



Offshore Wind Leasing Round 4

Bidders Information Day – Morning Session

9 October 2019



Offshore Wind Leasing Round 4

Welcome



Welcome

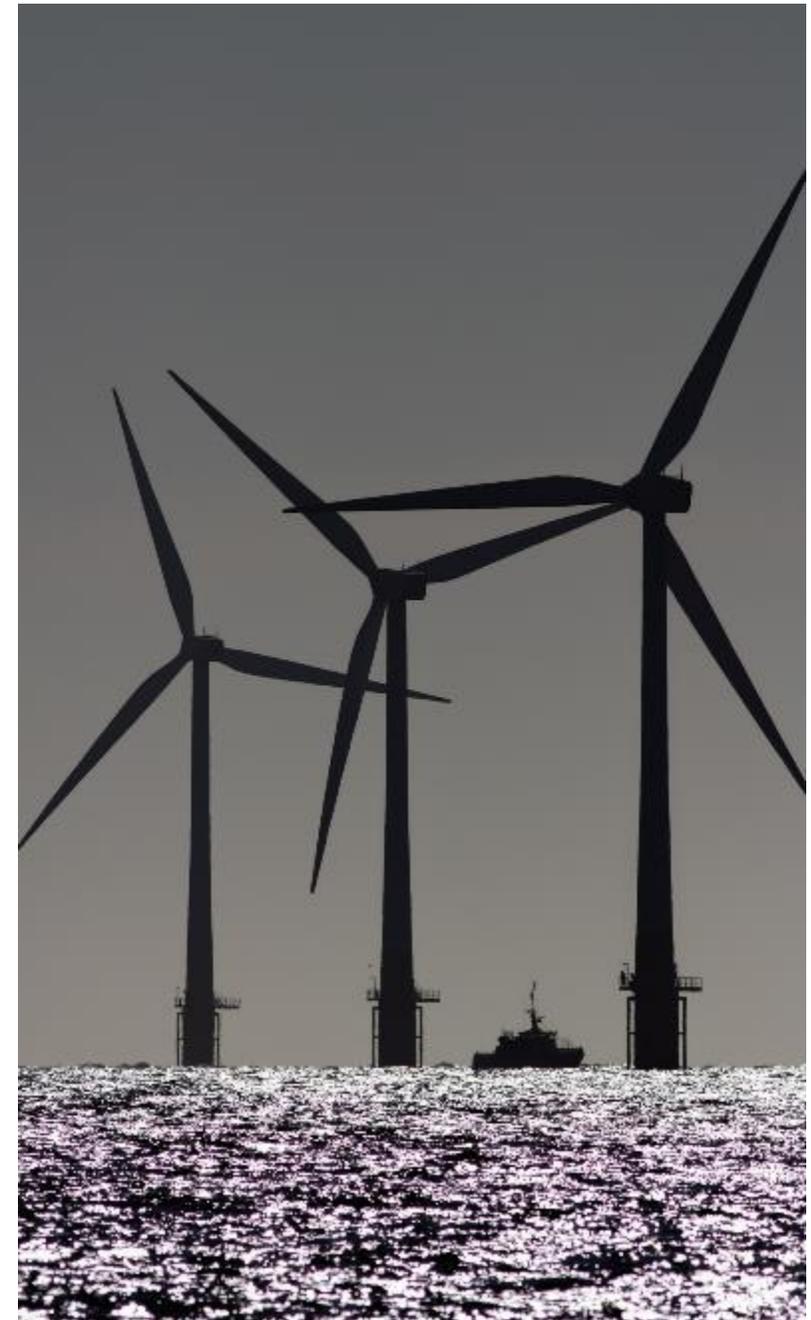
The purpose of our event today is to provide an opportunity for Bidders to hear about the final design of the Round 4 Leasing Process before the PQQ opens.

The content of and positions outlined in the following slides and our presentation today are provided for information only and should not be relied upon.

For full details of the Round 4 Leasing Process Bidders should refer to and rely on the information in the e-Tendering Portal.

Aims of today's event

- To provide an overview of the market, government and policy context that underpin Round 4
- To confirm the outcomes of our Round 4 tender design work, including regions refinement
- To explain all stages of the formal tender process from PQQ opening to award of seabed rights
- To provide an opportunity for you to ask for clarification on information provided in our Information Memorandum and Round 4 materials



Today's speakers



Huub den Rooijen
Director
Energy, Minerals &
Infrastructure



Will Apps
Head of Energy
Development



Jonny Boston
Business Development
Manager & Programme
Manager for Round 4



Olivia Thomas
Head of Marine
Planning



Helen Elphick
Senior Development
Manager



Greg Tomlinson
Senior Marine Planning
& Consents Manager



Ben Barton
Senior Commercial
Manager

Yuen Cheung
Head of Offshore Wind



Heledd Cressey
Department for Energy, Planning
and Rural Affairs,
Welsh Government

Offshore Wind Leasing Round 4

Introduction

Huub den Rooijen

Offshore Wind Leasing Round 4

Policy & regulatory environment

Yuen Cheung, Department for Business, Energy & Industrial Strategy



Policy Framework

Medium term

- Offshore Wind Sector Deal
- 30GW by 2030

Longer term

- Legally binding net zero commitment
- Clean Growth - maximise economic benefits of the transition to low carbon economy

Offshore Wind Leasing Round 4

Welsh Government Policy

Heledd Cressey, Welsh Government



Llywodraeth Cymru
Welsh Government

Welsh Government Policy

- Well-being of Future Generations Act (2015)
- Environment Act (2016)
- Renewables Energy targets (2017)
- National Marine Plan for Wales

- <https://gov.wales/marine-planning-0>

Contact details:

ENERGY TARGETS



TARGEDAU YNNI



- Community
- Domestic
- Farms and estates
- Local authorities
- Local business
- Charity

All renewable energy projects to have an element of local ownership from **2020**

- Cymunedol
- Domestig
- Ffermydd ac ystadau
- Awdurdodau lleol
- Busnesau lleol
- Elusennau

Pob prosiect ynni adnewyddadwy i fod ag elfen o berchnogaeth leol o 2020 ymlaen **2020**

of renewable energy capacity in Wales to be locally owned **1 GW 2030** o gapasiti ynni adnewyddadwy yng Nghymru i fod dan berchnogaeth leol



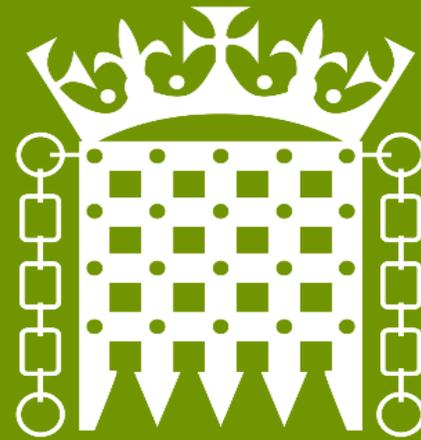
Cynnydd tuag at y targedau

Offshore Wind Leasing Round 4

Our role in leasing

Will Apps

The Crown Estate is an independent, commercial business created by an Act of Parliament



Net revenue profit

£343.5m
2018/19



Capital value

£14.3bn
2018/19

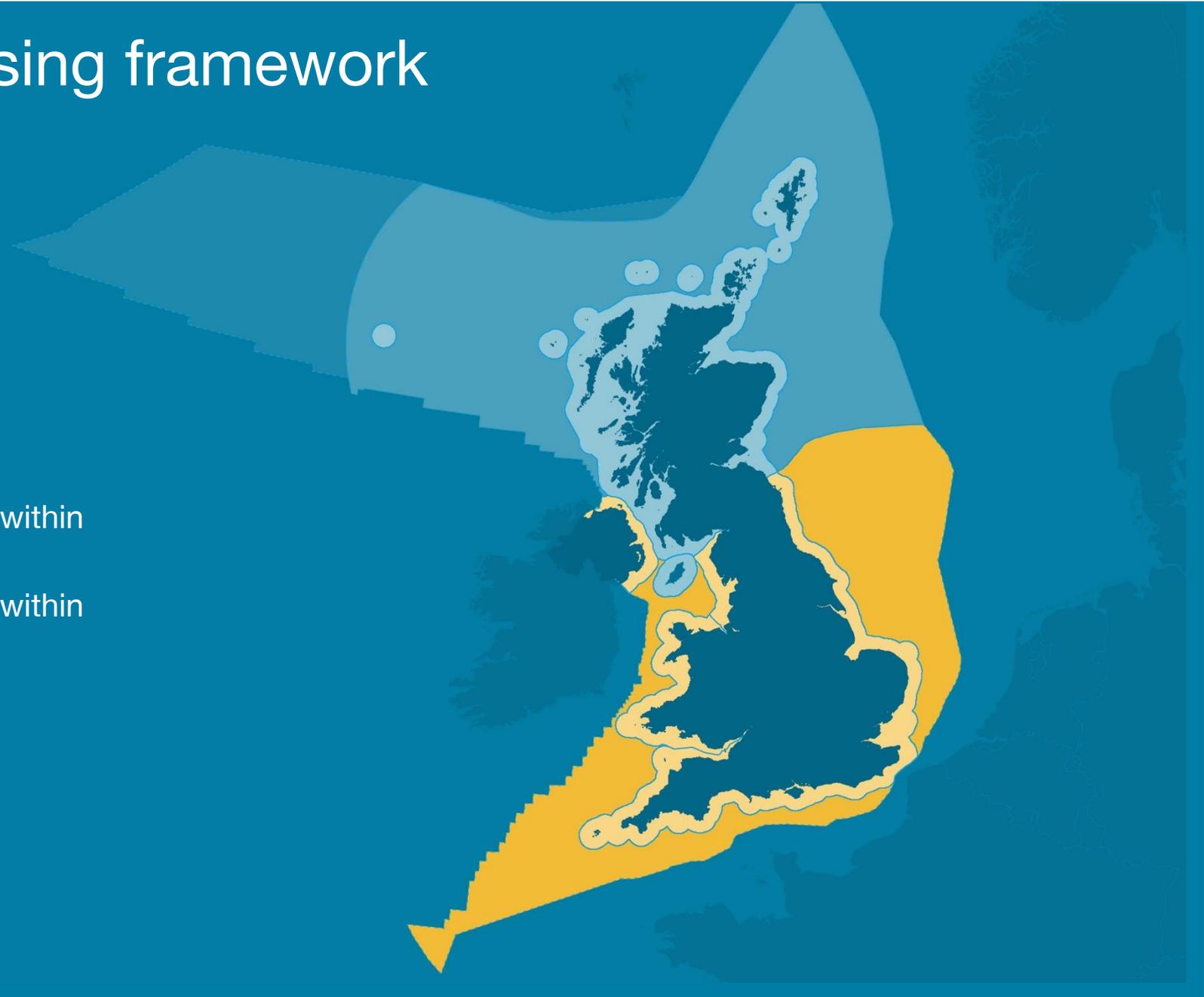
UK offshore wind leasing framework

Leasing the seabed

- Within 12nm - land owner
- Within REZ - Energy Act 2004

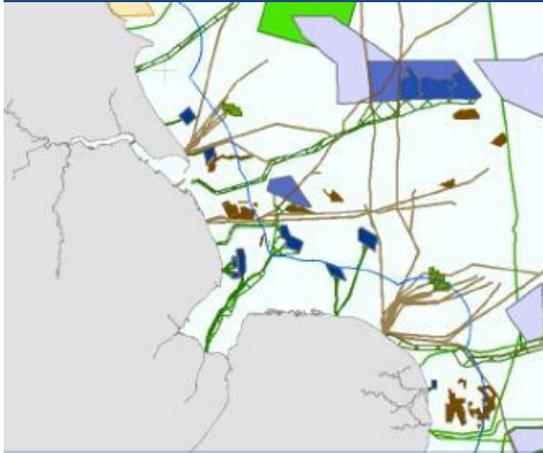
The Crown Estate's responsibilities

- England, Wales, Northern Ireland within 12nm - land owner
- England, Wales, Northern Ireland within REZ - Energy Act 2004
- Territorial Waters Limit
- UK Continental Shelf
- Renewable Energy Zone Limit



