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By email to Cap.Floor@ofgem.gov.uk

Dear Nick, Josh, and Richard

Consultation on the Regulatory Framework for Offshore Hybrid Assets: Multi-Purpose Interconnectors and Non-Standard Interconnectors

We welcome the opportunity to respond to Ofgem's consultation on the proposed Regulatory Framework for Offshore Hybrid Assets (OHAs), including Multi-Purpose Interconnectors (MPIs) and Non-Standard Interconnectors (NSIs).

Please note that this response represents the views of SSE Renewables (SSER); other companies within the SSE group might submit a separate response.

SSER is the UK and Ireland's clean energy champion with plans to expand globally to deliver the green energy the world needs. Its strategy is to lead the transition to a Net Zero future through the world-class development, construction, and operation of renewable energy assets.

SSER is part of SSE plc, a UK-listed integrated energy group with a plan to invest £18bn between 2022 and 2027, or £10m a day, to deliver an upgraded Net Zero Acceleration Program Plus that addressed climate change head on. This includes plans by SSER to more than double its installed renewable energy capacity to 9GW by 2027 and an ambitious target to quadruple capacity to 16GW by 2032.

In addition to projects already under construction (for example, Dogger Bank, which will be the largest offshore wind farm in the world once completed), SSER is currently developing, on its own or with its project partners, around 10GW of additional offshore wind capacity in Great Britain, with six projects within scope of the OTNR.

Two of these projects have been actively exploring the option of connecting to an MPI:

- North Falls (504MW, SSER-RWE JV, Early Opportunities project) and
- Dogger Bank D (1.3GW, SSER-Equinor JV, Pathway to 2030 project).

At SSER, we support the core objective of the OTNR to deliver future connections for offshore wind in a more coordinated way, whilst ensuring an appropriate balance between environmental, social, and economic costs and wider considerations.

For the OTNR to support the achievement of the ambitious offshore wind capacity targets set by both UK and Scottish governments – respectively, 50GW (including 5GW floating) and 11GW by 2030 – we encourage Ofgem to continue engaging with the industry and adopting a pragmatic mindset in addressing the challenges of offshore coordination.

We were pleased to see that the proposals and considerations included in the consultation largely reflect the extensive engagement undertaken as part of the Ofgem-led MPI Framework Discussion Group (MFDG), which brought together relevant industry stakeholders (including MPI and OWF developers, DESNZ, and ESO) for a series of workshops between November 2022 and May 2023.

In our response to Ofgem's consultation, we focused primarily on MPIs, from the perspective of an offshore wind farm (OWF) developer considering connecting into an MPI.

Overall, we are broadly supportive of Ofgem's proposed licensing, regulatory, and charging arrangements.

- We support the introduction of a dedicated MPI licence reflecting the dual purpose of these assets within GB due to the presence of connecting OWFs located in GB waters. We agree with Ofgem's view that the original proposal to license these assets as either interconnectors or OFTOs based on their primary purpose would have been suboptimal and caused a series of regulatory challenges. However, we note that the introduction of a new licence requires enabling legislation, the timing of which remains uncertain.
- We support the decision to exclude from the definition of MPI those OHAs that have no connecting OWFs in GB waters and to treat those assets as NSIs subject to an amended version of the existing interconnector licence.
- We support the proposed regulatory package for MPIs – a Narrow Cap and Floor regime applying to cable and onshore substations, and a Pure RAB regime applying to the offshore platform. This is assuming that MPIs will be under an Offshore Bidding Zone (OBZ) market model, and OWFs connecting to an MPI will be eligible for an amended CfD that compensates them for revenue shortfalls under the OBZ model.
- We remain of the view that, in the shorter term, the HM market model would have been simpler and quicker to implement, due to its closer proximity to the existing regulatory arrangements for radial connections. However, we acknowledge the potential efficiency benefits of the OBZ model in the longer term.
- We reiterate the importance of designing appropriate mechanisms to compensate connecting OWFs for any revenue shortfalls suffered under the OBZ model relative to the HM model and radial counterfactual. Under the OBZ model, OWFs will always receive the lowest of the two wholesale prices and there is a risk that, at times, they might be constrained in the amount of electricity they are able to export through the MPI. Both circumstances would result in lower revenue, for which OWFs will need to be compensated.
- We support Ofgem's proposal to compensate connecting OWFs, where required, through appropriate compensation mechanisms built into an amended CfD. More certainty is needed around the timing for developing and implementing these compensation mechanisms and a

suitably amended version of the existing CfD more broadly. To date, DESNZ has not even confirmed that MPIs will be eligible for a CfD.

- In principle, we support Ofgem's proposals in relation to the Anticipatory Investment (AI) policy. However, under Ofgem's proposed regulatory package, it is not clear whether this policy would apply to MPIs at all, since the cost of cable and onshore platforms would be recovered from congestion revenue under the Narrow Cap and Floor regime and the cost of the offshore platform from consumers through the Pure RAB regime. We would welcome clarification from Ofgem on this issue.
- Finally, we support Ofgem's proposal to exempt connecting OWFs from onshore transmission charges and, under Ofgem's proposed regulatory package, suggest that they should not be liable for local transmission charges either.

More detailed feedback in relation to all proposals included in Ofgem's consultation is available in Appendix 1, where we provided responses to all 26 consultation questions.

