Department for
Business, Energy
& Industrial Strategy

Offshore Transmission Network Review: Multi-Purpose Interconnectors

Government Response

April 2022

25 April 2022

BEIS received a total of 53 responses from industry for the broader Enduring Regime/Multi-Purpose Interconnectors (MPI) consultation. Of those 53 respondents, 21 addressed the 3 questions on MPIs at the end of the consultation.

Of those 21 respondents addressing MPIs, the breakdown was 13 developers/energy companies (offshore wind, interconnector and oil and gas), 3 transmission owners/system operators, 3 government stakeholders outside of the Department for Business Energy and Industrial Strategy (BEIS), and 2 non-governmental organisations.

We think it is appropriate to separate out the Government's response on the questions on MPIs from the questions on the Enduring Regime, as some of themes and changes proposed for MPIs are distinct and policy development is advanced. This Government response addresses the questions on MPIs, and a separate response will address the questions on the wider Enduring Regime.

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1. Overview

1.1. Summary

In the Energy White Paper published on 14 December 2020, the Government set out its ambitious target of increasing offshore wind capacity to 40 GW by 2030, in order to accelerate the transition to Net Zero. This target has since been increased to 50 GW by 2030, as detailed in the Energy Security Strategy. Offshore wind is one of the great success stories of decarbonisation, and the development of offshore infrastructure and its integration into our energy system remains a key priority for the Government.

This path to Net Zero has highlighted the need to make vast improvements to the way we approach offshore wind development. The current point-to-point, uncoordinated approach to offshore wind was designed when offshore wind was a nascent sector. As the scale of offshore development increases on the path to Net Zero, there remain key questions in how to best deliver our Net Zero commitments, whilst limiting damage to valuable ecosystems, biodiversity, and the natural beauty of our coast lines.

The Offshore Transmission Network Review (OTNR) was thus established in order to address the barriers in increasing our offshore wind capacity, and its integration into our grid, as well as aiming to deliver a more coordinated approach in offshore development, a view to finding the appropriate balance between environmental, social and economic costs. The OTNR is considering an Enduring Regime that takes a more strategic approach to windfarm development and considers the offshore transmission system holistically with the onshore network to deliver a more coordinated approach and reduce the cumulative impacts of transmission. The OTNR also considers how best to facilitate Multi-Purpose Interconnectors (MPI), assets that combine interconnection with direct connections to, and transmission of electricity generated by, offshore wind farms. The Enduring Regime and MPI consultation was published on 23 September, 2021[1]and invited views on:

- the need for upfront strategic planning of offshore wind generation;
- the need for holistic network design and the fundamental design choices;
- the possible delivery models;
- the timing of transmission delivery; and
- whether any adjustment may be required to the legal framework governing MPIs.

The consultation received 53 responses. This Government response addresses questions 12 to 14, the MPI questions from the consultation, of which there were 21 responses. We intend to provide a separate Government response addressing questions 1 to 11, the Enduring Regime part of the consultation, later this year. Most stakeholders who responded believed that the existing regime for MPIs does not provide an adequate enduring solution for MPIs.

[1] https://www.gov.uk/government/consultations/offshore-transmission-network-review-proposals-for-an-enduring-regime

1.2. Consultation background

The consultation was launched on 28 September 2021 and closed on 23 November 2021.

The consultation was published online. Responses were submitted through an online response tool or by email. BEIS also held engagement with relevant stakeholders in the form of roundtables, sub-groups, webinars, which were attended by developers, transmission owners, systems operators, other Government departments, and non-governmental organisations.

1.3. Summary of Government response to the consultation.

Responses to the consultation can be grouped into four core themes. Below is a summary of the Government's response. Please refer to Section 2 for detailed responses.

A suitable legislative framework for MPIs.

- A majority of respondents believe that the existing legal and regulatory regime does not provide an adequate enduring solution for MPIs. A key theme was that the current legal and regulatory framework, and as a result the options within that framework, are too restrictive to maximise the benefits of MPIs. The Government supports the need for a framework which will give MPI projects the necessary flexibility they need.

