

## Minded-to Decision and further consultation on Pathway to 2030

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This document sets out our minded-to decision to apply a 'very late competition - generator build' model to non-radial offshore transmission systems in scope of the Pathway to 2030 workstream of the Offshore Transmission Network Review (OTNR).

We explain how we expect to ask developers to coordinate their activities when delivering non-radial offshore transmission and how we will distinguish between offshore and onshore transmission. In addition, we confirm our consultation position that radial offshore transmission systems should be delivered through one of the existing models.

Furthermore, this document contains a consultation on the arrangements to implement the very late competition generator build model, for non-radial offshore transmission. We invite views from people with an interest in offshore transmission, transmission, offshore generation and interconnection, particularly developers who are exploring coordination projects now or in the future. We would also welcome responses from other stakeholders and the public.

Alongside our decision we are publishing a draft impact assessment, setting out our assessment of our minded-to decision on delivery model decision.

OFFICIAL-InternalOnly

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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## Executive summary

There are three temporal workstreams under the Offshore Transmission Network Review (**OTNR**). Pathway to 2030 focusses on the medium term. With this workstream there are a number of work areas. The ESO has been leading the development of a Holistic Network Design (**HND**), giving a high-level view of the network requirements to connect in scope generation projects. This document explains how we intend that network be delivered.

## Minded-to decision on non-radial offshore transmission

In our July 2021 consultation we considered six potential delivery models for coordinated offshore transmission (where the emerging HND indicates something other than a radial solution). This minded-to decision explains our intentions to adopt a 'very late competition generator build' model for Pathway to 2030. Under the 'very late competition generator build' model, generators deliver and construct the assets before they are tendered, therefore, the competition only focuses on the financing and operation and maintenance. We think this is the best option to deliver the coordinated offshore transmission required to achieve the Government's offshore wind generation targets, at a reasonable cost to consumers and in the time available.

## Consultation on implementing minded-to decision

Having reached our minded-to decision on delivery models, we set out our views on how to implement the 'very late competition generator build' model for coordinated offshore transmission assets. Our consultation focuses on the following key areas:

- Introducing a Gateway Assessment for Pathway to 2030 models;
- Arrangements for a very late model tender process; and
- Policy considerations on implementing the Offshore Transmission Owner (**OFTO**) regime for non-radial offshore transmission, eg any changes required to existing obligations and incentives; and the structure of a Tender Revenue Stream (**TRS**).

## Decision on radial offshore transmission

Our July 2021 consultation recognised that the HND could indicate that a radial offshore transmission connection would be the most economic and efficient solution for connecting an offshore generator. In such cases, we proposed continuing to use the delivery models set out in the existing OFTO regime, via either of the existing OFTO or generator build routes. This decision confirms that where the HND recommends a radial link as the optimal solution for

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connecting a generator to the wider transmission system, then the current OFTO regime will be used.

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## 1. Introduction

### What's in this Publication?

- 1.0. This document sets out the decision we have reached on the delivery of future radial connections.
- 1.1. It also sets out our views on our minded-to decision with regards to non-radial connections within scope of this workstream. We set out how we intend to implement that minded-to decision and we are seeking stakeholder views on our proposals. This document is published alongside a draft impact assessment, which sets out our assessment of the delivery model minded-to decision.
- 1.2. We have also set out our proposed process for identifying projects to be tendered. In particular, the criteria against which projects will be assessed to qualify for the OFTO regime in the future.
- 1.3. We recognise that the introduction of non-radial offshore transmission infrastructure may drive consequential changes to the regulatory framework and how these assets are tendered. We have identified some areas where we think change may be required eg to obligations and incentives, asset life and duration of TRS. We are seeking stakeholder views on these matters, and on any additional changes that might be needed that we have not highlighted in this document.

### Context

#### *Background to the Offshore Transmission Network Review*

- 1.4. The OTNR was launched in July 2020 with the objective to ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, considering the Government's increased ambition for offshore wind to achieve net zero. This aims to find the appropriate balance between environmental, social and economic costs.
- 1.5. The Prime Minister's Ten Point Plan for a Green Industrial Revolution in November 2020 set an ambitious offshore wind target of 40GW by 2030.<sup>1</sup> In April 2022, the Prime

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<sup>1</sup> [The Ten Point Plan for a Green Industrial Revolution \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/103100/ten-point-plan-for-a-green-industrial-revolution.pdf)

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Minister announced a new British Energy Security Strategy, which built on previous offshore wind targets to set an ambition of 50GW of offshore wind by 2030.<sup>2</sup>

- 1.6. To achieve the deliverables of the OTNR, there are four workstreams operating in parallel, with varying degrees of Ofgem involvement. Figure 1 describes the objectives and regulatory scope of each workstream.

Figure 1 – OTNR workstreams



- 1.7. As outlined within Figure 1, the Early Opportunities, Pathway to 2030, and Enduring Regime workstreams divide policy development and industry engagement into three temporal workstreams. This is to enable the OTNR to design effective interventions that target projects at different stages of the development journey – broadly near-term, medium-term and long-term. The Multi-Purpose Interconnector (**MPI**) workstream works across all three temporal workstreams to make tactical changes that will enable the delivery of early opportunity MPIs, while also considering an enduring regime to effectively deliver projects from 2030 onwards.
- 1.8. Work to develop and implement regulatory change in Early Opportunities, Pathway to 2030, and an early MPI regime is led by Ofgem. For the Enduring Regime and enduring MPI regime, policy development is primarily led by BEIS.

#### *The Pathway to 2030 workstream*

- 1.9. This workstream sits between the Early Opportunities and Enduring workstreams in terms of the projects upon which it will have an impact. Pathway to 2030 was established as it was recognised that the short-term, Early Opportunities workstream might not be sufficiently impactful given the application to in-flight projects, while the long-term,

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<sup>2</sup>[British Energy Security Strategy \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)



Enduring Regime may not be sufficiently timely. Government has set a target of 40GW (with an ambition of 50GW) by 2030 and thus there are potentially substantial benefits to be gained from coordination in this medium-term period.

- 1.10. One of the objectives of the Pathway to 2030 workstream is to ensure that all network infrastructure (both onshore and offshore) which is necessary to connect projects in scope of this workstream is designed in a coordinated manner with an optimum engineering solution that at the same time considers the economic, environmental and community impacts. The elements of network design we think are required to deliver this objective are – a HND and detailed designs (**DNDs**) for each of the onshore and offshore network assets.
- 1.11. The HND should drive the coordination of offshore projects progressing through Crown Estate (**TCE**) Leasing Round 4 (**LR4**) and Crown Estate Scotland (**CES**) ScotWind connecting to the transmission system by 2030. It also captures one project from an earlier leasing round. The ESO also made a number of planning assumptions in relation to a future leasing round for floating wind in the Celtic Sea for the HND. Our decision and minded-to decision in this document will apply to ScotWind and LR4 Projects and the project from an earlier leasing round. We will work with industry and stakeholders to provide clarity on the delivery model for Celtic Sea in future.
- 1.12. The ESO is engaging with impacted developers, transmission owners and wider stakeholders as they finalise the HND.
- 1.13. The HND could result in a range of network topologies from the radial solutions we are familiar with today, to more integrated solutions that are more complex and which will connect more than one offshore generator to shore – as a consequence of our decision (explained in this document) developers are likely to have to work together to develop transmission infrastructure. The developments which are within the scope of the HND will be subject to one decision and one minded-to decision. These are set out in this document.

#### *Radial and Non-Radial Offshore Transmission Systems*

- 1.14. For the purposes of this workstream, we consider a radial solution is a transmission system which fulfils both of the following criteria:
    - Infrastructure used for transmission in an area of offshore waters of electricity generated by a *single* generating station in such an area, and
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- Infrastructure connecting a *single* offshore generating station directly to a point on the transmission system owned by a transmission owner. This point could be located either onshore or offshore spatially and its designation (as onshore or offshore) will be determined by its primary function electrically (as opposed to its location).

