



# Information Memorandum

## Celtic Sea Floating Offshore Wind

Leasing Round 5

December 2023



OffshoreWind | THE CROWN  
ESTATE

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## Foreword

Offshore Wind Leasing Round 5 is a huge opportunity to write a new chapter in the global offshore wind story, sitting in one of the world's largest and most successful markets, underpinned by the UK's generations of expertise, and with access to some of the best natural resources.

We're excited by its potential to unlock important new renewable energy, but also by the role it will play in catalysing innovation, green jobs and opportunities to inspire the next generation.

Floating wind is set to become a key pillar of the global energy mix, and Round 5 is an opportunity to be at the forefront of this new technology and deliver commercial-scale projects in an established and stable market. This is reflected in recent announcements from UK Government, including almost £1 billion to support manufacturing capabilities for clean energy sectors, and committing space for up to an additional 12GW in the Celtic Sea beyond the 4.5GW set out here.

At its core, The Crown Estate's role is to serve the country by using its land and seabed to create the best value we can for the nation and for future generations - including social, environmental and financial. This means playing our part in responding to some of the biggest challenges, including climate change, nature loss, supporting economic growth and using our work to help communities become more resilient and inclusive.

When it comes to our work managing the seabed, this means taking a holistic and long-term view of this vital resource. We need the seabed to catalyse the UK's transition to net zero and seize the chance to create important new economic and social opportunities. More than ever, we also need to ensure we're deepening our understanding of the impacts on nature, working in partnership and looking to innovate to ensure we're playing our role in stewarding the marine environment.

**“Leasing Round 5 is set to be a game-changer for the UK’s offshore wind industry, and will be transformative for the communities associated with these projects.”**

Round 5 seeks to achieve this through the delivery of a spatial design agreed with UK Government, alongside the steps we are taking to help accelerate the deployment of projects and de-risk the process for developers, such as up-front measures to protect the environment and planning together for grid connections. This is also why the tender process sets clear expectations on the commitments developers will need to make when it comes to delivering broader social, environmental and economic benefits arising from their projects. 2024 will also see us bring forward a new pilot fund to help accelerate supply chain projects, with our initial focus on opportunities arising from Round 5.

Round 5 is set to be a game-changer for the UK's offshore wind industry, and will be transformative for the communities associated with these projects.

This Information Memorandum is the result of extensive engagement with an enormous array of stakeholders, statutory bodies and government representatives, and we are grateful for the constructive input we have received throughout this process.

However, the process set out in this document is just the start. It will require ongoing collaboration across governments and many different sectors to truly realise the potential of floating wind in the Celtic Sea and the wider UK.

I very much hope you share my enthusiasm for this exciting new opportunity, and we look forward to continuing to work with you as we lay the foundations for a prosperous and more sustainable future for generations to come.



**Gus Jaspert**  
Managing Director, Marine

A handwritten signature in blue ink, appearing to read 'A. J. Jaspert'.

## About this document

The purpose of this Information Memorandum is to provide an overview of the context and substance of the Celtic Sea Floating Offshore Wind Leasing Round 5 (Round 5) to potential Bidders and other stakeholders.

Part 1 of this document highlights the opportunity for Bidders in the context of the UK offshore wind market, the role of The Crown Estate in offshore wind and the specific benefits of floating offshore wind in the Celtic Sea.

Part 2 introduces The Crown Estate's Round 5 Programme - a broad body of work we have undertaken to set Round 5 up for success.

Part 3 provides details of the Round 5 leasing process, including the indicative structure and key dates of the tender.



## Round 5 at a glance



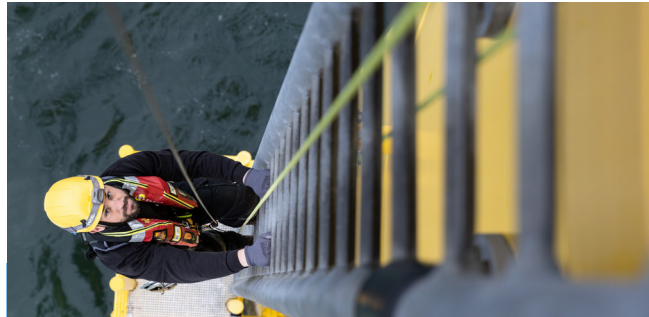
One of the largest floating offshore wind initiatives in the world

**Up to 4.5GW** total capacity available through Round 5

**Up to 1.5GW** maximum available capacity in each Project Development Area (PDA)

**1,000km<sup>2</sup>** of seabed, split across three PDAs

**>400** number of stakeholders engaged as part of the process



Significant economic opportunity\*

**Approx 4,000** permanent jobs expected during construction phase

**£300m** estimated annual economic activity in the UK during construction phase

**Up to £19bn** total forecast investment required



Engineering excellence\*

**+260** number of turbines to be spread across three Project Development Areas

**Approx 1,000** number of anchors tethering turbines to the seabed

**At least 300km** total length of mooring lines

**At least 800km** length of cables to link up turbines and connect to GB grid

\*Data from: "Celtic Sea Supply Chain Blueprint", a report for The Crown Estate by Lumen, due for publication in 2024

## Executive summary



Picture courtesy of Principle Power

The Crown Estate is launching Floating Offshore Wind in the Celtic Sea Leasing Round 5. Over the last 25 years, offshore wind has established itself as the cornerstone of the UK's move towards a more sustainable future, and is on track to meet the electricity needs of almost half of all UK homes in 2023.

Floating wind is the next stage of this green revolution, unlocking access to new areas of seabed in deeper waters, where the wind is stronger and more reliable. The UK is well-placed to take advantage of this exciting new technology, with generations of expertise and experience in the energy market and – more recently – its leading role in offshore renewables.

Round 5 builds on this success, and seeks to establish a new floating wind sector in the Celtic Sea off the coasts of South Wales and South West England. It is expected to be the first phase of commercial development in the Celtic Sea. In [Autumn 2023](#), the UK Government outlined its intention to work with The Crown Estate to unlock up

to 12GW of further capacity in the Celtic Sea, bringing an exciting opportunity to create new renewable energy capacity, while acting as a springboard for new social and economic opportunities.

The Crown Estate exists to create value in its broadest sense, both now and for future generations, whether that's environmental, social or financial. It has three strategic objectives focused on:

- Supporting the UK's move to a net zero carbon and energy-secure future
- Helping to create inclusive communities, supporting economic growth and productivity
- Playing a leading role in stewarding the UK's natural environment and biodiversity

These sit alongside a safety-first approach to all its activities.

These are reflected in the five objectives The Crown Estate has set for its activity in the Celtic Sea:



Support the development of a new floating wind market in the UK



Unlock clean energy in new areas offshore, in support of the UK's net zero target



Support the creation of social, economic and environmental value



Balance the needs of the environment, other users of the sea, and local communities



Incentivise investment in crucial enabling infrastructure

## The opportunity

Following extensive engagement with governments, industry stakeholders and other users of the seabed, we have developed an opportunity for the delivery of floating offshore wind projects in the Celtic Sea that is set to be one of the largest initiatives of its kind in the world. This includes:

- Three Project Development Areas (PDAs) in one of the most commercially attractive areas in the Celtic Sea, in close proximity to supporting infrastructure and grid connections in South Wales and South West England
- PDAs of roughly equal size, each with a potential capacity of up to 1.5GW, representing a total of up to 4.5GW from Round 5 – enough to provide clean, renewable energy for more than four million homes
- The ability for developers to deliver the PDAs in up to three Projects or Phases of at least 300MW, to align with anticipated corporate risk appetites and the availability of the supply chain to support delivery

## Laying the groundwork for success

In order to help de-risk the delivery of Round 5 Developments and to accelerate their deployment, The Crown Estate has taken a number of steps to create a solid foundation for a successful leasing round.

These steps include:

- A spatial design for the three PDAs agreed with UK Government and developed through close engagement with other seabed users and in response to market feedback
- Increased certainty for Bidders ahead of the tender process, plus meeting our objective to protect the needs of the environment, by carrying out an upfront, Plan-Level HRA (subject to Conformity Check) in tandem with the spatial design
- Providing successful Bidders with valuable data and helping them take early decisions and better manage risk through a major programme of technical and environmental pre-consent surveys
- A coordinated grid design, through close working with ESO and providing spatial design information to inform their offshore grid design recommendations for Round 5
- A fair, objective and transparent leasing process to attract long-term market interest into the UK's floating offshore wind industry
- Helping reduce the financial risk for Bidders through a 50 per cent reduction in option fees per year if project consenting causes undue delays to development

## Driving broader value

Alongside commercialising floating offshore wind, delivering wider social and environmental value is a key objective of the Round 5 Programme. This means setting a range of contractual commitments that will be required of all successful Bidders who win a PDA, ensuring they play a full part in creating the early conditions for long term supply chain success and delivering on the wider economic and social opportunities arising from Round 5.

Bidders will be required to show commitments for the timely access to port infrastructure needed to successfully develop Round 5 Developments.

Bidders will also be expected to make contractual commitments to generating positive social and environmental impacts. These will be aligned to the themes of skills and training, tackling inequalities in employment, environmental benefits and working with local communities.

The Crown Estate is also exploring options for a new vehicle which will provide matched development expenditure funding to accelerate supply chain projects across the UK, with a pilot scheme expected in the first part of 2024.

# Part 1:

## The opportunity in context





## 1.1 The opportunity

Round 5 aims to deliver a world class opportunity for Bidders in relation to the delivery of floating offshore wind projects in the Celtic Sea, whilst also unlocking wide-ranging benefits and opportunities for the communities and businesses that are involved in, or impacted by, the delivery of the Round 5 Developments.

Round 5 aims to deliver up to 4.5GW across three PDAs, each with a capacity of up to 1.5GW. It has been designed to attract significant investment into the UK. Bidders have the flexibility to develop each PDA in distinct Projects or Phases using a stepping-stone approach to suit developer risk appetite and to allow the supply chain to build its capacity and capability to serve this new market. We are exploring options for a new vehicle which will provide matched development expenditure funding to accelerate supply chain projects across the UK.

We have also focused on opportunities to strategically de-risk development for successful Bidders. For example, a spatial design, led by The Crown Estate and agreed with UK Government, minimises the risk of conflicting interests while maximising the value of the Celtic Sea seabed.

By conducting the Plan-Level HRA ahead of the tender for the first time, we support our objective to balance the needs of the environment, increase certainty for Bidders, and accelerate the leasing process. Our multi-million pound programme of offshore environmental and engineering surveys<sup>1</sup> will put vital data in the hands of successful Bidders, creating opportunities to advance their development schedules.

In addition, we have evolved and improved our tender design, with distinctive new features to support the rapid commercialisation of floating wind in the region. For the first time it contains provisions to support development of the supply chain, requiring Bidders to make early decisions on port infrastructure and commitments in relation to social value. We also intend to use a new Auction design to improve transparency in the bidding process and allow Bidders to more easily determine the value of the PDA they are bidding on. And the tender design acknowledges that Bidders face new risks developing a new technology in a new region, by implementing risk sharing arrangements on Option Fees.



<sup>1</sup> [Pre-Consent Surveys | Marine Data Exchange](#)

## 1.2 The UK offshore wind market

The UK is a world leader in the deployment of offshore wind, accounting for 24 per cent of global offshore wind capacity, second only to China<sup>2</sup>. The UK offers a stable and robust platform for further investment in offshore wind capacity, underpinned by favourable policy and market conditions.

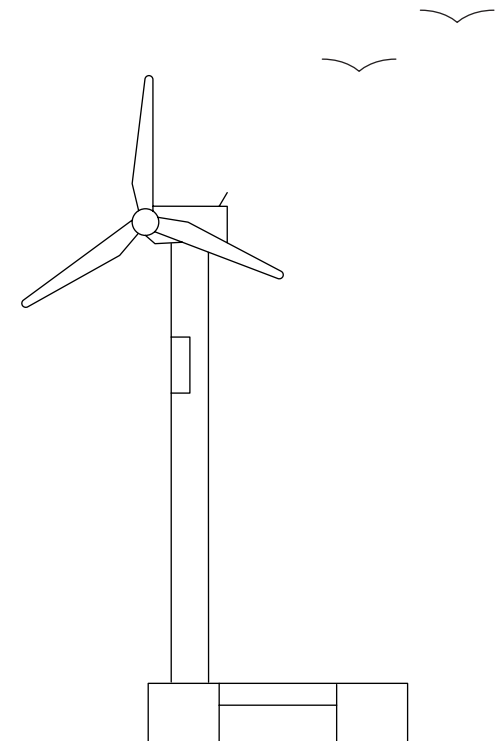
### 1.2.1 UK Government ambition

The UK Government's ambitions for offshore wind remain strong. In the long term, offshore wind is expected to be "the backbone of the whole UK energy system", with up to 140GW required by 2050 to meet the UK's net zero targets<sup>3</sup>.

As part of its [Autumn Statement](#) in November 2023, the UK Government set out its intention to bring forward legislation that will modernise The Crown Estate's investment powers to support future offshore wind leasing of up to 20-30GW of seabed rights by 2030. Government also outlined its intention to work with The Crown Estate to bring forward additional floating wind in the Celtic Sea through the 2030s, which could see an additional 12GW of generation deployed, alongside the 4.5GW identified through Round 5.

A range of national policies and initiatives exist in support of these ambitions, including:

- The UK Government's commitment to decarbonise power generation by 2035 and wider net zero target by 2050 is outlined in its publication '[Net Zero Strategy: Build Back Greener](#)'
- An ambition in the [British Energy Security Strategy](#) to deliver up to 50GW of offshore wind generation by 2030 with up to 5GW of this from floating offshore wind
- Emerging national policy for offshore wind delivery as evidenced in the consultation drafts of the replacement National Policy Statements EN-1<sup>4</sup> and EN-3<sup>5</sup> (which aim to support the rapid deployment of offshore wind)
- Cross-industry collaboration to drive the continued growth and development of the UK offshore wind sector, led by the [Offshore Wind Industry Council \(OWIC\)](#). Co-Chaired by Industry and the UK Minister of State for Energy Security and Net Zero, OWIC oversees and drives the implementation of the Offshore Wind Sector Deal and actions leading from the recommendations of the Offshore Wind Champion in his report, '[Accelerating deployment of offshore wind farms](#)'



<sup>2</sup> IRENA [Renewable Energy Capacity Statistics 2023](#)

<sup>3</sup> [Climate Change Committee Sixth Carbon Budget Sector Summary Electricity Generation](#)

<sup>4</sup> [Overarching National Policy Statement for Energy \(EN-1\)](#)

<sup>5</sup> [National Policy Statement for Renewable Energy Infrastructure \(EN-3\)](#)

### 1.2.2 A large and liberalised electricity market

The electricity market in Great Britain<sup>6</sup> is characterised by liberalised generation and supply markets, supported by regulated transmission and distribution networks. Energy policy is set by the Department for Energy Security and Net Zero, with the regulator Ofgem (Office of Gas & Electricity Markets) overseeing the operation of markets and regulating networks. Great Britain has had consistent and stable policy support for offshore wind for over a decade. Specific factors include:

- A well-established Great Britain-wide Contracts for Difference (CfD) scheme, which provides a stable 15-year revenue stream for generators. This has been highly successful in driving rapid deployment of offshore wind and reducing costs to consumers
- A liberalised national wholesale electricity market with a deep and liquid day-ahead market ensuring that generators, regardless of location, are able to achieve the reference price (minus imbalance risk between day ahead and delivery)

- A diverse array of credit-worthy offtakers (energy suppliers, large energy users, aggregators and traders) for generators to sell their output to, enabling competitive route-to-market arrangements (with the Offtaker of Last Resort scheme providing a backstop)
- A tried and tested regime for licencing offshore transmission assets. Ofgem manages the competitive tender process through which offshore transmission assets are sold and licences are granted

Largely in pursuit of the nation's net zero targets and/or to maintain energy security, many of these policy areas are currently either under review or reforms are being progressed. This includes potential wide-ranging market reform under the [Review of Electricity Market Arrangements \(REMA\)](#), conclusions from the [Offshore Transmission Network Review](#), and the planned introduction of a fully independent [Future System Operator \(FSO\)](#), which is expected to have an important role in operating, planning and developing the electricity network.

<sup>6</sup> The UK comprises Great Britain and Northern Ireland. We refer here to the electricity market arrangements in Great Britain only.

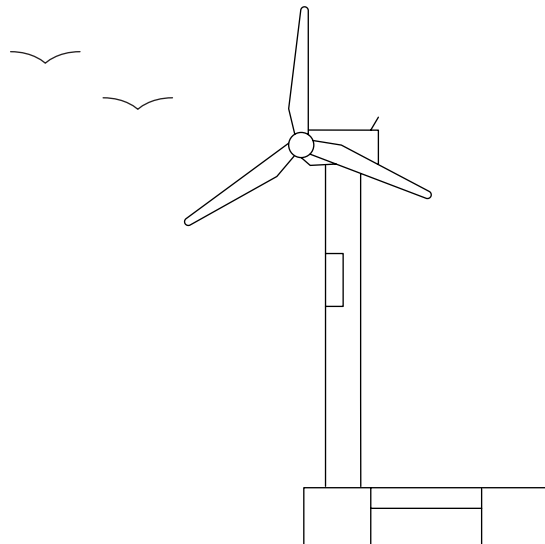
### 1.2.3 Continued support for renewable energy through the Contracts for Difference scheme

Great Britain has a well understood framework for incentivising and supporting low carbon energy technologies. The primary support mechanism for large-scale renewable and low carbon electricity generation is the [Contracts for Difference \(CfD\) scheme](#), which opened in 2014. CfDs provide price stability to developers by providing a 'strike price' for each megawatt hour (MWh) of power generated over the 15-year contract term. Generators are responsible for selling their power in the market, and either receive or pay the difference between a market reference price and the strike price for each unit of electricity generated. This clear, stable and predictable revenue stream has made Great Britain an attractive and investible market, and has been key to the success of our fixed foundation offshore wind market. The UK Government has recently moved to holding annual CfD allocation rounds.

The first floating wind project to be awarded a CfD was TwinHub, in the Celtic Sea. In the 2022 Allocation Round (AR4) it secured a strike price of £87.30/MWh (in 2012 prices)<sup>7</sup>. One of several test and demonstration floating wind projects in the Celtic Sea, the 30MW [TwinHub project](#) may help to kickstart the supply chain for Round 5 Developments.

The UK Government has recently published its timetable for the [Allocation Round 6 \(AR6\)](#), which is expected to open in March 2024 for the financial years ending in March 2028 and March 2029. The administrative strike price (being the maximum bid price) has been increased from AR5; for floating offshore wind this increases from £116/MWh to £176/MWh (a 52 per cent increase) in 2012 prices.

For AR6, floating offshore wind is in technology group Pot 2 (less established technologies). The UK Government is also consulting on the extent to which Sustainable Industry Reward<sup>8</sup> (formerly called non-price factors) could be used alongside price to determine the allocation of CfD contracts from AR7 (2025).



