developer’s investment committee when the downside scenarios are analysed. Reliance on short term markets which are often unconstrained will lead to more hours of reliance on the floor which is not a particularly attractive rate of return for developers.

Q12. Are there any improvements to commonly understood trading models (explicit trading or implicit price or volume coupling) that can be made to better facilitate efficient market arrangements for MPIs?

None Identified

Q13. Do you agree that OWFs should be compensated for a loss of revenue in OBZ compared to HM? Where should this come from? Should it come from the congestion revenue from the MPI cable derived from cross-border trade?

OWF should participate in the CfD. Its support payment should be by reference to the price it achieves in the OBZ compared to the strike price. This should be paid from the same pool as all CFD payments.

The MPI will be subject to a narrow cap and floor and possibly a RAB mechanism for the Offshore platform (to be decided). The MPI will earn congestion rents which may be below the floor, above the cap or somewhere in between and will be entitled to the RAB revenue for the offshore platform. It is not for the MPI to compensate the OWF through a different scheme as this will increase the parties involved in the CfD compensation mechanisms and lead to additional complications including additional credit risks for participants.

Q14. How could the existing CfD scheme be changed to support OWFs connected to MPIs, especially considering OBZ market model? How would you envisage this scheme to work?

This could simply look at the price achieved in the OBZ in GBP (therefore exchange rate risk needs to be factored in) compared to the Strike price.

Q15. Are there any other alternative approaches that we have not considered that would better incentivise an OWF to connect to an MPI?

No

Q16. How do charging arrangements relate to the considerations on support schemes for MPIs, especially under the OBZ scenario?

No view is offered

Q17. Does the chapter on operability capture the key topics that should be included when considering the impact of market arrangement models on system operability? Are there other important implications that need to be considered?

Yes – speed of communication also needs to be considered and not just contractual obligations work flow. There may be a genuine emergency need where the TSO contacts the OWF directly rather than having to rely on the MPI operator to pass on any curtailment instructions.

Q18. Do you have any views on how curtailment and compensation might work under both HM and OBZ configurations?

Curtailment and compensation should be market based and put the prejudiced party back into the position they should have been in but for the need to curtail. This will essentially ensure the party subject to curtailment is no better or worse off. This will reflect the genuine market cost of the issue and will provide useful commercial information for the TSO who, over time, may gather the data to support alternate investments to alleviate future curtailment. Without this market related approach there is a possibility curtailment and compensation could skew network development in an inefficient way which is not in the interests of GB consumers.

Q19. Do you have any comments on how balancing might work under both HM and OBZ models?

Balancing could work as now in that whatever capacity rights are either explicitly held and nominated for use, or in the OBZ model/implicit world – are deemed to have been used, then the counterparty will always be ensured they are allocated the generation contracted to provide (subject to curtailment rules). Any failure of the MPI to flow the power will lead to an imbalance for the MPI operator. Any failure by the capacity rights holder to deliver power to the MPI to match the nomination will result in that party being out of balance and balancing charges will be levied accordingly.

Q20. What are your views on contractual agreements that will need to be established between the system operator, MPI operator and an OWF? Do they differ depending on HM or OBZ configuration?

The system operator and the MPI operator will need to agree technical standards of connection (as they do now for P2P), operating protocols which will include the non GB connected TSO and this will need to be extended to include the OWF. The OWF will also need to enter into an agreement to connect to the MPI and this will set out the operating and contractual obligations between the counterparties and identify the liabilities each party will owe to the other under a range of scenarios. The OWF may also need to sign up to industry codes such the BSC and accede to these arrangements to create the contractual obligation pay and be paid balancing charges. Furthermore the OWF will need to sign up to the CfD and the MPI operator may need to become a signatory to those agreements given that it is the MPI equipment that delivers the benefits of the CfD contract once custody of any power transfers to the MPI for conveyance.