1.15. We consider a non-radial solution is a transmission system, which fulfils both of the following criteria:

- Infrastructure used for transmission in an area of offshore waters of electricity generated by *two or more* generating stations in such an area, and
- Infrastructure connecting *two or more* offshore generating stations to a point on the transmission system owned by a transmission owner. This point could be located either onshore or offshore spatially and will be designated (as onshore or offshore) by its primary function electrically (not where it is located).

1.16. Non-radial offshore transmission is likely to involve two or more developers in its delivery.

1.17. In our consultation, we recognised that the HND could indicate that a radial connection would be the most economic and efficient solution for connecting an offshore generator. In such cases, we proposed continuing to use the delivery model set out in the existing OFTO tender regime, via either of the existing OFTO or generator build routes. This is the subject of the decision set out in Section 2.

1.18. Where the HND indicates something other than a radial solution, we considered that there were six potential delivery models and we consulted on these. These are illustrated in figure 2 in Section 3 of this document. These included a range of competition models (very early, early, late and very late, based on the proposed timing of the competition in relation to project development). In our January 2022 update, we also advised stakeholders that a seventh model was under consideration. The seventh model was included in our analysis from the beginning of this year to ensure we were considering all the possible options.

1.19. We have reached a minded-to decision with regard to the delivery of non-radial connections. This is set out in more detail in Section 3.

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### *Onshore vs Offshore Transmission Assets*

- 1.20. In our consultation we distinguished between onshore and offshore delivery. Onshore assets will be delivered through the onshore price controls. The current transmission price control RIIO-T2 began in April 2021 and will end in March 2026.<sup>3</sup>
- 1.21. The HND will include assets which are both onshore and offshore transmission assets, ownership of which will be by either TOs or OFTOs respectively. The delineation between onshore and offshore assets will be established following completion of the HND.
- 1.22. TO assets will continue to be delivered through the appropriate mechanisms for onshore assets, eg the RIIO price controls and, if enacted, the competitively appointed transmission owner process. Onshore transmission is beyond the scope of this consultation.
- 1.23. The minded-to decision on non-radial offshore transmission assets and the decision on radial offshore transmission explained in this document would apply to OFTO assets in scope of this workstream.

## **Related publications**

Offshore Coordination - Early Opportunities: Consultation on our Minded-to Decision on Anticipatory Investment and Implementation of Policy Changes - [Offshore Coordination - Early Opportunities: Consultation on our Minded-to Decision on Anticipatory Investment and Implementation of Policy Changes | Ofgem](#)

Offshore Transmission Network Review – Multi-Purpose Interconnectors: Minded-to Decision on interim framework - [Offshore Transmission Network Review - Multi-Purpose Interconnectors: Minded-to Decision on interim framework \(ofgem.gov.uk\)](#)

BEIS Offshore Transmission Network Review - [Offshore transmission network review - GOV.UK \(www.gov.uk\)](#)

TNUoS Call for Evidence – [Network Steps - TNUoS Call for Evidence - Next Steps | Ofgem](#) (February 2022)

Interconnector Policy Review – Decision - [Interconnector Policy Review - Decision | Ofgem](#) (December 2021)

Consultation on the initial findings of our Electricity Transmission Network Planning Review - [Consultation on the initial findings of our Electricity Transmission Network Planning Review | Ofgem](#)

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<sup>3</sup> [Network price controls 2021-2028 \(RIIO-2\) - Transmission price control 2021-2026 \(RIIO-T2\) | Ofgem](#)

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Ofgem TNUoS Reform – a Call for evidence - [TNUoS Reform - a Call for Evidence | Ofgem](#) (October 2021)

BEIS/Ofgem consultation on Offshore Transmission Network Review: proposals for an Enduring Regime and multi-purpose interconnectors - [Offshore Transmission Network Review: proposals for an enduring regime and multi-purpose interconnectors - GOV.UK \(www.gov.uk\)](#)

BEIS/Ofgem Open Letter - [Increasing the level of coordination in offshore electricity infrastructure \(publishing.service.gov.uk\)](#) (August 2020)

BEIS/ Ofgem Joint response to Open Letter Engagement - [BEIS and Ofgem joint response to the Open Letter engagement \(publishing.service.gov.uk\)](#) (December 2020)

Offshore Transmission Network Review – Webinar Presentation – [OTNR Webinar](#) (December 2020)

Offshore Transmission Network Review – Webinar Q&A [Offshore transmission network review update webinar: questions and answers \(\(publishing.service.gov.uk\)](#) (December 2020)

ESO Offshore Coordination Phase 1 Final Report [ESO Offshore Coordination Phase 1 Final Report](#) (December 2020)

Integrated Transmission Planning and Regulation (ITPR) project: Final Conclusions [Integrated Transmission Planning and Regulation \(ITPR\) project: final conclusions \(ofgem.gov.uk\)](#) (March 2015)

## How to respond

- 1.24. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.
- 1.25. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.
- 1.26. We will publish non-confidential responses on our website at [www.ofgem.gov.uk/consultations](http://www.ofgem.gov.uk/consultations)

## Your response, data and confidentiality

- 1.27. As set out within Appendix 2 – privacy notice on consultations, we may share your response (including personal data) with Department for Business, Energy & Industrial Strategy (BEIS). If you do not wish us to do so, please clearly let us know in your response.
  - 1.28. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004,
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statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

- 1.29. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you do wish to be kept confidential and those that you do not wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.
  - 1.30. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.
  - 1.31. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.
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## General feedback

We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

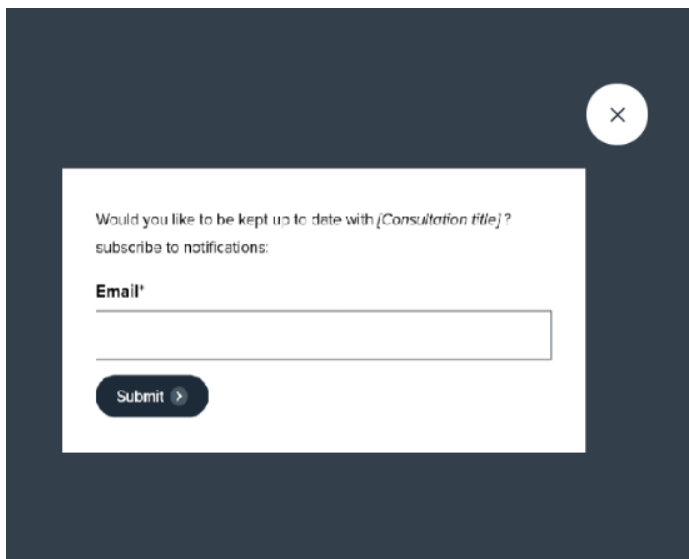
Please send any general feedback comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk) Please send any general feedback comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk)

## How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website.

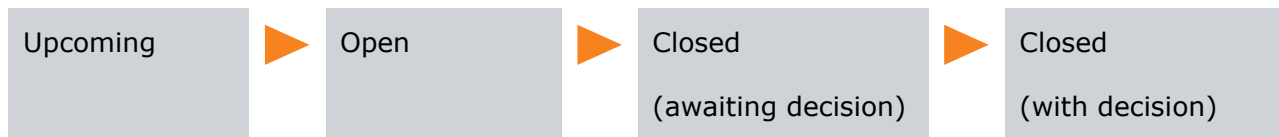
[Ofgem.gov.uk/consultations.](https://www.ofgem.gov.uk/consultations)

Notify me +



The image shows a dark-themed modal window with a white background for the form. At the top right of the modal is a white circle with a black 'X' icon. The form text reads: "Would you like to be kept up to date with [Consultation title]?" followed by "subscribe to notifications:". Below this is a label "Email" and a text input field. At the bottom left of the form is a dark button with the text "Submit" and a right-pointing arrow.

Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:



## 2. Decision on delivery of radial assets in scope of Pathway to 2030

### Section summary

In this section we confirm that the existing generator build and OFTO build models will be available to Developers where the HND indicates a radial solution.