- Respondents also highlighted that there is not an effective mechanism for the different elements of MPI projects such as licensing, funding, and ownership, to interact under the existing regulatory regime. Respondents find that the lack of legal clarity makes it difficult for MPI projects to assess which regulatory framework and classification system would best support or hinder MPI projects, which in turn causes uncertainty for MPI projects. The Government recognises this. Providing strong legal clarity for MPIs may help in establishing the applicability of MPIs in other frameworks, as well as providing strong development certainty.

MPIs in Policy Schemes

- Respondents highlighted the need to adapt current policy schemes such as, Ofgem's Cap & Floor, and the Government's Contract for Difference (CfD) mechanisms to enable the development of MPI projects. The Cap & Floor regime is the regulated route for electricity interconnector development in GB. It is a market-based approach which aims to incentivise developers to deliver interconnector capacity by limiting developers' exposure to electricity market price risk, whilst the CfD scheme is the Government's main mechanism for supporting low-carbon electricity generation. CfDs incentivise investment in renewable energy by providing developers of projects with high upfront costs and long lifetimes with direct protection from volatile wholesale prices. These current mechanisms separately allow interconnector and wind farm developers to establish the required certainty of future revenues in order to finance the project. However, applicability of these mechanisms is contingent on holding an interconnector licence (Cap & Floor), or a transmission licence (CfD).

- The Government recognises the need for MPI development to suitably align with the conditions of both Cap & Floor, and CfD schemes and continues to consider the implications for other policy schemes.

Marine Licensing and International Marine

- Some respondents raised concerns regarding the marine licensing frameworks applicability to MPIs. As is the case with other legislation, there are currently no provisions explicitly referencing MPIs in the Marine and Coastal Access Act 2009, for example. Respondents raised that consideration must be given to how MPI assets are treated ensuring appropriate licensing in the UK seas, whilst continuing to meet UK international obligations e.g. the United Nations Convention on the Law of the Sea (UNCLOS).

- BEIS has been working closely with DEFRA, the Foreign and Commonwealth Development Office (FCDO) and the Marine Management Organisation (MMO). Our initial view is that MPIs will be subject to marine licensing as offshore transmission cables are at present with there being no need to alter the legislative framework. Defra will continue to pursue licensing options, including Ministerial agreement, and aim to issue guidance to industry on this issue once a final decision is reached.

EU Market Arrangements

- Most respondents highlighted the importance of ensuring that MPI legislation within GB is compatible with that of connecting countries and the EU. A key theme amongst respondents was the need for efficient, implicit cross-border trading arrangements, as these would be key to the development of MPIs. Respondents raised concern that the current method of explicit trading may cause significant inefficiencies in operating MPI assets.

- Capacity calculation was also an issue of concern for respondents. Under EU legislation, applicable in EU Member States, Article 16(8) of Regulation (EU) 2019/943 requires that at least 70% of the total interconnected capacity must be made available for cross border trade. Respondents suggest that for an MPI asset, offering 70% of the physical capacity for cross-border trade could lead to significant curtailment or operational costs relating to the connecting offshore wind.

- Respondents further noted that consideration must be given to the market model used in the EU for MPIs, namely the home market and offshore bidding zone models. Each present their respective challenges and considerations. Under the home market model, parties must forecast the capacity that will be required for offshore wind connected to the MPI. Under-forecasting capacity could result in costly remedial actions, whereas over-forecasting could result in underutilisation. With the offshore bidding zone model, overall utilisation is optimised, but revenues of wind farms may be reduced, and this may discourage investment. As CfD payments use GB day-ahead hourly prices as reference prices to determine difference payments, consideration is required on the

impacts of windfarms in an offshore bidding zone model on price protection. We understand that developers require sufficient market certainty. A change to revenue allocation part way through the asset life (from home market to offshore bidding zone) could have a significant impact on the investment case.

- The Government agrees with respondents that there is a need for MPI policy in respect of GB to take into consideration the treatment of MPIs in connected jurisdictions including EU Member States. The Government is also committed to the UK-EU Trade and Cooperation Agreement (TCA) which requires the development of new trading arrangements to deliver robust and efficient outcomes for all relevant timeframes, being forward, day-ahead, intraday and balancing. The Government will continue to work with the European Commission to enable the creation of a specific forum for technical discussions between the European Commission, ministries and public authorities of the Member States, United Kingdom ministries and public authorities, transmission system operators and the offshore energy industry and stakeholders more widely, in relation to offshore grid development and the large renewable energy potential of the North Seas region.