Policy & regulatory setting: offshore renewables

Land rights



- The Crown Estate (TCE) & Crown Estate Scotland (CES)
- Leasing rounds
 - Statutory obligations
 - Stakeholder interests
 - Active management of seabed

Consents to build and operate



- Government
- Planning authorities
 - Regional marine plans
 - Statutory advisors
- Ofgem
- Generation licence

Transmission



- Ofgem / System Operator / OFTO
- Developer/System Operator agree connection
 - Separate licence for offshore transmission
 - “Generator Build” model
 - OFTO tender round – now 25 year revenue

Economic support



- Government
- Deliver energy policy objectives
 - Allocation for 15-year CfDs
 - Allocation Round 3 (Sept 2019); every two years thereafter delivering 1-2 GW per annum in 2020s

Compete for sites

Obtain consents & licences

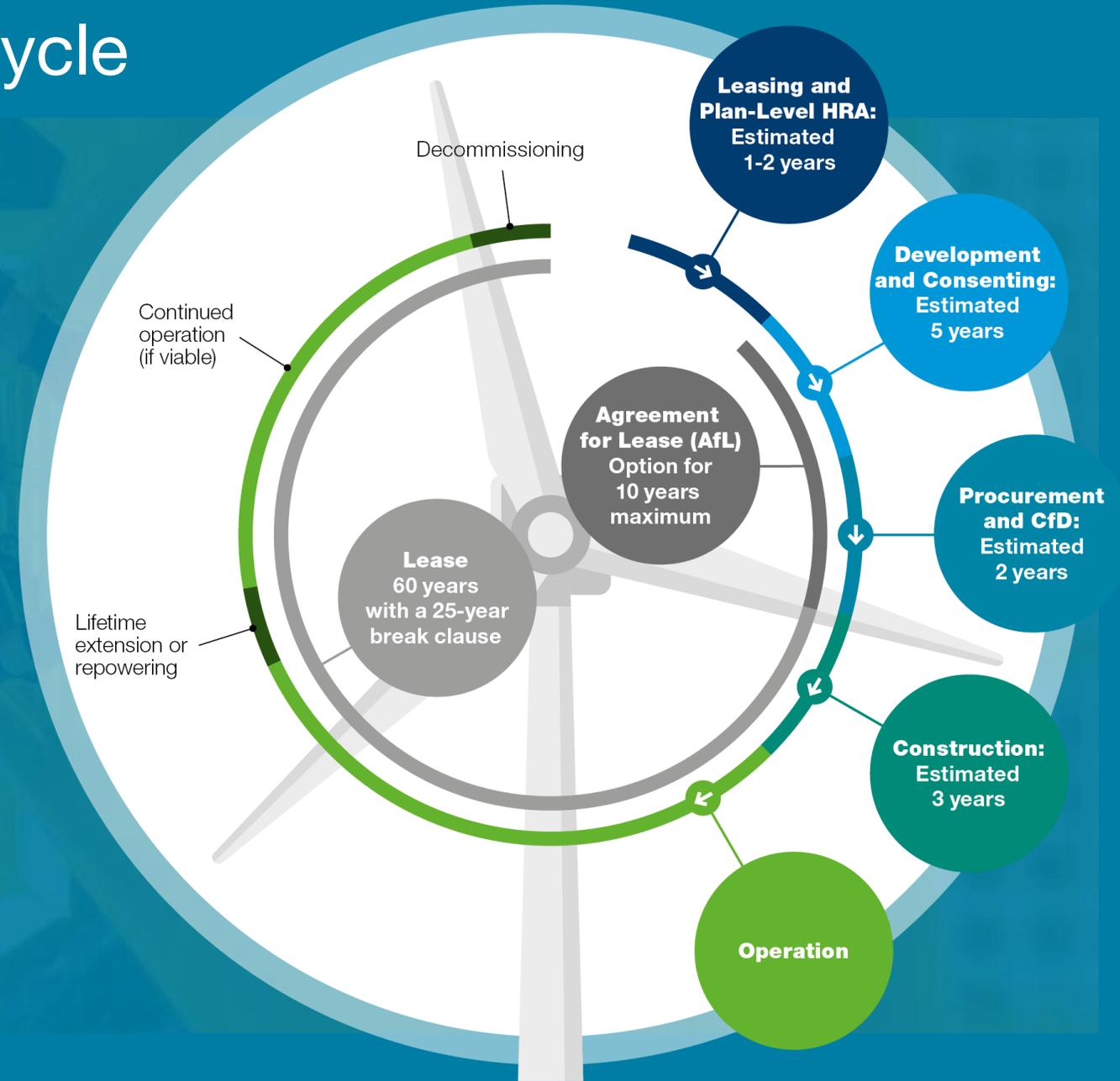
Secure grid connection

Compete for contracts

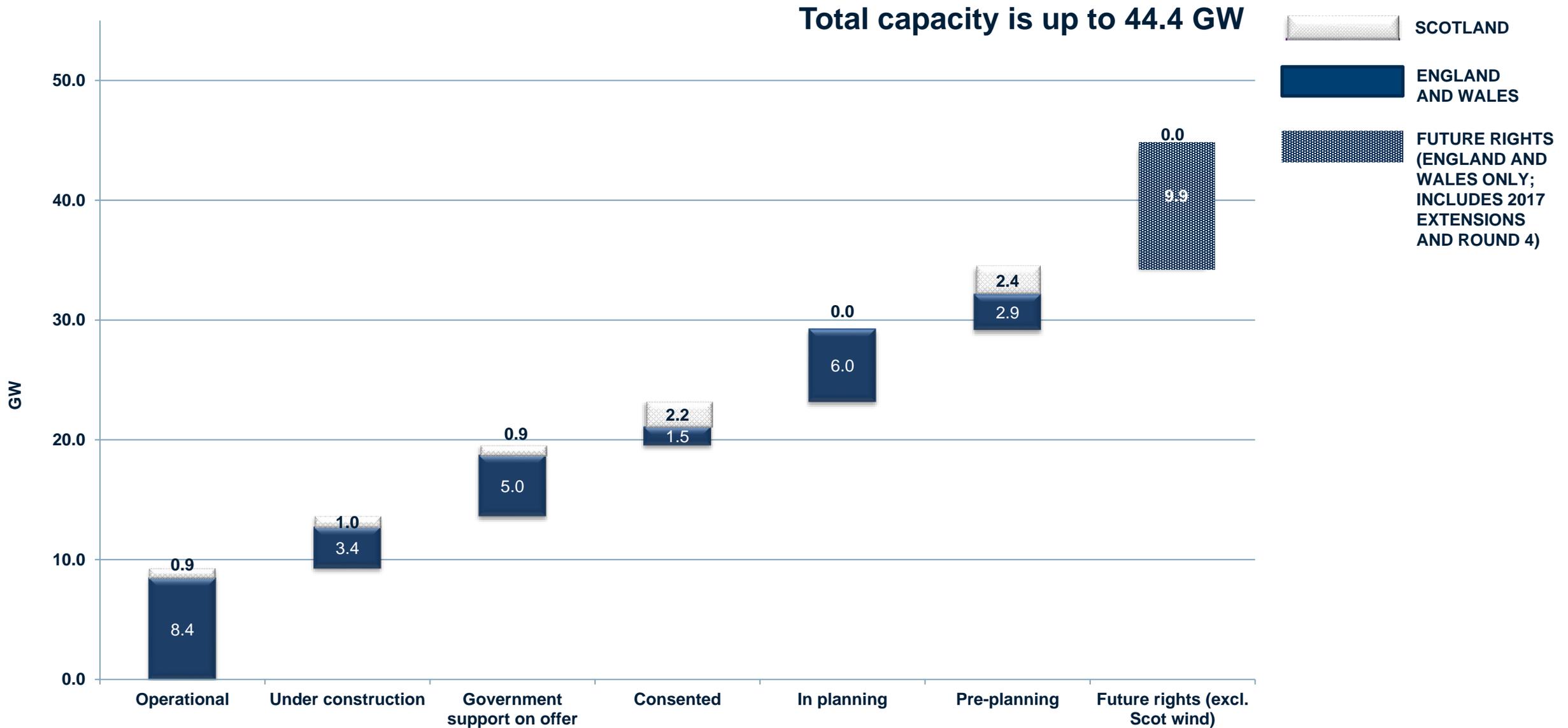
Private Sector / Developers / Investors

Offshore wind project life cycle

- Developing an offshore wind farm in UK waters, from initial concept through to commercial operation, can take up to ten years.
- An increasingly mature industry is bringing with it continued investment in technology, operations and maintenance.
- In recognition of this, Round 4 lease terms have been updated; extending agreements from 50 to 60 years, allowing for a total of two full operational life-cycles.



UK offshore wind development pipeline [Oct 2019]





Strategic enabling actions

- Under the Sector Deal, The Crown Estate has committed to funding a collaborative programme of strategic enabling actions, to advance the evidence base and understanding of offshore wind deployment and the impact on the marine and onshore environments.
- Government, regulators and statutory stakeholders will ensure the learnings will be built into future decision-making and policy formation.
- The primary objective of the programme will be to meet a market gap in evidence and understanding.
- The programme will work in concert with other activity targeted by the sector, helping to establish the commercial, environmental and social benefits from a long term approach to development.

The next chapter of the UK's remarkable offshore wind story

- Satisfy policy and market demand, in combination with 2017 Extensions, through to 2030 and beyond.
- Deliver a robust portfolio; minimising deployment risk by leveraging market, stakeholder and our expertise and knowledge.
- Enable longer term growth by incorporating commitments including data, innovation and strategic enabling actions.