We would welcome the opportunity to discuss further with Ofgem the content of our response in a follow-up meeting.

We would also welcome the opportunity to arrange, where useful, separate bilateral meetings between Ofgem and our projects impacted by Ofgem's proposals, to discuss in greater detail some of the practical implications of these proposals at a project level.

We look forward to continuing to engage with Ofgem over the coming months, both bilaterally and through any further stakeholder engagement opportunities, to support the development of a suitable regulatory framework for MPIs that contributes towards achieving the ambitious offshore wind capacity targets set by the UK and Scottish governments.

Yours sincerely,

Martin Namor

Senior Regulation Manager, Renewables

Appendix 1 – Detailed responses to consultation questions

Licensing Arrangements

Q1: Do you have any views on our proposal to use, when appropriate, a wider common term of an offshore hybrid asset that could apply to both: category 1 assets (non-standard interconnectors) and category 2 assets (MPIs)?

We are supportive of the proposed terminology and categorisation of the offshore hybrid assets covered by this consultation.

Category 1 assets would have one or more connecting OWFs; since these would be located outside GB water, with no connecting OWFs located in GB waters, such interconnectors would not be multi-purpose within the GB jurisdiction. Due to the presence of one or more connecting OWFs (albeit outside GB waters), these interconnectors would differ from standard point-to-point (P2P) interconnectors that just connect onshore substations in two different jurisdictions. Therefore, we support the proposed terminology of 'non-standard interconnector' (NSI) and agree that an NSI should not be considered and licensed as an MPI in GB.

As proposed, the only assets considered and licensed as MPIs should be interconnectors that are multi-purpose within the GB jurisdiction, due to the presence of one or more connecting OWFs in GB waters. In this case, the GB section of these interconnectors would have the dual purpose of both (i) transmitting electricity between GB and a neighbouring jurisdiction, and (ii) transmitting electricity generated in GB waters to the NETS.

The proposed distinction between NSIs and MPIs is clear and consistent with Ofgem's licensing proposals, where NSIs would be regulated under the interconnector license (appropriately amended to reflect their non-standard features) while MPIs would be regulated under a newly introduced and dedicated MPI licence.

Both NSIs and MPIs fit within the proposed category of Offshore Hybrid Asset (OHA). However, we note that there will be other types of offshore hybrid assets beyond NSIs and MPIs, which will be hybrid in nature, for example, future energy islands. Other assets could also be hybrid in nature but without connecting to another jurisdiction; for example, the assets classified as 'non-radial offshore' and 'onshore' in the HND. Therefore, Ofgem should clarify whether the term OHA is meant to include only hybrid interconnectors or also any other type of offshore hybrid assets.

Q2: Do you have any views on our proposal to use the term of non-standard interconnectors (NSIs) for category 1 assets?

As explained in response to Q1, we support Ofgem's proposal to distinguish between NSIs and MPIs. We consider that NSI is an appropriate term to define an interconnector that is single purpose from a GB perspective (due to the lack of connecting OWFs in GB waters) but multi-purpose from the perspective of the neighbouring jurisdiction (due to the presence of one or more connecting OWFs in that jurisdiction).

Q3: Taking into account the relevance of the provisions of the Electricity Act for the type of the licence that can be granted to an applicant, do you have any views on how we propose to license the operators of category 1 assets (non-standard interconnectors) and category 2 assets (MPIs)?

For the reasons explained in response to Q1 and Q2, we support Ofgem's proposal to license NSIs using the existing interconnector license, appropriately amended, to reflect the non-standard nature of these interconnectors relative to standard P2P interconnectors.

In relation to MPIs, we support Ofgem's intention to move away from the interim licensing arrangements originally proposed in its April 2022 consultation, where MPIs would have been classified and licensed based on their primary purpose as either:

- OFTO-led with an OFTO licence, where the primary purpose was transmitting electricity generated offshore; or
- Interconnector-led with an interconnector license, where the primary purpose was transmitting electricity between GB and another jurisdiction.

We agree with Ofgem's assessment that there would be material legal and regulatory risks arising from licensing an MPI based on its primary purpose. This includes the risk that the primary purpose could change during the asset's operational phase, with the result that an MPI might no longer be licensed to undertake its primary activity.

Therefore, we support Ofgem's decision to classify MPIs as a new and separate asset class within the regulatory framework and to license these assets accordingly, with a new and dedicated licence to be introduced through primary legislation. Since these are multi-purpose assets, neither the existing OFTO or interconnector licences would be appropriate; these assets should have a dedicated enduring regulatory regime that is sufficiently flexible to reflect the flexibility of their use.

We note that the introduction of a dedicated MPI licence requires enabling primary legislation. It is important that DESNZ proceeds at pace to deliver this legislation and that Ofgem supports DESNZ by providing expert advice on relevant regulatory issues, for example in relation to determining appropriate availability targets for MPIs. Until now, these have been set on a case-by-case basis for standard P2P interconnectors, at a level that is below the availability target set for OFTOs (98%). To ensure that OWFs connecting into an MPI are not worse off than under the radial counterfactual, availability targets (as well as any other relevant licence requirements) will need to be aligned between MPIs and OFTOs to the extent possible.