Next Steps

The Department has determined that aspects of the existing licensing and legal framework are unlikely to be suitable for an enduring solution for MPIs and will therefore require modification.

To enable legal and regulatory clarity for the Enduring Regime, we are considering how to introduce a new licensable activity into the Electricity Act 1989 for the operation of a Multi-purpose Interconnector and whether an associated definition of an MPI asset is necessary. The Government has set out its intention to introduce legislation, when Parliamentary time allows, in order to enable the Enduring Regime and support the Government's target of increasing offshore wind capacity to 50 GW by 2030 as mentioned in the Energy Security Strategy published in April 2022. In the interim, the Department is supportive of amendments made by Ofgem to the licence conditions for both the interconnector led and OFTO-led approaches outlined in their consultation and supports Ofgem's intention to enable early opportunities MPIs under a pilot Cap & Floor scheme[2], where the multi-purpose asset is licensed as an interconnector. The Department and Ofgem will ensure the lessons learnt from that pilot scheme aids the development of an enduring MPI regime. The Department is working with teams across BEIS, Ofgem and the ESO to address blockers to the development of MPIs in both the interim and the enduring solution.

[2] https://www.ofgem.gov.uk/publications/update-following-our-consultation-changes-intended-bring-about-greater-coordination-development-offshore-energy-networks

2. Summary of responses to the consultation

Responses received to the consultation

This Government response outlines the consultation position, and a high-level summary of the 21 stakeholder responses to questions 12 to 14 of the consultation.

In reporting the overall response to each question, 'majority' indicates the clear view of more than 50% of respondents in response to that question, and 'minority' indicates fewer than 50%. 'About half' indicates an overall response within a few percentage points of 50% (either way).

The following terms have been used in summarising additional points raised in the responses: 'many respondents' indicates more than 70% of those answering the particular question, 'a few respondents' means fewer than 30%, and 'some respondents' refers to the range in between 30% and 70%. This is consistent with the approach of other UK Government responses to consultations.

Responses which did not explicitly express their support or disapproval of the specific proposal in a given question were logged but classified as neither supportive nor non-supportive.

The UK Government is grateful to each and every respondent to the Enduring Regime and MPI consultation for taking the time to submit their views on the proposals.

Consultation question 12. *Does the current legal and regulatory framework, and Ofgem's options to regulate within that framework as described in the Ofgem consultation, provide an adequate enduring solution for the regulation of MPIs? If not, please indicate why not and what changes you think may be needed*.

Purpose

The Government sought views from stakeholders for potentially adapting the existing regulatory and legal framework to facilitate an Enduring Regime for MPIs.

Summary

In the overall assessment of the suitability of the existing regime, sixteen (16) respondents believed the existing regime does not provide an adequate enduring solution for MPIs. Two (2) respondents were broadly in agreement that the existing regime would be adequate, with minor changes to enable MPIs. Three (3) respondents did not provide a definite answer either way.

The legal definitions/primary use of an MPI asset was volunteered by a few respondents as potentially being prohibitive for MPIs. Interim flexibility was highlighted by a few respondents as essential to facilitate MPIs in the short term. On adapting changes to existing licence conditions, a few respondents mentioned establishing new/ reforming codes and standards, and a further few respondents highlighted the importance of adapting the cap and floor.

A few respondents suggested a strong need for immediate changes to the CfD to facilitate the "interconnector-led" model for facilitating MPIs, as there are currently existing requirements in the CfD Standard Terms and Conditions for successful CfD farms to connect to a "transmission licensee".

A few respondents highlighted the need for the regime to be flexible to enable MPIs to evolve into more complicated assets, considering potential future uses of assets ranging from power to x (hydrogen and other derivatives production), energy islands, storage etc.

A few respondents highlighted the potential for issues within the marine licensing framework for facilitating MPI. The respondents highlighted that there are no existing provisions for MPIs in the regulations for marine licensing, with different requirements for traditional interconnector cables and transmission cables connected to renewable generation assets. The respondents were concerned that considerations must be made as to how these assets are treated ensuring proper licensing in the UK seas, whilst meeting UK obligations under International Legislation e.g. the United Nations Convention on the Law of the Sea (UNCLOS).