Offshore Wind Leasing Round 4

Our role as a Competent Authority

Greg Tomlinson

Our statutory obligations

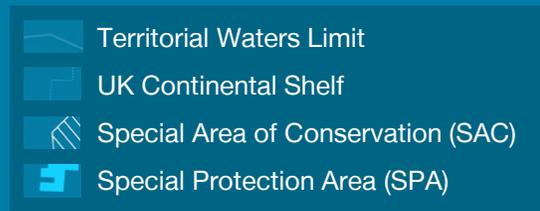
- The Crown Estate is a Competent Authority under the Habitats Regulations*
- We must conduct a plan-level Habitats Regulations Assessment (HRA) for any leasing/licensing activity that constitutes a 'plan'
- A plan-level HRA requires us to assess the impacts on Natura 2000 designated sites before full seabed rights can be awarded
- Before awarding AfL we must consider whether there is a risk of it having an adverse effect on the integrity of any European protected sites
- If it's determined there is such a risk, we must undertake appropriate assessment and may not proceed unless it can conclude, beyond reasonable scientific doubt, that the risk can be excluded (inc. through use of mitigation measures)

*Habitats Regulations:

- [The Conservation of Habitats and Species Regulations 2017](#)
- [The Conservation of Offshore Marine Habitats and Species Regulations 2017](#)
- [Conservation \(Natural Habitats, etc.\) Regulations \(Northern Ireland\) 1995](#) (as amended) in Northern Ireland



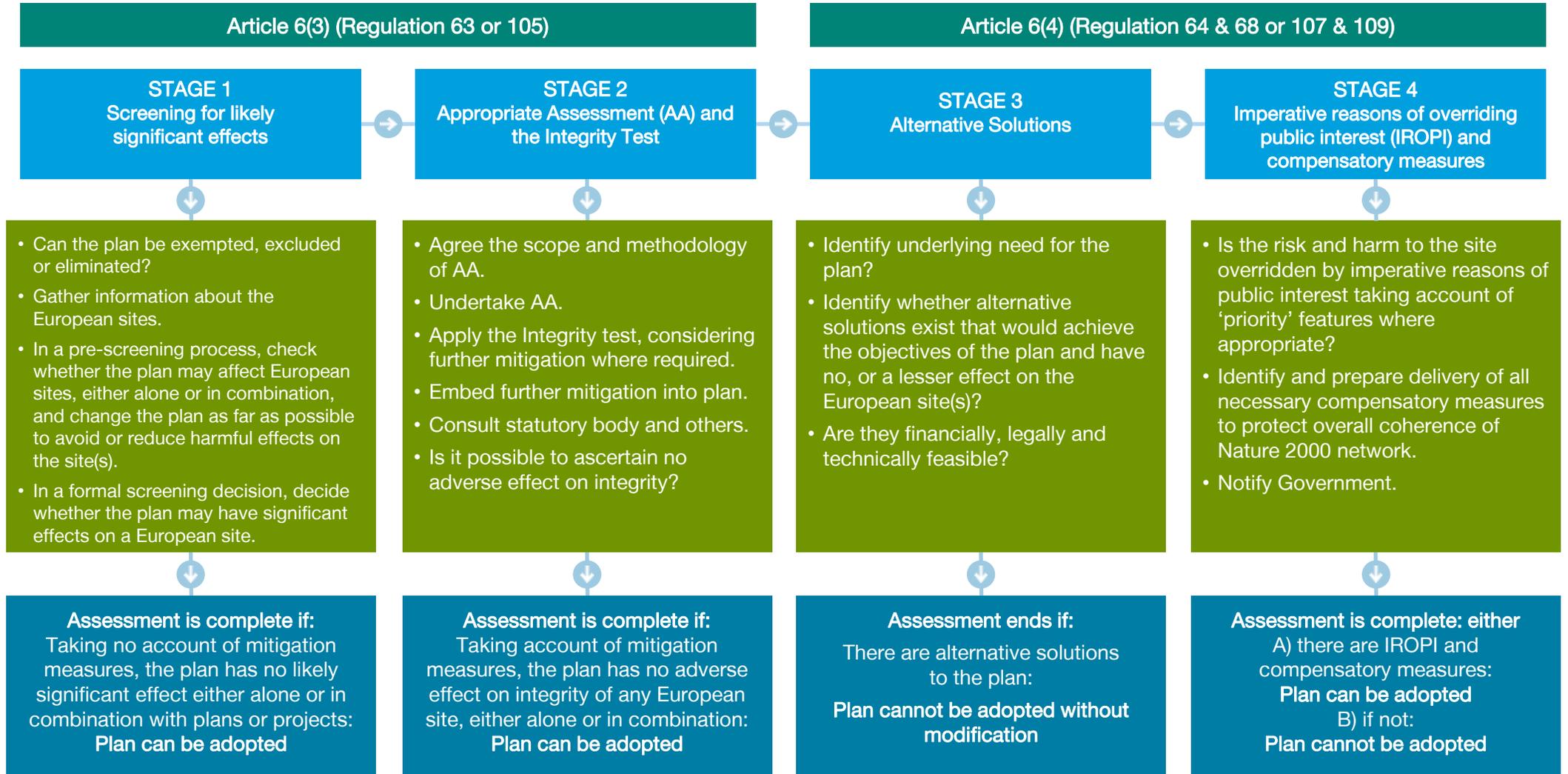
SACs and SPAs in UK waters



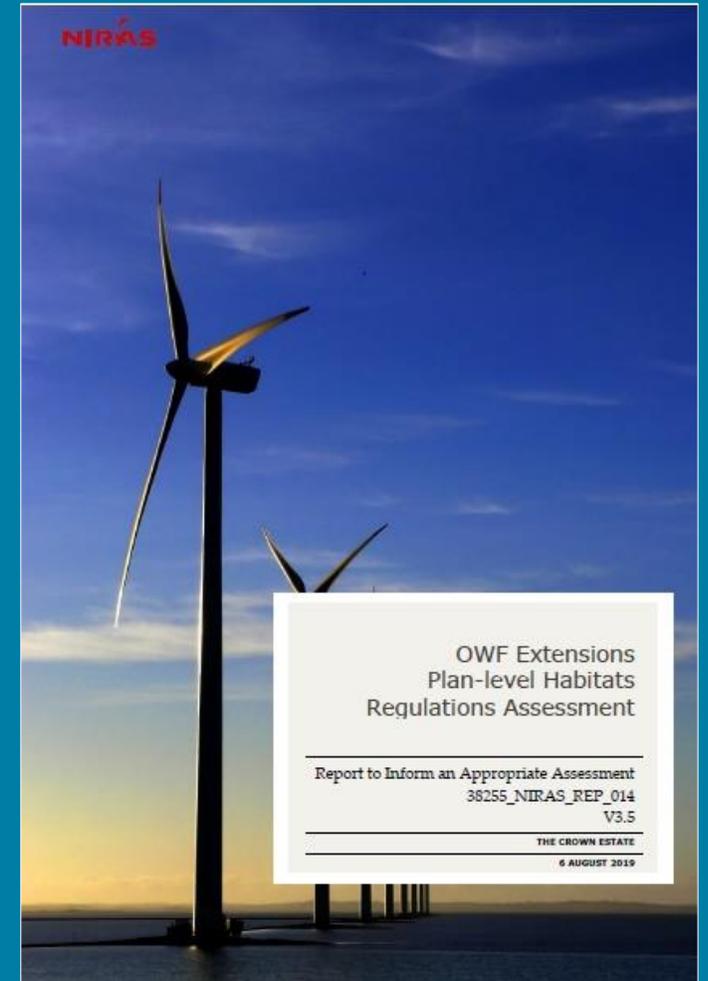
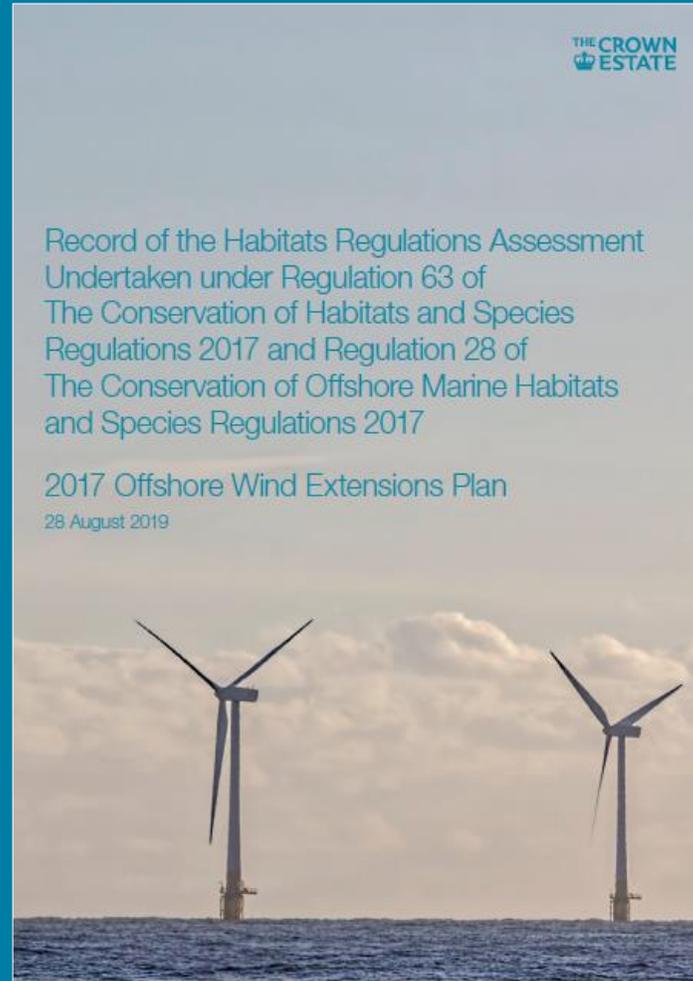
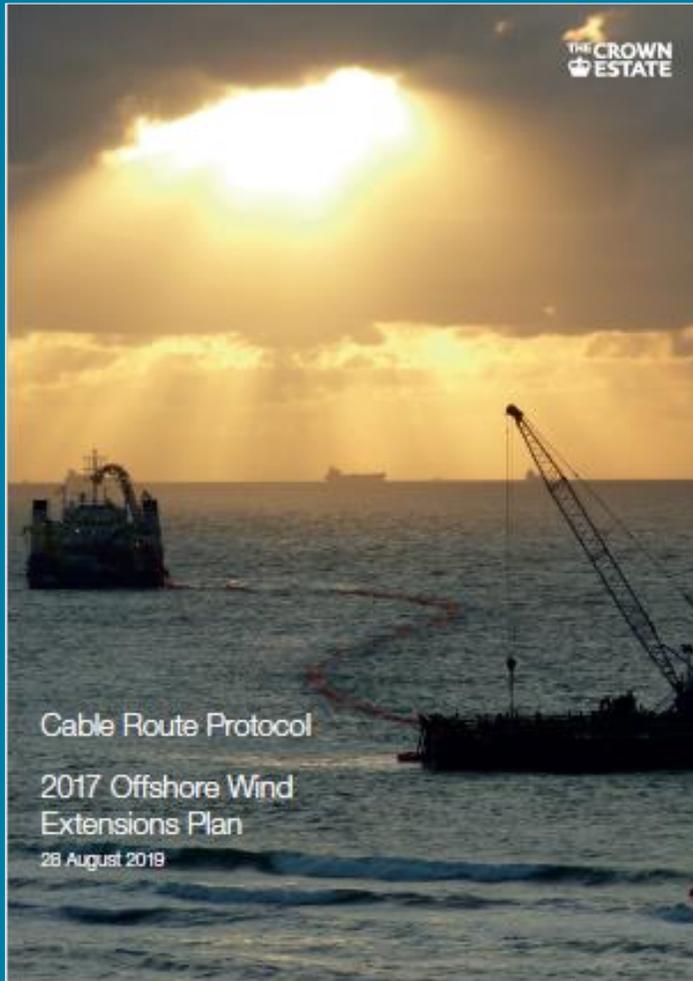
Plan-level Habitats Regulations Assessment (HRA)

