

## Decision

# Further evolution of the OFTO Regime

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In July 2025, we consulted on changes to the Offshore Transmission Owner (**OFTO**) tender process, the availability target for High Voltage Direct Current (**HVDC**) assets, OFTO access and control, and potential options to incentivise bidders to finalise transactions more efficiently. This consultation received 20 responses, and this document sets out views we received from generators, OFTOs, industry representatives, and The Crown Estate. We have carefully considered all responses received and set out our decisions on the matters raised.

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#### 1. Introduction

This section covers the background to our policy approaches and consultations that we have undertaken so far.

#### Context and related publications

Since the first Offshore Transmission Owner (**OFTO**) licences were granted in 2011, the OFTO regime has become an increasingly mature market. To date, we have licensed 28 OFTOs across 9 tender rounds with a highly competitive cost of capital.

There have been significant technical advances due to the size and distance from shore of wind farms since the first licence grant in 2011, which has added various degrees of complexity for participants in the tender process. Ofgem has continued to review the regime since its establishment, with a particular focus over the past year on a range of topics to ensure that the regime continues to work effectively in the current and evolving context, including:

- Extension of Tender Revenue Stream policy,<sup>1</sup> where there is now guidance on how to extend the original Tender Revenue Stream (TRS) to enable more transmission which will allow continued generation;<sup>2</sup> and
- whether we should offer a longer TRS than the current maximum duration of 25 years, where our decision was that we would keep this under review whilst we gather more evidence on asset lifetime.<sup>3</sup>

We consulted in July on a wide range of issues related to the OFTO regime<sup>4</sup>, including:

- High Voltage Direct Current (HVDC) availability
- Control of OFTO assets
- Changes to the existing Tender Process
- Bidder Incentive Mechanisms

This decision document will cover our decisions on HVDC availability, and changes to the tender process and timeline, driven our aim to make the most efficient use of the additional time allowed by the extension to the Generator Commissioning Clause (**GCC**) as proposed by the Department of Energy Security and Net Zero (**DESNZ**) should it pass through Parliament, as we are aware that participants in the regime are looking for clarity on the process for projects that are already in-flight.

Based on responses received, we will explore ways to incentivise bidders to conclude transactions more efficiently and aim to consult further on this next year. We also consulted on the control of OFTO assets and received a range of views from

<sup>&</sup>lt;sup>1</sup> <u>Decision: OFTO extension and evolution of a mature asset class | Ofgem</u>

<sup>&</sup>lt;sup>2</sup> Guidance on offshore transmission health reviews | Ofgem

<sup>&</sup>lt;sup>3</sup> https://www.ofgem.gov.uk/decision/decision-ofto-extension-and-evolution-mature-asset-class

<sup>&</sup>lt;sup>4</sup> OFTO: further evolution of a mature asset class | Ofgem

participants in the regime, particularly on the structure of Operation and Maintenance Service Agreements (OMSAs). We will further develop our policy on these, alongside measures to support new bidders into the regime throughout 2026.

### **Decision-making stages**

Following the consultation, we analysed the responses received and used them to inform the decisions set out below.

Stage 1 Consultation open: 14 July 2025

**Stage 2** Consultation closes (awaiting decision). Deadline for responses: 9 September 2025

Stage 3 Responses reviewed and published: 8 December 2025

## **HVDC** availability

This section sets out our decisions on whether the availability target of 98% should be retained for HVDC assets.

#### Questions

- Q1. Should we retain the 98% availability target for all assets, including HVDC, to provide more time for HVDC assets to come online and to build technical evidence on performance? Is there anything further we should do to support HVDC assets to reach 98%?
- Q2. Do you agree with Ofgem's view that, on balance, the interconnector approach is not appropriate for OFTO projects?
- Q3. Do you agree with Ofgem's view that, on balance, a model similar to the onshore balanced scorecard for HVDC availability is not appropriate?
- Q4. Are there any other changes to the regime that we should consider to account for the differences in HVAC and HVDC technology and potential availability?

As discussed in our consultation, under the OFTO regime, the revenue that OFTOs receive is directly linked to the availability of the transmission asset.

The purpose of the availability incentive is to encourage high technical availability. This is a key part of our policy objectives with OFTOs, particularly when projects connect very high levels of generation, as a loss of transmission can have substantial impacts on consumers, the generator and the transmission network as a whole.