### 1.2.4 Reforms to transmission grid planning to de-risk future projects, speed up deployment and reduce environmental and community impacts

Significant national policy reform is underway in Great Britain to facilitate the connection of large volumes of energy from offshore wind. Reforms are driving the coordination of offshore wind and network developments, with an aim to minimise societal, environmental and economic impacts.

Network reforms include the Offshore Transmission Network Review (OTNR), which was announced in 2020 and was concluded in May 2023. The aim of the OTNR programme was to ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, considering the increased ambition for offshore wind to achieve net zero and finding the appropriate balance between environmental, social and economic costs.

As part of the OTNR programme, ESO carried out a [Holistic Network Design \(HND\) exercise](#), published in July 2022.

The exercise provided a recommended offshore and onshore design for a 2030 electricity network. This report concluded that an integrated offshore grid shared by multiple offshore wind developments is generally beneficial, and gave initial considerations for network design in the Celtic Sea. This has been followed by the [HND Follow-Up Exercise \(HND FUE\)](#) which has Round 5 in its scope. This will deliver recommendations for an offshore network design and onshore network interface sites for the selected PDAs.

<sup>7</sup> [CfD Allocation Round 4 results](#)

<sup>8</sup> [Introducing a Contracts for Difference \(CfD\) Sustainable Industry Reward \(publishing.service.gov.uk\)](#)



### 1.2.5 Developing supply chain and port infrastructure to assure project delivery and support economic growth

UK Government policies and schemes aim to support and develop the UK supply chain for offshore wind. These include:

- The [Sector Deal](#), which includes an aim to increase UK content to 60 per cent by 2030
- The Floating Offshore Wind Manufacturing Investment Scheme ([FLOWMIS](#)), originally announced in October 2021, provides £160 million of funding to support critical port infrastructure development to enable the delivery of floating offshore wind in the UK. The scheme was launched in March 2023 with the first window of applications closing in August 2023
- The cross-industry [Floating Offshore Wind Task Force](#), co-ordinated by RenewableUK (with participation from The Crown Estate) with an initial remit to analyse how fast new offshore wind capacity can be built in UK waters and quantify the potential investment needed in UK ports and infrastructure to meet this demand

### 1.2.6 Research by The Crown Estate

The Crown Estate has commissioned research to develop a 'Celtic Sea Supply Chain Blueprint' which aims to provide a view on the opportunity to maximise economic growth and job creation from the initial 4.5GW of floating offshore wind in the region, and capture the opportunities associated with the longer-term sustainable development of the industry. Fully capturing that opportunity will require collaboration across governments, other users of the seabed as well as the supply chain and The Crown Estate. We look forward to publishing this work in early 2024.

## Examples of local partnerships in the Celtic Sea Region

The areas surrounding the Celtic Sea – South West England and South Wales – are key to the Round 5 Programme.

Both the Welsh Government and Cornwall Council, a unitary authority with devolved powers, are integral in delivering and translating the opportunity in the Celtic Sea into tangible benefits for the communities that surround the region. There is a long track-record of collaboration between them, and they recently signed a formal agreement which provides a framework for strengthening this relationship.

The Welsh Government and Local Enterprise Partnerships (LEPs), which represent the interests of Councils in Cornwall, Devon and Somerset, participate in the Celtic Sea Cluster, a collaboration which includes the Offshore Renewable Energy Catapult (ORE Catapult) to capture supply chain benefits for their communities. Bidders may also wish to familiarise themselves with local economic partnerships bringing together local leaders, governments and the local economy to work collaboratively and drive innovation to accelerate opportunities to respond to some of the key challenges of the day including working towards net zero and green growth.

These include the Western Gateway partnership around Bristol and South Wales, and the Great South West collaboration of the LEPs for Cornwall & Isles of Scilly, Devon, Dorset, and Somerset. In Wales, the Swansea Bay City deal brings together Pembrokeshire, Carmarthenshire, Swansea and Neath Port Talbot Local Authorities.

Bidders should note this is a snapshot of the local landscape and they should undertake their own work to understand how their proposals will contribute to local priorities and the legislative framework.



### 1.3 The Crown Estate's role in offshore wind

The Crown Estate has a long track record of creating successful market conditions for offshore wind.

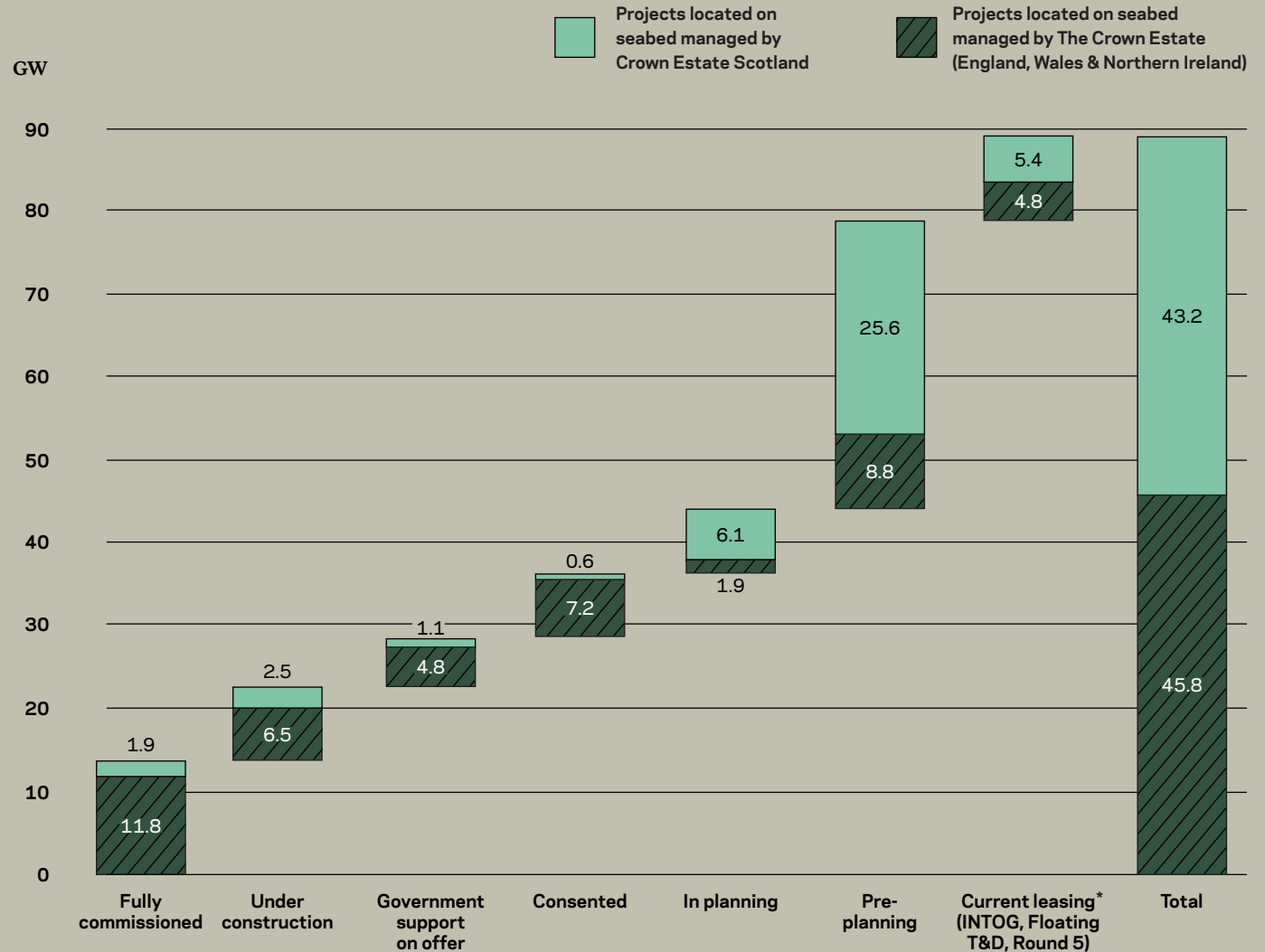
Our carefully planned and strategic approach has helped the UK become a world leader for fixed-bottom offshore wind, delivering rapid growth through commercialisation and cost reduction over four prior leasing rounds executed between 2001 and the present. Our most recent, leasing Round 4, commenced in 2019 and concluded in January 2023, with the award of Agreements for Lease for 8GW of offshore wind projects which have now entered the development phase.

We feel confident in our role supporting the UK's ambitions to reach 50GW of offshore wind by 2030, including up to 5GW of floating wind. Figure 1 shows that, on seabed that we manage, we now have 11.8GW of offshore wind in operation, nearly 6.5GW in construction, and another 22.7GW in development, a total of 41GW. With floating wind T&D projects and Round 5, this gives a total potential market capacity of 45.8GW on our seabed.

This does not include a potential 4GW of additional capacity from wind farm projects already in development, announced by The Crown Estate on 9th November 2023. Further details on this announcement can be found [here](#).

Figure 1. Current UK offshore wind portfolio

Figure 1 data correct as at 30 September 2023



\*INTOG, Floating T&D, Round 5 but excludes any additional potential capacity from The Crown Estate's announcement on 9 November 2023.



The Crown Estate has an ongoing commitment to invest in cross-sector convening capabilities and data and evidence. Central to this is a £50 million investment in the Offshore Wind Evidence and Change programme (OWEC) which brings together government bodies, the industry and key stakeholders to better understand the environmental impacts of offshore wind, and its effects on users of the sea and onshore communities. This investment is central to our understanding of the impact of schemes on the natural environment, which alongside our approach to leasing, help to improve and accelerate decision-making and catalyse the sustainable growth of the offshore wind market in the UK.

We are aware of the sustainability challenges associated with the rapid growth of offshore wind and we are working closely with our customers and stakeholders to address them. Future offshore wind projects will need to be designed to actively restore our damaged marine habitats; this includes protecting and enhancing natural carbon stores and building positive relationships with coastal communities and associated supply chains.

Round 5 will be our first tender dedicated to floating offshore wind farms. This will present new challenges as compared to our previous leasing rounds. For example, floating wind technology is nascent compared to our previous leasing rounds which were concentrated in water depths more suitable for fixed foundation offshore wind.

#### **Investing in the Supply Chain**

The Celtic Sea is in the early stages of development, and a proximate supply chain is not fully mature. Round 5 presents opportunities to deliver floating offshore wind farms in a way that delivers social, environmental and financial value for the nation.

Alongside the innovative leasing structure for Round 5, The Crown Estate is also exploring options for a new vehicle which will provide matched development expenditure funding to accelerate supply chain projects across the UK. The intention is to launch a pilot £10 million fund in the first part of 2024 with an

initial focus on capturing some of the economic opportunities identified by the Celtic Sea Supply Chain Blueprint and supporting the UK supply chain.

A further £40 million has been earmarked, which could be deployed over time on further opportunities nationally. Further details are expected to be set out in the first part of 2024.

The Crown Estate recognises that further investment in infrastructure will be required to support the long-term delivery of the UK's net zero ambitions. Examples for offshore wind include ports, manufacturing and supply chain. To help provide greater long-term visibility and unlock early investment, The Crown Estate also has an ambition to commit capital alongside others into these infrastructure projects. We are actively working with government, sector stakeholders and financial institutions such as the UKIB to explore this possibility.



## 1.4 Floating offshore wind

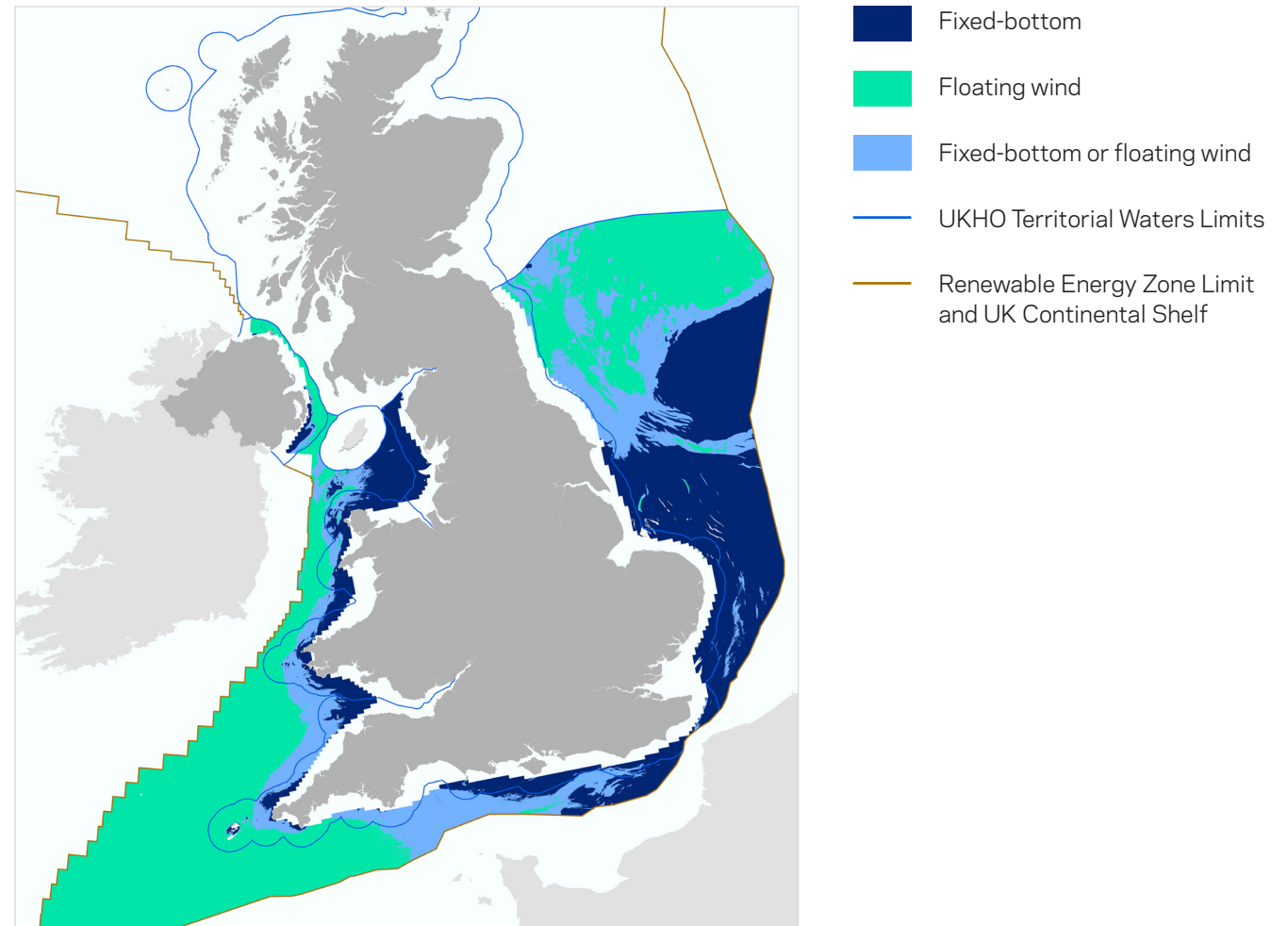
### 1.4.1 Resource and technical potential for a world-leading market

Fixed-bottom offshore wind is an established renewable energy technology. In contrast, floating offshore wind is a new and innovative sub-sector of offshore wind, a new frontier, giving opportunity to further harness the UK's outstanding wind resource.

Floating offshore wind enables deployment of turbines in deeper waters, which has the potential to bring wind power to new geographies where water depths were previously a barrier to installation. This will enable access to stronger and more consistent wind resource, and will ease constraints associated with the development of near-shore infrastructure, such as coastal environmental designations, air-traffic paths, or visual impact on residents.

Figure 2 shows the extent of The Crown Estate's waters which could be unlocked by floating offshore wind, (relative to the area suitable for fixed-bottom only), with substantial market opportunities in both the Celtic Sea and the North East of England.

Figure 2. Key Resource Area (KRA) for floating offshore wind and fixed foundation offshore wind<sup>9</sup>



<sup>9</sup>[Broad Horizons: Key Resource Areas for Offshore Wind](#)  
(A report by Everoze for The Crown Estate, 2020)

### 1.4.2 Maturing the industry to enable deployment at scale

Floating wind technology development is underway in the areas of sub-structure design, mooring and anchoring solutions, dynamic cables, installation, and operations and maintenance.

A number of small-scale demonstration floating wind farms are operational globally, including:

- The 88MW Hywind Tampen offshore wind project in Norway (2023)
- The 50MW Kincardine offshore wind farm in Aberdeen, Scotland (2021)
- The 25MW WindFloat Atlantic in Portugal (2020)
- The 30MW Hywind Scotland offshore wind farm in Peterhead (2017)

Globally, floating offshore wind capacity is expected to reach nearly 300MW by the end of 2023 with further pilot projects set to be deployed in Spain, France, South Korea, Japan, and the UK<sup>10</sup>. By some estimates, floating wind will account for 80 per cent of global offshore wind potential. Round 5 offers a chance for Bidders to demonstrate delivery on commercial scale projects in a mature and stable market.

Our test and demonstration (T&D) leasing opportunities are expected to further advance floating offshore wind technology development, with a potential pipeline of around 450MW of pre-commercial capacity which could be operational before 2030.

These projects, outlined here, demonstrate the early potential of the Celtic Sea for floating offshore wind:

- TwinHub secured Agreement for Lease, CfD secured in AR4
- Erebus secured Agreement for Lease, consent secured in early 2023
- LIÿr 1, LIÿr 2 and White Cross are progressing their development, with Agreement for Lease award subject to the outcome of the Round 5 HRA and finalisation of terms<sup>11</sup>

These T&D projects can de-risk the delivery of Round 5 by proving new technologies and approaches to construction, giving the regional and UK supply chains vital early learning opportunities to build their capacity and capability to serve the market at commercial scale.

<sup>10</sup> [Floating Wind Joint Industry Programme – Phase IV Summary \(Carbon Trust, 2022\)](#)

<sup>11</sup> [Three new T&D floating wind projects in the Celtic Sea to progress to next stage](#)



## 1.5 Commercialising floating offshore wind in the Celtic Sea

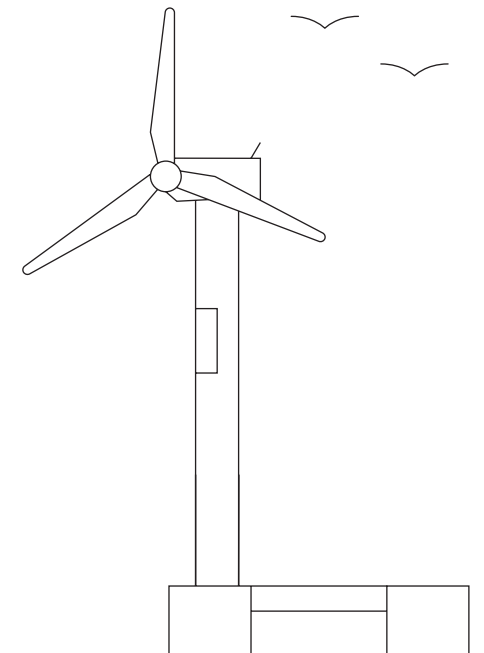
The Celtic Sea region presents an exceptional opportunity for floating offshore wind development, thanks to its abundant wind resources. It will likely play a key role in delivering new low-carbon generating capacity which secures the UK's future energy security and helps deliver net zero. And it is distinctive in that it diversifies the geographic distribution of the national wind portfolio, making our energy system more efficient and resilient.