Extract from
The Habitats Regulations
Assessment Handbook,

© DTA Publications Limited
(October 2018) all rights
reserved.



HRA outcomes – extensions



Offshore Wind Leasing Round 4

Leasing process overview

Jonny Boston

Our objectives for Round 4

Delivers a robust pipeline for low-cost offshore wind deployment

to help meet industry appetite and Government policy objectives for new offshore wind capacity, supporting the UK's clean energy transition.

Offers an attractive, accessible and fair proposition to developers

at repeatable scale, contributing to the development of a competitive, resilient and innovative offshore wind market.

Balances the range of interests in the marine environment

supported by extensive engagement with stakeholders and the promotion of responsible evidence-based site selection.

Makes efficient use of the seabed

recognising its value as a national asset, now and for the long term.

Unlocks the commercial value of the seabed in line with our statutory obligations

securing best consideration over the long-term, for the benefit of the public finances.

Engagement journey

Throughout our engagement process, we engaged with over **15 government bodies** and **statutory organisations**, including:



As well as:



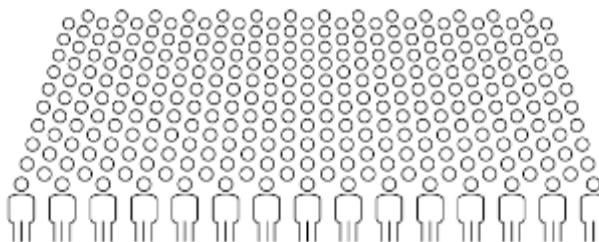
315+

Over 315 new registrations to receive new leasing updates since beginning of engagement.

Our Offshore Wind New Leasing web pages received*:



397 attendees across our five events



126 attendees across our three webinars



95%

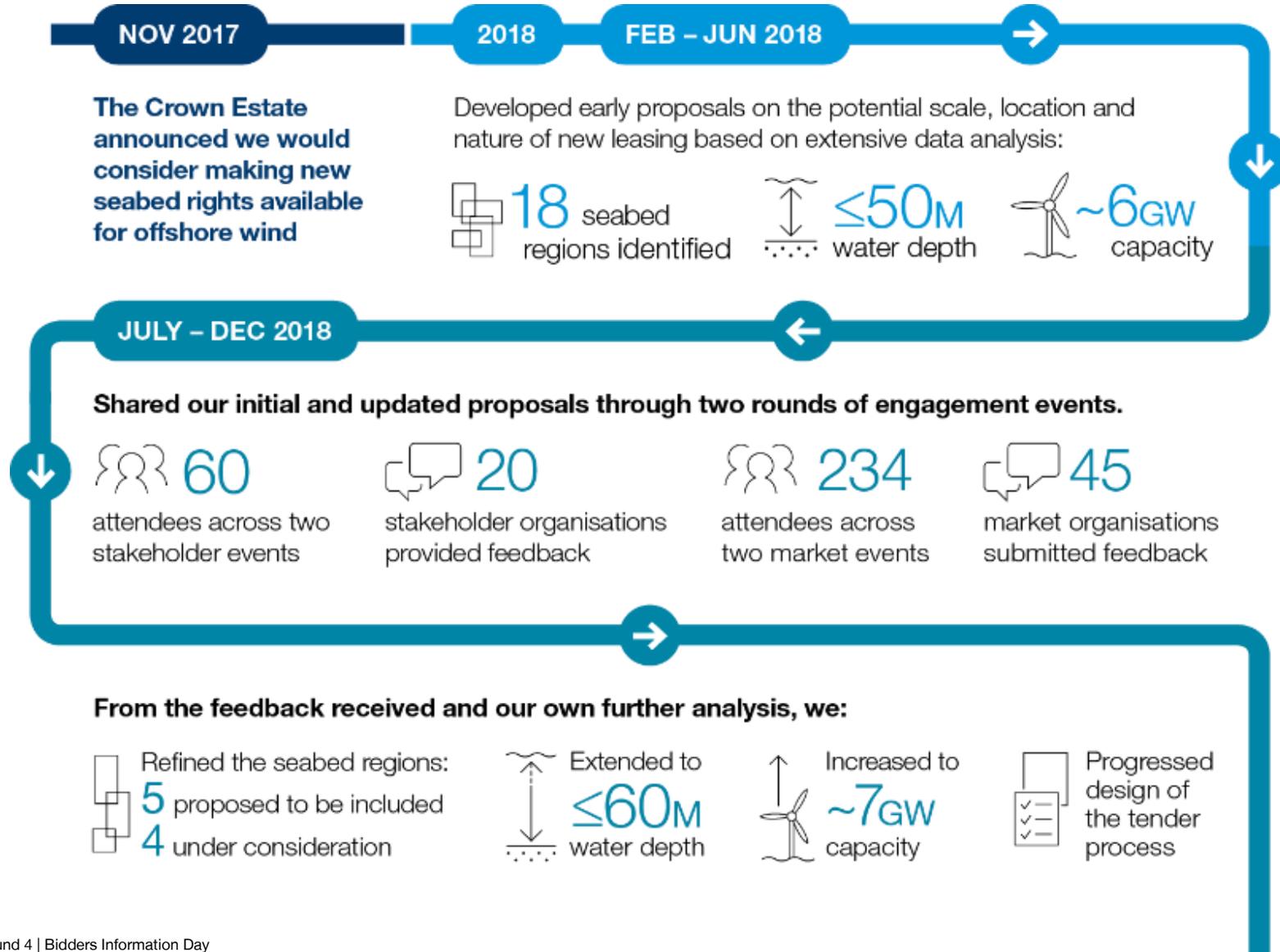
positive satisfaction at our engagement events

“ The Crown Estate’s approach has been well set out in the documentation and follow ups provided. ”

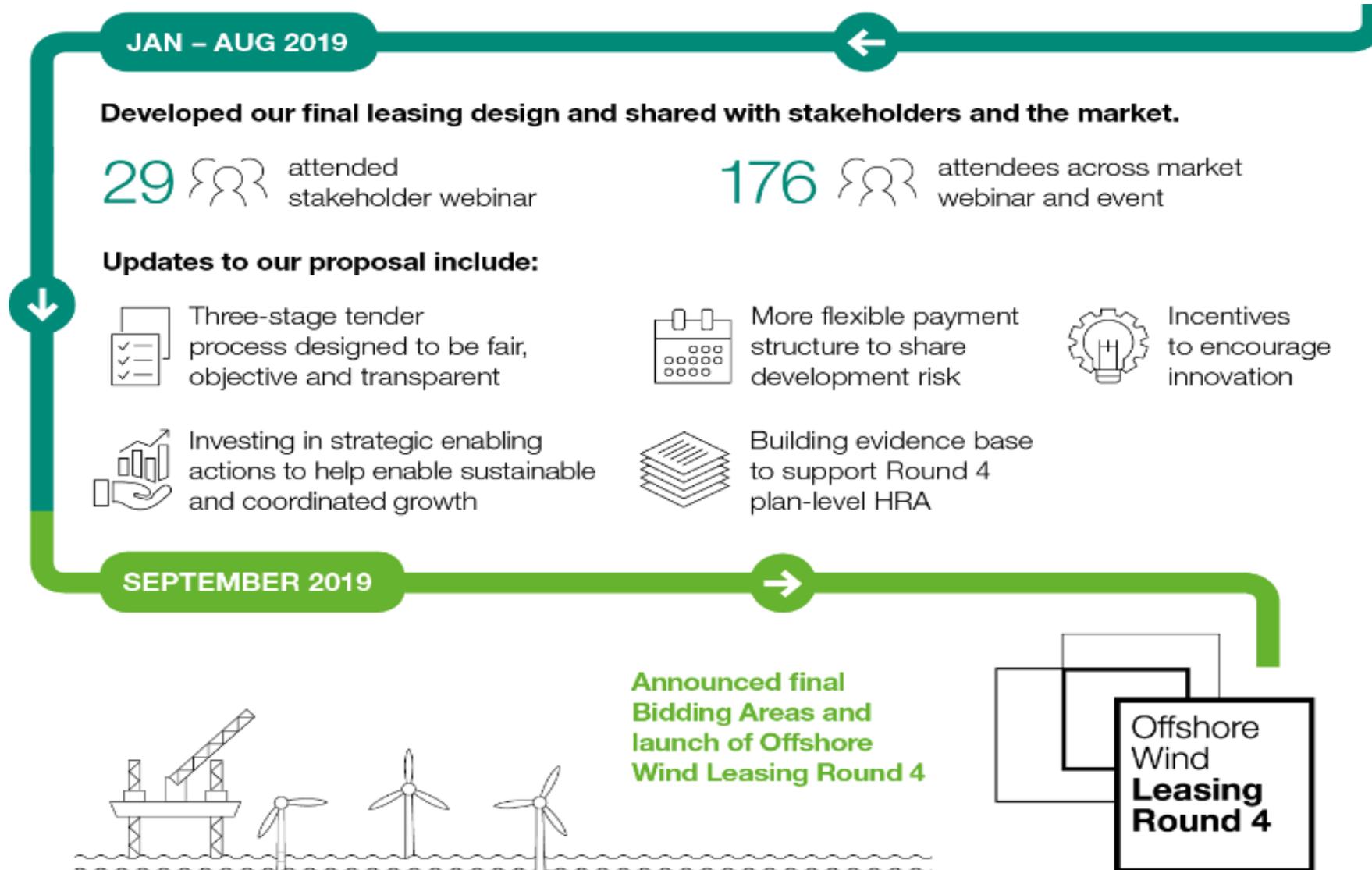
“ We welcome the commitment to environmental analysis and scrutiny and we are keen to see this robust environmental focus continue throughout the leasing process. ”

“ We have been encouraged with the openness and transparency of the process to date and willingness of The Crown Estate team to engage and discuss issues. ”

Engagement journey



Engagement journey



Offshore Wind Leasing Round 4

New leasing is required to ensure a robust offshore wind portfolio for 2030 and beyond, which helps the UK to achieve its decarbonisation and energy security objectives.