All projects up to Tender Round 10 have used High Voltage Alternating Current (HVAC) technology, which has been shown to be reliable and cost effective for shorter distances. As larger wind farms are built further offshore, generators are increasingly opting for HVDC technology, which allows for transmission at higher capacity with less power loss over greater distances. However, the technology is such that it connects significantly greater amounts of generation through each circuit, which means that if a HVDC system disconnects, there is the potential for relatively large amounts of generation to be lost. In some cases, a total loss of transmission could be possible if a component within a HVDC system has failed and the system only has a single circuit.

We are also aware that HVDC projects are at a greater distance from shore, which can mean a greater possibility of failure and increased time to locate the fault and repair, due to the additional cable length.<sup>5</sup>

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<sup>&</sup>lt;sup>5</sup> HVDC System Availability | Vinci, 2025

We consulted on whether the 98% target was appropriate for HVDC assets, and whether we should look at other models as used across the wider industry on availability.

# Responses

Response	Description
Q1: Developers on the 98% Availability Target	
Broadly supportive of maintaining the 98% availability target with suggestions	Most developers support maintaining the target, as they have a strong interest in maintaining high availability in order to be able to transmit power to shore.  However, respondents note that the allowance of critical spare components in the cost assessment process is key to minimising downtime and ensuring that availability remains high in the event of an outage.  A few respondents are also supportive of maintaining the 98% target while suggesting case-by-case assessments for individual HVDC projects that may need flexibility and while more operational data is collected on HVDC OFTO projects.
Against the 98% target with recommendations	Some responses have voiced concerns and uncertainty about projects' ability to consistently and reliably reach 98%, especially for HVDC projects that are further offshore.  Some respondents have suggested this be assessed on a case-by-case basis, or by creating a structured review mechanism to consider projects' technical and environmental factors.
Q1: OFTOs on the 98% Availability Target	
One OFTO supported maintaining the 98% target while noting this would depend heavily on spare allowance	This OFTO supported the proposal to maintain the 98% target. However, they emphasise that assets' ability to do so would require a more flexible consideration of spare component allowance, especially for projects further offshore and HVDC projects that could lose 100% availability in the event of an outage. They highlighted limited choice of OEMs as an issue, as their

	suppliers use valve-based technology, which is prone to failure within the first few years of operation.  They also recommended a case-by-case assessment, as well as a list of critical spares that should be considered.
One OFTO suggested a case-by-case review with recommendations	This OFTO recommends a case-by-case assessment to reflect the complexities of maintaining offshore convertor station and to allow further evidence gathering for HVDC projects. They reference international HVDC OFTO and interconnector projects that operate at 92-98% availability.
	They welcomed clearer guidance on the treatment of Exceptional Events, cost allowance and benchmarking of HVDC-specific spare procurement to enable quicker fault repairs and operational logistics planning in remote locations.
	They also noted concerns about a lack of ability to engage with OEMs for projects holding post-construction operations contracts, as it limits the options for tailored and independent service offerings.
	They also recommend performance benchmarking by creating differentiated reporting templates to track data on failure patterns, spare strategies and Mean Time to Repair that are specific to HVDC projects.
One OFTO is against the 98% target with recommendations	This OFTO was against a uniform 98% target, noting that there is a high probability of a 100% loss of availability for HVDC projects due to cable faults, converter unreliability, greater distance offshore, and a limited services market within the UK.
	They recommended:
	Independent design and implementation audits of OEMs' HVDC system design and for reports to be made available to bidders during the early ITT stage Modifying the availability target in a phased manner e.g. by starting at a lower target and gradually increasing while evidence on HVDC asset operability is collected.
	Establishing clear mechanisms for EE claims to increase cost transparency, financial viability and investor confidence.

	Promoting data sharing e.g. for Ofgem to facilitate
	anonymised sharing of operational data and root cause fault analyses of HVDC projects.
	Conducting minor repairs during low wind periods or during onshore asset outages to prevent an impact on reported availability.
	Mandating vessel sharing and vessel access on offshore platforms to increase OFTOs' access to assets.
	Facilitating more choice in O&M market provisions Promoting digital and AI solutions (e.g. remote monitoring, diagnostic and repair)
Other Respondents on the 98% Availability Target	
	A manufacturer supported maintaining the 98% availability target. They also suggested that specialist service providers facilitate long-term remote monitoring and timely access to HVDC assets for O&M to reach availability targets.
	Respondents with experience of delivering HVDC connections, particularly through interconnectors, have voiced uncertainty over long-term reliability of HVDC projects. They reference global operational availability target figures <sup>6</sup> , failure rates and mean time to repair as reasons for their concerns, especially for HVDC assets of more than 100km offshore.
Q2 and Q3: General on the Interconnector and Balanced Scorecard approach	
Broadly against	Most respondents agree that the interconnector and balanced scorecard approach aren't suitable due to the cap and floor mechanism for interconnectors. However,