But not all the conditions for a successful new market in the region exist. There are profound underlying strengths in the region: its strong wind resource, its proximity to industrial and domestic users of low-carbon energy, its industrial and maritime heritage and distinctive current industrial landscape, and the strength of its centres of higher education and research. All these are necessary for success, but are not, on their own, sufficient.

As the market develops and future leasing brings additional projects to the Celtic Sea, a much broader economic opportunity opens up. At integration ports (and in their hinterland), where the basic requirements for handling floating turbines and their foundations has been established, there is a clear opportunity to assemble and manufacture floating foundations and other high value activities.

To secure the success of Round 5 and the opportunities for communities in the region, following the conclusion of the leasing process, there will need to be further collaboration between The Crown Estate, successful Bidders, UK Government, ESO, National Grid Electricity Transmission (NGET) and wider stakeholders, building on the existing strengths of the region by:

- Securing broad marine and environmental stakeholder and wider community support for a new industry, and ensuring floating offshore wind projects sit comfortably alongside other existing users of the sea
- Securing new port infrastructure for the integration of turbines and foundations prior to deployment. The UK Government's Floating Wind Industrialisation Task Force<sup>12</sup> made clear that gigawatt-scale projects could only be successfully delivered from suitable port infrastructure in close proximity to project sites
- Upgrading grid infrastructure on a timeframe that matches offshore project construction, to get the power to users, whilst minimising impacts on communities and the environment
- Developing the capacity and capability for skills development in the region that will lead to the broadest possible inclusive employment opportunities



<sup>12</sup> [Industry Roadmap 2040: Building UK Port Infrastructure to Unlock the Floating Wind Opportunity](#)

# Part 2:

## Introducing The Crown Estate's Round 5 Programme



## 2.1 The Round 5 Programme

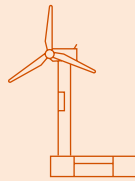
One of The Crown Estate's core strengths is its ability to bring people together to maximise impact and find shared solutions.

Over the past three years, we have engaged and worked in partnership with UK Government and Welsh Government, offshore wind developers, regulators, statutory bodies and non-governmental organisations representing the interests of the market, Celtic Sea communities, the environment, the fishing and maritime industries, port operators and others, to optimise our design of the Round 5 Programme.

This engagement has informed our programme objectives, shown in Figure 3, which seek to deliver a compelling opportunity for developers and their supply chains, whilst setting the conditions for the sustainable development of a substantial new market opportunity for floating wind in the region.

Our three-year engagement journey is illustrated in Figure 4 on page 22. Full details of our R5 marine stakeholder engagement process can be found in our Offshore Wind Leasing Round 5: Summary Stakeholder Feedback Report, within our [Round 5 document library](#).

Figure 3. Round 5 Programme objectives



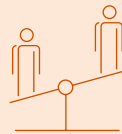
Support the development of a new floating wind market in the UK



Unlock clean energy in new areas offshore, in support of the UK's net zero target



Support the creation of social, economic and environmental value

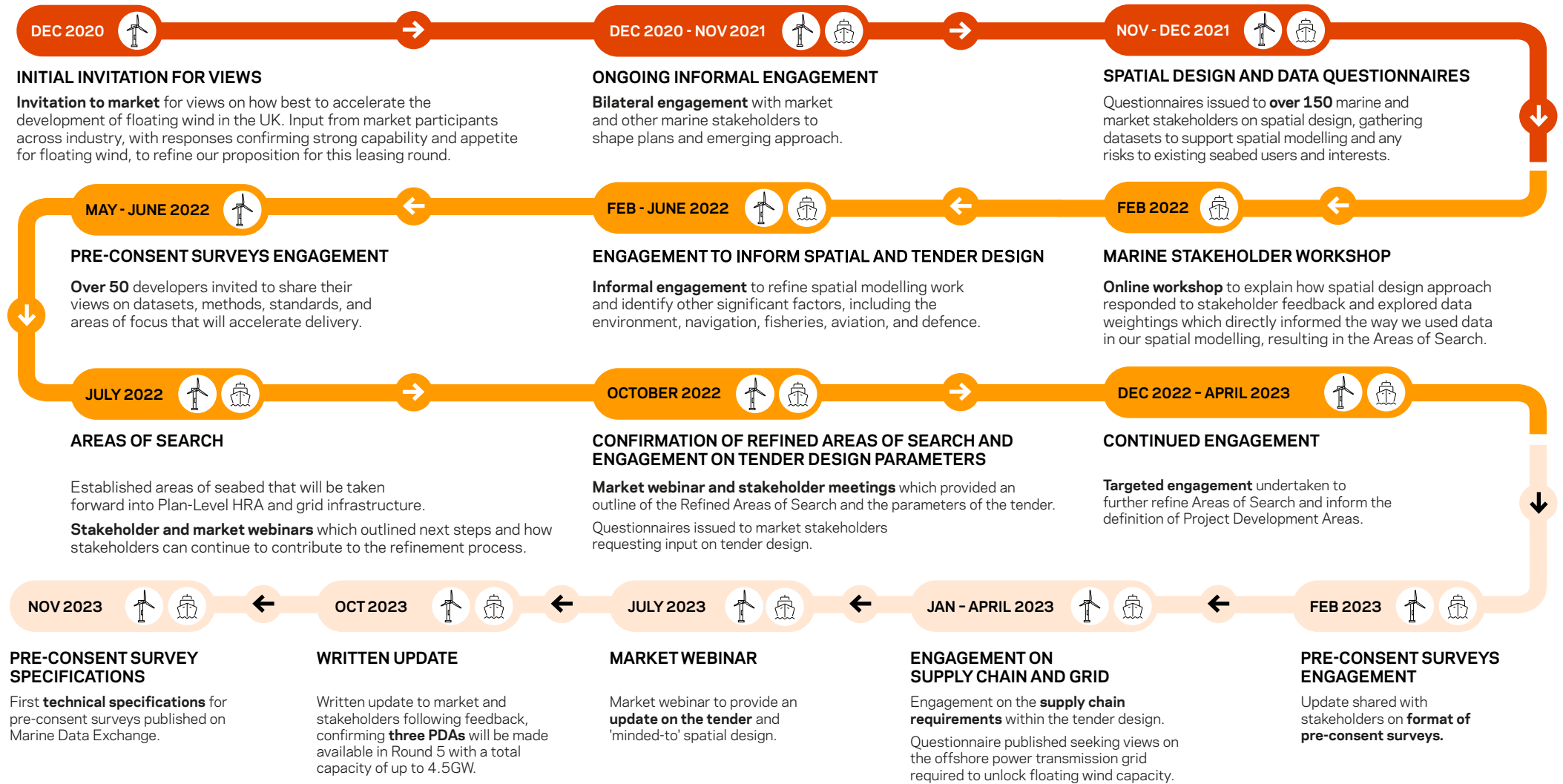


Balance the needs of the environment, other users of the sea and local communities



Incentivise investment in crucial enabling infrastructure

Figure 4: Our stakeholder and market engagement journey



**KEY:**  Market stakeholders |  Marine stakeholders

Through this collaboration, we have refined our design to create an opportunity defined by five key characteristics which we are now ready to bring to market:

**1 Three fixed-boundary Project Development Areas (PDAs) offering up to 1.5GW of potential capacity each**

Our multi-stage spatial design process, including extensive stakeholder engagement, has defined three PDAs in some of the best waters and the most commercially attractive areas in the Celtic Sea. The PDAs are in close proximity to South Wales and South West England, and close to supporting infrastructure and grid connections.

**2 Completion of a Plan-Level Habitats Regulations Assessment (HRA)**

The up-front Plan-Level Habitat Regulations Assessment will conclude ahead of the ITT stage and will embed the protection of designated habitats and species into the Round 5 leasing process. This helps meet our objective to balance the needs of the environment, whilst increasing certainty for Bidders and reducing the time required to complete the final stages of Round 5.

**3 Round 5 pre-consent surveys**

These are being undertaken to directly inform early-stage project engineering design, financing, and environmental impact assessment which will accelerate developers' consenting timescales and ensure offshore wind farms in the Celtic Sea are generating electricity at the earliest possible time to support the UK's net zero target. Development of the scope has been undertaken in consultation with Statutory Nature Conservation Bodies in order to deliver reliable and useful datasets to Bidders entering the Auction.

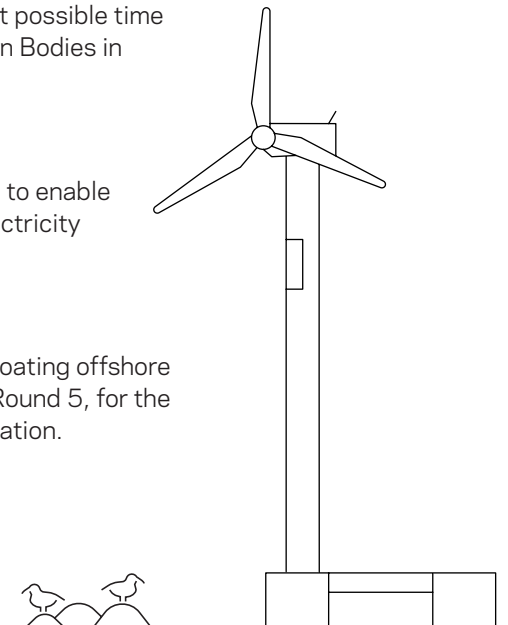
**4 Energy export and grid connection**

For the first time, our offshore spatial design will be accompanied by a matching set of design recommendations for the electricity grid to enable power offtake, helping to de-risk offshore project design and delivery. We have been engaging with both ESO and the National Grid Electricity Transmission (NGET), sharing offshore spatial design information to support their Holistic Network Design Follow-Up Exercise.

**5 Round 5 leasing process**

We have designed a fair, objective and transparent leasing process to attract long-term market interest and investment into the UK's floating offshore wind industry. This in turn will unlock the clean energy critical to reaching the UK's decarbonisation and energy security objectives. In Round 5, for the first time we have introduced social and environmental value criteria which reflects our commitment to creating broader value for the nation.

The Round 5 leasing process is illustrated in detail in [Part 3](#) of this Information Memorandum.



## 2.2 Project Development Areas (PDAs)

### A de-risked spatial design in some of the best waters in the Celtic Sea

The Crown Estate is leading the detailed spatial design of the areas to be made available for leasing by identifying defined PDAs in which developments can take place. In an increasingly busy marine environment, our unique position between industry and government allows us to address strategic issues with both immediate and long-term interests in mind to de-risk and accelerate development. Alongside this, our design process has been guided by a [proven methodology](#), evolved from four previous offshore wind leasing rounds, with spatial analysis and engagement at its core, so that we gain the insights and perspectives of stakeholders as early as possible and ensure that we are using the best available data and evidence to support our work.

The breadth, depth and quality of our engagement process is intended to de-risk projects for Bidders in Round 5. We intend that our seabed rights are awarded for PDAs that are commercially attractive and investible.

Full details of our stakeholder engagement journey can be found in the Offshore Wind Leasing Round 5: Summary Stakeholder Feedback Report, found within our [Round 5 document library](#). It details all of our major engagement activities, provides further information on our focus on marine stakeholders, and outlines the main findings and the actions and subsequent changes we made to our design.

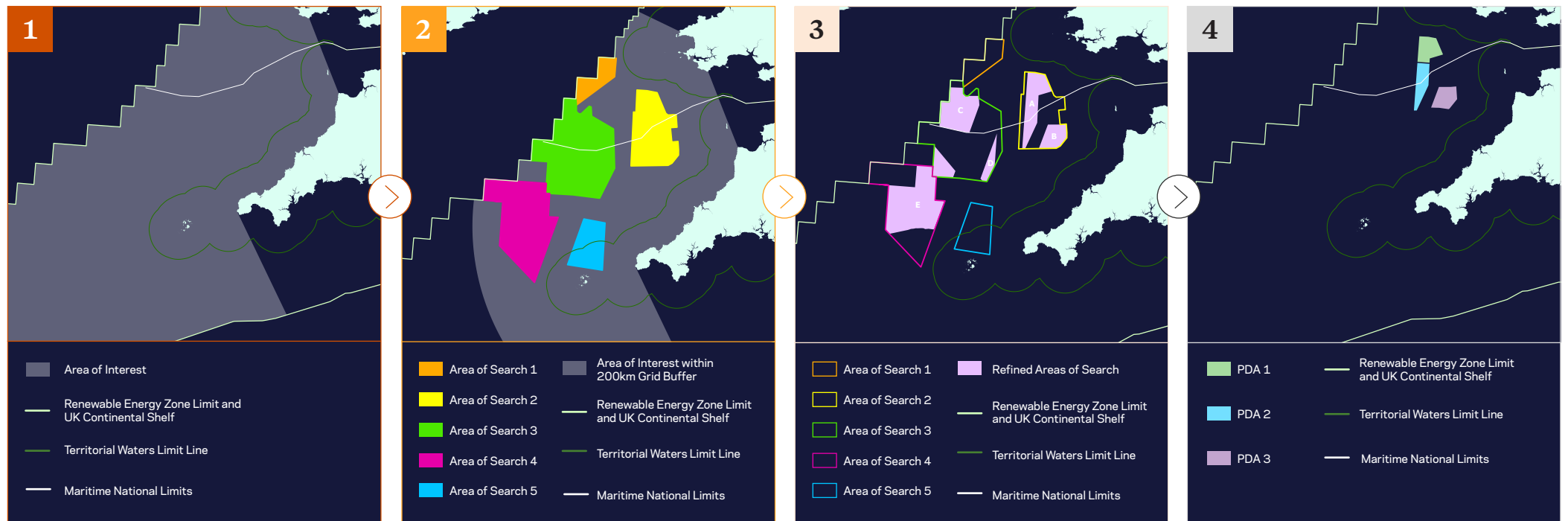
Our iterative spatial design process, informed by this engagement and feedback at each stage, is represented in Figure 5, on page 25. It shows how we have gradually refined our understanding of the risks and sensitivities, culminating in selection of the best sites for Round 5.





**Figure 5. Spatial design key stages**

This figure provides an overview of the key stages of our spatial refinement journey. This work is outlined in greater detail in our Site Selection Methodology paper published in December 2023. For further maps and GIS data please see our [Open Data Portal](#) and our [online storymap](#).



**1. Area of Interest**

The Crown Estate led definition of the area of interest with both marine and market stakeholder engagement.

**2. Area of Search (July 2022)**

Detailed spatial modelling and stakeholder engagement led to the identification of Areas of Search; large areas of sea space identified within the Area of Interest, within which PDAs would be located.

**3. Refined Areas of Search (October 2022)**

The refinement of the Areas of Search was undertaken by reviewing feedback received from stakeholders and through further targeted bilateral engagement.

**4. Project Development Areas (October 2023)**

The final selection of the PDAs follows close engagement and agreement with UK Government, who have been working to address a number of competing demands in the Celtic Sea.

## PDA Characteristics

We have identified three fixed-boundary PDAs of up to 1.5GW each, giving an opportunity to deliver up to 4.5GW of floating offshore wind overall.

They all benefit from good wind resource and are as close as practicable to grid connection and key port infrastructure, given the significance of other interests closer inshore. The sites are shown in Figure 6.

The PDAs are defined areas of seabed with fixed boundaries and geographical locations that define the maximum allowable extent of the floating offshore wind farms. Successful Bidders in Round 5 will have the flexibility to develop multiple Projects and Phases within the boundary of a PDA, subject to minimum and maximum Project and Phase capacity limits.

This approach allows developers to tailor their project development strategy to match their risk appetite and investment objectives, and allows the supply chain to iteratively build capacity and capability to serve this new market.

Specific information on each PDA can be found in our PDA Characterisation Reports. These describe the main engineering and environmental features of the PDAs and their interactions with known interests that play a key role in determining consent for any development. Taken together with our reports summarising our stakeholder engagement activity, the PDA Characterisation Reports are intended to provide a comprehensive picture of each PDA and its development potential. They also give details on the operation of turbine exclusion zones between adjacent PDAs. These reports and other information on the spatial refinement and PDA selection process can be found on our [website](#).

The selection of the PDAs follows close engagement and agreement with UK Government, which has been working to address a number of competing demands in the Celtic Sea. At our market update in July 2023, UK Government confirmed its support for our preferred location for the PDAs being offered to market through Round 5.

Bidders should note the potential need for Ministry of Defence (MoD) and civil radar mitigation measures for offshore wind development in this area. Enabling the co-existence of aviation and wind farm activity is being progressed through the cross-government and industry Joint Air Defence and Offshore Wind Mitigation Task Force. This includes the development of a strategic approach to providing mitigation across a number of wind farms (rather than project by project), in particular, for air defence radar. This work is also exploring potential requirements for developers to share the costs of funding the air defence radar mitigations required.

Figure 6: Map of PDA locations



## 2.3 Completion of Plan-Level Habitats Regulations Assessment (HRA)

### Embedding the protection of designated habitats and species into our PDA selection process

Our Plan-Level HRA assesses the potential for Round 5, alone and in combination with other plans or projects, to have adverse effects on the integrity of protected habitats from Round 5 Developments, and, where required, identifies appropriate mitigation measures. Our new upfront and iterative approach to the Plan-Level HRA embeds the protection of designated habitats and species into our site selection process. This helps meet our objective to balance the needs of the environment, whilst increasing certainty for Bidders and reducing the time required to complete the final stages of the tender process.

The Crown Estate has a legal obligation to carry out a Habitats Regulation Assessment (HRA) for all plans and projects that are likely to have a significant effect on European Sites or European Offshore Marine Sites. The Plan-Level HRA will ensure that any protected sites, where there is likely to be a significant effect as a result of Round 5, (alone or in-combination with other plans and projects), will undergo a robust appraisal to identify, define and mitigate any potential adverse effect(s) of Round 5 on the integrity of these sites<sup>13</sup>. The findings and conclusions of the Plan-Level HRA will be published on [our Round 5 website](#).

As part of the Round 5 Programme, The Crown Estate is conducting the Plan-Level HRA and we anticipate it will conclude in 2024. This is an evolution from Round 4, where developers nominated their own preferred project

sites and the plan-level HRA was carried out after the bidding cycles had concluded.

The integrated design approach for Round 5 ensures that we are able to balance the needs of the environment within our site selection process, a key objective of Round 5. It also reduces uncertainty by providing information on identified mitigation measures ahead of ITT Stage 1 and, subject to satisfaction of the Conformity Check, reduces the risk of delays or changes being required between the conclusion of the Auction and entry into the Wind Farm AfLs.

The site selection process for Round 5 has ensured that there are no direct overlaps between PDAs and designated European Sites and European Offshore Marine Sites, and potential impacts have been assessed through The Crown Estate's Plan-Level HRA.

