

Vattenfall  
70 St Mary Axe  
London  
EC3A 8BE

**Vattenfall response to the consultation regarding Ofgem's Minded-to Decision on Multi-Purpose Interconnectors**

Consultation Response: Vattenfall

CC: Offshorecoordination@ofgem.gov.uk

Dear Patricia Dunne,

Vattenfall is a leading European energy company with approximately 20,000 employees across Northern Europe and growing numbers in the UK. For more than 100 years we have electrified industries, supplied energy to people's homes and modernised our way of living. We now want to make fossil-free living possible within one generation.

We have been investing in the UK for more than ten years, and with £3.5bn invested, we have grown our wind business from one project in 2008 to eleven today and now operate more than 1GW of wind and solar power capacity, with around 5GW in the pipeline including one of the UK's largest offshore wind zones and a commercial scale floating offshore wind site.

We welcome the opportunity to respond to Ofgem's Minded-to Decision on Multi-Purpose Interconnectors. Overall, we believe that Multi-Purpose Interconnectors (MPIs) can help to deliver consumer benefits through the combination of offshore wind generation, interconnection and offshore demand. We believe that this whole energy system approach is in line with BEIS and Ofgem's ambition to deliver better coordinated grids and to deliver the future flexibility required to manage a low-carbon electricity grid.

We welcome the progress on MPI policy and believe that clear regulatory and commercial frameworks will help to deliver early opportunity projects, projects that can contribute to Government's 50GW offshore wind and 18GW interconnector ambitions by 2030 and deliver positive socio economic welfare for UK consumers.

Overall we believe that certainty on the regulatory frameworks, the progression of cap and floor window 3 pilots and greater certainty on CfD and market arrangements will help to progress early MPI opportunities.

Please find our full response below.

If you have any queries on our response, please feel free to contact me.

Yours faithfully,

Alwyn Poulter

Public and Regulatory Affairs Manager

alwyn.poulter@vattenfall.com

**Question 1: Do you have any concerns with the minded-to decisions set out in Section 2?**

MPI models under consideration

We agree with Ofgem’s decision not to limit the interim MPI framework, and agree with the decision to progress with both the OFTO and Interconnector led models.

We believe that interim MPI frameworks should allow for a phased delivery approach as it is often challenging to align all elements of the MPI around a common FID – we believe that Ofgem’s recent consultation on AI will help with this process.

Ofgem should work to ensure that their frameworks, including asset classification, licencing and codes provides the flexibility required to enable early projects through the interim route, and that both offshore generation and offshore demand are considered as MPI structures evolve.

For both the Interconnector (IC) and OFTO led models we believe that the timing of asset FID alignment may be challenging (across the windfarm, interconnector and (if appropriate) OFTO), and therefore believe that Ofgem’s minded to decision on Anticipatory Investment should apply to MPI assets alongside other early ops projects. Coordinated timings associated with CfD and the Window 3 pilot scheme could also help with this process.

Overall we would encourage Ofgem and BEIS to implement an enduring regime as swiftly as possible – under the anticipated Energy Security Bill, as was announced in the Queen’s Speech in Spring 2022, and ensure that the enduring regime considers a pragmatic approach for a wide range of MPI assets including – offshore generation at either or both ends, offshore demand at either or both ends, combination of offshore generation and demand, combined offshore hubs using a phased approach and energy islands. This applies for both the asset definitions and licensing.

Asset classification, primary use and primary use reporting

We agree with Ofgem’s conclusion that MPI assets will need to demonstrate their primary use under existing legislation, however we do not agree with all the elements of the load factor approached proposed by Ofgem.

We note that OFTOs are always sized according to the maximum capacity of the wind asset, not the average load factor as identified by Ofgem, and therefore believe that there could be an overlap in the OFTO and Interconnector primary use definitions used to classify the MPI assets. We believe that unless the maximum capacity of the MPI is more than double the maximum capacity of the windfarm there is an argument that the primary use could be OFTO. In addition, we note that for MPI solutions market to market flows will be flexed around the windfarm export volume, i.e wind will have primary physical access to the connection, which strengthens the case for oversized assets to be licenced as an OFTO.

We note that Ofgem should maintain as much flexibility as possible when determining the primary use definitions, we would recommend the regulator to accept argumentation based on either the maximum capacity or load factor when determining the applicable licence. We believe that the current approach would essentially close down the OFTO MPI route, as most commercially viable MPI solutions would either sized according the connecting windfarm or larger than the connecting windfarm. We reiterate the need to keep both options open for the interim solutions as assets have started development under both approaches and this approach limits the stranded asset risk for both an interconnector or a windfarm if the MPI solution cannot be realised.