In relation to the licensing of generation, Ofgem stated in the consultation document that OWFs should continue using a generation licence, but also that the link between generation and MPI licences will be kept under review. In this context, we would encourage Ofgem and DESNZ to consider a review that goes beyond the link between the two licences to explore adjustments that might be required to the generation licence when more complex coordinated configurations arise. This could include, for example, an OWF exporting electricity to a transmission network but also using part of the electricity generated for hydrogen production. As we move at pace towards Net Zero and developers explore innovative ways to optimise generation and minimise costs to consumers, these types of complex configurations are likely to become more common.

Regulatory Regime for MPIs and NSIs

Principles

Q4: Do our proposed principles capture the basis upon which the OHA Pilot Regulatory Framework should be designed and developed?

We are broadly supportive of Ofgem's proposed set of principles for the OHA Pilot Regulatory Framework:

1. Economic viability.
2. Integration in energy system.
3. Consumer protection.
4. Cost and revenue alignment.
5. Coordinated regulatory treatment.
6. Level playing field.

These principles are currently mostly framed from the perspective of an OHA developer. While the proposed regulatory framework is targeted at OHAs, connecting OWFs will be an integral part of the overall investment proposition. Therefore, for MPIs (and to a lesser extent NSIs) these principles should be framed in a balanced way that reflects the interests and needs of connecting OWF developers alongside those of MPI developers. For example:

- Principle 1: the economic viability of connecting OWFs should be considered alongside the economic viability of an MPI, as the overall investment proposition needs to be viable for both.
- Principle 5: alongside coordination between Ofgem and connecting NRAs, there should also be coordination between the regulatory regime being developed for MPIs and the wider suite of regulatory arrangements being developed for different coordinated configurations under the OTNR. There needs to be consistency across the board to ensure a level playing field for OWFs connecting to shore via a range of different possible configurations (radial, non-radial, and 'onshore' transmission assets; MPIs; multi-purpose bootstraps).
- Principle 6: similarly, the regulatory framework should ensure a level playing field not just between different types of MPI developers (TSOs vs. non-TSOs), but also between OWFs connecting via a range of different coordinated configurations.

Beside the six proposed objectives, we suggest the addition of a seventh objective: **Alignment with Net Zero targets**. Net zero should be embedded in any policy and regulatory decisions, especially those involving renewable generations. Considering the importance of meeting these targets, we think that this is an objective that should be spelled out explicitly alongside the other proposed objectives.

It is important to ensure that any policy or regulatory decision is consistent with the delivery of our renewable targets. For example, as part of the Net Zero strategy, the UK Government has set a target to deliver 50 GW of offshore wind by 2030, including 5 GW of floating capacity. Also, the Scottish Government has set the target to deliver 11 GW of offshore wind capacity by 2030. Policy and regulation should enable and not delay the achievement of those targets.

Cross-border sharing of costs and revenues

Q5: How should the cost and revenue sharing boundaries of an MPI or NSI be defined?

Ofgem presented three approaches to defining cost and revenue sharing boundaries:

1. System to system (Figure 6), where all components of the OHA in either country would be within scope.
2. Extension of onshore grid (Figure 7), where only the components beyond the offshore platform (if any) in either country would be within scope, because components up to and including offshore platforms would be considered extensions of the two countries' onshore grids.
3. System to system with the exclusion of offshore platforms (Figure 8), where all components of the OHA in either country would be within scope with the exclusion of offshore platforms.

We share Ofgem's reservations in relation to the 'extension of onshore grid' approach, which we do not consider appropriate for the reasons explained in the consultation.

The choice between a full 'system to system' approach and a 'system to system minus offshore platforms' approach would be a function of the chosen regulatory regime or combination of regimes.

Under Ofgem's (and our) preferred regime combination (narrow C&F for cable and onshore substation; RAB for offshore platform; OBZ market arrangements with amended CfD), we support the choice of a 'system to system minus offshore platforms' approach. This would allow congestion revenues and costs incurred to build cable and onshore substations to be shared proportionally between the two countries, with the costs incurred to build the offshore platforms recovered separately based on the jurisdiction where those platforms are located.

We agree with the position presented in the consultation that "*the offshore converter platforms exist for the national coordination of offshore wind, not for cross border trade, and therefore these platforms should be excluded from the components of the OHA assets, for which costs and revenues are shared between the two connected countries*".

Q6: How should costs and benefits of MPIs and NSIs be shared with connecting countries?

We agree with Ofgem's view that costs and revenues the within-scope components of OHAs should be shared proportionally between the two connecting countries.

As explained in response to Q5, we think that within-scope components should be cable and onshore substations (i.e., the components shared with a standard P2P interconnector and the only components required for the purpose of cross-border trade, the activity earning congestion revenue), offshore platforms should not be within scope.

Costs, revenues, and risks

Q7: Do you agree that the Reasonable Delay Event mechanism should also apply to MPIs and NSIs?

We agree with Ofgem's proposal to extend the availability of the new Reasonable Delay Event (RDE) mechanism also to MPIs and NSIs. Since this mechanism will be available to standard P2P interconnectors included in Window 3, it should also be made available to OHAs for consistency. Protecting developers from the full impact of events that are outside of their control should be a key feature of any regulatory regime.