#### 2.3.1 HRA Conformity Check

To ensure that the outcomes of Round 5 align with the outcomes of the Plan-Level HRA, The Crown Estate will carry out a HRA Conformity Check following conclusion of the Auction.

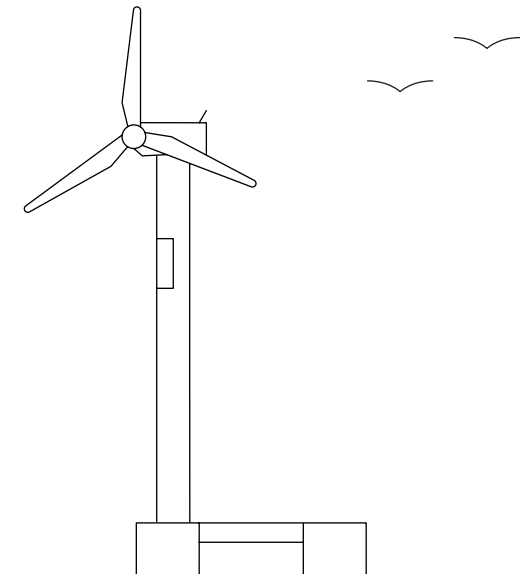
The Conformity Check will consider whether the conclusions of the Plan-Level HRA continue to remain valid, taking into account the outcome of Round 5 and any material changes in circumstances since the date of the Plan-Level HRA, such as changes to habitat designation or conservation status.

#### 2.3.2 Project-Level HRA

Once successful Bidders have been confirmed, and the HRA Conformity Check has been completed satisfactorily, it will be possible for them to commence project specific environmental assessments - including a more detailed Project-Level HRA - as part of their application for the relevant wind farm development consent(s).

#### 2.3.3 Further information

Further details on our HRA methodology are set out in our [Floating Wind HRA Manual](#) published in July 2022.



<sup>13</sup> As required under [The Conservation of Habitats and Species Regulations 2017](#) and [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)



## 2.4 Round 5 pre-consent surveys

### Reliable and useful datasets to accelerate consenting

The Crown Estate is a world leader in gathering, investing in and sharing marine data and evidence. In April 2022, we set out plans for a multi-million pound investment in an extensive programme of marine surveys (Round 5 pre-consent surveys) to support floating offshore wind in the Celtic Sea.

By making the data gathered from the Round 5 pre-consent surveys available to successful Bidders, The Crown Estate is aiming to accelerate the delivery of Round 5 Developments, making it easier for successful Bidders to take early decisions and manage engineering design risk, while supporting future Environmental Impact Assessments (EIAs) as part of the planning process.

We have worked closely with our technical advisors, ABPmer and DORIS Engineering to develop the scope and specifications for our Pre-consent Survey programme. Other key stakeholders, including statutory nature conservation bodies, have been carefully engaged to ensure the surveys will deliver reliable and useful datasets for Bidders. The technical specifications for the Round 5 pre-consent surveys will be available via [the Marine Data Exchange](#).

Our pre-consent surveys will cover:

- Geophysical surveys of the seabed, which were started in July 2023 by Fugro
- Population assessments of birds and marine mammals, from digital aerial surveys, which were started in September 2023 by HiDef Aerial Surveying Ltd
- Metocean surveys to characterise wind, wave and current patterns in the Celtic Sea, which will commence in early 2024 and will be delivered by Partrac
- Geotechnical investigations of the seabed which are planned for the summer of 2024

## 2.5 Energy export and grid connection

For the first time for any UK leasing round, our offshore spatial design will be accompanied by a matching set of design recommendations for the electricity grid, helping to de-risk offshore project design and delivery. We have been working closely with both the Electricity System Operator (ESO) and the National Grid Electricity Transmission (NGET), sharing offshore spatial design information to support their Holistic Network Design Follow-Up Exercise.

Successful Bidders will require a means of exporting energy from their Round 5 Developments. We anticipate that for most Project Companies this will be in the form of a connection to Great Britain's national electricity transmission system. Alternative export options for hydrogen may be provided through a pipeline agreement.

The Crown Estate's expectations for how the arrangements for connecting to the electricity grid will mature alongside our leasing process are set out on the following page.





### Holistic Network Design

Round 5 PDAs are within scope of the Holistic Network Design Follow Up Exercise (HNDFUE) currently being undertaken by ESO. Our engagement with ESO on the HNDFUE supports both their offshore network design and their onshore network interface site recommendations for each of the PDAs. ESO is assuming that each PDA will be built at the PDA Maximum Capacity. We have also engaged directly with the onshore transmission owner, National Grid Electricity Transmission (NGET) in our PDA design process. Recommendations are expected from the ESO by the end of March 2024, so we expect that Bidders should have full visibility of the transmission network design recommendations associated with each PDA prior to the start of ITT Stage 1.



### Asset classification

The assets included in the HNDFUE will be used for activities which require a licence under current legislation. In October 2022, [Ofgem set out the criteria](#) which it uses to determine the classification of assets, taking into account the primary usage of the asset by reference to the provisions of the Electricity Act. Offshore transmission assets are those which are constructed wholly or mainly for the purpose of transmitting electricity generated in offshore waters. Ofgem issued further guidance as to radial offshore transmission (i.e. assets transmitting power from a single offshore wind farm) and non-radial offshore transmission (assets transmitting power from more than one offshore wind farm). In this context, onshore transmission is any transmission not falling within the definition of offshore transmission. Ofgem will make a further publication on the classification of the network assets contained within the HNDFUE once known. Once this asset classification is known, we expect Bidders to be able to develop an understanding of the acceptable models for delivering an offshore grid connection from the Round 5 PDAs.



### Delivery model

For assets classified as radial offshore transmission, we expect that the existing OFTO regime will apply. For assets classified as non-radial offshore transmission, Ofgem has clarified that developers will have a choice of delivery models<sup>14</sup>. Ofgem has also consulted on an early-stage assessment process for anticipatory investment costs associated with non-radial offshore transmission. For assets classified as onshore transmission, we expect that the delivery model will be Transmission Owner (TO) build (i.e. by NGET).



### Connection Agreements

Project Companies who have been awarded a Wind Farm AfL wishing to connect to the national electricity transmission system will need a connection agreement with the Electricity System Operator (ESO), pursuant to the HNDFUE recommendations.



### Cable Route Protocol

The Crown Estate's cable route protocol (updated from time to time and available to download from the [Marine Data Exchange](#), and as may be revised for Round 5 as a result of the Plan-Level HRA or the HRA Conformity Check), sets out principles and requirements for entering into a Transmission AfL. Project Companies who have been awarded a Wind Farm AfL should follow these principles and requirements.

<sup>14</sup> [Final Decision on Pathway to 2030, Ofgem, 31 March 2023](#)



## 2.6 Introducing the Round 5 leasing process

Part 3 provides full details of the four-stage Round 5 leasing process which includes pre-qualification and invitation to tender (ITT Stages 1 and 2) before entry into Wind Farm AfLs. To meet our Round 5 objectives, we have introduced several innovative features, including:

- A revised Health and Safety approach
- New requirements in relation to ports and port rights
- The introduction of an ascending clock auction
- New Option Fee arrangements to share risk in relation to consenting
- A requirement for Bidders to make commitments in relation to social and environmental value

### Health and safety approach in Round 5

The Crown Estate is adopting an enhanced approach in terms of incorporating our 'Safety First' philosophy into the tender. We are committed to inspiring exemplary and caring safety leadership throughout our business and supply chain and in doing so, we are:

1. Increasing HSE requirements at PQQ stage
2. At ITT Stage 1, we are asking Bidders:
  - a. To engage with industry-leading fora, such as G+
  - b. To consider Health and Safety risks and mitigations
  - c. To evidence HSE Management systems and HSE organisations

### Identifying and securing port rights

The Crown Estates's own research and evidence from the UK Government's Floating Wind Industrialisation Task Force indicates that successful GW-scale project delivery requires integration ports in close proximity to the offshore project sites. Because no port in the vicinity of the Celtic Sea can currently provide GW-scale integration services to developers, we will require Bidders to nominate their preferred integration ports and make early commitments to those ports to support their timely development. We also believe that early investment in integration ports will pave the way to unlocking further supply chain opportunities.

### **Introduction of an ascending clock auction**

In a move away from previous leasing rounds, a distinctive feature of Round 5 is the introduction of an ascending clock auction for the final stage of the tender. Prices will be escalated from an opening value over a series of discrete Auction Rounds by The Crown Estate with prices and number of Option Fee Bids for each PDA communicated to the Bidders.

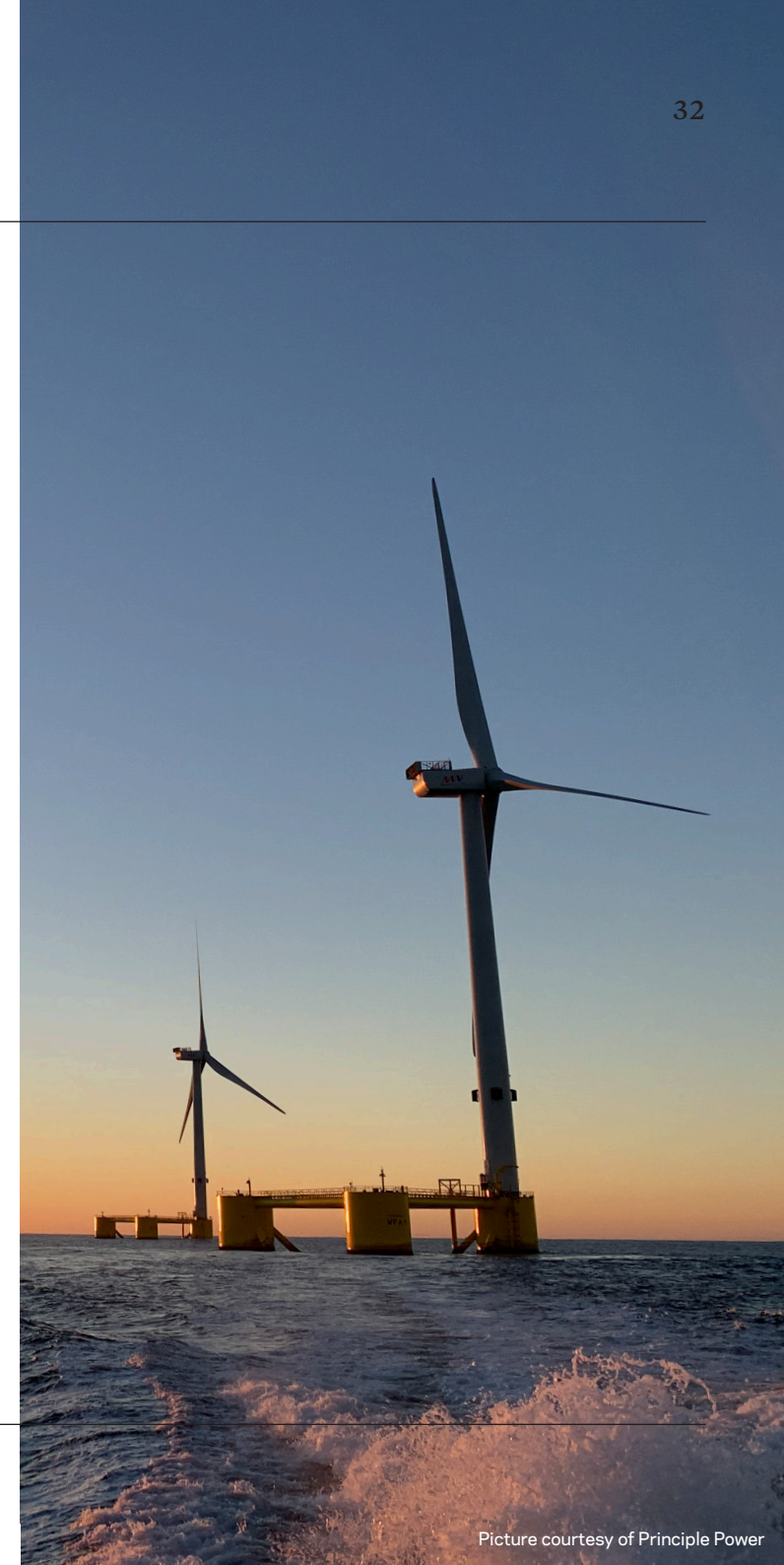
Ascending clock auctions are commonly used in processes where multiple Bidders compete for the same item. In the context of an innovative technology and a new market, an ascending clock auction maximises opportunities for granular price and market value discovery, allowing Bidders to offer their best proposals in a fair and transparent process, avoiding some of the issues a sealed bid approach may bring. Given the commonalities between auction lots (PDAs) and innovative technology involved, an ascending clock auction allows for greatest pricing discovery while reducing potential inefficiencies and risk for successful Bidders.

### **Consenting risk sharing on Option Fees**

Through Round 5, Bidders have an opportunity to bid and secure seabed rights with a novel Option Fee structure which maintains an incentive to deliver projects on time, rewards faster delivery and, crucially, shares with The Crown Estate the risk of consenting delays which are beyond Bidders' control.

We have listened to the market; through our engagement journey for Round 5, it has become apparent that developers interested in developing offshore wind projects face unique challenges linked to a novel technology yet to be deployed at full commercial scale. We want to play our part in kick-starting this nascent industry and share part of the risks. The Option Fee structure recognises the developer's needs and risks and offers a 50 per cent discount on the Option Fee after the sixth year of the Option Period for consenting delays under the Wind Farm AfL.

A comprehensive overview of the Option Fee mechanism is included in Part 3.







## Creating social and environmental value

The Crown Estate's strategy and purpose reflect society's needs in the UK; a need for communities to benefit from the transition to net zero and to protect and enhance the natural environment. Because our leasing process comes early in the offshore wind project development cycle, it provides a key opportunity to establish early incentives for Bidders to play their part in creating the foundations for new social and environmental value to be created.

Bidders must think innovatively and constructively about how their Round 5 Developments can create a legacy of healthier, more resilient, fairer, vibrant and prosperous communities, a legacy that will stretch beyond the lifetime of the Wind Farm Leases for the benefit of generations to come.

Commitments made during the tender process will be monitored, reported on and enforced throughout the lifetime of the relevant Round 5 Developments.

The Crown Estate is seeking to accelerate progress towards a net positive outcome for environment and improved resilience of marine ecosystems.

Our proposed approach draws on both ongoing discussions around evolving policy frameworks and direct discussions with statutory nature conservation bodies (SNCBs) about the various outcome categories that could deliver most value for the environment.

Working with key stakeholders, including SNCBs, we have identified a potential long-list of specific interventions in both England and Wales that could be taken forward by successful Bidders as part of the commitments they make under our Legal Agreements.

This list draws from both regionally specific plans and ongoing initiatives that are nested in national targets, to ensure we are adding to rather than duplicating effort. The long-list captures actions that deliver on a number of themes, including:

- Habitat restoration, creation and enhancement
- Pressure reduction e.g. litter, pollution, prey availability
- Land-Sea interactions e.g. water quality, land management
- Data and evidence to improve outcomes

# Part 3:

## Round 5 leasing process



## 3.1 Process overview

This section provides an overview of the four stages of the leasing process for the delivery of floating wind projects in the Celtic Sea and a draft timeline for Round 5. Potential Bidders, whether they are new to the UK market or already established here, have an opportunity to participate in Round 5, provided they can demonstrate that they, and their partners, meet the necessary legal, technical and financial eligibility criteria and satisfy all other requirements of Round 5.

When Bidders have demonstrated that they meet the eligibility criteria and all other requirements, and have demonstrated that they have the ability to deliver a Round 5 Development at ITT Stage 1, the final decision on PDA allocation will be made through an ascending clock auction (ITT Stage 2), where bids are based on annual Option Fee Bids offered. PDAs will be awarded to the Bidders who submit the highest annual Option Fee Bids in respect of the relevant PDA.

- 1 Pre-qualification questionnaire (PQQ)**

Bidders' technical experience, financial standing and legal compliance will be evaluated, with successful Bidders becoming pre-qualified to participate in ITT Stage 1. The PQQ will also provide a summary of the Key Legal Agreements to be entered into in connection with the Round 5 Developments.
- 2 Invitation to Tender Stage 1 (ITT Stage 1)**

Bidders' ability to deliver a Round 5 Development will be evaluated. The evaluation will focus on Bidders providing evidence of technical and HSE capability to successfully deliver a Round 5 Development in any one of the PDAs and their intentions regarding integration ports and plans to deliver social and environmental value during the term of the Legal Agreements. ITT Stage 1 will also establish the Maximum Level of Cash (MLOC) available that will be relevant to ITT Stage 2.
- 3 Invitation to Tender Stage 2 (ITT Stage 2)**

An Auction which will award each respective PDA when there is no more than one Bidder who is willing to meet the Auction Price for each PDA in any given Auction Round. Bidders will need to sign a Preferred Bidder Letter to participate in this stage of the process.
- 4 Entry into Wind Farm Agreements for Lease**

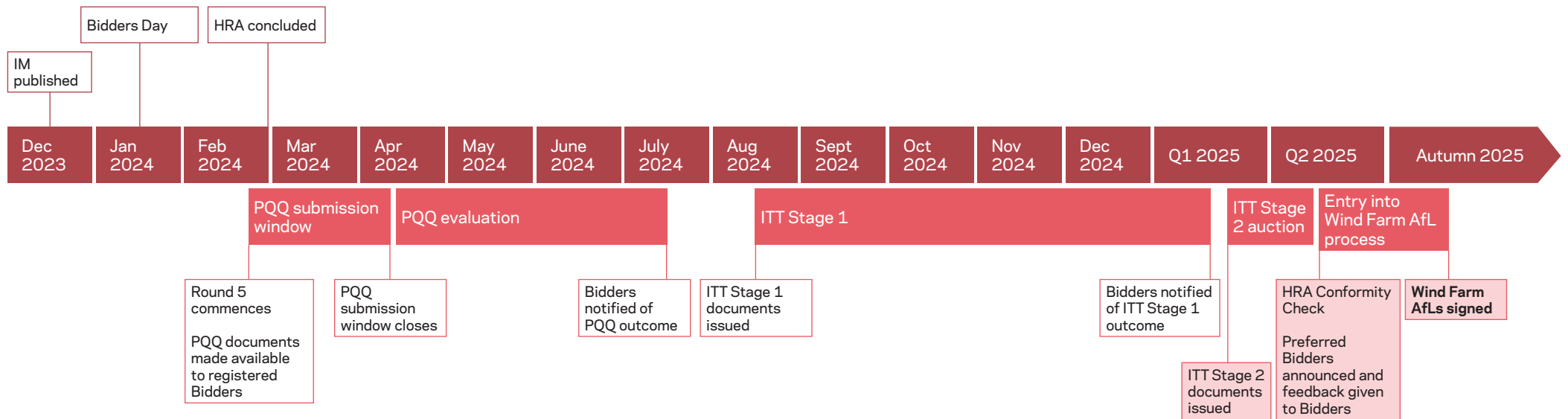
Each PDA will be governed by a separate Wind Farm AfL. Preferred Bidder Letters will not be entered into unless, and until, the HRA Conformity Check has been completed. If necessary, amendments will be made to the draft Wind Farm AfL shared with Bidders at ITT Stage 1, to address the outcome of the HRA Conformity Check.