We note that Scenario 3, is less likely to be commercially viable under the current regulations (i.e. a home market bidding approach).

We believe that projects and developers will require certainty over their licencing requirement for the lifetime of the MPI project, and would therefore expect the asset class to be applicable for the whole project life. However we could see merit in an *option* for assets to migrate to an enduring solution if this were deemed commercially and regulatory acceptable. Another option would be to migrate to an MPI licence with the same terms as the original asset definition (OFTO or IC) on a case by case basis once MPI primary and secondary legislation has been agreed. Alternatives an exemptions route could be explored as opposed to a change in asset class.

If the load factor approach were to be taken forward for Interconnector led assets we agree with a 5 year reporting requirement, however we do believe exemptions should apply for unexpected events, for example long term outages on the windfarm or cables or the commissioning period of assets. We also believe that the reporting requirements need to consider phased approaches to MPI build where the interconnector or the windfarm could be built or commissioned over a number of years.

Based on our view outlined above we recommend the following changes to the minded to position:

Minded-to decision: Ofgem will require licence applications for multi-use assets to demonstrate the expected primary or main use of the asset. We recommend, as a minimum for *Interconnector led assets*, that this includes a simple calculation using the estimated load factor of the connecting OWF and the L1 cable capacity to show how often the asset is expected to be available for cross-border flows compared with OWF output transmission over the lifetime of the asset, which would be monitored by developers and Ofgem on a regular basis. *Alternatively a maximum capacity and physical priority led solution could also be considered for OFTO led approaches.*

#### Licensing additional activities on multi-use assets

Overall we note that the analysis of the licensing activities by Ofgem has only focused on the interconnector licence, we believe that similar analysis will be required on the OFTO licence conditions and industry would welcome the opportunity to comment on these via a consultation.

We note Ofgem's view on competition related to the OFTO model and believe that the proxy competition approach should be explored further to see whether this approach meets the legislative requirements.

#### Evolution of pre-existing assets to MPIs

We agree with Ofgem's view that operational assets are unlikely to evolve into MPIs, however interconnectors that hold an IPA (not FPA) may want to consider MPI evolution where it is in the interest of the UK consumer and could produce a more efficient whole system design.

**Question 2: Do you have any comments or concerns with the updates provided on wider policy considerations, as set out in Section 3?**

#### MPI ownership structure

We note Ofgem's view on ownership structure, and recognise that both the OFTO and IC frameworks have been designed around radial or point to point solutions where coordinated activities, and holistic MPI operation, are unlikely to be considered.

We believe that the increased interface risk with additional parties and operability coordination makes delivering MPIs more challenging, and this adds weight to the swift implementation of an enduring regime. In some adhoc asset cases there might be merit in exploring unbundling exemptions if this is seen as a major barrier to project development.

### Migration from Interim to Enduring framework

We believe that projects should have the option, not the obligation, to transition from a pilot project to the enduring regime. If assets choose not to opt in to the enduring solution it is important the interim framework remains for the whole asset life.

Overall regulatory certainty is important for large infrastructure assets, these regimes underpin the investment and financing decisions taken at the point of FID. If the licencing and asset classification is uncertain for interim projects, or if these projects have to migrate to a new framework post FID this is likely to increase the barriers to early MPI delivery.

### Interaction with Ofgem's Interconnector Policy Review Pilot MPI Cap & Floor Framework

We welcome Ofgem's announcement of the Window 3 Cap and Floor MPI pilot, and believe that this will help to provide the regulatory certainty needed to progress interim MPI projects.

We believe that the Cap and Floor eligibility for Window 3 MPI projects needs to remain flexible, in particular the connection deadline of 2032. We note that due to the OTNR process connection dates in grid contracts are subject to the conclusion of the HND and OTNR and will most likely change. Therefore they may not provide a reliable date required for the Cap and Floor eligibility assessment.

We note that for MPI projects the timing and alignment of the development process and FID is important, therefore programme and milestone alignment between the Cap and Floor and CfD is key.

### Commercial and regulatory barriers – Contracts for Difference

We welcome the fact that BEIS and Ofgem are considering the interaction between Contracts for Difference (CfDs) and MPI projects. Overall the CfD a key investment mechanism required to drive new offshore wind buildout, and it is essential that all output from an MPI linked offshore windfarm is eligible for CfD linked revenue. We also believe that certainty around CfD eligibility is a key requirement (for example connection to the GB transmission system) for MPI windfarms under the Interconnector route, and this will reduce some of the MPI risk from a windfarm developer's perspective.