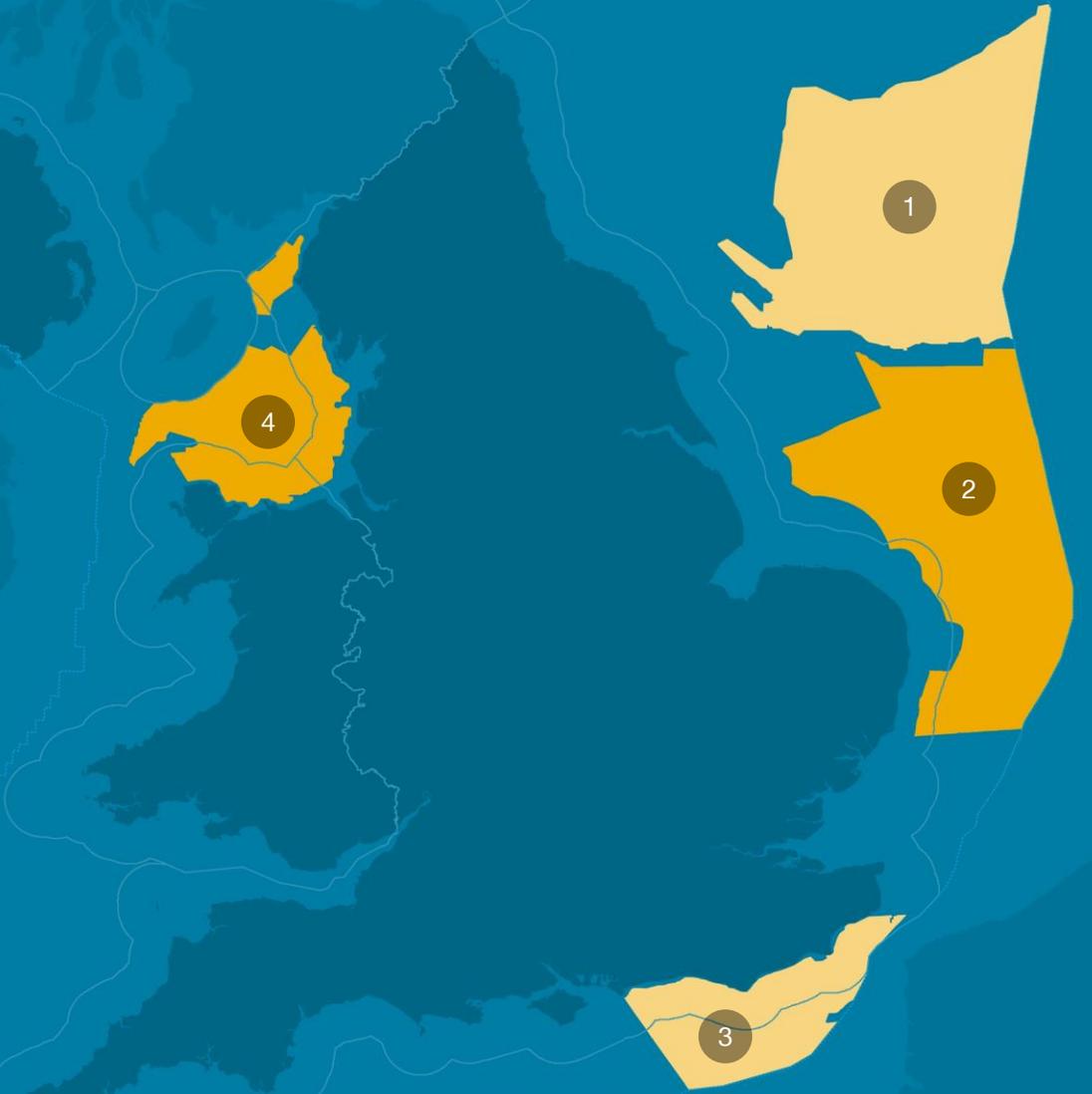
Successful delivery requires careful consideration of a busy seabed that already supports a wide range of other seabed users, as well as social and environmental factors.



Bidding Areas

The four available Seabed Bidding Areas are:

- **Bidding Area 1** - Dogger Bank (comprising the Dogger Bank region)
- **Bidding Area 2** - Eastern regions (comprising the Southern North Sea region, The Wash region (refined) and the East Anglia region (refined))
- **Bidding Area 3** - South East (comprising the South East region (refined))
- **Bidding Area 4** - Northern Wales & Irish Sea (comprising the North Wales region, Irish Sea region, and the Anglesey region (refined))



Round 4 leasing process

Pre-qualification questionnaire (PQQ)

Oct 2019 – Jan 2020
(14 weeks)

Assesses potential Bidders' financial capability, technical experience and legal compliance, with successful Bidders pre-qualifying for the ITT Stage 1 process (becoming a Pre-qualified Bidder).

Invitation to Tender Stage 1 (ITT Stage 1)

Feb – Jun 2020
(18 weeks)

Assesses the financial and technical robustness of projects submitted by Pre-qualified Bidders. Projects that pass will then be eligible to take part in the ITT Stage 2 process (becoming Eligible Bidders with Eligible Projects).

Invitation to Tender Stage 2 (ITT Stage 2)

Sept 2020
(1 – 4 weeks)

A multi-cycle bidding process, using option fees bid by Eligible Bidders to determine award. One project will be awarded per daily Bidding Cycle, with Bidding Cycles continuing until the 7 GW has been awarded or exceeded (up to 8.5 GW). On being successful in a daily bidding cycle, a Bidder will need to enter into a Preferred Bidder Letter and pay an Option Fee Deposit.

Plan-level HRA

Autumn 2020 – Summer 2021

In accordance with our role as a Competent Authority under the Habitats Regulations, we will undertake a Plan-Level Habitats Regulations Assessment (HRA) to assess the possible impact of the awarded projects on relevant nature conservation sites of European importance.

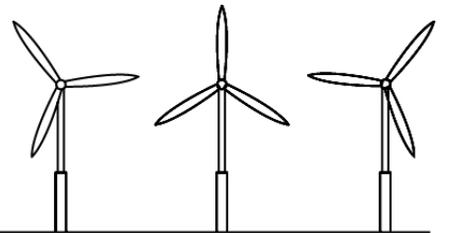
Agreement for Lease (AfL)

Autumn 2021

We will enter into a Wind Farm AfL with successful Bidders.

Summary

- Balanced approach
- An attractive, accessible and fair offer
- Repeatable scale
- Investment in initiatives that will enable long term growth
- An exciting opportunity in the world's largest offshore wind market



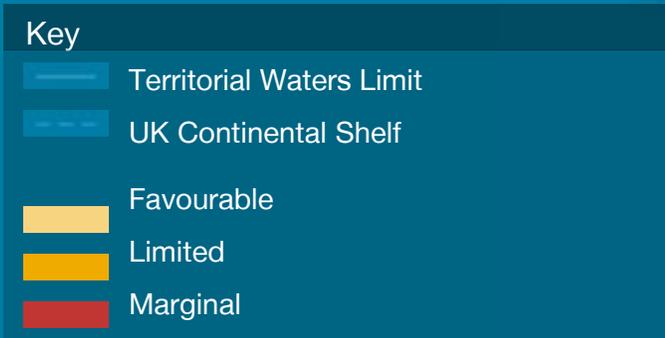
Offshore Wind Leasing Round 4

Our regions refinement journey – Stage 1

Olivia Thomas

Technical resource area

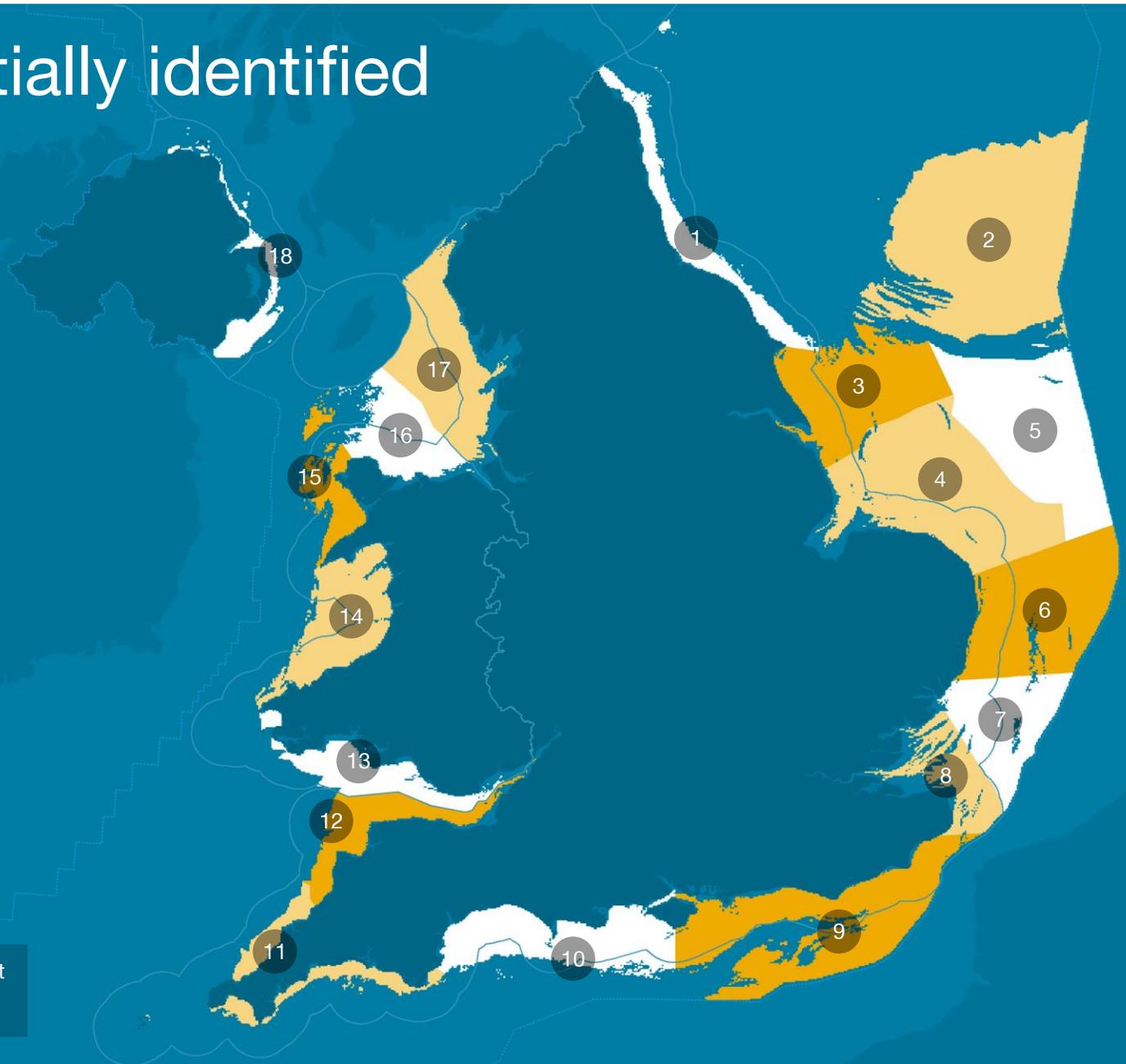
- 'Favourable' technical resource area for fixed foundation offshore wind is defined by water depths 5-50m and good accessibility (>80%@2.5m Hs)
- 'Limited' and 'Marginal' technical resource areas are deeper (50-60m) or have a more severe wave climate