Government Response

The Government has determined that aspects of the existing licensing and legal framework are unlikely to be suitable for an enduring solution for MPIs.

The Government supports the need for a framework which will give MPI projects the necessary flexibility they need. As MPIs are a nascent technology, there is no standard design for MPIs. The balance between transmission and interconnection may change for an individual MPI asset during its operational lifetime and the Government acknowledges that it is important that this flexibility may need to be reflected in potential future legislation and regulation for MPIs, so as not to limit innovation.

BEIS are therefore considering how to introduce a new licensable activity into the Electricity Act 1989 for the operation of a Multi-purpose Interconnector, when Parliamentary time allows.

In the interim, the Government notes that Ofgem is developing an interim model for MPIs and is supportive of Ofgem exploring amendments made to the licence conditions for both the interconnector led and OFTO led approaches outlined in their consultation. BEIS and Ofgem will work together to identify lessons learned from this process for any enduring solution.

The Government recognises the need for MPI development to suitably align with the conditions of both Cap & Floor, and CfD schemes and continues to consider the implications for other policy schemes. Regarding the Cap & Floor, Ofgem has publicly announced their intention to enable near term projects under a pilot Cap & Floor scheme, where the multi-purpose asset is licensed as an interconnector. This is expected to open for applications in the second half of 2022. The Government fully supports this pilot scheme. In developing the pilot scheme, lessons learnt will be shared between the Department and Ofgem, which will inform the Government's approach to an enduring solution for MPIs.

Regarding CfDs, the interaction between a potential MPI asset class and the standard terms and conditions has been noted, and the Department are considering how best to proceed. Consideration will also be given on MPI assets and participation in the GB Capacity Market –

including the Capacity Market 2021: call for evidence on early action to align with net zero[3] which explored future options for the participation of overseas generation in the GB Capacity Market.

Given the different revenue streams that could be attributed to an MPI, the Government understands the importance in ensuring these mechanisms are able to provide sufficient certainty of revenue determination whilst maintaining a level playing field.

Consultation question 13. *Do you have any views on the merit or necessity of defining a separate MPI asset class in UK legislation, or other legislative change? What might be the disadvantages of this approach?*

Purpose

The intention of the second question was to gather stakeholder views on one of the options the Government has identified to regulate MPIs by introducing a new asset class into the Electricity Act 1989. Stakeholder input allows the Department to weigh up the industry support for a new asset class versus the existing flexibility of the current licencing regime.

Summary

A majority of respondents were broadly supportive, some respondents provided a balanced answer (or did not specifically address the question at hand) and a few respondents provided an unsupportive answer.

Some respondents explicitly supported the introduction of a new asset class to provide clarity to industry and to send signals for investment.

A few respondents did not support the introduction of a new asset class, with concerns about the time taken to implement new industry codes and standards and licensing conditions, as well as the time taken to make changes to primary legislation. It was suggested that introduction of a new asset class would limit projects pre-2030.

One respondent identified the need to provide greater clarity on charging methodology and how it will relate to MPIs.

A few respondents argued that a complete decompartmentalization of the onshore and offshore regimes is necessary for future electricity networks.

Government Response

The Government recognises the need to provide strong legal and regulatory clarity in regard to MPIs. MPIs are large and complex projects and will require alignment across regulatory landscapes and support schemes. Providing strong legal clarity for MPIs may help in establishing the applicability of MPIs in other frameworks, as well as providing strong development certainty.

[3] https://www.gov.uk/government/consultations/capacity-market-2021-call-for-evidence-on-early-action-to-align-with-net-zero

To support this, the Government is considering how to introduce a new licensable activity into the Electricity Act 1989 for the operation of a Multi-purpose Interconnectors.

The Government notes stakeholder concerns on the time it may take to implement an Enduring Regime, and points to the work Ofgem is doing to amend current licence conditions to facilitate near term projects. The Government also supports Ofgem's intention to enable early opportunities MPIs under a pilot Cap & Floor scheme[4], where the multi-purpose asset is licensed as an interconnector. The Department and Ofgem will ensure the lessons learnt from that pilot scheme aids the development of an enduring MPI regime.