### What we said in our consultation

- 2.0. In the consultation<sup>4</sup>, we proposed that where the HND recommends a radial solution, either the generator build model (very late competition) or the OFTO build model should be available. This would maintain the current arrangements which will continue to apply to radial connections.
- 2.1. We noted that to date no developer of an offshore windfarm has elected to use the OFTO build option. We did not however propose any changes to the availability of the OFTO build model should developers wish to make use of it.

### What respondents said

- 2.2. We asked stakeholders whether they agreed with our proposals and in January 2022 published a full summary of responses.<sup>5</sup>
- 2.3. The majority of respondents that addressed this issue supported our proposal. This group of respondents mentioned that developer-led radial connections had been proven cost effective, timely and that markets understand the existing regulatory mechanisms and frameworks. They also mentioned that developers have industry experience and know how to mitigate risk in the most efficient way.
- 2.4. A small group of respondents disagreed with maintaining a radial option. One of the responses stated that radial solution should be considered only as the last option. Some of the responses were worried about the potential social and environmental impacts of

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<sup>4</sup> [Consultation on changes intended to bring about greater coordination in the development of offshore energy networks | Ofgem](#)

<sup>5</sup> [Update following our consultation on changes intended to bring about greater coordination in the development of offshore energy networks | Ofgem](#)

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radial connections. We acknowledge stakeholders' concerns. We would note that when developing the HND, the ESO is taking into account the factors below:

- The economic and efficient cost of different options considered.
- The deliverability and operability of different options considered.
- The environmental impact of different options considered.
- The impact on local communities of the different options considered.

## Decision

2.5. We intend to maintain the existing generator build and OFTO build options where the HND recommends a radial solution.

## Reasons for our Decision

2.6. The current OFTO regime has resulted in the issue of 23 OFTO licenses, with a further five offshore transmission systems currently being tendered. These have all been radial solutions. The OFTO regime has been highly successful at securing the timely connection of offshore generators to the transmission system at a low cost of capital, with combined savings from Tender Rounds 1, 2 and 3 estimated being between £628m and £1.149bn.<sup>6</sup> The OFTO regime continues to be robust, attracting low-cost capital and is well understood by all parties including bidders and developers.

2.7. Given the success of the regime to date and the similar nature of the assets that could be tendered, we consider it does not make sense to introduce a new delivery model with associated uncertainty, for these assets. We therefore propose to proceed with the existing OFTO regime for radial assets. In practice, this means where the HND recommends a radial link as the economic, efficient, and coordinated solution for connecting a generator to the wider transmission system, developers will have two options: the generator build or OFTO build models. Although, as previously noted, the OFTO build option has not been used to date.<sup>7</sup>

2.8. We do not expect to make substantive changes to the tender process or regulatory framework for radial solutions under the Pathway to 2030 workstream given the similarity in assets being tendered. However, where there are changes as a result of lessons being learned under the existing tender process (eg in July 2021 we published

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<sup>6</sup>[Tender Round 7 \(TR7\) Overview - Preliminary Information Memorandum \(November 2020\)](#)

<sup>7</sup>[Offshore Electricity Transmission \(OFTO\) | Ofgem](#)

our first decision about what happens at the end of an OFTO's TRS<sup>8</sup>) or where there are changes as a result of licence arrangements for radial OFTOs, we expect those changes to apply to OFTOs operating radial links within the scope of the HND.

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<sup>8</sup> [End of Tender Revenue Stream – Decision | Ofgem](#)

### 3. Minded-to decision on non-radial assets in scope of Pathway to 2030

#### Section summary

In this section we explain our minded-to decision on how non-radial infrastructure within the scope of this workstream should be delivered.

#### Questions

**Question 1:** Do you agree with the findings of the draft impact assessment published alongside this document?

**Question 2:** Where you disagree with the draft impact assessment, does this raise any issues with our minded-to decisions?

### Arrangements for the delivery of non-radial offshore transmission infrastructure

#### What we said in our consultation

3.0. We consulted on six different delivery model options for the delivery of non-radial solutions. These are illustrated in Figure 2, below. These included a range of competition models (very early, early, late and very late).

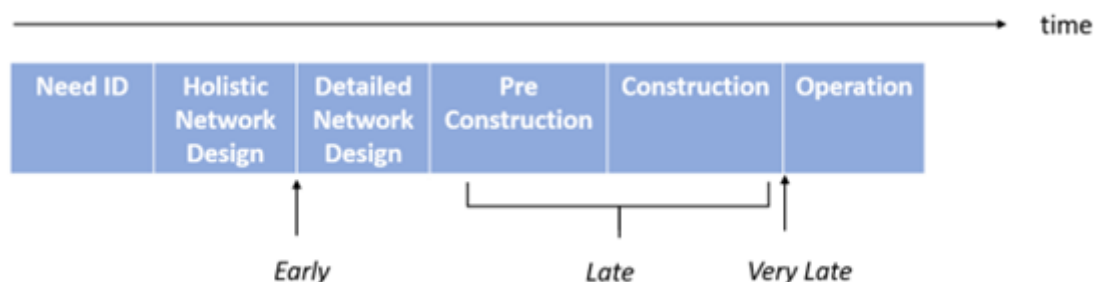
Figure 2 – Offshore delivery model options

Delivery model option	Holistic network design	Detailed network design	Pre-Construction (eg consenting)	Construction	Operation
1. TO build and operate	ESO	TO	TO	TO	TO
2. TO build > OFTO operate	ESO	TO	TO	TO	OFTO
3. TO design > OFTO build and operate	ESO	TO	TO	OFTO	OFTO
4. Early OFTO competition	ESO	ESO or TO	OFTO	OFTO	OFTO
5. Very early OFTO competition	ESO	OFTO	OFTO	OFTO	OFTO
6. Developer design and build > OFTO operate	ESO	Offshore generator	Offshore generator	Offshore generator	OFTO
7. Developer design > OFTO build and operate	ESO	Offshore generator	Offshore generator	OFTO	OFTO

The hatched lines represent the point in the development and delivery of a transmission asset, at which a competition is held.

3.1. As illustrated below within Figure 3, competition models can be distinguished based upon where in a project development competition occurs.

Figure 3 - Types of competition and stages



3.2. In January 2022 we included an option in our analysis that was not included in our consultation. This was a developer led, late competition model, ie a developer would develop the project and a competition would be run prior to the construction of the asset to appoint an OFTO to construct and operate the asset.

### What respondents said

3.3. As noted above, we published a detailed summary of responses in January 2022. We also include a high-level summary of those responses within this section.

3.4. Respondents generally agreed that the HND being developed by the ESO would result in a more economic, efficient and coordinated electricity transmission system. Respondents were also generally of the view that the organisation undertaking the detailed design should also deliver the infrastructure. Respondents counselled Ofgem not to have interface points where the responsibility for infrastructure delivery changed.

3.5. Within the responses, competition was largely seen as a positive feature of the proposed delivery models. Some respondents preferred not extending the TOs monopoly positions offshore. One TO advocated for doing this, and not retaining any competition.

3.6. Given the constrained time available for Pathway to 2030. Many respondents saw options which involved a competition prior to the operation of the asset as unfeasible for this workstream. This is primarily due to potential delays caused by the development and application of a tender process. In the case of early competition models, up to four years could be required to develop and implement a tender process. This is partially due to the hiatus period which OFTOs would be required prior to the development of detailed network designs to allow for the development and implementation of tenders. Some of the responses suggested that early competition models had a place in the Enduring Regime. Early competition models were favoured by some respondents because of the potential for innovative solutions. However, others noted that early competition could

'lock-in' licensees and engineering designs too early in the process, leading to inflexible financial and asset solutions.