### 3.1.1 Round 5 process timeline

Figure 8 provides an overview of the anticipated Round 5 timetable. Detailed timings will be confirmed by The Crown Estate in the Round 5 documents via the [Portal](#).

These timings are indicative. The Crown Estate reserves the right to vary and/or update this timeline, or to stop, pause or extend the process at any stage. Any changes to the timeline will be communicated to Bidders via the Portal.

Figure 8: Key dates for Round 5





### 3.1.2 Acceptable Bidder entities

Bidders can participate in Round 5 as a single entity (known as a Sole Bidder) or as a Consortium. For each PDA, The Crown Estate will ultimately enter into a Wind Farm AfL with a single legal entity, being either a Project Company which is directly or indirectly owned by a Sole Bidder, or in the case of a Consortium, a Project Company which is directly or indirectly owned by all of the Consortium Members. The relevant legal entity does not need to be formed at the PQQ stage, but must be formed prior to signing of the Wind Farm AfL in accordance with the ITT and the Preferred Bidder Letter.

Membership of multiple Consortia will not be permitted and no entity, or any member of its wider corporate group may have an interest in more than one Bidder at any stage of Round 5, be that as a Sole Bidder or as part of a Consortium.

### 3.1.3 The Crown Estate's Tender Portal and early indication of interest

The Crown Estate will manage and administer Round 5 on its web-based Portal, which uses a platform provided by Jaggaer. The Portal can be accessed at: [www.etendering.thecrownestate.co.uk](http://www.etendering.thecrownestate.co.uk)

From the date of the publication of this Information Memorandum, prospective Bidders may provide an early indication of their interest in participating in Round 5 by registering on the Portal, ahead of Round 5 commencing when the relevant contract notice is published via the Find a Tender service and the PQQ documents are made available through the Portal. Such early indications are intended to be for information purposes only and will not be binding.

Prospective Bidders who have registered on the Portal will be notified when the contract notice is published, expected to be late February. Bidders who have not registered on the Portal in advance must respond to the

contract notice and register on the Portal if they wish to participate in Round 5.

A guide to registering on the Portal and expressing an early indication of interest in participating in Round 5 is available on [The Crown Estate](http://The Crown Estate website) website.

After the contract notice has been published, The Crown Estate will deal with all Bidder questions and responses through the Portal. The Crown Estate will only consider questions and responses that are made using the Portal in accordance with the requirements of the PQQ and ITT documents.

The Crown Estate reserves the right to refuse to grant or to deny access at any time to the Portal to any person that The Crown Estate considers, in its absolute discretion, does not have a genuine intention to participate in Round 5 as either a Sole Bidder or a Consortium Member in order to secure seabed rights in respect of a PDA as contemplated by this Information Memorandum.

## 3.2 Pre-Qualification Questionnaire (PQQ)

This section provides an overview of the PQQ for Round 5 which is currently expected to commence in February 2024.

The PQQ is designed to evaluate Bidders' appropriate experience relevant to successful delivery of a Round 5 Development. The evaluation will be based on a set of legal, technical and financial criteria, assessing evidence from Bidders' past experience and financial performance, as well as some general eligibility matters. PQQ responses will be evaluated on a pass or fail basis, with successful Bidders progressing to ITT Stage 1. There will be no maximum limit on the number of Bidders who can be successful and proceed to ITT Stage 1.

### How to participate

Bidders must respond to the contract notice issued in relation to Round 5 via the Find a Tender service and register on the Portal if they wish to participate in Round 5. The Crown Estate does not intend to make the PQQ available except via the Portal.

The PQQ submission window will be open for approximately seven weeks during which Bidders can prepare and submit PQQ responses. Bidders will be able to ask clarification questions within the clarification window and only via the Portal, ahead of submitting PQQ responses.

Following the PQQ evaluation, Bidders will be informed of the outcome of PQQ via the Portal. Only Bidders who are successful at PQQ will be invited to participate in ITT Stage 1.



### 3.2.1 Legal evaluation criteria

Bidders will be evaluated against mandatory and discretionary exclusion criteria relating to matters including bribery and fraud, tax compliance, money-laundering and other grave professional misconduct.

In addition, during the PQQ, Bidders will have an opportunity to provide “red flag” feedback or comments on the heads of terms of the Legal Agreements (including the Preferred Bidder Letter, Wind Farm AfL, Transmission AfL, Wind Farm Lease and Transmission Lease which will be provided to Bidders as part of the PQQ documentation), to identify any issues that would prevent the Bidder from entering into those documents.

### 3.2.2 Technical evaluation criteria

The PQQ technical criteria are designed to ensure that a Bidder has the appropriate technical experience to successfully deliver a Round 5 Development. Due to the nascent nature of floating offshore wind, Bidders will not be required to have prior specific floating wind experience. The PQQ technical criteria can be satisfied through equivalent transferable experience from other relevant sectors or by direct past experience of offshore wind projects. Bidders will also be required to demonstrate past experience in offshore construction management and offshore development management.

Evidence of past experience can be provided by any member of a Sole Bidder’s group and for Consortia, any Consortium Member or any member of a Consortium Member’s group, with the exception of the PQQ technical criteria related to HSE policies referenced on this page, which, in the case of a Consortium, must be satisfied by all Consortium Members.

The PQQ technical criteria will require Bidders to have:

#### **Offshore development project management experience:**

Direct experience of managing a qualifying offshore energy project during development (up to Final Investment Decision). To be a qualifying offshore energy development project, a project must be an offshore energy project which reached Final Investment Decision on or later than 1 January 2014, located anywhere globally and is either:

- An offshore wind project greater than 100MW
- An offshore oil and gas installation (non-subsea) in water depths greater than 50 metres

#### **Offshore construction management or delivery experience:**

Direct experience of managing or delivering the construction of a qualifying offshore energy construction project. A qualifying offshore energy construction project means an offshore energy project which began construction on or later than 1 January 2014.

#### **Planning consent experience:**

A demonstrable role in managing and making key decisions for a Major Infrastructure Project at the point of consent submission (a Development Consent Order or equivalent) and throughout the process to grant of consent, submitted on 1 January 2014 or later and where examination by the relevant authority has concluded.

#### **HSE policies:**

Signed and up-to-date policies related to HSE, which comply with the Management of Health and Safety at Work Regulations 1999 and guidance provided in HSG65 for the Sole Bidder or each member of the Bidder’s Consortium. They must be appropriate for the proposed role of the organisation within floating offshore wind development activities.

#### **HSE enforcement action:**

Provided details of all HSE enforcement actions taken in the past five years in relation to the Sole Bidder or each Consortium Member. This includes, but is not limited to, any improvement notices, prohibition notices or convictions for a breach of any health and safety or environmental legislation, including ongoing investigations. If action has been taken or a breach has occurred, evidence will be required to show to The Crown Estate’s satisfaction, that mitigations and corrective actions have been taken to prevent recurrence. With regard to HSE enforcement action, details must be given in respect of any member of the Sole Bidder’s or Consortium Member’s group that is proposed to be involved in the management and delivery of Round 5 Developments.

### 3.2.3 Financial evaluation criteria

The PQQ financial criteria are designed to ensure that a Bidder has the financial standing required to participate in Round 5 and deliver a Round 5 Development.

Evaluation will be based on the financial information of the Bidder's (or relevant Consortium Members' or their Guarantor's) last three accounting periods as contained within their most recent three sets of audited financial statements.

Five financial tender parameters, shown in Figure 9, will be evaluated using the financial information provided. This means each financial tender parameter will be evaluated in respect of the Bidder's (or each relevant Consortium Member's or their Guarantor's) three most recent accounting periods.

To pass the PQQ financial criteria a Bidder must, in each of the three accounting periods:

- Pass the Revenue Ratio and Net Assets Balance financial tender parameters
- Pass, in each accounting period, a minimum of one additional financial tender parameter (being one of the Operating Profit Margin, Interest Cover Ratio and Current Ratio financial tender parameters)

### Figure 9. Financial tender parameters

The financial tender parameters are as follows:

<b>Revenue Ratio</b>	A Bidder is required to demonstrate a ratio of annual revenue to annual development costs of £30m that is greater than or equal to 10.  If a Bidder has an accounting period that is not a year in length, the £30m of development costs will be pro-rated as necessary.	$\frac{\text{Annual Revenue}}{\text{Annual Development Costs of £30m}} \geq 10$
<b>Operating Profit Margin</b>	A Bidder is required to demonstrate a ratio of operating profit to revenue, expressed as a percentage, greater than or equal to 5 per cent.	$\frac{\text{Operating Profit}}{\text{Revenue}} \geq 5\%$
<b>Interest Cover Ratio</b>	A Bidder is required to demonstrate a ratio of operating profit to net interest paid greater than or equal to 5, or demonstrate an operating profit and net interest income.	$\frac{\text{Operating Profit}}{\text{Net Interest Paid}} \geq 5$
<b>Current Ratio</b>	A Bidder is required to demonstrate a ratio of current assets to current liabilities greater than or equal to 1.	$\frac{\text{Current Assets}}{\text{Current Liabilities}} \geq 1$
<b>Net Assets Balance</b>	A Bidder is required to demonstrate a Net Assets Balance, being the difference between total assets and total liabilities, greater than or equal to £300m	$\text{Total Assets} - \text{Total Liabilities} \geq \text{£300m}$



**Guarantors**

Sole Bidders and Consortium Members can rely on a Guarantor’s finances and financial information to satisfy the PQQ financial criteria. A Guarantor must have a direct or indirect equity shareholding of at least 10 per cent in the Sole Bidder or Consortium Member for which it is providing a guarantee. Each Guarantor will be required to provide a signed Guarantor’s letter of support confirming its commitment.

If a Guarantor is proposed at the PQQ stage (regardless of whether they are contributing to the relevant Bidder satisfying the PQQ financial evaluation criteria), the Guarantor’s financial information will be used (along with the financial information for Consortium members and other Guarantors) to establish the MLOC at ITT Stage 1. A Bidder that does not rely upon a Guarantor at PQQ stage cannot rely on a Guarantor at ITT Stage 1 to establish the MLOC

**Sole Bidders: Financial tender parameter calculation**

For Sole Bidders, the financial tender parameters will be evaluated using the financial information for each accounting period contained within the Sole Bidder’s, or their Guarantor’s, most recent three sets of audited financial statements. The Guarantor’s financial information will be used where a Sole Bidder specifies that they will be relying on a Guarantor to meet the financial evaluation criteria.

An example calculation of the Revenue Ratio financial tender parameter in the most recent accounting period is provided in Figure 10 for a Sole Bidder relying on a Guarantor using the financial information contained in the Guarantor’s most recent set of audited financial statements.

**Figure 10: Example calculation - Sole Bidder**

Financial Information	Revenue Ratio Calculation	Commentary
<p>The following revenue figure was recorded in the Guarantor’s most recent set of audited financial statements which had an accounting period length of 12 months:</p> <p>£350m</p>	$\frac{\text{annual revenue}}{\text{annual development costs of £30m}}$ $\frac{£350m}{£30m} = 11.67$	<p>The Sole Bidder must pass the Revenue Ratio in each accounting period that is evaluated.</p> <p>As the Sole Bidder is relying on a Guarantor, the Guarantor’s financial information is used to perform the financial tender parameter calculation.</p> <p>In the Guarantor’s most recent set of audited financial statements it has revenues of £350m which means it achieves a Revenue Ratio of 11.67.</p> <p>The Sole Bidder therefore achieves a pass of the Revenue Ratio in the most recent accounting period as this exceeds the pass threshold of greater than or equal to 10.</p>

**Consortia: Financial tender parameter calculation**

A Consortium will be evaluated against the PQQ financial evaluation criteria using the aggregated financial information from all contributing Consortium Members weighted by each contributing Consortium Members' or their Guarantors' proposed contribution to the PQQ financial evaluation criteria. Consortium Members do not individually need to pass the financial tender parameters.

As part of its PQQ response, the Bidder must confirm each Consortium Member's percentage contribution towards the PQQ financial tender parameter calculations. Not every Consortium Member is required to contribute towards the PQQ financial tender parameter calculations. However, each and every Consortium Member (or Guarantor) will be taken account of during the ITT Stage 1 MLOC determination.

If a Consortium Member is relying on a Guarantor, the Guarantor's financial information will be used and its financial information will be weighted according to the relevant Consortium Member's contribution towards the PQQ financial tender parameter calculations.

See Figure 11 for an example of a calculation of the Revenue Ratio financial tender parameter in the most recent accounting period for a two-member Consortium, neither of which is relying on a Guarantor. Hence, the financial tender parameter calculation uses the financial information as reported within each Consortium Member's most recent set of audited financial statements. Both Consortium Members have 12 month accounting periods in their respective most recent accounting periods.

**Figure 11: Example revenue calculation - Consortium**

Financial Information	Revenue Ratio Calculation	Commentary
<ul style="list-style-type: none"> <li>Consortium Member 1 stated it would contribute 80% towards the PQQ financial tender parameter calculations</li> <li>Consortium Member 2 stated it would contribute 20% towards the PQQ financial tender parameter calculations</li> </ul>		
<p>Consortium Member 1 revenue: £525m</p>	$\frac{\text{annual revenue}}{\text{annual development costs of } \pounds 30\text{m}}$	<p>The Consortium must pass the Revenue Ratio in each accounting period that is evaluated in aggregate.</p>
<p>Consortium Member 2 revenue: £225m</p>	<p>The Consortium's annual revenue figure is calculated by weighting each Consortium Member's annual revenue for the most recent accounting period by their percentage contribution to the PQQ financial tender parameters calculations.</p>	<p>The calculation is based on the financial information from each Consortium Member's most recent set of audited financial statements. These do not have to have the same accounting period dates or lengths.</p>
	$(\pounds 525\text{m} \times 80\%) + (\pounds 225\text{m} \times 20\%)$	<p>A weighted annual revenue figure is calculated for the Consortium as the sum of each Consortium Member's revenue figure from their most recent set of audited financial statements multiplied by their percentage contribution towards the PQQ financial tender parameter calculations.</p>
	<p>Consortium Weighted Annual Revenue therefore equals £465m for the most recent accounting period and the Revenue Ratio can be calculated in aggregate for the Consortium as:</p>	<p>The Revenue Ratio is calculated using the weighted annual revenue figure for the Consortium in aggregate.</p>
	$\frac{\pounds 465\text{m}}{\pounds 30\text{m}} = 15.5$	<p>The value of 15.5 for the ratio is greater than 10 so the Consortium passes for the most recent accounting period.</p>

## 3.3 Invitation to Tender (ITT) - Stage 1

This section provides an overview of the ITT Stage 1 for Round 5. Full ITT Stage 1 documentation will be shared, via the Portal, with Bidders who are successful at the PQQ stage.

ITT Stage 1 is designed to evaluate technical responses and to establish the MLOC that will be relevant to ITT Stage 2. As with the PQQ stage, ITT Stage 1 responses will be evaluated on a pass or fail basis, with no maximum limit on the number of Bidders that can be successful and proceed to ITT Stage 2.

At ITT Stage 1, Bidders will be provided with the draft Legal Agreements and they will be required to confirm that they unconditionally accept the terms of the draft Legal Agreements.

### **How to participate**

The ITT Stage 1 documents will be made available to all Bidders passing the PQQ, via the Portal. Bidders will be given approximately seven weeks to submit an ITT Stage 1 response, within which time The Crown Estate will answer clarification questions submitted by Bidders via the Portal.

Bidders will be informed via the Portal of the outcome of ITT Stage 1. Only Bidders that are successful at ITT Stage 1 will be invited to participate in ITT Stage 2.



### 3.3.1 Legal evaluation criteria

Bidders will be required to confirm that they continue to satisfy the PQQ legal criteria and that they unconditionally accept the terms of the draft Legal Agreements that will be provided at ITT Stage 1.

### 3.3.2 Technical criteria

The ITT Stage 1 technical criteria are designed to ensure the Bidder has considered key risks and delivery issues associated with developing the PDAs, and will put forward appropriate mitigation measures where needed. The technical criteria are designed to apply on a generic basis for all three PDAs. Bidders who pass the technical criteria will be eligible to submit Option Fee Bids in relation to all three PDAs during the Auction at ITT Stage 2, provided they satisfy all other requirements of ITT Stage 1.

The ITT Stage 1 technical criteria will be as follows:

#### Consenting and stakeholder engagement

Bidders must identify consenting risks and appropriate mitigations where relevant. Bidders may wish to refer to the PDA Characterisation Reports and alternative sources of information in their answer and provide evidence of a preliminary stakeholder engagement plan. Bidders must also provide a plan summarising how an Environmental Impact Assessment (EIA) will be undertaken, including resourcing requirements (external or otherwise).

#### Engineering risk assessment

Bidders must identify engineering risks and appropriate mitigations where relevant. Bidders must provide evidence of the source of information used to identify the risk(s) (e.g. PDA Characterisation Reports or other).

#### Schedule and organisational structure

Bidders must provide a high-level programme schedule (which is PDA agnostic), demonstrating logical sequencing and key dates which are compatible with the contractual milestones. Bidders must provide an organisational structure and governance structure for the development phase of a proposed Round 5 Development.

#### HSE management

Bidders must provide evidence of appropriate HSE management systems and processes that will be applied either through demonstration of a qualifying HSE management system or demonstrating a credible plan to develop a qualifying HSE management system. Bidders must prepare a statement that describes their process for managing compliance with the The Construction (Design and Management) Regulations 2015. Bidders must also provide a description of their approach to aligning the development of a Round 5 Development with the relevant guidance and recommendations published in the Global Offshore Wind Health and Safety Organisation ('G+') good practice guidance documents.

#### Design envelope

Bidders must confirm that Round 5 Developments will be developed within the limits of the design envelope that was developed in consultation with the market and used for the Plan-Level HRA.

#### Integration Ports

Bidders must identify the primary and alternative sea ports which they propose to use in order to carry out the integration activities necessary to deliver a Round 5 Development. Bidders will be required to provide a letter of comfort from the relevant ports demonstrating early engagement and providing The Crown Estate with some assurance that:

- The relevant ports can or could in the future meet the Bidder's requirements of a port
- The relevant ports are, in principle, willing and able to grant the Bidder the necessary rights of access and use of the port and its facilities within the Option Period
- If there are any development works required to expand or upgrade the relevant ports to meet the Bidder's requirements, such development works will be completed within the 10 year Option Period

Bidders will be expected to demonstrate that their chosen ports will be available for them to use at an appropriate time within the Option Period and in line with the development plan that must be provided as part of the ITT Stage 1 response and which will ultimately form part of the Wind Farm AfL if the Bidder is successful at Auction.