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<sup>&</sup>lt;sup>6</sup> Study of the Reliability of HVDC Systems Throughout World During 2021-22 | Taiarol, 2024 on behalf of CIGRE's Study Committee B4 Advisory Group AG-04

	some have said it could be sensible to have specific availability targets for HVDC projects.  Only a few respondents were supportive of the interconnector and scorecard approach. The reason for this is linked to matters related to asset access and control, operation and maintenance, and the consideration of quality metrics in reporting, which we aim to address further in our next consultation.
Q4: General Suggestions on Accounting for the Differences between HVAC and HVDC Technology	
Achieving the 98% target through spare allowance	All responses note that critical spare components, such as transformers and cables, are key to meeting the availability target. This is because the technology for HVDC systems is more complex and tailored to individual projects' specific needs relative to HVAC systems, as well as being further out to shore.
	Most respondents note that if certain spare components are not readily available at hand in the event of a fault, it can take approximately 3 to 6 years to acquire a replacement. They have shared that the long lead time is partly due to how long it takes to produce a component and partly due to a lack of capacity within the market for Original Equipment Manufacturers (OEM).
	A manufacturer noted that operating and maintaining HVDC technology requires specialist expertise on behalf of OFTOs, and that this needs to be considered when selecting a Preferred Bidder.

#### **Decision**

Based on the responses above, our view is that the 98% target is appropriate for the vast majority of HVDC projects. However, based on the technical analysis from our consultants, there is some evidence that assets with over 200 km of cable can experience higher risk of failures and transmission losses.

We are open to conversations with HVDC developers pre-tender commencement to agree to a reduced availability target if there is a business case for it (e.g. through the technological issues that would make it very challenging to achieve the target). This

remains available for projects where the developer feels the 98% target isn't appropriate due to their project specifications Our evidence suggests that this is likely to be most appropriate for assets of over 200 km of cable. Once more OFTO HVDC assets come online we may look to review this approach, based on requests received and wider technical evidence.

Prior to tender commencement, developers will be able to submit their case and apply for flexibility based on the asset's operational and failure data they have.. If a project is deemed to be eligible for a reduced target, the availability incentive/penalty mechanism will be adjusted accordingly. For example, if the availability target is reduced, then the top and bottom range of percentages that would make an OFTO eligible for a base revenue bonus or penalty would follow the amount of reduction allowed. This means that the OFTO will receive a maximum of 5% of additional TRS based on 2% over performance from target, and it will be capped at this point. This will be determined before the ITT, in order to allow OFTOs to bid on the asset on that basis.

We are also mindful of the responses submitted that noted that strategic spares are key in achieving the availability target and mitigating the risk of outages, as the cost that would be borne by consumers in the event of an outage are significant. Based on the evidence received, we will look to review our approach with respect to providing more specific guidance on how these components can be appropriately justified, noting the technical, capacity and supply chain constraints. We will also look to update the Cost Assessment Guidance to reflect this, and to provide further detail on what justification we expect.

## Changes to the Tender Process

This section sets out our decisions on changes to the OFTO tender process, should Parliament decide to extend the Generator Commissioning Clause by 9 months.

#### Questions

- Q9. With DESNZ confirmation on the 9-month extension of the GCC, are there any outstanding concerns with our proposal to alter the tender process?
- Q10. Do you have any suggestions to manage the transition to the new timelines for projects already in flight?
- Q11. Is the provision of VDD likely to support and enable new entrants?

#### **Background**

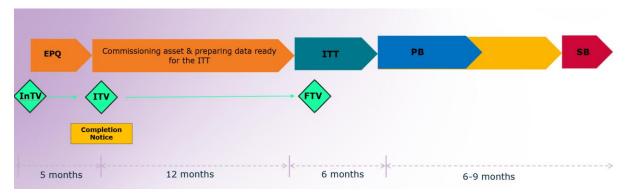
As set out in the Planning and Infrastructure Bill (**PIB**), published on 11 March 2025, DESNZ are proposing to extend the Generator Commissioning Clause (**GCC**) period by 9 months (from 18 months to 27 months)<sup>7</sup>. This change will come into effect 2 months following Royal Assent of the Bill and will apply to all projects in flight at this time or subsequently entering the tender process.