### **Minded-to-Decision**

- 3.7. Our view is that the 'very late competition generator build' model (Model 6, Figure 2) will deliver the offshore transmission infrastructure required to achieve the Government's ambitions in the timeframes expected, while at the same time delivering value for money for the consumer. The proposed model is based on the generator build model that has been used since 2009. However, we recognise some adaptations will be required to reflect differences between radial and non-radial solutions and how these might be used – these are discussed later in this document. We explain the reasons for our minded-to decision below.
- 3.8. For the purposes of this workstream, we consider our minded-to decision balances the need to move quickly with the ability to gain benefits from competition. This decision relates to infrastructure in the scope of this workstream only. This decision does not set precedent for the delivery model(s) that could be adopted under an Enduring Regime, should BEIS decide to take this forward. Key policy decisions underpinning any future Enduring Regime would be recommended by BEIS with Ofgem playing a key role in delivery, alongside OTNR partner organisations, in line with its remit. We expect a Government Response document to last year's Enduring Regime consultation to be published in due course.<sup>9</sup>

### **Reasons for Minded-to Decision**

- 3.9. In reaching this minded-to decision we have considered a range of factors. These include the earliest that infrastructure might be delivered under each of the options, along with the competition savings that could be delivered under each option and the potential benefits or disbenefits from the model options themselves. These are summarised in Figure 4 below. We go into more detail on these aspects later in this section.
- 3.10. Figure 4 below illustrates the results of our comparative analysis. The table displays the discounted delay costs for carbon and option fees in cumulative terms, for the 19GW included in the HND.<sup>10</sup> These discounted delay costs are calculated for both low and high

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<sup>9</sup> [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>10</sup> Our analysis is based on ~19GW being delivered through the HND. This includes the [Leasing Round 4](#) (7.98GW) and first ~11GW of ScotWind. The ScotWind figure was reached based on initial discussions

load factors. The carbon and option fee costs are discounted. The delay costs are compared with the potential capex costs. The capex costs are based on the three different competition scenarios when compared with the very late competition model. In the “2030, No Delay” column one can see what we estimated discounted savings or cost increases would be for each competition scenario in 2030. For example, we estimated there to be a 10-15% capex increase of £1.1-1.7bn (discounted) in the “2030, No Delay – No competition” scenario. The figures are further discussed in our associated draft impact assessment (**IA**) (published alongside this document).

- 3.11. The double lined ranges (in Figure 4) display the estimated Earliest in Service Date (**EISD**) for each competition scenario. We estimated no delay for the no competition model as we would not have to design or run a tender exercise. For the late competition scenario, we estimated a possible one to two year delay, which is based on us designing and running a tender exercise for the coordinated OFTO build assets. For the early competition scenarios, we estimated a probable three to four year delay based on us designing and running a tender process, as well as OFTOs producing a detailed design to be tendered, which would cause a hiatus period.
- 3.12. The diagram uses shading which moves from light green to dark red. This represents the total cost turning from positive to negative, when the cost of delay outweighs the cost savings. The figures are discounted and the cost of delay is cumulative. The cost of delay is calculated in terms of low and high load factors.
- 3.13. Figure 4 also displays how the discounted cost of delay outweighs the potential capex savings gained by competition. Whilst this is not an exhaustive consideration of potential delay factors or savings, we have estimated that the costly delays avoided by the very late competition model outweigh the potential capex savings provided by the other competition models. In the associated draft impact assessment we further discuss why we selected the generator led very late competition model over the TO led very late competition model.

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with National Grid ESO about ScotWind inclusion in the HND and delivery queues. Further information about ScotWind inclusion in the HND and ESO thinking can be found on the related [ESO press release](#) dated 11 February 2022.

Figure 4 – Summary of factors considered when reaching minded-to decision

Cost of delay vs capex savings (£ per million)	2030, no delay	2031	2032	2033	2034	2035
Discounted option fees and carbon costs (cumulative, low load factor, 19GW, with discounted option fee)****	Very late competition base line	1,166**	2,231**	3,209**	4,126**	4,981**
Discounted option fees and carbon costs (cumulative, high load factor, 19GW, with discounted option fee)****	Very late competition base line	1,464**	2,781**	3,975**	5,083**	6,106**
No competition, TO build + 10% cost increase (discounted) with cumulative discounted delay, low load factor	1,135*	2,263	3,291	4,233	5,115	5,937
No competition, TO build + 15% cost increase (discounted) with cumulative discounted delay, low load factor	1,703*	2,811	3,821	4,745	5,610	6,415
No competition, TO build + 10% cost increase (discounted) with cumulative discounted delay, high load factor	1,135*	2,561	3,841	4,999	6,073	7,062
No competition, TO build + 15% cost increase (discounted) with cumulative discounted delay, high load factor	1,703*	3,110	4,371	5,511	6,568	7,540
Late competition - 5% cost decrease (discounted) with cumulative discounted delay, low load factor	-568	617*	1,701*	2,697	3,631	4,503
Late competition - 10% cost decrease (discounted) with cumulative discounted delay, low load factor	-1,135	69*	1,171*	2,185	3,136	4,025
Late competition - 5% cost decrease (discounted) with cumulative discounted delay, high load factor	-568	915*	2,251*	3,463	4,589	5,628
Late competition - 10% cost decrease (discounted) with cumulative discounted delay, high load factor	-1,135	367*	1,721*	2,951	4,094	5,150
Early competition - 10% cost decrease (discounted) with cumulative discounted delay, low load factor	-1,135	69	1,171	2,185*	3,136*	4,025
Early competition - 15% cost decrease (discounted) with cumulative discounted delay, low load factor	-1,703	-480***	641	1,673*	2,641*	3,547
Early competition - 10% cost decrease (discounted) with cumulative discounted delay, high load factor	-1,135	367	1,721	2,951*	4,094*	5,150
Early competition - 15% cost decrease (discounted) with cumulative discounted delay, high load factor	-1,703	-182***	1,191	2,439*	3,599*	4,672

\* Double brackets represent estimated earliest in service dates for each competition scenario. We estimated no delay for the no competition model as we would not have to design or run a tender exercise. For the late competition scenario, we estimated a possible one-to-two-year delay, which is based on us designing and running a tender exercise for the coordinated, OFTO build assets. For the early competition scenarios, we estimated a probable three-to-four-year delay based on us designing and running a tender process, as well as producing a detailed design to be tendered, which would cause a hiatus period.

\*\* These are the combined cumulative discounted carbon and option fees costs of a delay beyond 2030. Based on LR4 projects’ annual options fees, and emissions not abated as a result of delaying LR4 and first ScotWind tranche projects based on BEIS projected emission and low and high load factors.

\*\*\* We recognise that the estimated one year of delay costs do not outweigh the estimated early competition (-15%) cost savings. We want to note that this would be an unlikely outcome considering the likely delays to the delivery schedule being caused by the tender process development, design production and tender running.



\*\*\*\* Our analysis is based on ~19GW being delivered through the HND. This includes the [Leasing Round 4 \(7.98GW\)](#) and first ~11GW of ScotWind. The ScotWind figure was reached based on initial discussions with National Grid ESO about ScotWind inclusion in the HND and delivery queues. Further information about ScotWind inclusion in the HND and ESO thinking can be found on the related [ESO press release](#) dated 11 February 2022.

#### *Tender Revenue Stream versus Price Control Regulation*

- 3.14. Given the relative stability of assets being owned by OFTOs, we consider a tender revenue stream model is more appropriate than a price control.
- 3.15. The HND should result in assets that are fixed (ie they will not be modified). This means the infrastructure initially designed as part of the HND should be fixed. The infrastructure that will be owned by OFTOs under this workstream will not be added to significantly during the anticipated life of the assets and a certain amount of anticipatory investment will be incorporated into the initial design. We would expect future parties connecting to those assets that are in the scope of the HND to do so on a 'plug and play' basis, ie without the need for additional infrastructure being required at that later date.
- 3.16. Given the relatively fixed nature of prospective OFTOs' asset bases, there is less need to include mechanisms such as volume drivers or other uncertainty mechanisms to deal with long term and potential wide-ranging uncertainties similar to what the onshore TOs have. In this respect the assets are similar to existing OFTO assets. However, we recognise mechanisms may be required to allow an OFTO to facilitate future connections.