Recap of regions initially identified

- Regions
- 1 - Durham Coast
 - 2 - Dogger Bank
 - 3 - Yorkshire Coast
 - 4 - The Wash
 - 5 - Southern North Sea
 - 6 - East Anglia
 - 7 - Thames Approaches
 - 8 - Kent Coast
 - 9 - South East
 - 10 - West of Isle of Wight
 - 11 - South West
 - 12 - Bristol Channel (English)
 - 13 - Bristol Channel (Welsh)
 - 14 - Cardigan Bay
 - 15 - Anglesey
 - 16 - North Wales
 - 17 - Irish Sea
 - 18 - Northern Ireland

— Territorial Waters Limit
--- UK Continental Shelf



Regions refinement as at November 2018

Regions

Propose to include:

- 2 - Dogger Bank
- 5 - Southern North Sea
- 6 - East Anglia
- 16 - North Wales
- 17 - Irish Sea

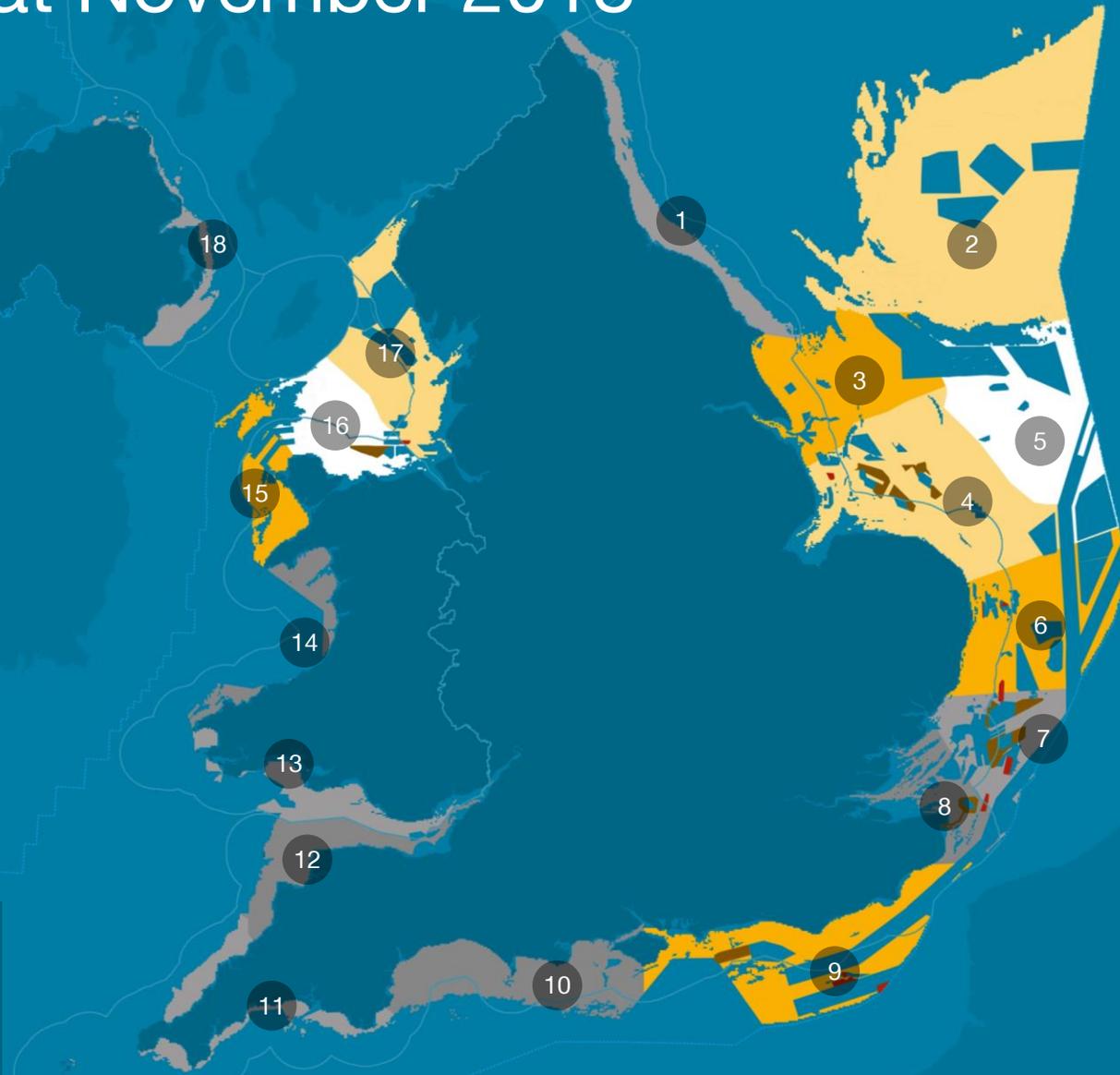
Under further consideration:

- 3 - Yorkshire Coast
- 4 - The Wash
- 9 - South East
- 15 - Anglesey

Not being taken forward:

- 1 - Durham Coast
- 7 - Thames Approaches
- 8 - Kent Coast
- 10 - West of Isle of Wight
- 11 - South West
- 12 - Bristol Channel (English)
- 13 - Bristol Channel (Welsh)
- 14 - Cardigan Bay
- 18 - Northern Ireland

-  Regions
-  Regions not taken forward
-  2017 Extension applications
-  2018 Aggregates sites



Offshore Wind Leasing Round 4

Our regions refinement journey – Stage 2

Olivia Thomas

Common themes from stakeholder feedback



Constraints that determined regions refinement

Visual Sensitivity



Region refined in circumstances where the majority of the Characterisation Area lies within 13km from shore

Navigation



Region refined where the majority of the Characterisation Area overlaps with shipping density of over 1,000 ships per year

Ministry of Defence



Certain practice and exercise areas have been removed as hard constraints

Ornithology



Areas where there would likely be major consenting risk due to cumulative environmental impacts, particularly in relation to ornithology.

How we have responded to feedback

Updated spatial evidence base

- Majority of feedback related specifically to spatial documents / reports
- Signpost to latest available information within methodology and characterisation documents
- Final updated documents have now been published on our Round 4 webpage

Undertook additional work

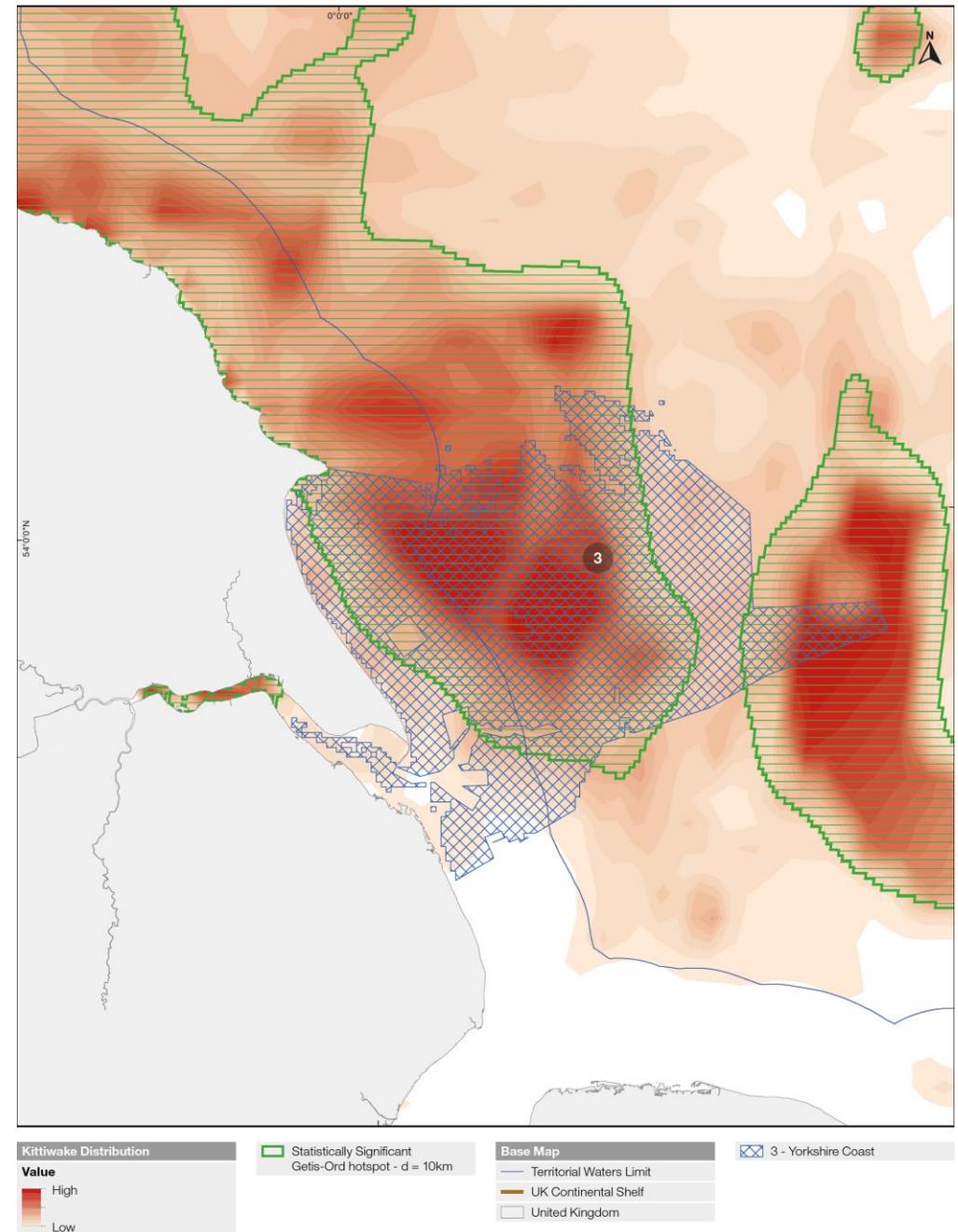
- We have reviewed and considered output of additional work undertaken since November 2018
- We have factored in outputs from Extensions and Aggregates plan-level HRAs