### Social value

Bidders must deliver Round 5 Developments in a way that delivers positive social and environmental outcomes in the communities that are likely to be impacted. Bidders will be required to describe their proposals for achieving this and to provide detailed plans, with commitments to deliver social and environmental outcomes in certain areas. Bidders will need to provide:

- An apprenticeships plan, outlining plans for increasing the number of apprenticeships and a commitment to ensure that at least 3.5 per cent of all new workers involved in Round 5 Developments, are employed as apprentices
- A skills development plan, outlining any skills gaps or shortages that have been identified and a plan for how to address those. The plan must describe how the Bidder will ensure that its workforce will possess the skills necessary to successfully deliver a Round 5 Development
- A NEETs plan, outlining plans for increasing the number of NEETs engaged in its workforce and a commitment to ensure that at least 10 per cent of all new workers involved in Round 5 Developments and aged between 19 and 24 when first engaged are, or have very recently been, NEETs
- A community impact plan, outlining plans for actively and constructively engaging with the communities that are likely to be directly or indirectly impacted by Round 5 Developments and seeking their input on relevant Round 5 Project topics
- A community engagement plan, outlining the likely or potential impacts on communities that Bidders expect to occur as a direct or indirect consequence of delivering Round 5 Developments throughout their lifespan, including with respect to noise, environmental impacts, loss of amenities (such as green space) and other similar impacts and explaining how these impacts will be mitigated
- A volunteering plan, outlining proposals for implementing, sustaining and promoting a volunteering scheme for the workforce engaged in delivering Round 5 Developments, in the communities that are likely to be impacted by them. The plan must detail what the volunteering scheme would involve, how many hours of volunteering time it will involve and how the scheme will benefit and affect the communities impacted by Round 5 Projects
- A social value method statement outlining (amongst other things) the proposed model for engagement and collaboration with The Crown Estate to deliver social value, the processes for engaging with The Crown Estate and setting out any relevant team roles, a description of measurement and evaluation tools or methodologies and describing what the Bidders consider to be the risks to successful delivery of social value and suitable mitigations

Under the Legal Agreements, Project Companies will be required to implement and comply with all of the above plans and proactively monitor and report on compliance (and the outcomes achieved) throughout the lifetime of the relevant Round 5 Developments.

The Legal Agreements will also include obligations designed to tackle inequality and diversity in the workforce, promote sustainable procurement, promote an inclusive working environment and retention and progression of employees (regardless of educational, social and family background, disability, language, race and ethnicity).

### Environmental value

Legal Agreements will require Bidders to demonstrate how they will accelerate progress towards a net positive outcome for environment and improved resilience of marine ecosystems, including providing a plan which demonstrates how Project Companies will achieve positive environmental outcomes and contribute to marine ecosystem resilience in the Celtic Sea.

### Development Plan

Bidders must populate a PDA-agnostic development plan template which will form part of the successful Bidders' obligations under the Preferred Bidder Letter and the Wind Farm AfL.

### 3.3.3 MLOC calculation

The MLOC is designed to ensure that a Bidder is able to meet the minimum expected future financial commitments required for a Round 5 Development.

Bidders will be required to demonstrate their Maximum Level of Cash (MLOC) in the form of Cash and Cash Equivalents and Undrawn Borrowing Facilities, as stated in the Bidder's most recent set of audited financial statements.

A Sole Bidder's MLOC will be calculated with reference to the Sole Bidder, or its Guarantor's, most recent set of audited financial statements.

A Consortium's MLOC will be calculated on an additive basis with reference to each and every Consortium Member's, or their Guarantor's, most recent set of audited financial statements.

If a Sole Bidder or Consortium Member proposed a Guarantor at PQQ stage, then the Guarantor's most recent audited financial statements must be used in the MLOC calculation at ITT Stage 1 and the financial information of the Sole Bidder or Consortium Member cannot be used.

An example of the MLOC calculation for a Consortia with three Consortium Members is set out in Figure 12 on page 47.

### Maximum Level of Cash (MLOC) Threshold

A Bidder's MLOC must be equal to, or in excess of, the Maximum Level of Cash (MLOC) threshold of £45m, calculated below:

$$1.5 \times \text{annual development costs of } \pounds 30\text{m} = \pounds 45\text{m}.$$

### Cap on Bidder's Option Fee Bid during the Auction

The Bidder must confirm its understanding that its MLOC figure will be used to cap the Bidder's Option Fee Bid during the Auction at ITT Stage 2 based on the following formula:

$$\text{MLOC} \geq (3 \times \text{Option Fee Bid} \times 1,500\text{MW}) + (1.5 \times \text{annual development costs of } \pounds 30\text{m})$$

**Figure 12. Example of the MLOC calculation at ITT Stage 1 and application during ITT Stage 2**

The following table provides a worked example of how the MLOC will be calculated, how it will be used at ITT Stage 1 as a threshold and at ITT Stage 2 as a cap.

- Consortium Member 1 stated it would contribute 70% towards the PQQ financial tender parameter calculations
- Consortium Member 2 stated it would contribute 30% towards the PQQ financial tender parameter calculations and will rely on a Guarantor to pass the PQQ and ITT financial tender parameter calculations
- Consortium Member 3 stated it would contribute 0% towards the PQQ financial tender parameter calculations

Financial Information	MLOC Calculation	Commentary
Consortium Member 1 Cash and Cash Equivalents: £300m	The Consortium's MLOC is calculated by adding each Consortium Member's Cash and Cash Equivalents and any Undrawn Borrowing Facilities (or when relevant, their Guarantor's Cash and Cash Equivalents and any Undrawn Borrowing Facilities) stated in the most recent set of audited financial statements irrespective of the percentage contribution stated at the PQQ stage.	The calculation is based on the financial information from all Consortium Members' (or their Guarantor's) most recent set of audited financial statements. These do not have to have the same accounting period dates or lengths.
Consortium Member 1's Undrawn Borrowing Facilities: £50m		
Consortium Member 2's Guarantor's Cash and Cash Equivalents: £95m	MLOC = (£300m + £50m) + (£95m + £nil) + (£50m + £nil) = <b>£495m</b>	MLOC is calculated on an additive basis and is not weighted by financial contribution to PQQ financial tender parameter calculations or shareholding.
Consortium Member 2's Guarantor's Undrawn Borrowing Facilities: nil	The Consortium's MLOC therefore equals £495m, which is in excess of the MLOC Threshold, being £45m so the Consortium achieves a pass at ITT Stage 1.	
Consortium Member 3's Cash and Cash Equivalents: £50m	During the Auction at ITT Stage 2, the Bidder's MLOC will be used to cap the maximum Option Fee Bid permitted, such that in this example the Consortium will not be able to make an Option Fee Bid in excess of £100k/MW/annum. This is demonstrated below:	
Consortium Member 3's Undrawn Borrowing Facilities: nil	$(3 \times \text{£}100\text{k} \times 1,500\text{MW}) + (1.5 \times \text{annual development costs of £}30\text{m})$ $= \text{£}450\text{m} + \text{£}45\text{m}$ $= \text{£}495\text{m}$ $= \text{The Bidder's MLOC}$	
<div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Calculated in reverse we can show that the Bidder's maximum Option Fee Bid based on an MLOC of £495m can be calculated as:</p> <math display="block">\text{Maximum Option Fee Bid} = \frac{\text{MLOC} - (1.5 \times \text{annual development costs of £}30\text{m})}{(3 \times 1,500\text{MW})}</math> </div>		
$= (\text{£}495\text{m} - (1.5 \times \text{£}30\text{m})) / (3 \times 1,500\text{MW})$ $= \text{£}450\text{m} / 4,500\text{MW}$ $= \text{£}100\text{k/MW/annum}$		
The Bidder cannot submit an Option Fee Bid in excess of £100k/MW.		

## 3.4 Invitation to Tender (ITT) - Stage 2

This section provides an overview of the ITT Stage 2 for Round 5. Full ITT Stage 2 documentation will be made available to Bidders who are successful at ITT Stage 1, via the Portal.

ITT Stage 2 will identify successful Bidders for each PDA via an online ascending clock auction (referred to as the Auction), as set out further in this section. All three PDAs will be auctioned at the same time during a series of discrete Auction Rounds. Ahead of the Auction, Bidders will have executed the Preferred Bidder Letter.

### Auction process

During each Auction Round, Bidders will be able to submit a single Option Fee Bid in respect of any one PDA at the then current Auction Price specified by The Crown Estate for the relevant PDA in that Auction Round.

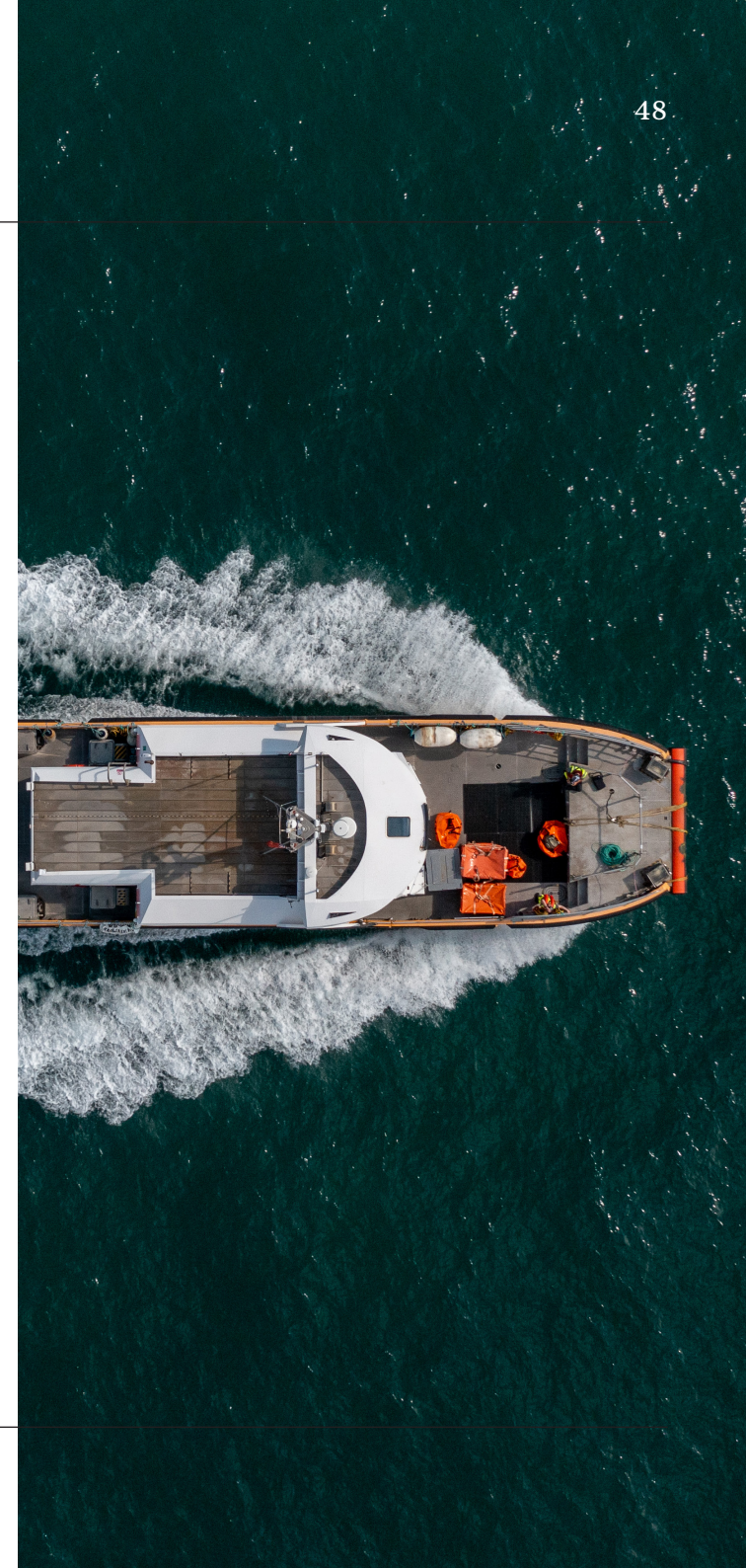
The Auction will have intervals between each Auction Round. During each interval, Bidders will be provided with information on the previous Auction Round and informed by how much the Auction Price will increase for each PDA in the next Auction Round.

When the next Auction Round starts, Bidders who submitted an Option Fee Bid in respect of a PDA during the previous Auction Round will again have the ability to submit a single Option Fee Bid in respect of any one PDA at the new Auction Price specified by The Crown Estate for the relevant PDA in that Auction Round. Subject to the rules of the Auction, Bidders will be able to submit their

single Option Fee Bid in respect of the same PDA as in the previous Auction Round or in respect of one of the other two PDAs.

Any Bidder who chooses not to submit an Option Fee Bid at the then current Auction Price for any of the PDAs in an Auction Round will have to exit the Auction for all of the PDAs. A Bidder exiting the Auction must submit an Exit Bid, representing the maximum Option Fee that the Bidder would be willing to pay in respect of a given PDA. A Bidder's Exit Bid must be for an amount that is less than the then current Auction Price for the relevant PDA, but is greater than the Auction Price for the relevant PDA in the previous Auction Round. The Bidder may be allocated a PDA at its Exit Bid. Where a Bidder exits the Auction, they will not be able to participate in any future Auction Rounds or submit any further Option Fee Bids in respect of any of the PDAs.

Subject to the detailed Auction rules which will be issued at ITT Stage 1, the Auction will end when there is no more than one Bidder who is willing to meet the Auction Price for each PDA in any given Auction Round (i.e. a maximum of one Bidder willing to meet the live Auction Price for each individual PDA in an Auction Round). At that point, the Auction will end and Preferred Bidder status will be awarded to those Bidders who submitted Option Fee Bids at the Auction Price or the highest Exit Bid in the final Auction Round for the relevant PDA (subject to payment of the relevant Option Fee Deposit and the HRA Conformity Check being completed).





### 3.4.1 HRA Conformity Check

The HRA Conformity Check will be undertaken following the Auction. The Crown Estate will notify successful Bidders of the outcome of the HRA Conformity Check as quickly as possible after the conclusion of the Auction. The HRA Conformity Check could result in a number of outcomes:

- There are no material changes in circumstances and the outcome of the tender process remains consistent with the conclusions of the Plan-Level HRA, so that the decision is made to progress to the signing of the Wind Farm AfLs without any modifications
- There are material changes in circumstances but either they do not affect the conclusions of the Plan-Level HRA or additional mitigation measures can be identified and secured so that the outcome of the tender process remains consistent with the conclusions of the Plan-Level HRA. A decision may be made to progress to the signing of the Wind Farm AfLs subject to modification to incorporate any additional or revised mitigation measures. Such mitigation measures could include reduction of a PDA or a reduction in the allowable generating capacity of a PDA but at present this is considered unlikely
- In the event of an HRA Conformity Check fail, meaning there are material changes in circumstances and even after considering potential mitigation measures, The Crown Estate cannot exclude an adverse effect on the integrity of a protected site, The Crown Estate may decide either:
  - To proceed with the tender outcome and in order to do so, prepare a derogation case and give notice of derogation to the Secretary of State and Welsh Ministers before a decision can be taken to progress to the signing of the Wind Farm AfLs. Where The Crown Estate decides to prepare a derogation case and the notice of derogation procedure is successfully concluded, the decision to proceed to the signing of the Wind Farm AfLs will be subject to modifications to the AfLs to incorporate (where relevant to an individual PDA) any additional or revised mitigation measures that have been identified and any compensatory measures that are required as part of the derogation; or
  - To terminate the Preferred Bidder Letter for the PDA(s) affected by the material changes in circumstances and not to proceed or to delay proceeding to enter into the Wind Farm AfL for the PDA(s) affected

If the PDA capacity is reduced below 500MW or the area is reduced by two-thirds or more following a mandatory capacity reduction (being a reduction in the capacity of a PDA imposed as a result of the requirement to mitigate any materially new or different adverse effects identified during the HRA Conformity Check), the successful Bidder is released from its obligation to enter into the Wind Farm AfL and The Crown Estate will return the Option Fee Deposit.





### 3.4.2 Preferred Bidder Letter

Bidders will be required to sign a Preferred Bidder Letter in advance of the Auction. In the case of a Consortium, the Preferred Bidder Letter will need to be signed by all Consortium Members.

In the Preferred Bidder Letter, each Bidder will confirm, amongst other things, that:

- Unless previously notified, there has been no change to its PQQ and ITT Stage 1 responses
- It has not breached any of the terms of the PQQ or ITT Stage 1 documentation and that it will continue to comply with it
- It unconditionally accepts the terms of the draft Legal Agreements provided to Bidders at ITT Stage 1 and will not seek to amend any aspect of any of the Legal Agreements

The Preferred Bidder Letter will require successful Bidders to enter into a Wind Farm AfL, subject to the outcome of the HRA Conformity Check in accordance with a process and timetable that will be notified to Bidders by The Crown Estate.

The Crown Estate may terminate the Preferred Bidder Letter, in whole or in part, in various circumstances, including where a preferred Bidder fails to comply with the process and requirements for entering into the Wind Farm AfL or where it is in breach of the PQQ or ITT. In such circumstances, The Crown Estate may retain and keep the Option Fee Deposit and, depending on the circumstances, claim damages from the successful Bidder.

### Entry into Wind Farm AfL

The Wind Farm AfL is the agreement under which seabed rights to a PDA are awarded. One Wind Farm AfL will be entered into in connection with each PDA. The Crown Estate intends the Wind Farm AfLs to be entered into once the Option Fee Deposit has been paid and the HRA Conformity Check has been satisfactorily completed in accordance with the process set out in Section 3.4.1.