#### *Role for competition*

- 3.17. Promoting effective competition can help achieve our principal objective of protecting the interests of existing and future consumers. It can also help drive efficiency, price discovery and innovation, resulting in cost savings that lower consumer bills and help to meet the Government's decarbonisation targets at the lowest possible cost. We consider that competition should be retained where it is practicable and in the interests of consumers to do so. However, we recognise that not all competition models might be appropriate in all circumstances.
- 3.18. Within our July 2021 consultation<sup>11</sup> we set out our initial views on the benefits of each of the delivery model options. We set out further thinking on this within our impact

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<sup>11</sup> [Consultation on changes intended to bring about greater coordination in the development of offshore energy networks | Ofgem](#)

assessment (as published alongside this document), where we provide a detailed option analysis on each of the delivery models.

- 3.19. In our view, the implementation of any of the competition models referenced in this document could be implemented in a manner that ensures the running of competitive tenders does not in and of itself lead to delays in the delivery of key infrastructure. However, this assumes that the competitive processes have already been developed. In the context of this workstream we do not have tender processes for early or late competition which we can implement. We have therefore had to account for the fact that developing and implementing a tender would likely cause a hiatus in the development of necessary offshore transmission infrastructure.
- 3.20. Given the time constraints inherent in this workstream, we are unable to take advantage of some of the competition models. The time required to develop and run a tender prior to the construction of assets is likely to put achieving Government's targets and ambitions for 2030 at risk. However, benefits can still be achieved by running a competition prior to the operation of the assets.

#### *Cost of Delay: Option fees*

- 3.21. In the LR4 projects, generators must pay an annual option fee to the Crown Estate for the seabed lease prior to the start of construction. The option fees are derived from the option fee bids the winning generators submitted to the Crown Estate as part of their seabed lease bidding process.<sup>12</sup> The combined total of LR4 projects' option fees is ~£879m per annum.<sup>13</sup> If generators can recover option fee costs through higher Contracts for Difference (**CfD**) strike prices, this cost could effectively be passed through to electricity consumers, as CfD subsidies are funded by a levy on end user bills. The cost of delay could be significant in option fees alone.
- 3.22. The risk of LR4 option fees potentially being passed through to consumers has informed our views on competition models. The LR4 option fees specifically, provide two reasons which support our minded to decision. LR4 developers will be incentivised to work in a timely manner as the longer the time that passes prior to beginning construction, the more fees they will be bound to pay. Further, as these costs may be passed through to

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<sup>12</sup> Total option fee: calculated as option fee bid £/MW/annum x total MW capacity. The annual option fee payment if discounted comes down to ~£668m for 2030.

<sup>13</sup> [TCE-R4-Outcome Dashboard \(thecrownestate.co.uk\)](https://www.thecrownestate.co.uk/tce-r4-outcome-dashboard)

the consumer, we selected the model in our minded to decision which was likely to minimise this.

- 3.23. In contrast, ScotWind projects pay a single fee when they enter an option to lease which is passed to the Scottish Government for public spending. This secures the option for ten years. The cost of ScotWind option fees has not informed our decision making.

*Cost of Delay: Carbon cost*

- 3.24. The potential carbon cost of delaying beyond 2030 could potentially match the option fee costs. A single year's delay beyond 2030 could result in emissions with a discounted value of up to £0.5-0.8bn, a five year delay could result in emissions with a value of up to £2.0-3.1bn.<sup>14</sup> Given the Government's net zero targets, and the challenges posed by climate change, we selected a model most likely to deliver in a timely manner.

- 3.1. In valuing emissions for appraisal purposes, the Government places a value on carbon, based on estimates of the abatement costs that will need to be incurred to meet specific emissions reduction targets.<sup>15</sup> Our delay cost estimates used low and high load factors.<sup>16</sup> We used the grid average for our electricity emissions factors and the central carbon values for our carbon values and sensitivities.<sup>17</sup> Our methodology follows the BEIS produced supplementary guidance to the HM Treasury Green Book on appraisal and evaluation.<sup>18</sup>

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<sup>14</sup> The non-discounted values for the same periods would range between £0.7-1.1bn for one year and £2.8-4.5bn for five years.

<sup>15</sup> [Valuation of greenhouse gas emissions: for policy appraisal and evaluation - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

<sup>16</sup> The low load factor based estimates were reached using a [web tool](#) (Wind, v1.1, Europe, 1980-2016 dataset) developed by Iain Staffell and Stefan Pfenninger from Imperial College London and ETH Zürich ([Staffell and Pfenninger, 2016](#)). The tool estimates the average load factor for future wind turbine models on a GB offshore average based on 1980-2016 wind data. The high load factor estimates used BEIS provided load factors (fixed and floating, mixed technologies used median of the two load factors) for LR4 CfD allocation framework ([Annex 3](#)).

<sup>17</sup> Electricity emission factors and carbon values and sensitivities are available in "Data tables 1 to 19: supporting the toolkit and the guidance" [Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal - GOV.UK \(www.gov.uk\)](#)

<sup>18</sup> [Valuation of energy use and greenhouse gas emissions \(publishing.service.gov.uk\)](http://publishing.service.gov.uk)

Figure 5 – Discounted cumulative Cost of delay beyond 2030

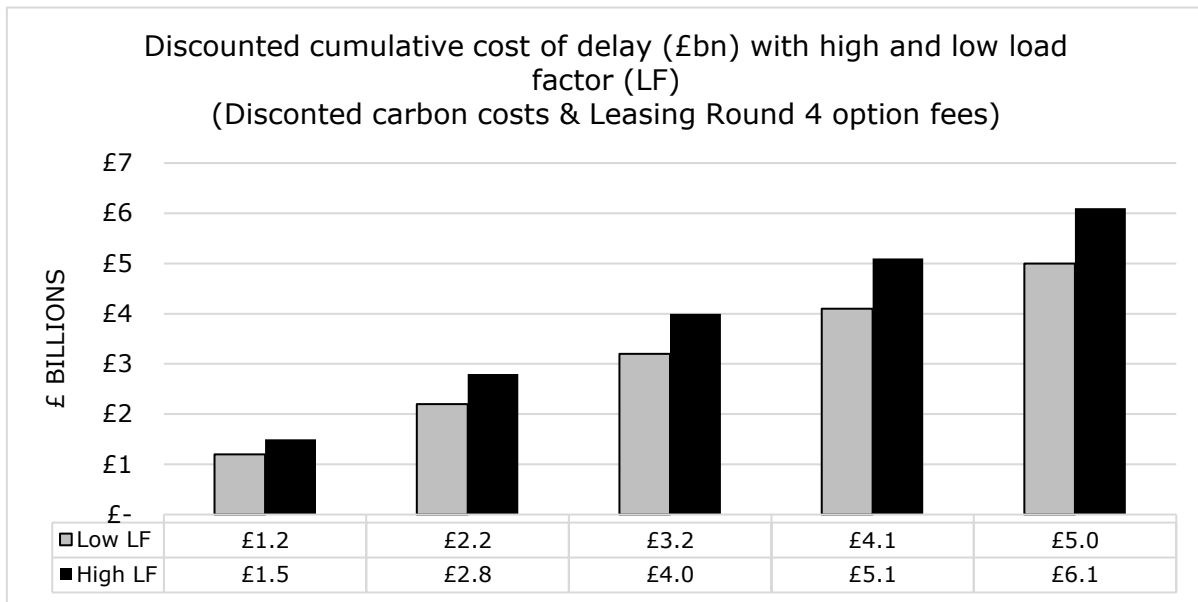


Figure 5 presents the discounted cumulative total cost of delay beyond 2030. It considers the option fee and carbon costs. The high and low load factors create the range cost range.