Additional region refinement

- Based on additional evidence and stakeholder feedback
- Removal of Yorkshire Coast region
- Amendments to The Wash, South East, and Anglesey regions
- Amendment to East Anglia region

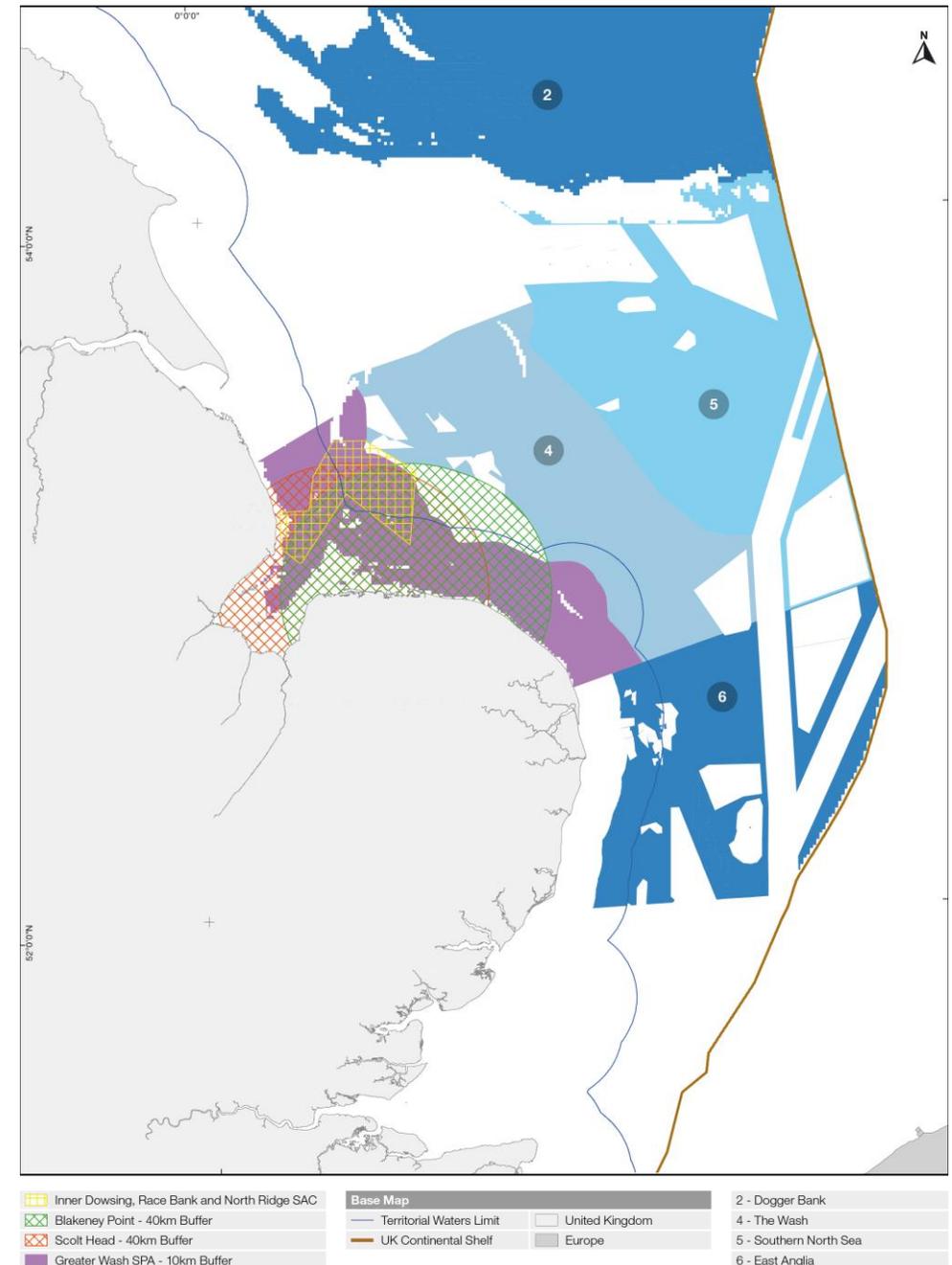
Stage 2 regions refinement – Yorkshire Coast

- Commissioned further evidence – review undertaken by MacArthur Green
- Significant constraint in relation to Flamborough and Filey Coast SPA
- Cumulative impact pressures on Kittiwake, Guillemot, Razorbill and Gannet
- Region removed for Round 4



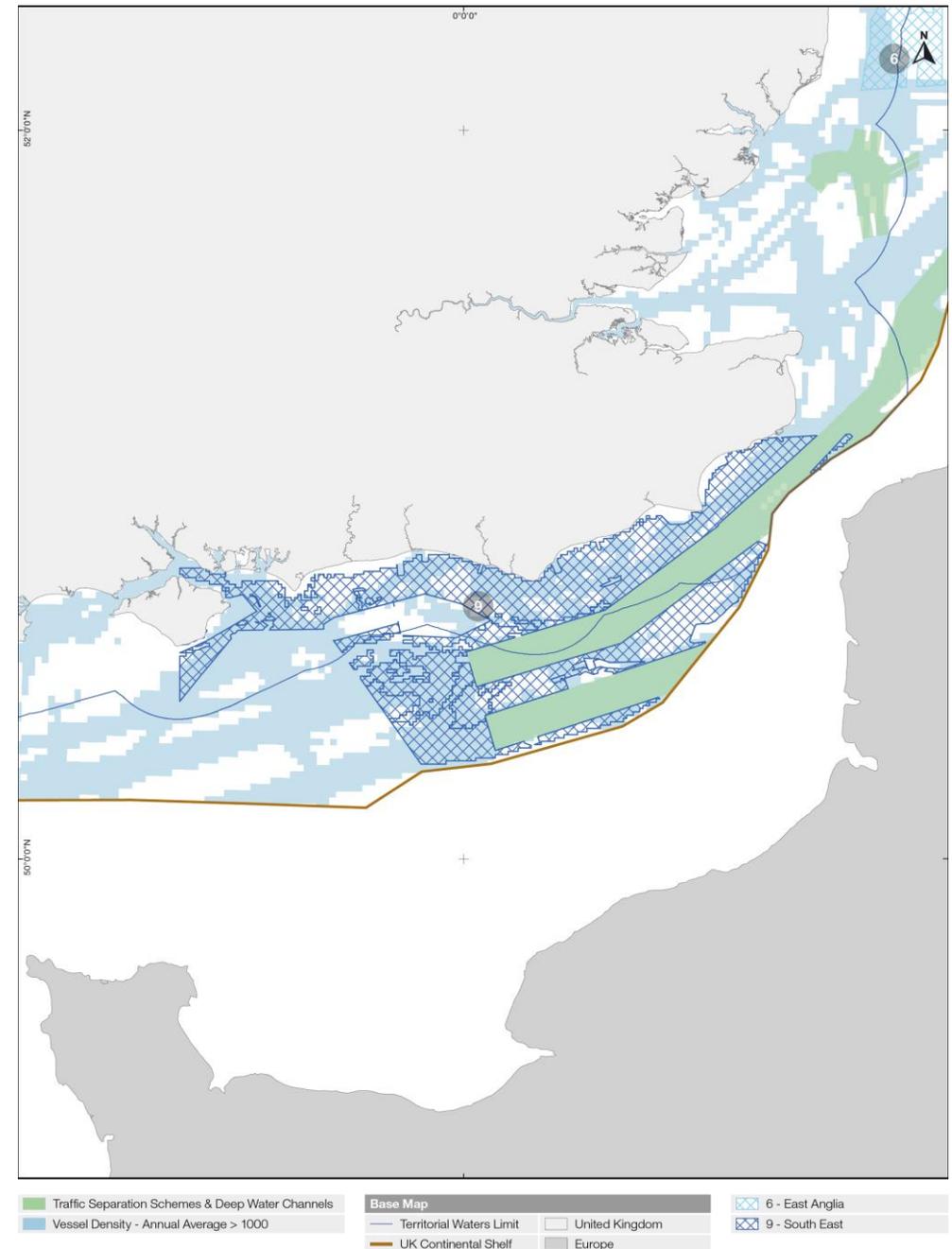
Stage 2 regions refinement – The Wash

- Commissioned further evidence – review undertaken by MacArthur Green
- Significant constraint in relation North Norfolk Coast SPA and Greater Wash SPA
- Region amended to remove all areas within 10 km of Greater Wash SPA
- Region amended to remove all areas within 40 km of Scolt Head and Blakeney Point areas of North Norfolk Coast SPA
- Inner Dowsing, Race Bank and North Ridge SAC area removed