Consultation question 14. *What changes might be needed to the current UK regulatory framework to address regulatory developments in other jurisdictions?*

Purpose

The cross-border nature of MPIs dictates that an understanding of and adaptability towards regulatory developments and change in other jurisdictions is potentially essential. The Government was therefore seeking to clarify and produce a set of assumptions and considerations needed for policy development to ensure any scheme in the interim period and the Enduring Regime are, where necessary, compatible with other jurisdictions.

Summary

A key issue for MPI consideration was noted by some respondents as the 70% capacity requirement in Article 16(8) of EU regulation. This dictates that 70% of cross border trade be made available for market participants. This was highlighted as a concern as this would limit the available capacity of the offshore wind farm to just 30% of total interconnector capacity.

Some respondents identified a key consideration as the potential differing market arrangements which may or may not be executed for offshore wind and its implications for MPIs. These two models/approaches are referred to as "Offshore Bidding Zone" (OBZ) and "Home-Markets" (HM).

One respondent identified that under the HM model, parties will have to forecast the capacity they anticipate based on wind speeds. Under forecasting of the capacity may result in costly remedial actions whereas over-forecasting will result in underutilisation of the interconnection capacity, thus limiting the economic potential of the MPI.

One respondent highlighted concern around the 'Multi Regional Loose Volume Coupling' (MRLVC) as the proposed trading arrangement as a sub-optimal solution. A separate respondent identified the MRLVC as a positive development helping to facilitate efficient trade post EU exit.

[4] https://www.ofgem.gov.uk/publications/update-following-our-consultation-changes-intended-bring-about-greater-coordination-development-offshore-energy-networks

A majority of respondents suggested continued engagement between relevant parties (government, TOs, regulators) in the UK and overseas must be continued to ensure alignment on all of the above issues.

Government Response

The Government agrees with respondents that there is a need for MPI policy in respect of GB to take into consideration the treatment of MPIs in connected jurisdictions including EU Member States. The Government is also committed to the UK-EU Trade and Cooperation Agreement (TCA) which requires the development of new trading arrangements to deliver robust and efficient outcomes for all relevant timeframes, being forward, day-ahead, intraday and balancing.

A matter of priority in the TCA is the development of technical procedures for a new form of implicit allocation of capacity on electricity interconnectors (including MPIs) at the day-ahead market timeframe based on the concept of "multi-region loose volume coupling" (MRLVC).

Following the UK's exit from the EU, Article 16(8) of the retained domestic law version of Regulation (EU) 2019/943 has been amended in respect of GB so that the 70% requirement from Article 16(8) removed[5]. Article 311(1) of the TCA requires that the maximum level of capacity of electricity interconnectors is made available, respecting the (i) need to ensure secure system operation; and (ii) most efficient use of systems.

The Government understands that developers are seeking further clarity in connecting countries regarding the application of the 70% requirement. Stakeholders are also looking for further clarity on the market models for MPIs. The Government believes that whilst the home market and offshore bidding zone models are not mutually exclusive and both can co-exist, compatibility of arrangements is essential.

Close collaboration with the European Commission, EU member states, and Norway will be required to ensure a coordinated approach. The Memorandum of Understanding on energy cooperation with Belgium, and the treaty on Cross-Border Trade in Electricity and Cooperation on Electricity Interconnection with Norway provide forums for bilateral collaboration. The TCA also establishes a framework for the basis of such discussions with the EU, building on the North Seas Energy Cooperation. The Government will continue to work with the European Commission to enable the creation of a specific forum for technical discussions between the European Commission, ministries and public authorities of the Member States, United Kingdom ministries and public authorities, transmission system operators and the offshore energy industry and stakeholders more widely, in relation to offshore grid development and the large renewable energy potential of the North Seas region.

[5] See Regulation 7 and paragraph 15 of Schedule 4 of the Electricity and Gas (Internal Markets and Network Codes) (Amendment etc.) (EU Exit) Regulations 2020 (UK Statutory Instrument 2020 No. 1006: https://www.legislation.gov.uk/uksi/2020/1006/schedule/4/made