Competition on the critical path for project development

- 3.2. Our estimated optimistic timescale assumes policy development and tendering to take 36 months, consenting 24 months and construction 36 months. The pessimistic view assumes no at-risk activity by industry, policy development and tendering requiring 48 months, consenting taking 24 months and construction 60 months. The estimated timescales are based on internal assessments and analysis.
- 3.3. We estimated no delay for the no competition model as we assumed TOs would undertake activities at risk prior to changes to the regulatory regime being implemented. For the late competition scenario, we estimated a possible one to two year delay, which is based on us designing and running a tender exercise for the coordinated OFTO build assets. For the early competition scenarios we estimated a probable three to four year delay based on us designing and running a tender process as well as producing a detailed design to be tendered, which would cause a hiatus period. These are also tied to our optimistic-pessimistic EISD estimates.
- 3.4. Where competition takes place prior to the construction of infrastructure, it is less likely that the 2030 targets will be achieved. This is because of the specific time constraints involved in this workstream, rather than because competition inherently slows down delivery.

*Pre-competition development activities*

- 3.5. We identified two 'very late' competition models in our consultation. In one option the incumbent transmission owners (TOs) would undertake the pre-competition activities, in the other the offshore wind developers would undertake these activities. As noted above, our minded-to decision is that developers should develop infrastructure before it is tendered.
- 3.6. When the HND is completed in the summer of 2022 the DND and pre-consenting work will begin. The DND will set out the next level of detail of design for transmission assets based on the requirements set out in the HND. Developers are incentivised to develop infrastructure and begin construction quickly. The more time that elapses between entering an agreement to lease and beginning construction, the more they will pay in option fees under Crown Estate arrangements in England and Wales.<sup>19</sup> We want developers to be incentivised to minimise this cost which may be passed through to consumers.
- 3.7. TO experience is primarily onshore and although they can draw on experience from their own networks, it is our view that generators have stronger and directly applicable technical competence and experience which is demonstrated by their track record of delivering offshore transmission to date. This supports our minded to decision to require developers to develop and construct infrastructure.
- 3.8. We consider the experience of generators to date in constructing radial assets demonstrates their proven abilities in terms of accessing the financial, commercial and organisational resource required.
- 3.9. Offshore wind generators face strong incentives to deliver transmission infrastructure in a timely manner. Generators require completed transmission infrastructure as their route to market. Generators are also strongly incentivised to develop a cost efficient DND, as the overall capital cost of the project will affect the use of system charges they will pay when the assets are in operation.

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<sup>19</sup> ScotWind projects pay a single fee when they enter an option to lease which is passed to the Scottish Government for public spending. This secures the option for ten years. The cost of ScotWind option fees has not informed our decision making.

## 4. Pathway to 2030 - Gateway assessment process

### Section summary

In this section we explain a proposed new tender entry condition under the Tender Regulations intended to ensure assets are economic, efficient and coordinated. We propose to introduce a new gateway assessment process intended to provide developer(s) with certainty that their proposals will meet the requirements of the new tender entry condition.

### Questions

**Question 3:** Do you agree with the proposed introduction of a new Tender Entry Condition in the Tender Regulations requiring the confirmation of the offshore transmission system as 'economic, efficient and coordinated'?

**Question 4:** Do you agree with the introduction of the proposed gateway stage assessment process?

**Question 5:** Do you think the information sought as part of the gateway assessment process is appropriate and proportionate? Is anything missing?

**Question 6:** Do you have any views on the timing of the gateway assessment process?

**Question 7:** Is there any other information which you believe should be included in the confirmation to developers?

## The Case for Ensuring Coordination

### Feedback from Consultation

- 4.1. Some of the consultation responses to the Pathway to 2030 workstream's Model 6 option (generator led – very late competition), questioned how generators would be directed not to solely prioritise their own assets and be incentivised to take on additional risk

stemming from coordination.<sup>20</sup> We recognise that there is a risk, however small, that generators could choose detailed designs which would not lead to the development of an offshore transmission system which is economic, efficient or coordinated, and consistent with the HND.

- 4.2. We believe that this can be addressed by the introduction of a new tender entry condition which would require the offshore transmission system infrastructure to be economic, efficient and coordinated. We therefore propose making this change in The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2015 (the Tender Regulations).<sup>21</sup>
- 4.3. However, we recognise that this may create a new uncertainty for developers who may be concerned that the assets they develop are ineligible for a tender process. In response to our July 2021 consultation, we received feedback that changes to the policy and processes related to coordinated infrastructure should be subject to an assessment process. Feedback to our Early Opportunities questions suggested an appraisal by Ofgem at a sufficiently early stage to inform subsequent decisions by generators relating to design, planning and procurement would be beneficial.
- 4.4. We think that extending a gateway assessment process for the Pathway to 2030 projects would help address these generator coordination related concerns. The gateway assessment would provide a degree of certainty especially when delivering new types of coordinated assets. The gateway assessment we are proposing would give generators comfort that the assets they intend to develop will be eligible for the OFTO tender regime – ensuring the development of an economic, efficient and coordinated system of electricity transmission. This would be sufficiently timely to give developers a clear signal on development before making contractual commitments on the planned infrastructure.

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<sup>20</sup> [Update following our consultation on changes intended to bring about greater coordination in the development of offshore energy networks \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/consult/condocs/2021/20210727/20210727.pdf)

<sup>21</sup> [The Electricity \(Competitive Tenders for Offshore Transmission Licences\) Regulations 2015 \(legislation.gov.uk\)](https://www.legislation.gov.uk/uksi/2015/1000/contents/part-1/section-1)

## Purpose of the Assessment

4.5. The purpose of the gateway assessment is therefore:

- For developers to demonstrate that the proposed design would contribute to the development of an economic, efficient and coordinated system of electricity transmission; and
- to provide developers with an indication of whether the proposed design will qualify for the OFTO tender process, thereby allowing developers to make investment decisions accordingly.

## Process

4.6. Our proposal is that the gateway assessment process would be initiated with an application by any developer, or combination of developers, whose project's transmission system is designated non-radial under the HND. Our view is that this assessment should be mandatory to reduce the risk of developers building assets which would not qualify for the tender process.

4.7. Eligibility will be met by the projects meeting the following conditions:

- projects being in scope of the HND;
- the design contributing to the development of an economic, efficient and coordinated system of electricity transmission; and
- having in place a valid Agreement for Lease (**AfL**) with The Crown Estate or Crown Estate Scotland.

4.8. In our guidance to be issued ahead of the proposed process coming into effect, we will set out the details which must be included in the application. We expect that the developer submission should also contain the following information:

- A description of how the detailed network design meets the required outputs of the HND;
- Detailed description of the proposed infrastructure;



- Detailed description on how the proposed design would contribute to the development of an economic, efficient and coordinated system of electricity transmission;
- Detailed information on the interaction between all users and prospective users of the coordinated assets, including a clear summary on the timelines for all relevant projects and a summary of engagement to date with other relevant developers/projects;
- A detailed timeline for the initial project including through to energisation of the system and proposed asset transfer date to the OFTO); and
- To the extent a developer intends to make anticipatory investment on behalf of a later project, details of that anticipatory investment should be provided.

- 4.9. We would expect developers to make an application no less than twelve months prior to developer's intended date for issuing its final statutory planning consultation. This is consistent with the initial needs case stage of the existing Large Onshore Transmission Investment reopener (LOTI) process, part of our RIIO price controls.
- 4.10. Upon receipt of an application, we intend to conduct a high level-review of the submission to determine whether the submission includes all the information required for us to carry out our assessment of the proposal. If we consider that a submission does not contain all relevant information, we would request any additional information which may be necessary for the purposes of our review.
- 4.11. We will only be able to reach a conclusion where we have sufficient information to do so. The quality of the information submitted, the robustness of the data within it and the accompanying justifications will influence the appropriate level of regulatory scrutiny we apply during our assessment. Developers should note, we expect this process to be light touch and proportionate.
- 4.12. We intend to assess whether each proposal meets the objectives of the OTNR.
- 4.13. We would aim to conclude our assessment as soon as reasonably practicable allowing for appropriate regulatory processes as may be required.
- 4.14. We note that the Early Opportunities workstream is currently consulting on a gateway assessment process specifically focused on anticipatory investment for projects within

the scope of that workstream. We will work to develop a standard process which will be applicable to developers regardless of workstream to give certainty projects can enter the OFTO regime.