We have been consulting since December 2024 on what the tender process should look like in order to incentivise more efficient transactions. We also consulted on Vendor Due Diligence (VDD) as a way to improve the process and attract new bidders to the OFTO regime.

We consulted on a process that would delay the start of the Invitation to Tender (ITT) stage by 12 months in order to support developers to fully populate their data rooms and to support firmer bids by bidders, reducing the negotiations at Preferred Bidder (PB) stage. Our expectation is that the newly proposed process would improve timely checking and resolution of faults experienced. Therefore, we do not expect any material delays to the commencement of the ITT stage for projects where qualified bidders have been selected to participate in the ITT stage, nor do we expect transactions to take materially longer than it presently does. It is important to note that our intention has always been that if developers are ready to enter into the tender process (with data room fully populated and the transmission system running operationally as expected for the stage of development), Ofgem will not delay the start of the ITT unnecessarily.

<sup>&</sup>lt;sup>7</sup> Clause 29, Planning and Infrastructure Bill.

# July Proposal



# Responses

Response	Description
Q9 and Q10: Developers on Changes to the Tender Process	
Broadly against proposed changes to the tender timeline with alternative suggestions	Most developers expressed concerns about a 12-month extension pre-ITT as Ofgem proposed in the consultation and do not believe it will result in the anticipated benefits of reducing delays. As an alternative, some have suggested a shorter extension pre-ITT (e.g. 3 to 6 months), with more time at the ITT and PB stage, as most delays occur at the latter stage.
	The majority of respondents valued a more efficient use of time in the tender process, and there was an overarching desire to avoid last-minute negotiations before assets are transferred. As a result, all respondents see the value of having firm bids earlier on in the process.
	Developers think that a longer transaction period for assets can increase operational, advisory, financing and insurance costs. They also flagged that there could be a risk of specialist advisory staff being assigned elsewhere.
	To counter the abovementioned issues, some have suggested more flexibility to allow the ITT stage to begin earlier if both parties are ready or if certain commissioning milestones are reached (e.g. achieving 25 to 50% generation output).

OFTOs on Changes to the Tender Process	
Supportive of proposed changes with suggestions on how to use the time more effectively and mitigate risks	OFTO respondents support delaying the ITT stage and extension to the process, as they believe it would improve data quality, reduce due diligence related question and shorten the transaction process.
	However, one OFTO also noted that parties involved need incentives to ensure that the extra time is used more effectively.
	All OFTO respondents have also suggested clarifying data room expectations. They expect that having as much data available as transparently and as early as possible would mean that there are fewer cost assumptions made later on, and in turn, there would be fewer cost assumptions included in the TRS.
	One OFTO also said that the GCC should not be extended unless there is an urgent need to, otherwise, it could lead to protracted negotiations.
	Besides that, one OFTO suggested creating a risk allocation guidance to support smooth transactions between parties involved.
	Lastly, one OFTO thinks it would be beneficial to have more interaction between developers and bidders before the PB stage.
Other Respondents on Changes to the Tender Process	
Leasing Authority	The authority supports the extension to GCC as a means of supporting better data quality and firm bids at the ITT stage. They are in favour of any way to reduce pressure towards the end of the tender process and to provide them with enough time to handover the lease and asset.
General Suggestions on Changes to the Tender Process	

	Most respondents have sought clarity on how upcoming changes in the tender time and from the PIB will impact live projects.
	Some respondents – both developers and OFTOs – have said they would prefer if the FTV could be provided earlier on in the process, e.g., at the start of the ITT stage, due to resourcing and cost concerns. They have noted that the longer the period of time between the ITV and FTV, the less accurate the ITV would be.
Q11: General perspectives on Introducing Vendor Due Diligence	
Mixed views with suggestions to ensure added value of VDD	There are mixed views on introducing VDD with uncertainty about its added value due to duplication of existing documents and about how it could support new entrants due to the knowledge advantage of more experienced bidders.
	That being said, several respondents are open to it if standardised framework and benchmarks are developed, with clear processes to address unintentional VDD failures by third party consultants to ensure reliance, streamline documents and if costs could be recoverable as a part of the Final Transfer Value (FTV).