This protection mechanism will be even more important for OHAs than for standard P2P interconnectors due to the higher level of risk resulting from their first-of-a-kind nature, more complex configuration, and need for coordination between a larger number of entities, including OWFs. More detailed views in relation to the level of risk of OHAs relative to P2P interconnectors are provided in response to Q8.

Beside applying the RDE mechanism to OHAs, Ofgem should also consider how to extend the protection it provides to any OWFs connecting to an MPI, as any delays in the delivery of the MPI will impact the OWFs' ability to export electricity and earn revenues. Therefore, Ofgem should ensure that any benefits available to the MPI developer through the RDE mechanism are shared fairly with the connecting OWFs.

Q8: Are there any additional risks faced by MPIs and NSIs relative to point-to-point interconnectors?

As mentioned in response to Q7, we consider OHAs will carry additional, and significantly greater, risks beyond those related to standard P2P interconnectors, including:

- First-of-a-kind risk.
- Higher technological risk.
- Higher supply chain risk.
- Interconnector-generator coordination risk.
- Higher policy and regulatory risk.
- Higher asset stranding risk.
- Higher financing risk.

<u>First-of-a-kind risk</u>

Standard P2P interconnectors have been operating between GB and neighbouring countries for almost 40 years on a merchant basis and 5 years under the Cap and Floor regulatory regime, which was introduced by Ofgem almost 10 years ago and has now reached its third application window.

OHAs such as those covered by Ofgem's consultation (MPIs and NSIs) are first-of-a-kind multi-purpose assets not just in GB but globally; therefore, they carry a significant risk premium. This is a result of carrying both additional risks not faced by standard interconnectors and a higher risk rating for some of those categories that also apply to standard interconnectors.

Higher technological risk

The key components of a standard P2P interconnector are an HVDC transmission cable and the offshore substations in the two connecting countries, converting the electricity transmitted through the cable between AC and DC.

Alongside these, MPIs and NSIs will have key additional components in the form of one or more offshore platforms hosting the technology required to convert the electricity generated by one or more connecting OWFs from AC to DC and to switch voltage as required.

The offshore platforms required to radially connect the OWFs built so far in GB have relied on HVAC technology. Dogger Bank A, currently under construction, will be the first OWF in GB to use HVDC technology. This will be a single-purpose platform hosting only the electrical equipment required to export power from one OWF to the onshore network. The offshore platforms required for MPIs and NSIs will need to be significantly larger and more complex to accommodate the dual purpose of cross-border trade and OWF export and potentially the connection of more than one OWF. These complex HVDC offshore platforms are first-of-a-kind and yet to be tested.

Higher supply chain risk

HVDC technology is currently in high demand and short supply, due to being a first-of-a-kind technology required to support the global transition towards highly coordinated offshore transmission systems. There are only three companies providing the technology required for these systems globally and there is significant competition to secure their services. Currently, lead times exceed 5 years and are likely to increase as countries try to meet their 2030/35 Net Zero targets.

Interconnector-generator coordination risk

Standard P2P interconnectors require coordination between interconnector developers and NRAs in the two connecting countries.

Due to their complexity, OHAs will require a higher degree of coordination between the same parties. More importantly, they will also require coordination between OHA developers and connecting OWFs, and between their key objectives of, respectively, flowing electricity between two jurisdictions and exporting offshore-generated electricity to onshore networks. At times, these objectives might conflict and require significant negotiation between OHA and OWF developers as well as between developers and NRAs (including Ofgem).

Higher policy and regulatory risk

Due to their first-of-a-kind nature, dual purpose, increased technical and operational complexity, and need to accommodate the interests and needs of both interconnector and OWF developers, OHAs are currently facing, and are likely to continue facing, higher policy and regulatory risks relative to standard P2P interconnectors.

While the policy framework and regulatory regime for P2P interconnectors are tried and tested, and developers are familiar with them, significant areas of uncertainty remain in relation to the design and characteristics of the final regulatory regime for OHAs, including licence conditions, charging arrangements, market model, and CfD terms and conditions.

This consultation on the first three topics and the Ofgem/DESNZ joint consultation on market arrangements represent a welcome step in the right direction, but more work is required to provide developers with the clarity and certainty they need to commit financial resources towards developing and building an OHA.

One example of an area where significant further work is required involves policy development in relation to the CfD scheme, especially in relation to the eligibility of MPI-connected OWFs and the availability of a dedicated technology pot within CfD auctions or a bespoke CfDs negotiated on a bilateral basis. Any amendments to the existing CfD terms and conditions should ensure that an OWF connecting into an MPI under an OBZ model would not be worse off than under an HM market model, an alternative coordinated solution, or the radial counterfactual.

Once the required policy and regulatory frameworks have been fully set up, it is likely that OHAs will continue to be subject to higher regulatory risk relative to P2P on an ongoing basis due to their additional complexity.

Higher asset stranding risk

Interconnectors developed as OHAs rather than P2P (with the addition of a large and complex offshore platform) will base their investment proposition on the expectation of one or more OWFs connecting into their offshore platform; similarly, connecting OWFs will base their own investment proposition on the expectation that the MPI developer will deliver the assets they require to export their electricity to shore.

Therefore, there is a risk that some assets already built or being built might become stranded or that significant resources invested in the development stage might end up being wasted if either the OHA or OWF developers failed to deliver one or more sections of the overall coordinated generation-transmission system.