## 3.5 Key Legal Agreements

In addition to the Preferred Bidder Letter, there are four key Legal Agreements that will be entered into with The Crown Estate during the lifecycle of a Round 5 Development. These are:

**1**

Wind Farm Agreement  
for Lease  
(Wind Farm AfL)

**2**

Transmission  
Agreement for Lease  
(Transmission AfL)

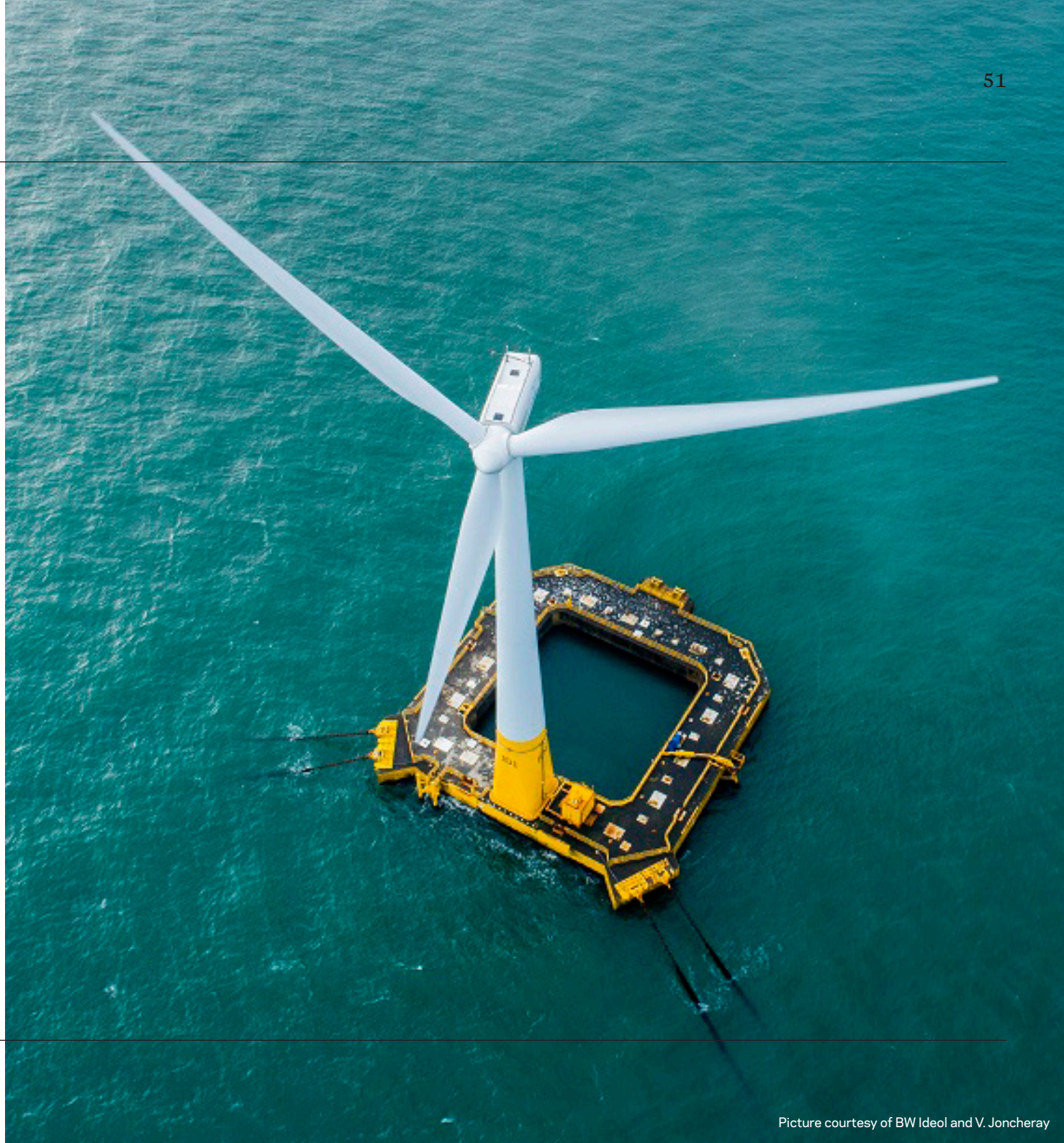
**3**

Wind Farm  
Lease

**4**

Transmission  
Lease

Heads of terms for each of the Legal Agreements will be made available to Bidders as part of the PQQ. Full versions of the Legal Agreements will be made available during ITT Stage 1.



### 3.5.1 Wind Farm AfL and Transmission AfL

The Wind Farm AfL is the agreement under which seabed rights to a PDA are awarded. One Wind Farm AfL will be entered into in respect of each PDA. The Crown Estate intends the Wind Farm AfLs to be entered into once the requisite judicial review period has passed.

During the Option Period, the Project Company will be permitted to carry out surveys and install measurement instrumentation within the PDA in order to progress the development of any Round 5 Development.

Each Wind Farm AfL grants the Project Company an option to take one or more Wind Farm Leases in respect of different parts of the PDA, so that the PDAs can be developed in discrete Projects or Phases under separate Wind Farm Leases. Exercise of the options must be within the 10-year Option Period and will be conditional on the Project Companies satisfying certain conditions set out in the Wind Farm AfLs. This will include obtaining necessary consents, Final Investment Decisions being taken and the Project Companies entering into binding legal agreements under which respect they are granted the necessary access to and use of the relevant ports and port facilities.

The Wind Farm AfL gives the right for the Project Company to call for one or more Transmission AfLs, if required. These will be entered into at a later point during the Option Period, once the offshore transmission route has been identified by the relevant Project Company and has been approved by The Crown Estate, subject to satisfying certain conditions.

If the conditions are satisfied and the Project Company exercises a Wind Farm option, The Crown Estate will grant one or more Wind Farm Leases to a Project Company and one or more Transmission Leases to a Project Company or one or more OFTO, as appropriate.

Project Companies who have been awarded a Wind Farm AfL and wish to explore alternative export options for some or all their output for their Round 5 Developments, should inform The Crown Estate of their intentions as early as possible in accordance with the Wind Farm AfL, as alternative rights and fees may be required. Any offshore hydrogen pipeline, for example, will require The Crown Estate's approval and will be subject to The Crown Estate's existing agreement for lease, followed by lease and rent provisions for oil and gas pipelines. Note that a review of the market arrangements for pipelines is scheduled for 2025.



### Capacity

To provide Bidders with additional flexibility around consenting, construction, and CfD phasing, each Project Company can choose to develop its PDA in discrete Projects or Phases (Figure 13). Where a PDA is to be developed through two or more separate Projects, each Project may be subject to its own separate Development Consent Order or other equivalent consents. Each Project or Phase is subject to a minimum capacity of 300MW and the maximum number of Projects or Phases within a PDA is three. Please refer to Figure 14 on page 54 for illustrative examples of PDA, Project and Phase combinations.

Project Companies are not under an obligation to develop their PDA up to the PDA Maximum Capacity, but are required to pay their Option Fees on the basis of the PDA Maximum Capacity for a minimum of three years. If the Project Companies ultimately decide that they are not going to be able to develop the PDA up to the full PDA Maximum Capacity, they will be obliged to develop the PDA at least to the PDA Minimum Capacity of 500MW, subject to the other capacity rules outlined above.

**Figure 13. PDA Parameters**

PDA's can be developed within the following parameters:

<b>Parameter</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Comment</b>
<b>PDA capacity</b>	500MW*	1,500MW	Subject to rules for capacity decreases
<b>Project capacity</b>	300MW	1,500MW	Cannot exceed the PDA Maximum Capacity (either as a single Project or cumulatively with all Projects and/or Phases in the PDA)
<b>Phase capacity</b>	300MW	1,200MW	
<b>Power density</b>	4MW /km <sup>2</sup>	N/A – no maximum density, subject to not exceeding the PDA Maximum Capacity	The minimum power density (4MW/km <sup>2</sup> ) applies to any Project and Phase
<b>Number of Projects or Phases per PDA</b>	1	3	Each Bidder can develop a minimum of one and maximum of three Projects or Phases within the relevant PDA

\*Developers may choose not to develop the PDA but this will be subject to the minimum payment of three years of the Option Fee (1,500MW).

### Option Fees

The Option Fees are payable by the Project Company under the Wind Farm AfL (CPI indexed). On entry to the Wind Farm AfL, the Option Fee Deposit amount is used to fund the first year's Option Fee. The payment needed in respect of the first year's Option Fees will normally be a 'top up' payment based on CPI indexation.

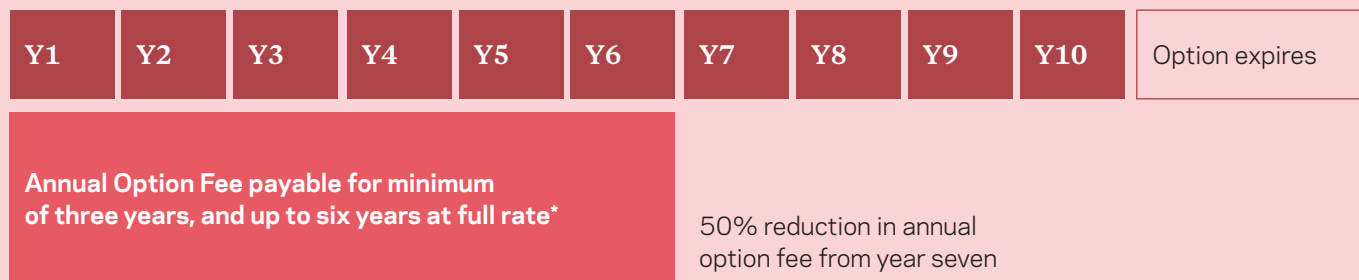
Project Companies commit to pay the Option Fee for at least three years of the Option Period for the full PDA Maximum Capacity. The Project Company can terminate the Wind Farm AfL at any time on or after the second anniversary of the Wind Farm AfL start date. Payment of a break fee will be required, equal to one instalment of the Option Fee, meaning that the minimum commitment under the Wind Farm AfL is three Option Fee payments.

From the fourth year of the Option Period, the Option Fee ceases to be payable for any capacity in relation to which the Project Company has entered a Wind Farm Lease from the start of the next contract year. Payment continues to be due on any remaining capacity in the PDA unless it is returned to The Crown Estate. Capacity cannot be returned if it would leave the Project Company in breach of the capacity rules. After year six, if the Project Company can demonstrate that an Option Notice would be served under the Wind Farm AfL but for an unavoidable delay in obtaining a key project consent that has been applied for, any subsequent Option Fees payable in respect of the relevant capacity will be reduced by 50 per cent for as long as that delay continues, provided that the Project Company continues to use all reasonable endeavours to obtain such key project consent.

Figure 14: Illustrative examples of PDA, Project and Phase combinations



Figure 15. Option fee structure



\*Subject to detail of Option Fees text.



### Social value

The Wind Farm AfL will include obligations to the commitments made by Bidders in relation to social value during ITT Stage 1, including the commitments on how their proposals will support apprenticeships, skills development NEETs, communities and volunteering opportunities such that these endure.

### Environmental value

The Legal Agreements will also include obligations which support our aim to accelerate progress towards a net positive outcome for environment and improved resilience of marine ecosystems in the Celtic Sea.

In addition, the Wind Farm AfL and the Transmission AfL (where applicable) will each contain requirements for Project Companies to:

- Annually assess and publish Greenhouse Gas (GHG) emissions for scope 1, 2 and 3 emissions associated with each Round 5 Development
- Demonstrate that all proposed infrastructure is designed to be fully removable, in accordance with Guideline 3.13 of IMO Resolution A.672(16)<sup>15</sup>

### Wind Farm AfL milestones

Milestones will be set to ensure that the delivery of Round 5 Developments within each PDA progress in line with a reasonable and expected programme and provide The Crown Estate with early visibility where this is not the case. Milestones must be achieved by the deadlines summarised in Figure 16 on Page 56, although extensions may be granted in certain circumstances, as set out in the Wind Farm AfL or at The Crown Estate's discretion. Failure to meet a milestone deadline (as extended) will give The Crown Estate a right to terminate the Wind Farm AfL.

<sup>15</sup> [International Maritime Organisation: resolution A.672\(16\), adopted on 19 October 1989](#)

**Figure 16. Wind Farm AfL Milestones**

<b>Milestone</b>	<b>Evidence</b>	<b>Deadline (after AfL signing)</b>	<b>Maximum extension</b>
Initial site development: Scoping Report submitted	Confirmation of receipt of Scoping Report from relevant authority	18 months	6 months
Consent application for offshore wind farm and offshore transmission route submitted to PINS/Welsh Government	Confirmation of receipt of consent application from relevant authority provided	5 years (for first consent application)	12 months
Port commitment	Evidence that the Project Company has secured the necessary access to and capacity at the port(s)	As per Bidder ITT Stage 1 response	Cure period may apply



### Change of control

Under each of the Wind Farm AfL and Transmission AfL, there will be restrictions on any change of control of the Project Company prior to the granting of a Development Consent Order (or equivalent), after which a change of control of less than 25 per cent in aggregate of a wholly owned entity will be permitted without consent from The Crown Estate, subject to any procurement-related or other legal restrictions. Any other change of control will be at The Crown Estate's discretion.

### Capacity changes

For the first three years of the Wind Farm AfL term, the PDA Maximum Capacity will be 1,500MW (unless reduced as a result of the HRA Conformity Check).

The Project Company may request a decrease in the PDA Maximum Capacity, subject to a minimum capacity of 500MW. Any such decrease will be irreversible. This change will take effect no earlier than the beginning of the fourth contract year of the Wind Farm AfL. The annual Option Fee will be levied on the reduced capacity on a pro-rata basis for the remaining term of the Option Period from the beginning of the next year following the date of the request.

### Letter of Credit / credit support

In respect of each Wind Farm AfL, the Project Company will need to provide a Letter of Credit as security for Option Fee payments and other obligations. Upon entry into the Wind Farm AfL, the amount under the Letter of Credit will be the Option Fee instalments for the second and third years (CPI indexed for one and two years respectively) plus £750,000 (CPI indexed). After the expiry of the first year, the Letter of Credit will be one Option Fee instalment (CPI indexed) plus £750,000 (CPI indexed).

### 3.5.2 Wind Farm Lease and Transmission Lease

#### Overview

When the Project Company exercises its options under the Wind Farm AfL, it will enter into Wind Farm Leases with The Crown Estate. The Transmission Lease will be entered into by the Project Company or by one or more OFTO.

Each Wind Farm Lease will provide seabed rights for up to 60 years, to cover construction and operation of a Project or Phase, potentially allowing for two wind farm project lifecycles.

The Transmission Leases will contain similar terms to the Wind Farm Leases for the construction and operation of the Transmission assets.

The Wind Farm Leases will be split into two periods:

- The pre-generation period, covering construction and commissioning of the asset
- The generation period when the wind farm is operational

The Project Company will have a break right in the Wind Farm Leases after 25 years from completion of construction. This commits the Project Company to at least 25 years, with flexibility after that, of a rolling three-year break right to allow for repowering, life extension or decommissioning.

### Rent

#### Wind Farm Lease

Under the Wind Farm Lease, during the pre-generation period (i.e. during construction), the rent payable by the Project Company will be the lower of the Option Fee payment (CPI indexed) and the base rent (the minimum output of 80 per cent multiplied by £1.15 (CPI indexed)). When the wind farm enters the operational period, the rent payable by the generator will be the greater of:

- 2 per cent of gross turnover
- The minimum output multiplied by a fee based on 2 per cent of the average revenue over the previous two years
- The base rent

#### Transmission Lease

Under the Transmission Leases, the Project Company, or an OFTO as appropriate, will pay an annual lease fee of £320,000 (or £220,000 for assets <1,000MW) each CPI indexed, payable on the date of entering the lease. When the wind farm enters the operational period, the Project Company or an OFTO will also pay an annual operational fee (in addition to the lease fee), based on the capacity of the asset of £220/MW (CPI indexed)



### **Lease Security**

#### **Wind Farm Lease**

In respect of each Wind Farm Lease, the Project Company will need to provide security for rent payments and other obligations. The amount of security required for the Wind Farm Lease will be calculated based on the projected output multiplied by the relevant fee, plus £750,000 subject to CPI indexation.

#### **Transmission Lease**

In respect of each Transmission Lease, the Project Company will need to provide security of £1 million (CPI indexed) plus a reasonable contingency to allow the Project Company to comply with its non-statutory decommissioning obligations.

#### **Wind Farm Lease milestones**

Each Wind Farm Lease will contain key milestones in relation to the start of construction, the generation date and completion of construction. If the Project Company of the Wind Farm Lease has not started or completed construction by the specified dates (with extensions permitted for force majeure) then The Crown Estate will be able to terminate the Wind Farm Lease.

#### **Transmission Lease milestones**

The Transmission Lease will contain key milestones in relation to the start of construction and works completion. If the Project Company has not started or completed construction by the specified dates (with extensions permitted for force majeure), then The Crown Estate will be able to terminate the Transmission Lease.

### **Lease change of control**

For the Wind Farm and Transmission Leases during the pre-generation period, there can be a change of control of the Project Company of less than 25 per cent in aggregate of a wholly owned entity without prior consent from The Crown Estate, subject to any procurement-related or other legal restrictions. During the generation period, this threshold will increase to 50 per cent. Changes above these thresholds are subject to The Crown Estate's discretion.

### **Repowering**

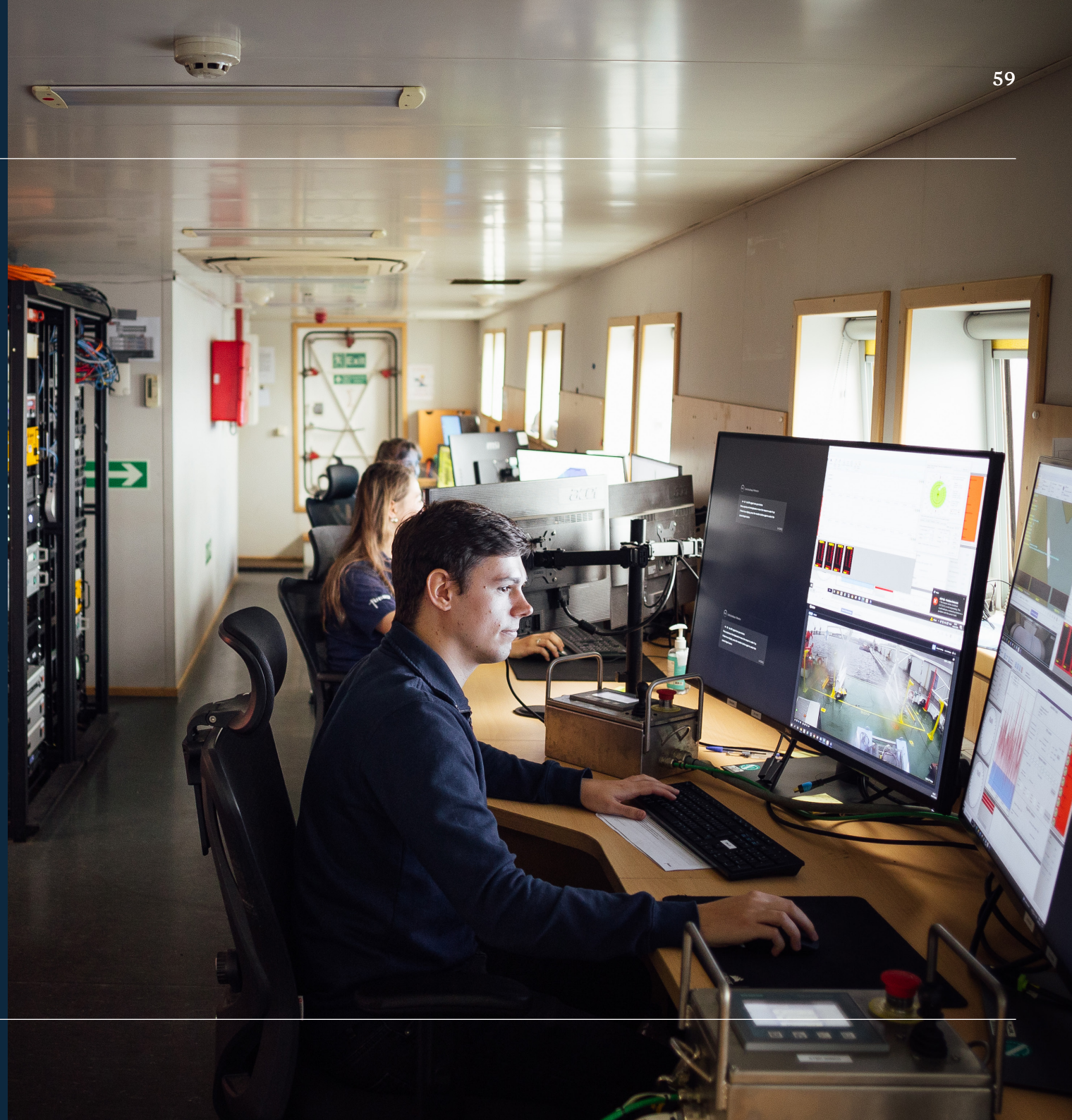
Repowering of any generation assets will be subject to The Crown Estate's prior consent.