## **Outcome**

- 4.15. In the case of a proposal which differs significantly from the HND, our intention is that following the assessment process, we will publish a draft decision indicating the outcome of our assessment and the basis for it. This would provide clarity that the proposed infrastructure would or would not satisfy the tender entry conditions for an economic, efficient and coordinated electricity transmission system. At the same time, we would expect to issue a consultation on our draft decision which would run for approximately 4-6 weeks, taking into account the complexity, scale, cost and urgency associated with the proposal.
- 4.16. Following the consultation process and any further assessment, we will publish a final decision letter. Where we consider that the project would, in principle, qualify for the tender process, the confirmation letter will provide any stipulations associated with this.
- 4.17. In the case of a proposal which is consistent with the HND, we will confirm that the proposed transmission infrastructure would meet the tender entry condition we are proposing to introduce for an economic, efficient and coordinated electricity transmission system. We would not propose to consult on this decision.
- 4.18. For the avoidance of doubt, we will not be undertaking cost assessment. We do not intend to provide a view on what would constitute economic and efficient costs on an ex-ante basis. Prior to the point of transfer to the OFTO, developers will be required to demonstrate via the cost assessment process that the expenditure is economic and efficient.
- 4.19. Should the developer(s) materially amend or update the scope of the coordination activities prior to the cost assessment process, developers will be required to submit those revisions to us for assessment. Provided that the changes do not have a material adverse impact on the terms of the assessment already undertaken, we will issue a revised letter.

## **Implementing Changes**

- 4.20. To implement the changes contemplated herein, we intend to issue a new detailed guidance and submission requirements document for this process.

4.21. As referenced earlier, we will also update the relevant cost assessment guidance documents to take account of the changes as they relate to coordinated offshore transmission infrastructure. Further consultation on this will follow as needed in due course.

## 5. Very Late Competition Model Tender policy

### Section summary

This chapter sets out some of the changes we believe may be required to the tender process, as a result of non-radial assets.

### Questions

**Question 8:** Do you think changes are required to the current process to facilitate a very late competition model for non-radial assets?

## Overview

5.0. This section provides an overview of the changes we anticipate will be required to the tender process, as a result of the additional complexity of tendering shared assets, ie assets with more than one user. We recognise that parties will need to become more familiar with these arrangements and that additional due diligence may be required to facilitate the bidding process. We are therefore considering whether the process should be extended for more complex non-radial coordinated projects and welcome respondents views on whether they agree with this approach and whether respondents think there are any additional changes required to the current process, to facilitate the tender process for non-radial transmission assets.

## Tender stages

5.1. We propose that the tender process for the very late competition model will follow the current generator build model, comprising of the tender stages as set out within the existing Tender Regulations. We have set the stages out in further detail within Figure 6 below.

Figure 6 – Stages of the Tender Process

Tender Stage	Description
Qualifying project stage	An offshore transmission project in respect of which Ofgem determines that the Developer has satisfied the qualifying requirements for the tender process.
Technical Entry Conditions (TEC) stage	Refers to the Tender Entry Conditions that must be satisfied under the Tender Regulations before Ofgem can commence a Tender Exercise.
Pre-qualification (PQ) stage/ Enhanced Project Qualification (EPQ) stages	PQ Stage or EPQ Stage is the first stage of the Tender Exercise following tender commencement. The EPQ Stage is an extended version of the PQ stage of a Tender Exercise. The purpose of the PQ, or EPQ stage, is to identify a suitable shortlist of Bidders to proceed to the ITT Stage.
Invitation To Tender (ITT) stage	The purpose of the ITT Stage is to identify a Preferred Bidder (and possibly a Reserve Bidder) for each Qualifying Project.
Preferred Bidder stage (PB)	The purpose of the PB Stage is for the Preferred Bidder to resolve certain matters to the Authority's satisfaction before that Preferred Bidder becomes the Successful Bidder.
Successful Bidder stage (SB)	Following the conclusion of the Section 8A Consultation <sup>22</sup> , and once we are satisfied that the Preferred Bidder has resolved all the PB Matters, the Preferred Bidder shall become the Successful Bidder for the Qualifying Project.

<sup>22</sup> Ofgem will use its powers to commence a consultation under section 8A of the Electricity Act 1989 on the proposed modifications to certain standard conditions of the Licence that may be granted to an OFTO

## Tender Timings

5.2. In our initial policy assessment analysis, we assumed that running a competition process would take between 18-24 months across all of the delivery models, from launching a tender to appointing a successful bidder and that approach would be practicable, deliverable and would allow enough time for bidders to prepare bids without tendering leading to delays in project development. This assumption was based on our experience of transactions using the existing OFTO tender process.

Figure 6 – Stages of tender process and typical durations



- 5.3. We recognise that under the model we are proposing, there may be additional complexities associated with shared infrastructure with which parties will need to become more familiar and additional due diligence which may be required to facilitate the bidding process. The same tendering stages will apply to both radial and non-radial assets. While we do not expect substantive changes to the tender process for different assets, we recognise that the duration of the tender process may need to be extended for more complex non-radial coordinated projects.
- 5.4. The generator commissioning clause (**GCC**) in the Electricity Act 1989 (**EA1989**)<sup>23</sup> allows developers to own and operate offshore transmission infrastructure for up to 18 months after it has become available for the transmission of power, without the need for a transmission licence.
- 5.5. This clause could be problematic for coordinated projects delivering in multiple stages where the delivery of subsequent elements of a transmission system could be available more than 18 months after the first element. This could create uncertainty about assets and any potential sale to an OFTO. BEIS is exploring options to address this problem to provide developers and OFTOs with confidence about the relevant transmission assets.<sup>24</sup>

<sup>23</sup> Section 6F (Offshore transmission during commissioning period) of the Electricity Act 1989

<sup>24</sup> [Offshore Transmission Network Review: update on early opportunities \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/671422/Offshore_Transmission_Network_Review_update_on_early_opportunities.pdf)

## Cost Assessment

- 5.6. In November 2020 we published a consultation “OFTO Regime Tender Process – Consultation concerning developments to the tender process within the current OFTO regime”.<sup>25</sup> In this, we noted that our cost assessment process has gone through multiple iterations since the regime’s inception and that generally our stakeholder engagement has indicated that the process is robust. We consulted on whether there would be benefit to moving the timing of the cost assessment process so that the ITT bid phase is delayed until all costs are settled. However, in our April 2021 decision<sup>26</sup> we concluded that, based on respondents’ feedback, no changes to the process itself would be required.
- 5.7. We note that the Early Opportunities workstream is considering changes which may be required to the cost assessment guidance to take account of our proposed changes to our policy on anticipatory investment.
- 5.8. As the HND also contemplates developers undertaking anticipatory investment, we consider that any review of the existing cost assessment guidance should also consider consequential changes required for the Pathway to 2030 projects. We note previous feedback in response to our 2020 consultation, to work with developers to ensure a greater level of certainty can be delivered. This is another factor we will consider in undertaking any review. For avoidance of doubt, we will publish an updated cost assessment guidance document for consultation, prior to any tender round commencing.

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<sup>25</sup> [Offshore Transmission Owner \(OFTO\) Regime Tender Process – Consultation concerning the developments to the current tender process | Ofgem](#)

<sup>26</sup> [Decision on developments to the tender process within the current OFTO Transmission Owner \(OFTO\) regime | Ofgem](#)

## 6. Policy considerations for implementing non-radial offshore transmission

### Section summary

The introduction of non-radial offshore transmission may drive consequential changes to the regulatory framework. This section discusses several areas where we think change may be required.

### Questions

**Question 9:** Do you think changes are required to the current package of OFTO obligations and incentives due to the introduction of non-radial offshore transmission assets?

**Question 10:** Do you think changes are required to other aspects of the OFTO regime, eg asset life or duration of the revenue stream?