One developer supported introducing VDD, as it could support more competitive TRS bids, reduce challenges related to due diligence and in turn, shorten the PB stage.

One OFTO said introducing VDD would be helpful for benchmarking purposes, especially for new entrants. They suggested the VDD should be essential, conducted by independent accredited consultants and completed before ITT commences.

It is also worth noting that new bidding entrants have supported the value of introducing VDD in our previous consultation.

#### **Decision**

We have reflected on the feedback set out above. It is worth noting that our intention is to reduce the length of negotiations by ensuring that bidders have all the information

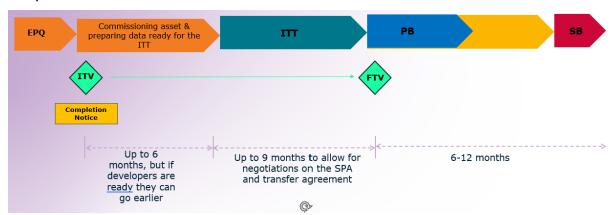
they need to make firm bids, therefore reducing the amount of negotiations required in (and the length of) the PB stage.

The intention behind the delayed start to the ITT is to allow for data rooms to be fully populated and to ensure that assets are operating as expected. However, we have taken on the comments noting that 12 months pre-ITT commencement is too long, particularly for those developers for whom their business cases rely on the divestment of the OFTO assets within a shorter timeframe.

Therefore, we are now proposing that the ITT will now expect to start 6 months post the final completion notice, with the option for those developers who are ready (with a fully populated data room and the assets operating as expected) to start earlier if they wish to do so. As is standard practice currently, developers may also need to be mindful of other projects occurring concurrently and the knock-on impact to theirs and bidders' resources, which may mean using some of the six months as a way to manage delivery.

The length of time for the ITT will also be extended in order to allow, if needed, further engagement with bidders and developers, as well as clarifications on the draft Sale and Purchase Agreement (SPA) and the Interface Agreement that are usually provided by the developer at this point. Developers will need to then consider the comments and concerns from bidders when making a new draft post interactions in order to facilitate a smooth PB stage (whilst balancing that this is a close to final draft). This already takes place to some extent, but the further time will allow additional iterations if needed. The objective of this is to reduce any unknowns for bidders and to facilitate firm bids and reduce negotiations in the PB stage. We will also aim to have the FTV ready ahead of the PB stage, where possible. Reflecting our consideration of the responses that noted that the majority of delays occur at the PB stage, this stage will also now contain a further three months of backstop time, in order to allow more time for any negotiations if needed and to reduce the need for time limited offshore transmission licence extensions to extend the project's GCC. This means that there is no practical reduction in the allowed transaction time but we expect transactions to take less time, and therefore not need the full 27 months.

#### **Proposed New Process**



We are also minded to introduce VDD as a requirement to support new bidders and to help support firmer bids. We are aware of responses noting that if introduced, it should replace the signposting report, that the VDD report framework should be standardised for consistency and comparability, and that a process needs to be introduced to ensure that it is of use to bidders. We will work to address these concerns and update the data room requirements to reflect this at the next appropriate Tender Round. This could also act as a helpful trigger for developers to confirm that their data room is ready to enter the ITT or if there are technical concerns that still need to be addressed. We are aware we will need to consider how costs of the VDD will be recovered, whether that be as part of the FTV or elsewhere.

Respondents also suggested that Ofgem provide guidance on expected risk allocation between parties to help support smoother transactions and reduce transaction delays. We will further explore this over the coming months.

We also asked if transitional arrangements were required for projects already in flight. Our view is that the proposed process contains sufficient flexibility for those projects, and as a result will not be introducing specific transitional arrangements. However, for those projects currently in active tender rounds, we will look at how best to use the additional PIB time if passed, given the circumstances of each project and their status in a transaction.

## Send us your feedback

We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this decision. We would also like to get your answers to these questions:

- Do you have any comments about the quality of this document?
- Do you have any comments about its tone and content?
- Was it easy to read and understand? Or could it have been better written?
- Are its conclusions balanced?
- Did it make reasoned recommendations?
- Do you have any further comments?

Please send your feedback to <a href="mailto:stakeholders@ofgem.gov.uk">stakeholders@ofgem.gov.uk</a>.