Higher financing risk

As a result of all the additional or enhanced risks described above, OHAs are likely to face significantly higher financing risks and costs until investors and lenders become familiar with the new asset class, but also on an ongoing basis due to the higher riskiness of OHAs relative to P2P interconnectors.

Both OHA and connecting OWF developers should be supported by Ofgem and DESNZ in overcoming these financing risks and allowed to recover these higher financing costs (to the extent that the cost incurred are reasonable and efficient).

Proposed regulatory regime packages

Q9: Which of our proposed regime concepts- Pure RAB, Narrow Cap and Floor, Partial RAB or Cap and Floor with IRR, do you consider most appropriate and why?

We support Ofgem's compartmentalised approach to determining the most appropriate regimes for OHAs. Different components of an OHA serve different purposes and the most appropriate regime for some components might (and in our view does) vary from the most appropriate regime for others.

We support Ofgem's proposals in relation to the overall regulatory framework for OHAs (on the condition that, under the OBZ market model, OWFs connecting into an MPI are eligible for a CfD and have access to a bespoke CfD):

- A Narrow Cap and Floor (C&F) regime for the cable and onshore substations (in line with P2P interconnectors with which OHAs share these components but with a narrower collar to reflect the higher risk rating and therefore reduce exposure to merchant risk and increase revenue certainty for the OHA owner).
- A Pure RAB regime for the offshore platform (as this is an additional component relative to P2P interconnectors, which is not required for the purpose of cross-border trading, but only to enable coordination between interconnection and offshore wind generation for the benefit of consumers).

Including the offshore platform within the Narrow C&F regime would not be appropriate since the associated additional costs would be significant but not matched by corresponding additional revenues for the MPI owner. This is because the offshore platform would not be required for the purpose of cross-border trading, thus would not generate additional congestion revenue.

We do not support the adoption of a Partial RAB regime due to the uncertainty over the exact future utilisation of the capacity of an OHA during its operational life, and the likely volatility of the ratio between cross-border electricity flows and offshore-generated electricity flows.

In relation to a C&F with IRR regime, there might be merits in considering using a project's actual debt IRR to set the Floor for an OHA (broadly in line with some of the project-finance variations introduced for P2P interconnectors). We are less convinced about using this approach to set the Cap. Overall, we do not support the adoption of a C&F with IRR regime.

As explained above, our support for the proposed regulatory package (Narrow C&F plus Pure RAB; OBZ; amended CfD) is conditional upon the eligibility of connecting OWFs for a CfD and the design of appropriate amendments to CfD terms and conditions to ensure these OWFs are not worse off than under an alternative HM model or the radial counterfactual.

Under an OBZ model, the OWF would not have firm access to the GB onshore network and would receive the lowest of the market prices in the two connecting countries. Therefore, there would be a loss of revenue that would need to be compensated. This could be addressed by an amended CfD, which would need to reflect the reference price set in the OBZ market when the MPI is importing electricity into GB and the OWF receives the lowest price between two jurisdictions. The compensation mechanism might also need to reflect the fact that, due to the lack of priority access to the MPI, the OWF might not always be able to export all the electricity it might be able to generate.

We support Ofgem's view that an amended CfD would be an appropriate compensation mechanism, although this might not be sufficient to compensate the connecting OWFs in full.

Further adjustments might be required, for example by exempting OWFs from both local and onshore TNUoS charges, which would not be justified under an OBZ market model. This would align the OWFs with all other MPI users, who would use the MPI for the purpose of cross-border trading without incurring any TNUoS charges. However, we would like to highlight that the removal of TNUoS charges for OWFs

could not be considered a compensation mechanism, because, depending on their location, some OWFs pay TNUoS charges but others receive credits.

Q10: Do you agree with applying the features of a RAB regime to the offshore converter platform element of an MPI project? Is there a better form of regime for the offshore converter platform element and, if so, what would be the rationale for it?

As explained in response to Q9, we agree with Ofgem's proposal to adopt a Pure RAB regime to recover the costs associated with the development, construction, and operation of offshore platforms. A Pure RAB regime would guarantee full cost recovery for the MPI developer and ensure that consumers contribute towards the costs of an asset that is required for the purpose of offshore coordination and therefore would benefit consumers and the environment.

A Pure RAB model is our preferred model for the offshore platform. Adopting any other regime that does not ensure certainty of full cost recovery for the MPI developer or makes connecting into an MPI a worse investment proposition for an OWF (relative to the radial counterfactual), might represent a significant barrier to the bankability of MPIs.

Q11: Which of our proposed offshore hybrid asset package options is most appropriate in your view and why? Within your response consider if there are other viable options not considered here, if we can disregard any options entirely, and which options best reflect the draft principles.

As explained in response to Q9, we support Ofgem's proposals in relation to the overall regulatory package for OHAs (on the condition that OWFs connecting into an MPI are eligible for a CfD and have access to a bespoke CfD that, under the OBZ market model, makes them whole relative to the alternative HM model as well as the radial counterfactual):

- Narrow C&F regime for the cable and onshore substations (for the reasons explained in response to Q9).
- Pure RAB regime for the offshore platform (for the reasons explained in response to Q9 and Q10).
- OBZ market model.
- Amended CfD and removal of TNUoS charges (for the reasons explained in response to Q9).