### **Lease social and environmental value and sustainability**

The Wind Farm Leases will also include obligations to the commitments made by Bidders in relation to social and environmental value and sustainability during ITT Stage 1.

In addition, the Wind Farm Lease and the Transmission Lease will each contain requirements for Project Company or OFTO to annually assess and publish Greenhouse Gas (GHG) emissions for scope 1, 2 and 3 emissions associated with each Round 5 Development.

# Appendix



## About The Crown Estate

### A company for the country

The Crown Estate is a significant national landowner with a diverse £16 billion portfolio that includes urban centres and development opportunities; one of the largest rural holdings in the country; Regent Street and St James's in London's West End; and Windsor Great Park. We also manage the seabed and much of the coastline around England, Wales and Northern Ireland, playing a major role in the UK's world-leading offshore wind sector.

We are a unique business established by an Act of Parliament, operating independently of government, tasked with growing the value of the portfolio for the nation and returning all of our net revenue profit to HM Treasury for the benefit of the nation's finances. This has totalled more than £3.2 billion over the last ten years.

Through our activities and investments, The Crown Estate creates environmental, social and financial value both for now and into the long term. This includes:

- Playing a significant role in unlocking renewable energy for millions of homes through sectors such as offshore wind and creating opportunities for new technologies like carbon capture and storage, and hydrogen to deliver the UK's energy security transition, resulting in thousands of jobs for communities across the UK

- Supporting the sustainable transformation of land use in the UK through diversified, regenerative agricultural and environmental best practice alongside a thriving natural world
- Becoming recognised as a centre of excellence for environmental and ecological best practice across the Windsor Estate
- Identifying and creating opportunities for thriving and resilient communities across the country to support regeneration, housing and innovation
- Ensuring London retains its global city status, by fostering a more vibrant, greener and inclusive destination for millions of visitors and businesses

### Our purpose and strategic objectives

We recognise that The Crown Estate operates within the context of simultaneous climate, biodiversity, and cost-of-living crises. Tackling these societal challenges sits at the heart of our purpose, which is to create lasting and shared prosperity for the nation. We believe we are well placed to create financial, environmental and social value holistically today and for future generations, by drawing upon our unique attributes to address long-term national needs.

Combining our independence and scale of ownerships along with our ability to convene multiple stakeholders and take a long-term view with patient financial capital, we can play a significant role in creating and accelerating new opportunities where we believe we are well placed to add value.

#### We have three key strategic objectives, which are to:



Take a leading role in stewarding the UK's natural environment and biodiversity



Be a leader in supporting the UK towards a net zero carbon and energy-secure future



Create inclusive communities and through our activities supporting economic growth and productivity

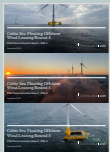
## Information and supporting documents

Further information can be found in our [document library](#) on the Round 5 section of [The Crown Estate's website](#).

This includes links to this Information Memorandum and to the documents listed below:

### Bidders Day

We will be hosting a Bidders Day in early 2024, to provide potential participants with a detailed overview of the Round 5 process. The resources from this session, along with slide packs from all previous market and stakeholder events, will be made available on the [Round 5 website](#).



#### PDA Characterisation Reports

A short fact file providing information relating to each of the PDAs.



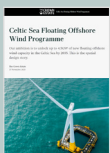
#### Site Selection Methodology

Outlines the spatial design process including the approach to modelling, engagement and spatial refinement which has resulted in the identification of PDAs.



#### Pre-consent surveys technical specifications

Technical documents which define the approach and standards to be followed by contractors undertaking the works.



#### Celtic Sea Floating Offshore Wind Story Map

An interactive application which outlines the process of spatial design within the Celtic Sea.



#### Summary Stakeholder Feedback Report

Summary of stakeholder engagement and HRA Expert Working Group feedback that has fed into the spatial design of R5.



#### Market Feedback Report

Summary of feedback obtained during market engagements, and the results.



#### Shape Files

GIS data of each PDA boundary shared via the open data portal.



#### eTendering Portal Registration User Guide

Guide to registering on the Portal and expressing an early indication of interest in participating in Round 5.

## Glossary

<b>Term</b>	<b>Definition</b>
Area of Interest	Broad geographic region that defines the outer extents of the analysis area (e.g. the Celtic Sea).
Area of Search	Large areas of sea space identified in the Celtic Sea region, following detailed spatial modelling and stakeholder engagement, within which smaller Project Development Areas (PDAs) are located.
Auction	The ascending clock auction to be used to auction the PDAs at ITT Stage 2, under which the Auction Price for each PDA will be increased by The Crown Estate incrementally via a series of discrete Auction Rounds.
Auction Price	For each PDA, the price specified by The Crown Estate from time to time during the Auction, at which Bidders will be permitted to submit an Option Fee Bid.
Auction Round	A fixed length of time during the Auction in which Bidders will be able to submit a single Option Fee Bid for one PDA at the current Auction Price for that PDA, separated by a specific interval of time.
Bidder	A bidder (being either a Sole Bidder or a Consortium) participating in Round 5 at the relevant time.
Bidders Day	The event to be held by The Crown Estate prior to launch of the PQQ at which The Crown Estate will provide prospective Bidders with more detailed information and seek to answer questions from prospective Bidders in relation to Round 5.
Cash and Cash Equivalents	Cash on hand and liquid investments which are readily convertible to cash.
Celtic Sea Floating Offshore Wind Leasing Round 5 (Round 5 or Offshore Wind Leasing Round 5)	The Crown Estate's tender process in respect of its leasing round for Round 5 Developments, the details of which will be set out in the PQQ and the ITT.
Celtic Sea Floating Offshore Wind Leasing Round 5 Programme (Round 5 Programme)	The Crown Estate's overall programme of activities to develop floating offshore wind in the Celtic Sea, including the spatial design of the PDAs, the Plan-Level HRA, Round 5 pre-consent surveys, coordinated grid and Round 5.
Consortium or Consortia	Two or more (but not more than six) legal entities combining by way of an incorporated or unincorporated joint venture to jointly act as a Bidder and participate in Round 5.
Consortium Member	Each legal entity participating in a Consortium.
Contracts for Difference (CfD)	The UK Government's contracts for difference mechanism for supporting low-carbon electricity generation.
Current Ratio	The financial ratio of current assets to current liabilities as expressed within the PQQ financial tender parameters.
Development Consent Order	An order granting development consent for a Nationally Significant Infrastructure Project pursuant to and as defined in the Planning Act 2008 (as amended).
Electricity System Operator (ESO)	The Electricity System Operator of Great Britain, currently undertaken by National Grid ESO.

<b>Term</b>	<b>Definition</b>
Environmental Impact Assessment (EIA)	An assessment of the biological, physical, social, and other environmental effects of a project or a development, which is to be used to prepare an environmental statement in support of a formal application for a Development Consent Order or equivalent.
European Sites	European Sites include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Sites of Community Importance (SCIs), candidate SACs and potential SPAs and (as a matter of government policy) Ramsar Sites. This is as designated within the National Site Network in the UK under the Habitats Regulations, and within the Natura 2000 network across Europe linked to the Habitats Directive.
Exit Bid	The maximum Auction Fee Bid that a Bidder would be willing to pay in respect of given PDA which must be for an amount that is less than the then current Auction Price for the relevant PDA but greater than the Auction Price for the relevant PDA in the previous Auction Round.
Final Investment Decision	The decision of a Project Company and its shareholders to commit financially to proceed with the delivery of a project.
Geographic Information System (GIS)	A geographic information system.
Guarantor	A company on whose financial standing a Sole Bidder or Consortium Member relies in its PQQ response and ITT response and who has, directly or indirectly, an equity shareholding of at least 10 per cent in the Sole Bidder or Consortium Member for which it is providing a guarantee.
Habitats Regulations	Collectively the most recent statutory instruments (as amended from time to time) that transpose or originally derive from the transposition of the requirements of the Habitats Directive and Birds Directive into legislation in England, Wales and Northern Ireland including the Conservation of Habitats and Species Regulations 2017, The Conservation of Off-shore Marine Habitats and Species Regulations 2017 and The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended).
Habitats Regulations Assessment (HRA)	A recognised step-by-step process by which a competent authority, as required by the Habitats Regulations: <ul style="list-style-type: none"> <li>(a) determines whether a project or plan is likely to have a significant effect on a European site or European Offshore Marine Site (either alone or in-combination with other plans or projects); and</li> <li>(b) if so, undertakes an appropriate assessment of the implications of that project or plan for the affected sites having regard to their conservation objectives.</li> </ul> <p>In cases where an adverse effect on the integrity of a European site or European Offshore Marine Site cannot be excluded beyond reasonable scientific doubt, the competent authority should not agree to the plan or project unless it considers that the plan or project should proceed relying on a “derogation” under the Habitats Regulations.</p>
Holistic Network Design (HND)	<a href="#">The Holistic Network Design</a> , published in July 2022 by National Grid Electricity System Operator for a coordinated onshore and offshore network.
Holistic Network Design Follow-Up Exercise (HND FUE)	The <a href="#">Holistic Network Design Follow-Up Exercise</a> being undertaken by National Grid Electricity System Operator to consider additional offshore wind farms in Scotland and the Celtic Sea.

<b>Term</b>	<b>Definition</b>
HRA Conformity Check	A review to be carried out by The Crown Estate, following the tender process but before the Wind Farm AfL is entered into, to establish: <ul style="list-style-type: none"> <li>(a) whether the outcome of the tender is consistent with the appropriate assessment carried out as part of Plan-Level HRA process;</li> <li>(b) whether there are any other material changes in circumstances since the conclusion of the Plan-Level HRA, such as changes to habitat designations or conservation status; and</li> <li>(c) whether, in either case, there are any new or materially different likely significant effects on any European Site which were not assessed in the Plan-Level HRA, and where there are any new or materially different likely significant effects, an assessments of those effects.</li> </ul>
HSE	Health, safety and environmental.
Information Memorandum (IM)	This information memorandum.
Interest Cover Ratio	The financial ratio of operating profit to net interest paid as expressed in the PQQ financial tender parameters.
Invitation to Tender (ITT)	The invitation to tender stage of Round 5, which will include ITT Stage 1 and ITT Stage 2.
ITT Stage 1	The stage of Round 5 during which Bidders will be invited to prepare and submit ITT responses in order to qualify to take part in ITT Stage 2.
ITT Stage 2	The stage of Round 5 during which Bidders will be invited to prepare for and take part in the Auction that will determine the successful Bidders for Round 5.
Legal Agreements	Wind Farm AfL; Wind Farm Lease; Transmission AfL; Transmission Lease; and Preferred Bidder Letter.
Letter of Credit	A standby letter of credit issued with certain prescribed terms as set out in the Wind Farm AfL and the Transmission AfL.
Major Infrastructure Project	A project that: <ul style="list-style-type: none"> <li>(a) if located in England and Wales, would constitute a Nationally Significant Infrastructure Project, as defined in the Planning Act 2008; or</li> <li>(b) if located in any other country, would, if located in England or Wales, constitute a Nationally Significant Infrastructure Project, as defined in the Planning Act 2008.</li> </ul>
Maximum Available Capacity Limit	The aggregate PDA Maximum Capacity for all PDAs, which can be no more than 4,500MW.
Maximum Level of Cash (MLOC)	The maximum level of cash available to each Bidder in the form of Cash and Cash Equivalents and Undrawn Borrowing Facilities as accepted by The Crown Estate (and notified to Bidders following ITT Stage 1), which will operate as a cap to how much a Bidder's Option Fee Bid can be during the Auction.
National Grid Electricity Transmission (NGET)	National Grid Electricity Transmission, the owner of the electricity transmission network in England and Wales.
National Site Network	The National Site Network is, following the UK exit from the EU, the network of designated sites as designated under the Habitat Regulations.



<b>Term</b>	<b>Definition</b>
NEETs	New workers engaged in the delivery of a Round 5 Development that were not in employment, education or training prior to being so engaged.
Net Assets Balance	The total assets minus the total liabilities as expressed in the PQQ financial tender parameters.
Offshore Transmission Network Review (OTNR)	The offshore transmission network review was launched in 2020 to ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, and to find the appropriate balance between environmental, social and economic costs.
Offshore Transmission Owner (OFTO)	An offshore transmission assets owner, that is competitively appointed by Ofgem through a tender process and awarded an OFTO licence.
Offtaker of Last Resort (OLR)	The <a href="#">OLR scheme</a> is designed to help renewable generators with an investment contract or a CFD contract by providing an alternative route to market for their electricity.
Operating Profit Margin	The ratio of operating profit to revenue expressed as a percentage within the PQQ financial tender parameters.
Option Fees	The option fees payable under a Wind Farm AfL in respect of a PDA, which shall in each year be equal to the highest Option Fee Bid submitted by the relevant successful Bidder in respect of that PDA, multiplied by the PDA Maximum Capacity.
Option Fee Bid	The option fee bid in £ per MW per annum (ignoring any VAT) which is proposed or made by a Bidder during the Auction.
Option Fee Deposit	In respect of a PDA awarded to a Bidder as a result of the Auction, 100 per cent of the highest Option Fee Bid submitted by that Bidder in respect of that PDA, multiplied by the PDA Maximum Capacity, which shall be payable to The Crown Estate as a non-refundable fee, save to the extent provided for in the Preferred Bidder Letter.
Option Period	The 10-year option periods under Wind Farm AfLs during which Project Companies will be able to step through to Wind Farm Leases.
PDA Characterisation Report	Factsheet style reports providing spatial characterisation of each PDA, inclusive of sector-specific interactions and regulatory governance alongside outlining specific guidance and technical summary information.
PDA Maximum Capacity	Maximum capacity of 1,500MW that can be developed in a PDA, subject to a reduction (if any) following the HRA Conformity Check.
Phase	Where a Project is to be developed by a Project Company in phases, pursuant to separate Wind Farm Leases, each phase.
Plan-Level HRA	The HRA plan-level assessment to be carried out by The Crown Estate (acting as competent authority for the purposes of the Habitats Directive and the HRA Regulations) in respect of the Round 5 leasing programme to ascertain whether the Round 5 leasing programme is likely to have any adverse effects on the integrity of any European Sites or European Offshore Marine Sites.
Portal	The Jaggaer Portal (which can be accessed via the URL: <a href="https://etendering.thecrownestate.co.uk/">https://etendering.thecrownestate.co.uk/</a> ) to be used by The Crown Estate in connection with Round 5.
Pre-Qualification Questionnaire (PQQ)	The pre-qualification questionnaire to be issued by The Crown Estate as part of Round 5.
Preferred Bidder Letter	A preferred bidder letter to be entered into between The Crown Estate and each Bidder (in the form to be provided at ITT Stage 1) in accordance with the terms of the ITT.
Project	Where a PDA is to be developed by one or more Project Companies in two or more separate and distinct projects, pursuant to separate Wind Farm Leases, each project.

<b>Term</b>	<b>Definition</b>
Project Company	Each legal entity or (as the case may be) the legal entities, on a joint and several basis, in each case proposed by a Bidder (and acceptable to The Crown Estate) who will enter into (as and when required) the Wind Farm AfL, the Wind Farm Lease, the Transmission AfL and the Transmission Lease with The Crown Estate (if that Bidder is successful in Round 5).
Project Development Area (PDA)	The areas of seabed with fixed boundaries, sizes and geographical locations, which are expected to be made available to successful Bidders pursuant and subject to Wind Farm AfLs as a result of Round 5.
Project-Level HRA	The HRA undertaken by the regulator at a project level to support decision-making for consent. This is generally informed by a Report to Inform Appropriate Assessment (RIAA) produced by the applicant and consulted on with statutory stakeholders.
Revenue Ratio	The ratio of annual revenue to annual development costs of £30 million within the PQQ financial tender parameters.
Round 5 Development	One or more Projects to design, develop, assemble, install, operate, repair and maintain one or more floating offshore wind farms in the Celtic Sea, following the grant of seabed rights in respect of a PDA as a result of Round 5.
Round 5 pre-consent surveys	The programme of marine surveys commissioned by The Crown Estate to acquire datasets in relation to geophysics and geotechnics, metocean and birds and marine mammals.
Scoping Report	The submission of an offshore wind farm Environmental Impact Assessment scoping report submitted to the Planning Inspectorate, evidenced by confirmation of receipt from the relevant authority.
Sector Deal	The Industrial Strategy Offshore Wind Sector Deal published by HM Government on 7 March 2019.
Site Selection Methodology (SSM)	The document that outlines the approach to spatial design and location of the PDAs, a draft of which was published on 5 July 2022 and a final version of which will be developed for ITT.
Sole Bidder	A legal entity, acting alone and not as part of a Consortium that acts as a Bidder and participates in Round 5.
Transmission Agreement for Lease (Transmission AfL)	An agreement for lease to be entered into between The Crown Estate and a successful Bidders' Project Company in respect of an offshore transmission route in accordance with the Wind Farm AfL, prior to entry into a Transmission Lease.
Transmission Lease	A lease to be entered into between The Crown Estate and a successful Bidder's Project Company in respect of an offshore transmission route in accordance with the relevant Transmission AfL.
Undrawn Borrowing Facilities	The figure disclosed (if applicable) within the financial statements and as defined by International Financial Reporting Standards, IAS 7 Statement of Cash Flows: "the amount of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments, indicating any restrictions on the use of these facilities".
Wind Farm Agreement for Lease (Wind Farm AfL)	An agreement for lease to be entered into between The Crown Estate and a successful Bidders' Project Company which provides the Project Company with seabed rights for the development period in respect of a PDA in accordance with the ITT and the Preferred Bidder Letter, prior to entry into a Wind Farm Lease.
Wind Farm Lease	A lease to be entered into between The Crown Estate and a successful Bidder's Project Company in respect of a PDA (or part of a PDA) in accordance with the relevant Wind Farm AfL.







Offshore Wind | **THE CROWN  
ESTATE**

**London**

The Crown Estate  
1 St James's Market London SW1Y 4AH

**Email:** [round5@thecrownestate.co.uk](mailto:round5@thecrownestate.co.uk)

**Windsor**

The Crown Estate  
The Great Park Windsor SL4 2HT

@TheCrownEstate  
[thecrownestate.co.uk](http://thecrownestate.co.uk)