<u>Market Arrangements for Multi-Purpose Interconnectors</u>

Mainstream Renewable Power

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

Implicit trading has been well proven within Europe to be a more efficient market arrangement than explicit trading due to the increased avoidance of periods when transmission rights are not used or when energy is moved in the least effective direction. This led to the introduction of binding requirements in the CACM GL to implement market coupling in the day ahead timeframe. It would seem imperative that implicit trading be the default solution.

The case for OBZ is clearly highlighted in the consultation regarding market efficiency and consumer benefit, however the reduction in revenue for the offshore wind farm requires to be compensated for to ensure that the developer is at very least no worse off than a radial OFTO connection. In fact, we believe that there requires to be additional incentive for offshore wind developers to pursue a multi-purpose interconnector in lieu of a radial connection due to the increase in risk profile for delivery.

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

No Comment

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

We agree with the approach taken in considering the market design through the lenses of market efficiency, consumer benefits and integration of renewables. We agree with the ranking of the four options and preference of option 1 (OBZ with implicit trading).

Q4. Under implicit trading (loose volume coupling), which bidding zone configuration (HM or OBZ) best supports: a) market efficiency? b) consumer benefits? c) integration of renewables?

No Comment

Q5. Under explicit trading, which bidding zone configuration (HM or OBZ) best supports: a) market efficiency? b) consumer benefits? c) integration of renewables?

No Comment

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

We agree that a transition from a HM-explicit to OBZ-implicit is generally not desirable and think there is need for an enduring regime that gives certainty for the lifetime of the assets.

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

No Comment

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

No Comment

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?

We do not have views to submit in response to this question.

However, we recommend that data on the utilization of radial connections for existing windfarms in the UK is used to inform decisions in design of market arrangements. Grid connections for existing windfarms have been sized to allow the windfarm to dispatch full capacity at 100% output. Data on the utilization of existing grid connections since commissioning can provide a useful background to assessing how much OWF capacity is likely to be curtailed in an OBZ-implicit scenario, across different geographies and timeframes (seasonal, days, hours), compared to a radial connection.

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?

No Comment

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

No Comment

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?

No Comment

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?

We think that MPI-connected OWFs are only viable if a reasonable certainty of revenue is provided. Compensation for loss of revenue in the OBZ compared to the HM appears to be a viable means of providing more certainty of revenue. The compensation should adequately account and incentivise for the additional delivery risk posed by an MPI connection for an OSW, it should account for the more efficient use of the offshore transmission assets used to connect the OSW when compared to a radial OFTO connection. This could be through an increased revenue support mechanism and/or through a reduction in charging (e.g. reduction/removal of offshore Local TNUoS charges). As such, a standalone CfD category may be required for MPI connected OSW.

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?

We note that the economics of MPI connected OWFs are potentially very different from non-MPI connected MPIs. Therefore, we think that means for ensuring fair competition between MPI-connected and non-MPI connected windfarms should be considered in the CfD design. This should consider the lack of priority access for the OWF in the OBZ, shared investment savings with MPI due to shared infrastructure and the impact of charging mechanisms.

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

No further comment.

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

We understand that OSW developers would not be subject to onshore Wider TNUoS in an OBZ model because the project is not given unrestricted Transmission Entry Capacity (TEC) in the home market. It is stated that the actual charging methodology for the OSW for access to the MPI assets would be determined in the Access Charging Methodology for the individual MPI project. The position on offshore Local TNUoS is unclear. We would interpret that both of these factors present an opportunity for a relative gain when compared to a radially connected OSW (normally paying Wider + Local TNUoS).

However, the windfarm revenue is likely to be lower than a radially connected wind farm thus resulting in a relative loss for the OSW.

Both of these elements require to be adequately balanced to appropriately compensate and incentivise the OSW.

It should be noted that both wider and local TNUoS are locational drivers to locate OSW closer to shore and closer to demand. These locational drivers are removed by connection to the MPI and replaced by the SEW assessment of the value of the interconnector.

The charging mechanisms for OSW access and use of an MPI are not clear and we interpret that these would be on project-by-project basis in the specific Access Charging Methodology for each project. This requires greater clarity for OSW.

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?

No Comment

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

ICs have lower availability than AC OFTOs based on published data by NGESO. This presents a risk to an MPI connected windfarm that could potentially be compensated for by protecting an OWF owner above a certain level of outage. For example, a form of compensation backstop (e.g. a number of days of outage beyond which revenue compensation is given to the OSW developer).

Using NGESO system performance reports[1], the average OFTO (all HVAC) availability reports indicate an average availability off 99% for the past three years. The availability of the 4 reported interconnectors (all HVDC) averages at 90% for the same three years. The figures are heavily impacted by the binary aspects of HVDC redundancy where often the whole system is out of service for a fault. OFTO performance incentives (which are also capped) only have a minimal effect on OSW tariffs in the event of reduced

[1] System Performance Reports | ESO (nationalgrideso.com)

availability when compared to the loss of revenue to the OSW. Therefore, the OSW owner is incentivized to assist in OFTO asset maintenance, and this is often in fact the OSW strategy to offer this at nominal fee. With no OFTO data for HVDC availability the interconnector availability statistics are the best available information and indicate that an MPI connected windfarm will be at increased risk of outage and revenue loss.

There is also a misalignment in availability requirement for ICs and OFTOs.

- Interconnectors: Minimum availability threshold of 80%.[2]
- OFTOs: Performance measure against an availability target of 98% for OFTO Tender Round 4.

Potentially the availability requirements of MPIs should be comparable to that of OFTOs to improve the bankability of MPI-connected OWFs and increase the utilization of MPI-connected generation assets.

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

No Comment

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?

In general terms, for an MPI-connected OWF to secure investment, a clear set of contractual responsibilities needs to be defined between the OWF, the system operator and the MPI operator.

MPI-connected OWFs are likely to be developed through relatively long-term development agreements between OWF developers and MPI operators. To make these long-term development agreements interesting to OWF developers and improve bankability of OWF projects, we think that the OWF developers should have exclusive rights to connection, which can be time-limited and linked to projects achieving key milestones or otherwise forfeiting connection rights.

[2] Interconnector Cap and Floor Regime Handbook (ofgem.gov.uk)