In relation to the market model, our position remains that, while we agree with the prevailing view that the OBZ model can be expected to be more efficient in terms of optimising the utilisation of an MPI, we consider it a more significant departure from the existing status quo for radial connections than the HM model. Therefore, we think that implementing an OBZ market model will be more complex and will require additional time and resources.

However, since we would not be supportive of transitioning between different market models at any time during the development, construction, or operation of an MPI, we will support the adoption of an OBZ model. This is under the assumption that connecting OWFs are fully compensated for any revenue shortfalls or additional uncertainties relative to an HM model or the radial counterfactual.

Design parameters of the regime

Q12: Do you agree that these regime parameters would be applicable for MPI and NSI pilot projects as described above? If not, what changes should be considered?

Where appropriate, and to the extent possible, we support alignment of regime parameters between the proposed regulatory regime for OHAs and the existing regulatory regime for Window 3 P2P interconnectors. We also support Ofgem's view that, where required, these regulatory regimes and regime parameters could diverge to reflect different cost/revenue balances and different risk levels with a view to protect the interests of consumers.

In relation to the specific regime parameters proposed by Ofgem for OHAs, we consider these appropriate. However, as mentioned above, we note that, at a more granular level, the specific underlying inputs used to calculate the value of certain parameters might need to be adjusted to reflect the different riskiness of OHAs relative to P2P interconnectors.

For example, the cap and floor return rates used to calculate the cap and floor return building blocks of the overall cap and floor levels will likely need to be adjusted to reflect this risk differential (for example, by using different benchmark indexes for the cost of debt and different asset betas for the cost of equity).

Q13: Should the offshore converter platform be treated differently?

Based on Ofgem's proposals, which we support, the offshore platform would be subject to a dedicated Pure Rab regime and therefore excluded from the Narrow C&F regime proposed for the cable and onshore substations.

Therefore, while a similar building block approach could be used, the two separate building blocks used under the C&F regime to calculate cap and floor return allowances would need to be replaced with a unique return building block. This could be calculated using a similar approach but applying a unique WACC rate (instead of separate cap and floor return rates) to the RAB value associated with the offshore platform.

Q14: What would be an appropriate availability target for MPIs and NSIs? Could a similar methodology as used for interconnectors be applied?

We note that, under the Cap and Floor regime for standard P2P interconnectors, availability targets are set in a bespoke way for individual projects and are below the equivalent availability target applicable to offshore transmission assets connecting OWFs radially under the existing OFTO regime (98%).

To ensure that OWFs connecting into an MPI are not worse off than under the radial counterfactual, we suggest adopting the same 98% availability target for MPIs for consistency and to align incentives between the two regimes.

If the MPI availability target was set below the equivalent target for OFTOs, connecting OWFs should be compensated accordingly, otherwise they might opt for a radial connection to ensure that the owner and operator of their export route to shore has the highest incentives to maximise availability.

Since NSIs have no connecting OWFs in GB waters, the availability target for NSIs would not need to be aligned with the OFTO equivalent per se, but it would seem appropriate to align this target between MPIs and NSIs.

Q15: What would be an appropriate regime length for the cost recovery of the offshore converter platform? Would it be appropriate to align the regime length to the one for the cable or can it differ?

We suggest that regime duration should be aligned across all components of an MPI. Therefore, if the duration of the Narrow Cap and Floor regime applied to cable and onshore substation was set at 25 years (in line with the regime duration for standard P2P interconnectors), the duration of the Pure RAB regime applied to the offshore platform should also be set at 25 years.

Moreover, we suggest that any CfD or other revenue support mechanism available to connecting OWFs should also be aligned with the regime duration set for the MPI to ensure alignment of incentives between MPI and connecting OWFs. It would not seem appropriate to grant a 25-year regime duration to the MPI owner but only a 15-year CfD to OWFs, which would then be left fully exposed to merchant risk for the last 10 years of the MPI regime.

Finally, considering the actual lifetime of existing interconnectors (37 years in the case of IFA) and the currently expected lifetime of both interconnector and OWFs (30 years or more), it might be worth considering whether regime duration for the first, and duration of revenue support schemes for the latter, should be extended (for example, to 30 years).

Other Issues

Anticipatory Investment

Q16: Do you support, in principle, the extension of AI policy to MPIs?

In principle, we support the extension of AI policy to MPIs. Where relevant, the AI policy should apply consistently to all configurations of offshore coordinated transmission systems (for example, non-radial offshore assets in HND and HNDFUE, MPIs, and multi-purpose bootstraps). If applicable to MPIs, the policy would need to reflect specific features of MPIs that might differ from those of other configurations.

The AI policy is especially relevant for projects where different components are delivered sequentially in phases, rather than simultaneously. If designed and implemented correctly, this policy can remove barriers to the delivery of shared infrastructure for the benefit of ‘later users’ and protect the ‘initial user’ delivering this infrastructure by reallocating the associated costs and risks to consumers and then to the later users, once they connect.

Based on Ofgem’s proposed regulatory regime package for MPIs (Narrow Cap and Floor plus Pure RAB, OBZ, amended CfD), which we support, it is not clear if, in what circumstances, and how the AI policy would apply to MPIs and connecting OWFs. Further guidance or elaboration from Ofgem on how it would see the AI policy applying in the context of MPIs would be welcome. We elaborate further on this in response to Q18.