We believe that BEIS and Ofgem will need to consider how the CfD interacts with the long term market solution. For example there would a mismatch between the CfD reference price (GB hourly day ahead) and a offshore bidding zone (OBZ) approach under the current CfD framework. It's also important that the windfarm under a CfD has certainty for the entirety of the contract (15 year), if there is a risk that the windfarm's market approach changes during the operational life this could undermine the price hedge provided by the CfD.

In addition to the reference price point, we believe that BEIS should consider whether the other contractual elements of the CfD are fit for MPI linked projects, including the MDD, longstop dates and guidance documents. We believe that overall MPIs are more complex than radially connected windfarms, and they could require more flexibility during the FID and construction periods (to ensure that everything is aligned across different assets (interconnector, OFTO, IC) and across both regions. This is particularly challenging when considering aligned FID.

We note that there might be further evolution for the enduring regime where BEIS are considering the right frameworks to deliver MPIs in the longer term.

MPI assets will need to understand the regulatory landscape for both CfDs and the Cap and Floor to move the whole solution forward, therefore we believe a review should be prioritised and aligned with the pilot Cap and Floor scheme.

### Commercial and regulatory barriers – Charging in IC-led model

We believe that the MPI charging methodology should be cost-reflective, fair and proportionate. Offshore windfarms under Interconnector led MPIs should not be worse off in an MPI than under radial or other coordinated grid solutions, as this could signal the combined projects to be less economic than if an MPI were not pursued. We also believe that the charging methodologies should create a level playing field between OFTO and IC led MPIs, and that charging solutions should not incentivise developers to adopt one model over the other. We also believe that the cost and charging arrangements should reflect the economic benefits for both parties of sharing grid infrastructure via an MPI.

We note that charging arrangements are a key input into CfD bids, therefore developers need early certainty on these commercial arrangements. Large scale generation, like offshore wind, needs clarity on its charging arrangements therefore we would encourage a transparent and robust review of charging to ensure limited amendments between the interim and ending MPI regimes, especially where these could impact operational assets or materially increase uncertainty.

Ofgem have indicated that one option being considered in the interim is whether the cap and floor reporting mechanism could be used to address these issues. We believe that this option might be applicable for local circuit TNUoS but still question whether there would be an unlevel playing field from a windfarm perspective regarding wider TNUoS costs, interconnectors do not face these costs but offshore windfarms do so it unclear how or if they would be charged under an interconnector led MPI.

### **Market Arrangements**

#### Cross border market arrangements

We believe that cross zonal capacity regulations (otherwise known as the 70% rule) creates a significant barrier for MPIs connected to EU member states, this is because the requirement to maintain 70% capacity on the MPI for cross border flows fundamentally restricts the MPI operation, where the hybrid grid provides both windfarm power evacuation and market to market trading. In many cases sizing the MPI to meet the 70% rule could end up with an inefficient technical design.

We agree that the 70% rule is not a problem for the UK side of the MPI (as the rule does not feature in UK regulations) and we would encourage continued dialogue between Ofgem, BEIS, member state regulators, member state governments and European Union to address our concern. We note that the 70% rule was not drafted with MPIs in mind and therefore question whether these new forms of hybrid grids should fall under the regulations. We also note that where exemptions are provided these should be for the whole asset life otherwise projects risk regulatory uncertainty during their operational life.

We believe that the home market solution is the most appropriate solution for early opportunity MPIs, and that this approach would strike the balance between revenue stability for the windfarms, early delivery (due to the implementation time for bidding zone solutions), and compatibility with the CfD (as the home market solution retains the UK hourly day ahead hedge provided by the current CfD index).

We note Ofgem's view that offshore bidding zones (OBZs) might provide a solution around the 70% rule, however we also believe that OBZs create significant uncertainty for the windfarm and the interaction between the OBZ and the CfD hedge would need to be considered (this could also affect commercial PPAs), for the CfD to provide the a level playing field between OBZ and home market windfarms the CfD would need to reflect the hourly day ahead price of the OBZ.

We do not necessary agree that an OBZ approach will provide a more efficient solution compared to the home market, as the windfarm will still need to meet the required IRR to trigger investment. This means that the reduction in revenue faced by a windfarm in an OBZ will need to be compensated through other means (for example CfD, PPA, congestion rent allocation or other revenue forms of security) – we also note that physical power flows are unlikely to differ under an OBZ and home market solutions. If a windfarm faces significantly

lower revenue under an MPI than a radial or home market connection it is unlikely that the windfarm developer will consider the MPI approach.