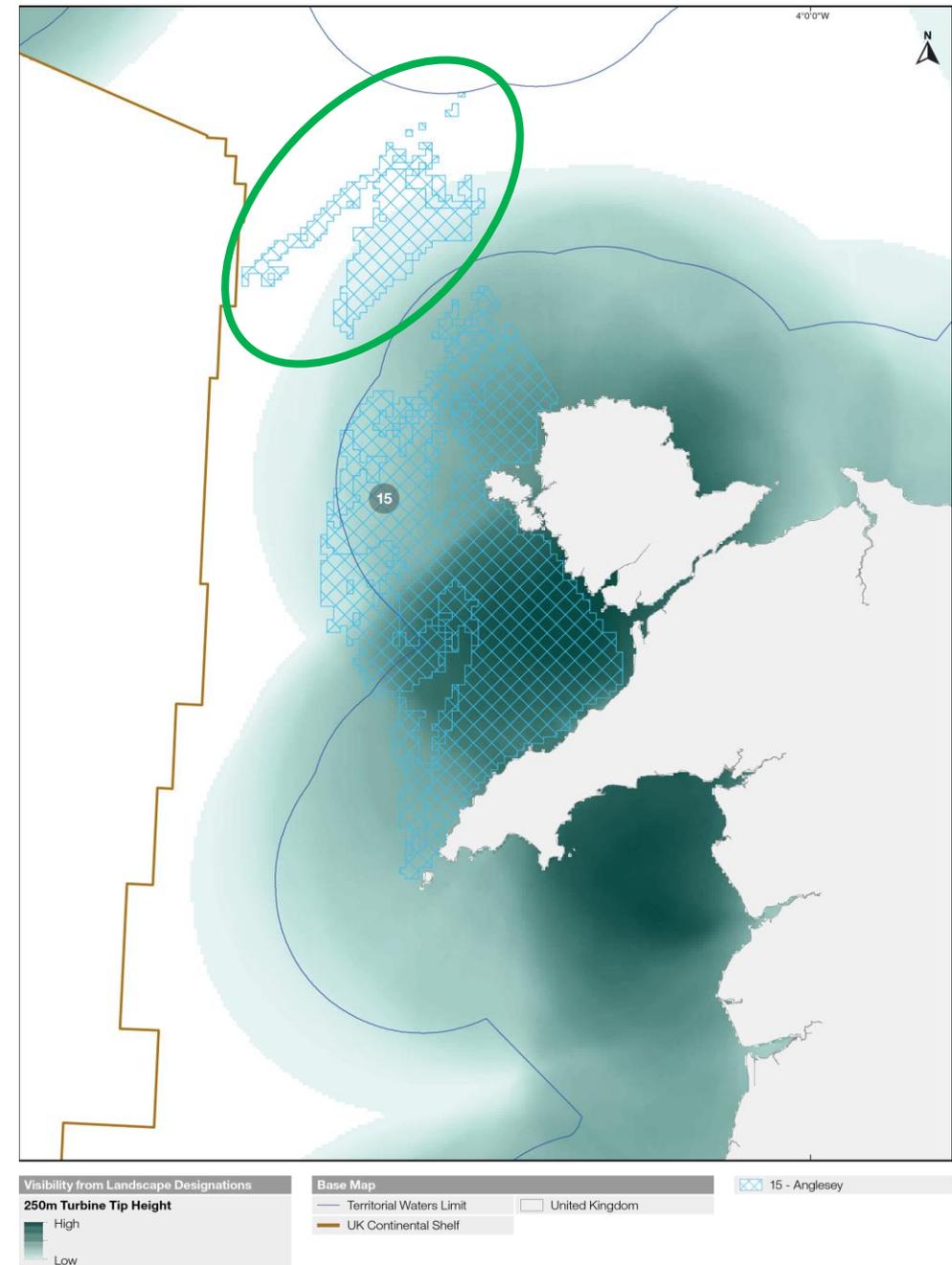
Stage 2 regions refinement – South East

- Major constraint in relation to shipping and navigation
- On consideration of data, evidence and stakeholder feedback concluded that such impacts best managed through project level Navigational Risk Assessment
- Region refined (stage one) to remove an area of significant MoD constraint
- South Wight Maritime SAC and Basurelle Sandbank SAC removed



Stage 2 regions refinement – Anglesey

- Significant constraints and uncertainty in relation to navigation, MoD activity and visibility mean development in southern and central areas would be challenging at this time
- Stakeholder feedback raised concerns about visibility
- Further evidence provided by Natural Resources Wales
- Southern and central areas of the region have been removed



Final regions map following refinement

Regions

- 2 - Dogger Bank
- 4 - The Wash
- 5 - Southern North Sea
- 6 - East Anglia
- 9 - South East
- 15 - Anglesey
- 16 - North Wales
- 17 - Irish Sea

-  Territorial Waters Limit
-  UK Continental Shelf

These final open regions were grouped to form four spatially distinct Bidding Areas as shown on the next slide.

The exclusion of seabed areas from Round 4, does not preclude their consideration in any future offshore wind leasing rounds. We will continue to work closely with stakeholders and communities, where there is appetite to identify future opportunity.

Bidding Areas

The four available Seabed Bidding Areas are:

- **Bidding Area 1** - Dogger Bank (comprising the Dogger Bank region)
- **Bidding Area 2** - Eastern regions (comprising the Southern North Sea region, The Wash region (refined) and the East Anglia region (refined))
- **Bidding Area 3** - South East (comprising the South East region (refined))
- **Bidding Area 4** - Northern Wales & Irish Sea (comprising the North Wales region, Irish Sea region, and the Anglesey region (refined))



Materials available – spatial evidence base



Document	Description
<i>Information Memorandum (IM)</i>	Commercial summary document setting out the background to Round 4, and explaining how Round 4 will work in practice
<i>Regions Refinement Report</i>	Method of refining regions, including annex of excluded region characterisation area reports
<i>Characterisation Area Reports</i>	Characterisation reports for regions included in Round 4. Reports for regions not included are in the annex of the <i>Regions Refinement Report</i>
<i>Resource & Constraints Assessment: Methodology Report</i>	Describing the analysis to define characterisation areas and associated reports
<i>Summary Stakeholder Feedback Report</i>	Feedback from stakeholders including high level clarification
Shapefiles (available on our Open Data Portal)	GIS data defining Bidding Areas, Characterisation Areas and Hard Constraints

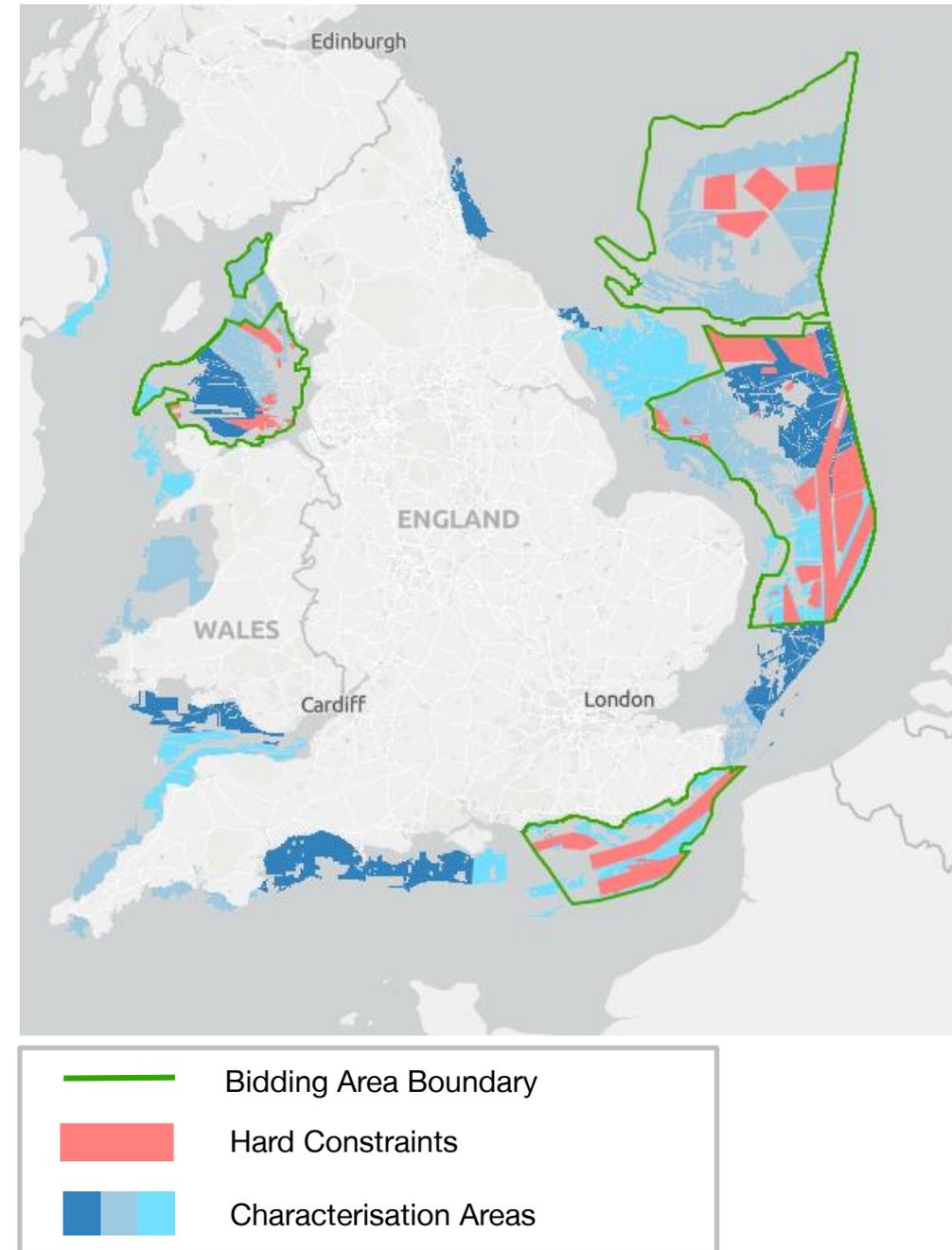
Offshore Wind Leasing Round 4

Project requirements

Helen Elphick

Project locations

- Shape files for the Bidding Areas, Hard Constraints and Characterisation Areas are available for Bidders to download on the Open Data portal.
- Bidding Areas represent the external boundary of the areas of seabed within which Bidders can propose projects through the Round 4 process.
- Hard Constraints represent seabed areas within the Bidding Areas that proposed projects must not overlap.
- Project Sites can be proposed which overlap other activities, including some which were excluded from the Characterisation Areas. Bidders will need to consider them carefully during site selection and project development alongside environmental and other constraints.



Project and technology requirements

- The Project must be an offshore wind farm whose purpose is the generation of electricity from offshore wind turbines for commercial sale.
- Hybrid offshore wind farms are welcome to participate alongside conventional offshore wind farms. Hybrid projects are offshore wind farms which either:
 - a) include an electrical connection to any electrical network other than the GB national electricity transmission system or the GB electricity distribution network; or
 - b) include an electrical connection to any offshore asset outside of the wind farm; or
 - c) transfer energy generated from the wind in any other form than electricity
- There are no technology restrictions on the types of turbines or foundations that can be proposed, provided that the project purpose is met.

Incentivising innovation through Round 4

- We are proposing a 50% rental discount on up to 10% of the project capacity for projects with a qualifying innovation. The discount period will no longer be limited to five years.
- The definition of a qualifying innovation will be linked to the Offshore Wind Innovation Hub (OWIH) Roadmaps prepared by the Offshore Renewable Energy Catapult in collaboration with industry and academia.
- To qualify for the discount, the proposed innovation will need to require demonstration offshore and meet other criteria which will be linked to the OWIH Roadmaps (e.g. be within a defined Technology Readiness Level (TRL) range)
- These requirements will be initially validated with industry representatives and will reviewed regularly thereafter.



Incentivising innovation through Round 4

- Developers will be able pre-qualify for the innovation discount by completing an information template that will be included as a Schedule to the Agreement for Lease.
- The earliest time that an innovation can qualify is at the point of consent application (Milestone 2) and the latest is with submission of the Project Specification prior to stepping through to Lease.
- Innovations that do not appear on the OWIH Roadmaps, or which do not meet all of the criteria, will still be considered, subject to the submission of satisfactory evidence of equivalence.