Q17: Do you support our minded-to position that AI policy should not apply to NSIs?

We support Ofgem's minded-to position that the AI policy should not apply to NSIs as, under Ofgem's proposals, these would be treated and licensed as interconnectors from a GB perspective, given that they would not have any connecting OWFs in GB waters.

In the absence of these, NSI developers would be the only relevant parties delivering a single-purpose asset (from a GB perspective), which would not include any shared infrastructure for the benefit of later GB users. Therefore, there would be no AI based on Ofgem's definition of this concept.

Q18: Do you agree with the set of scenarios set out for simultaneous and sequential build projects, and our conclusions on where AI policy could/could not apply?

We agree that, for an MPI, the AI policy should not apply in case of:

- Simultaneous build (where there would be no later users); or
- Sequential build where the connection to GB is delivered before the connection to the other country, allowing OWFs to start exporting their electricity before the MPI can be used for cross-border trade (where the MPI developer, rather than the connecting OWFs, would be de-facto later user).

In the case of sequential build where the connection to the other country is delivered before the connection allowing the OWFs to export their electricity, we agree that the AI policy could apply, in principle.

However, in practice, based on Ofgem's proposed regulatory package for MPIs (Narrow Cap and Floor plus Pure RAB, OBZ, amended CfD), which we support, it is not clear if, in what circumstances, and how the AI policy would apply to MPIs and connecting OWFs.

Ofgem's proposed AI policy assumes that an initial user undertakes AI by developing and building shared transmission infrastructure for the benefit of known later users. Once these later users connect at a later stage, they start contributing towards AI cost recovery via TNUoS charges. Until that moment, it is consumers who contribute towards AI cost recovery. The aim is reallocating risks and costs associated with AI from the initial user developing the shared infrastructure to consumers (on a temporary basis) and then later users (once they connect).

Based on Ofgem's propose regulatory package for MPIs:

- The cost of cable and onshore platforms would be recovered from congestion revenue or through a Floor support mechanism (whichever is higher).
- The cost of the offshore platform would be recovered from consumers through a Pure RAB model.
- The connecting OWFs would be exempt from paying TNUoS charges.

Therefore, it is not clear what costs would be subject to the AI policy and recovered from the OWFs and, as a result, whether the AI policy would apply at all (and, if so, under what circumstances). We would welcome clarification from Ofgem in relation to the applicability of the AI policy to MPIs and what costs Ofgem envisages would be recovered from OWFs under this policy.

Q19: Do you agree with our suggestions surrounding AI risk mitigation and assurance for MPI developers, namely extending User Commitment (or analogous) arrangements to the later user and developing a process analogous to the Early-Stage Assessment?

As we said in response to Q16, where relevant, the AI policy should apply consistently to all configurations of offshore coordinated transmission systems, including MPIs. Therefore, in principle, we support Ofgem's proposals to extend user commitment (or analogous) arrangements to the later users of MPIs and to develop a process analogous to the Early-Stage Assessment to assess AI proposals at an early stage of development.

These user commitment arrangements should only be adopted where the overall AI policy applies. As we explained in response to Q18, in practice, based on Ofgem's proposed regulatory package for MPIs (Narrow Cap and Floor plus Pure RAB, OBZ, amended CfD), it is not clear if, in what circumstances, and how the AI policy would apply to MPIs and connecting OWFs.

Relative to other possible coordinated configurations, an MPI might be less likely to become a stranded asset in its entirety (although some components might become stranded), since it could still be used for cross-border trade like any other P2P interconnector in the event that the expected connecting OWFs failed to materialise. Therefore, for those MPIs where the AI policy applies, lower user commitments should be requested from later users to reflect a higher Local Asset Reuse Factor (LARF).

Q20: Do you agree with our suggested high-level mechanisms for the recovery of AI cost from the later user, and from the consumer in the instance where the later user fails to connect or reduces the capacity of its project?

For those projects where the AI policy applies, we support Ofgem's proposed high-level mechanisms for the recovery of AI from later users and from consumers in the instance where later users fail to connect or connect with a reduced capacity.

Specifically, we support Ofgem's proposals in relation to the required adjustments to cap and floor levels as outlined in the consultation:

"*Consumers could underwrite the AI cost gap through the cap and floor regime. In principle, the cap and floor levels could be adjusted to reflect AI capital cost in the absence of transmission returns from which to recover the AI cost gap from the later user, prior to the OWF connecting to the MPI. Once the OWF connects, the cap and floor levels could then be adjusted to reflect the OWFs ability to pay for the AI via transmission returns.*"

In practice, under Ofgem's proposed regulatory package for MPIs, the OWFs connecting into an MPI would not be required to pay transmission charges. Therefore, any AI would need to be recovered from consumers on an ongoing and permanent basis. More broadly, as we said in response to Q18, it is not clear if, under what circumstances, and how the AI policy would apply to MPIs under Ofgem's proposed regulatory package. We would welcome further elaboration from Ofgem on this point.

Q21: If the RAB model applies, would AI policy still be required for the assets covered by the RAB, given that the consumer would in theory cover these costs?