We believe that moving a windfarm from the home market to an OBZ half way through the operational life could fundamentally change the risk reward balance for the asset. We would recommend that significant engagement with the windfarm is undertaken at a pre FID stage if this likely to be an option. A change in market arrangements could impact on both the CfD or PPA terms, but also impact tail revenue assumptions in the post CfD period. Overall we recommend that a windfarm (or interconnector) is at the very least kept whole under this scenario.

We would encourage Ofgem to ‘*maintain continuity in the regulatory treatment of an existing transmission asset if it evolves into an MPP, and work with relevant parties to determine the most appropriate treatment of projects that are MPPs from the outset... and that owners of an existing asset are at least as well off from forming an MPP, providing the MPP is economic and efficient*’. As highlighted in the conclusions of the ITPR.

Overall, we welcome Ofgem’s decision to further explore both of these market options and further explore the impact of the zonal capacity regulations on future MPI options.

#### Development of new procedures for cross-border trade – the TCA & explicit and implicit arrangements

We note that MPIs will need to consider both the wind forecasts and market to market flows on an interconnector, we believe that the wind power should have physical priority (not necessarily priority dispatch) and therefore the interconnector flows should be optimised around the windfarm.

We note that approach would need close interaction between the wind forecasts and cross market trading, especially where the physical wind output differs to the day ahead position. Our view is that optimisation at a closer to real time market than day ahead could lead to more efficient flow allocation.

We agree that in theory implicit coupling should be more efficient – especially under a bidding zone approach, however this would require close working relationship between the interconnector and windfarm operators. We also note that the physical access and offtake requirements (such as offtake PPAs, balancing costs, imbalance, and PPA discounts) are significant inputs into the windfarm’s business case and financing requirements. This might require further commercial agreements between the windfarm and the interconnector to ensure implicit trading is both efficient on a whole system basis, is fair for both asset owners and meets commercial requirements. Therefore the interaction between these commercial agreements and how the power is traded needs to be considered further to ensure that the arrangements do not lead to an unlevel playing field between MPIs and non MPI windfarms.

We believe it is important that the windfarm is not curtailed based on the day ahead trading position if wind forecasts are better than expected nearer to physical delivery due to the allocation of market to market flows, and if the windfarm is curtailed it should be full compensated.

We welcome Ofgem’s continued engagement and consideration in this area.

#### Margin Available for Cross-Zonal Trade

We agree with Ofgem’s view that this EU regulation is a challenge for MPIs and as discussed earlier in the consultation we would encourage further Ofgem and EU discussion on this topic. We believe the current regulations could influence the choice of MPI model or could lead to developers to design a less economic system to avoid the regulations. We still deem this regulation a significant risk to future MPI development.

#### Priority dispatch and curtailment

We agree with Ofgem’s view on priority dispatch, and believe that under most market circumstances windfarms should be bidding lower in the merit order than market to market flows, therefore they would be prioritised on an economic basis (unless markets are facing negative price scenarios). We also believe there is a difference between physical priority, where interconnector flows are optimised around wind and wind has

access rights, and priority dispatch. We believe that wind assets should have physical priority on an MPI to maximise the volume of carbon free UK generated electricity and reduce curtailment of the UK windfarms.

We agree that there could a difference in access rights for the OFTO and interconnector based model, and that access could also be driven by the terms of the grid agreements. We note the different approaches raised by Ofgem and believe that the Interconnector model could lead to an unlevel playing field against non MPI windfarms if MPI connected windfarms are expected to compete for the limited capacity. We agree with the statement raised in paragraph 1.1, *'important feedback was that the offshore wind farm (OWF) connected to L1 should have priority access to the onshore GB system (or at least the option). This would ensure it has the same access rights as if it were connected via a radial OFTO link. This is also essential in enabling the OWF to comply with requirements under the Contracts for Difference (CfD) scheme. Appropriate access rights for the OWF must therefore be in place.'* and believe that this should form the basis of all MPI access and trading arrangements.

We agree that the relationship between curtailment of windfarms (or reduced interconnector flows) and the future cross-border trading arrangements developed under the TCA as the TCA requires further development of cross-border capacity calculation methodologies in all timescales, this important for MPI development and we believe that market to market flow allocation should take place as close to real time as possible to reduce the wind forecast uncertainty and prevent either buying back, or selling of additional cross border capacity, curtailment of the windfarm or inefficient use of the grid capacity.

Overall, we welcome further engagement with Ofgem on the market arrangements for MPIs.