### Summary

- 6.0. As outlined in our minded-to decision above, we expect there will be both radial and non-radial transmission assets. To date, all offshore transmission has been radial and the regulatory framework has been designed for infrastructure of this type. The introduction of non-radial offshore transmission may drive consequential changes to the regulatory framework. We have identified a number of areas (summarised in this chapter) where we think change may be required below, but recognise there may be others.
- 6.1. As an example of the type of changes that may be required as a result of incorporating non-radial offshore transmission, the availability incentive to date has been applied to radial assets only. We must consider whether this mechanism needs to change or be amended to reflect the changing nature of assets.



## OFTO Obligations and Incentives

### Incentivising operational performance

- 6.2. Under the existing OFTO regime, OFTOs have an availability incentive. The existing availability incentive is a combination of obligations and an incentive. The obligation is to repair and maintain the assets, while the incentive encourages behaviour to maintain asset availability.
- 6.3. The availability incentive rewards for over performance and penalises underperformance against an annual availability target. The target is set-out in the licence conditions and at present, is 98%. The incentive rewards OFTOs by up to 5% of annual revenue (base revenue plus revenue from incremental capacity) if they exceed the annual availability target and penalises them by up to 10% of annual revenue when they fall below it.
- 6.4. The current OFTO regime availability incentive was designed for a single radial point to point link. Where multiple generators are being connected (non-radial), we want to understand whether an alternative to the availability incentive is warranted. We maintain that the objective of the incentive should be to incentivise operational performance, however, we would like to understand how this objective is incentivised and whether this would need to change for non-radial offshore transmission.
- 6.5. Whilst we are minded-to retain the existing availability incentive, a 98% availability threshold with a maximum 10% penalty per annum, we would welcome respondents' thoughts on whether the target should be adjusted, or whether the introduction of a second generator to a non-radial connection would warrant an alternative framework. We are particularly interested in views around how stakeholders view whether an adjustment in the availability incentive could impact on the investability of a project.

### New Asset Investment

- 6.6. OFTOs have a licence obligation to facilitate connections to the National Electricity Transmission System (**NETS**) of up to 20% (but not limited to) of the original capex of their assets. During the tender we ask bidders to confirm that they will be able to raise the finance to fund the construction of any incremental capacity. Economic and efficient costs which are incurred in discharging the licence obligation are recovered via a licence mechanism to adjust the OFTO's revenue. The introduction of non-radial offshore transmission infrastructure may mean we should reconsider the level of any cap.

6.7. The cap limits the likelihood of OFTOs becoming zonal and not having to go through a tender process. By zonal, we refer to an OFTO which expands its assets to cover a specific region. We maintain that there is a need for tender processes in the OFTO market, as they have provided large savings and a degree of oversight and consumer protection. The cap can also provide investors with certainty as to the amount of additional investment that is capped. We also note that use of the incremental capacity increase option has been limited to date.

## **Asset life and length of tender revenue stream**

6.8. Under the existing OFTO regime, we currently align the duration of the TRS with the economic life of an asset. In 2018 we changed the original revenue period for OFTOs from 20 years to 25 years<sup>27</sup>, noting this was due to the maturing offshore wind sector, coupled with evolving technology. We further noted within our decision that 25 years is a preferable term for bond financing. Therefore, extending the term should encourage a more competitive bond pricing (at the time this was for the larger Tender Round 6 projects), offering value for money for consumers. We have since issued our consultation<sup>28</sup> and first decision on extending asset life and 'End of Tender Revenue Stream arrangements'<sup>29</sup>, which outlined that our understanding from discussions with interested parties and technical experts that extending wind farm lifetimes could be viable.<sup>30</sup>

6.9. The incorporation of non-radial assets within a TRS model poses some challenges. It is possible that not all of the transmission infrastructure that an OFTO will be responsible for, will enter into service on the same date. This will have an impact on the duration of the TRS and the combined asset life of the licensee's asset base. We will need to consider these issues further and would welcome comments from stakeholders on the factors we should consider.

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<sup>27</sup> [OFTO Tender Process Changes for Future Tender Rounds implemented for Tender Round 6 onwards \(ofgem.gov.uk\)](https://www.ofgem.gov.uk)

<sup>28</sup> [Offshore Transmission Owner \(OFTO\) End of Tender Revenue Stream – Consultation concerning policy development | Ofgem](#)

<sup>29</sup> [End of Tender Revenue Stream – Decision | Ofgem](#)

<sup>30</sup> We expect to publish a second consultation on this matter in Summer 2022.

## 7. Next Steps

- 7.0. The consultation is scheduled to close on 15th of July 2022. Following consideration of responses to this consultation, we expect to reach a decision this autumn on the issues on which we are consulting, together with a final impact assessment. Once we've made a decision, we will consider how to implement our proposals.
- 7.1. This document sets out our positions for the Pathway to 2030 workstream. However, this does not set precedent for the delivery model(s) which may be adopted under the Enduring Regime. Key policy decisions underpinning any future Enduring Regime would be recommended by BEIS with Ofgem playing a key role in delivery, alongside OTNR partner organisations, in line with its remit. We expect a Government Response document to last year's Enduring Regime consultation to be published in due course.<sup>31</sup>
- 7.2. As respondents will likely be aware, the ESO will be issuing its HND during the summer. Once the HND has been finalised, in respect of non-radial solutions, we will work with the ESO and relevant developers to agree how non-radial infrastructure will be delivered.

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<sup>31</sup> [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

## Appendices

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## **Appendix 1 – list of consultation questions by chapter**

### **Chapter 3 - Minded-to decision on non-radial assets in scope of Pathway to 2030**

**Question 1:** Do you agree with the findings of the draft impact assessment published alongside this document?

**Question 2:** Where you disagree with the draft impact assessment, does this raise any issues with our minded-to decisions?

### **Chapter 4 – Pathway to 2030 – Gateway assessment process**

**Question 3:** Do you agree with the proposed introduction of a new Tender Entry Condition in the Tender Regulations requiring the confirmation of the offshore transmission system as 'economic, efficient and coordinated'?

**Question 4:** Do you agree with the introduction of the proposed gateway stage assessment process?

**Question 5:** Do you think the information sought as part of the gateway assessment process is appropriate and proportionate? Is anything missing?

**Question 6:** Do you have any views on the timing of the gateway assessment process?

**Question 7:** Is there any other information which you believe should be included in the confirmation to developers?

### **Chapter 5 – Very Late Competition Model Tender policy**

**Question 8:** Do you think changes are required to the current process to facilitate a very late competition model for non-radial assets?

### **Chapter 6 - Policy considerations for implementing non-radial offshore transmission**

**Question 9:** Do you think changes are required to the current package of OFTO obligations and incentives due to the introduction of non-radial offshore transmission assets?

**Question 10:** Do you think changes are required to other aspects of the OFTO regime, eg asset life or duration of the revenue stream?

## Appendix 2 – Privacy notice on consultations

### Personal data

The following explains your rights and gives you the information you are entitled to under the UK General Data Protection Regulation (UK GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

#### **1. The identity of the controller and contact details of our Data Protection Officer**

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at [dpo@ofgem.gov.uk](mailto:dpo@ofgem.gov.uk)

#### **2. Why we are collecting your personal data**

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

#### **3. Our legal basis for processing your personal data**

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. ie a consultation.

#### **4. With whom we will be sharing your personal data**

We may share consultation responses with BEIS. If you do not wish us to do so, please clearly let us know in your response. Please note that responses not marked as confidential will be published on our website. Please be mindful of this when including personal details.

#### **5. For how long we will keep your personal data, or criteria used to determine the retention period.**

Your personal data will be held for six months after the project is closed, including subsequent projects or legal proceedings regarding a decision based on this consultation, is closed.

#### **6. Your rights**

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it

- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3<sup>rd</sup> parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

**6. Your personal data will not be sent overseas**

**7. Your personal data will not be used for any automated decision making.**

**8. Your personal data will be stored in a secure government IT system.**

**9. More information** For more information on how Ofgem processes your data, click on the link to our "[Ofgem privacy promise](#)".