If a Pure RAB model was applied to the offshore platform, as proposed by Ofgem, the AI policy should not apply to this component of the MPI, as the associated costs should be recovered from consumers due to the function of this platform being to enable offshore coordination, to the benefit of consumers and the environment.

Ownership unbundling

Q22: Do you have any views on how the ownership unbundling requirements applicable to MPI and NSI operators may influence the delivery of these assets (and/or delivery of offshore generators connected to MPI assets?

In our view, the ownership unbundling requirements would only apply to an MPI where:

- One or more of the connecting OWFs (rather than a separate MPI developer) build the MPI and then divest it to a separate entity selected to own and operate the MPI (similarly to the existing OFTO process for radial connections); or
- One or more of the connecting OWFs are at a significant distance from the offshore platform built by the MPI developer, build their own radial connection to the platform, and this is considered by Ofgem to be an offshore transmission link that needs to be divested to an OFTO selected through the existing OFTO tender process.

In our view, the ownership unbundling requirements should not apply where:

- The MPI is built by an MPI developer who then goes on to own and operate the asset;
- The connecting OWFs are adjacent to the offshore platform built by the MPI developer; and
- The OWFs' array cables are connected directly to this platform rather than through a dedicated transmission link qualifying as an OFTO.

Regulatory safeguards and compliance requirements for MPIs and NSIs

Q23: Do you have any views as to the regulatory safeguards and compliance requirements that should apply to MPI licence holders, taking into account the dual activity (interconnection and transmission) that they will perform?

At this stage, we have no specific views in relation to the regulatory safeguards and compliance requirements that should apply to MPI licence holders.

Q24: Do you agree that the inclusion of a RAB as part of the regulatory regime for MPIs should be subject to appropriate safeguards, including appropriate compliance requirements? If no, please explain why. If yes, do you have any specific suggestions?

At this stage, we have no specific views in relation to the regulatory safeguards and compliance requirements that should apply to MPI licence holders.

In principle, we agree that the inclusion of a RAB regime as part of the overall regulatory package for MPIs might result in the need for additional or different regulatory safeguards or compliance requirements. However, at this stage, we do not have specific suggestions in relation to these.

Q25: Would the regulatory safeguards as well as compliance and independence arrangements already applicable to standard interconnector licence holders constituting subsidiary companies under a single parent company be sufficient if MPI licence holders were added, as subsidiary companies, to this corporate structure? If yes, please explain why. If not, what additional safeguards should be implemented?

At this stage, we have no specific views in relation to whether existing regulatory safeguards and compliance requirements already applicable to standard interconnector licence would be sufficient in the presence of MPI licence holders within a single parent company's corporate structure.

Charging

Q26: Do you agree with the above principles relating to connection and onshore charges for offshore generators connecting to an MPI or NSI?

We agree with Ofgem's position that, under an OBZ market model, OWFs connecting into an MPI should be exempt from paying onshore transmission charges, reflecting the fact that connecting OWFs would have the same access to the MPI as any other MPI users engaging in cross-border trade. Since neither these users nor the MPI owner would pay onshore transmission charges, neither should the OWFs.

In relation to local transmission charges, it is not clear what the purpose of these charges would be under Ofgem's proposed regulatory package, where the costs incurred to build the MPI would be recovered entirely:

- From congestion revenue under the Narrow Cap and Floor regime (covering costs associated with cable and onshore substations); and
- From consumers under the Pure RAB regime (covering costs associated with the offshore platform).

Under this regulatory package, the only scenario we can envisage under which connecting OWFs might be required to pay local transmission charges would be where these OWFs are not adjacent to the offshore platform and need to be connected radially to this platform through additional transmission infrastructure.

In this case, the additional infrastructure could be built either by the MPI developer (in which case the cost could be recovered from the OWFs through bilaterally negotiated transmission charges) or by the OWFs themselves, in which case the additional infrastructure would probably need to be divested to an OFTO, which would then recover these costs from the OWFs as part of its TRS.

Finally, we would flag that exempting OWFs from TNUoS would not always be beneficial to OWFs, and therefore should not be considered a mechanism to compensate OWFs for other disadvantages associated with the proposed regulatory package (for example, the revenue shortfall under the OBZ

market model). OWFs might either pay TNUoS charges or receive TNUoS credits depending on their location; therefore, removing TNUoS would be beneficial in the first case but detrimental in the latter.

Appendix 2 – Glossary

AC	Alternating Current
CfD	Contract for Difference
C&F	Cap and Floor
DC	Direct Current
DESNZ	Department for Energy Security and Net Zero
ESO	Electricity System Operator
HM	Home Market
HND	Holistic Network Design
HNDFUE	Holistic Network Design Follow-Up Exercise
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
MFDG	MPI Framework Discussion Group
MPI	Multi-Purpose Interconnector
NETS	National Electricity Transmission System
NRA	National Regulatory Authority
NSI	Non-Standard Interconnector
OBZ	Offshore Bidding Zone
OHA	Offshore Hybrid Asset
OWF	Offshore Wind Farm
P2P	Point-to-point
RAB	Regulated Asset Base
TNUoS	Transmission Network Use of System
TRS	Tender Revenue Stream
TSO	Transmission System Operator
WACC	Weighted Average Cost of Capital