

WEF UK Energy Security Strategy, and Industry's
Role in the Revised Transition

Developing the North Sea into a Net Zero zone – *challenges of transformation*

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Head of Marine Development, The Crown Estate



**Delivering for more than
260 years, The Crown Estate
is a unique business with a
diverse portfolio that
stretches across England,
Wales and Northern Ireland**



Reconstituted by The Crown Estate Act of 1961

As a commercially independent business with accountability to Parliament.



Return our net revenue profit to the Treasury

For the benefit of the nation's finances, with £3bn contributed in the last 10 years.



Active owners and managers of land and seabed

We seek to leverage our scale and convening power to make a meaningful difference.



With a compelling purpose

To create lasting and shared prosperity for the nation



And an ambitious strategy

Guided by our purpose and informed by major trends impacting our business, we seek to create broad financial, environmental and social value for our stakeholders, customers and the nation.

The UK's marine opportunity

The scale of change demanded by net zero targets will transform what needs to happen across the marine environment over the next 30 years. This will require a different approach.



UK 2030 ambition for marine



Support the UK's target of 68% reduction in greenhouse gases



Up to 50GW of OSW (5GW floating)



Up to 10Mt/yr of CCUS



Up to 10GW of hydrogen



UK 2050 ambition for marine



Support the UK's net zero target



Over 95GW of offshore wind



Over 100MtCO₂ of CCUS



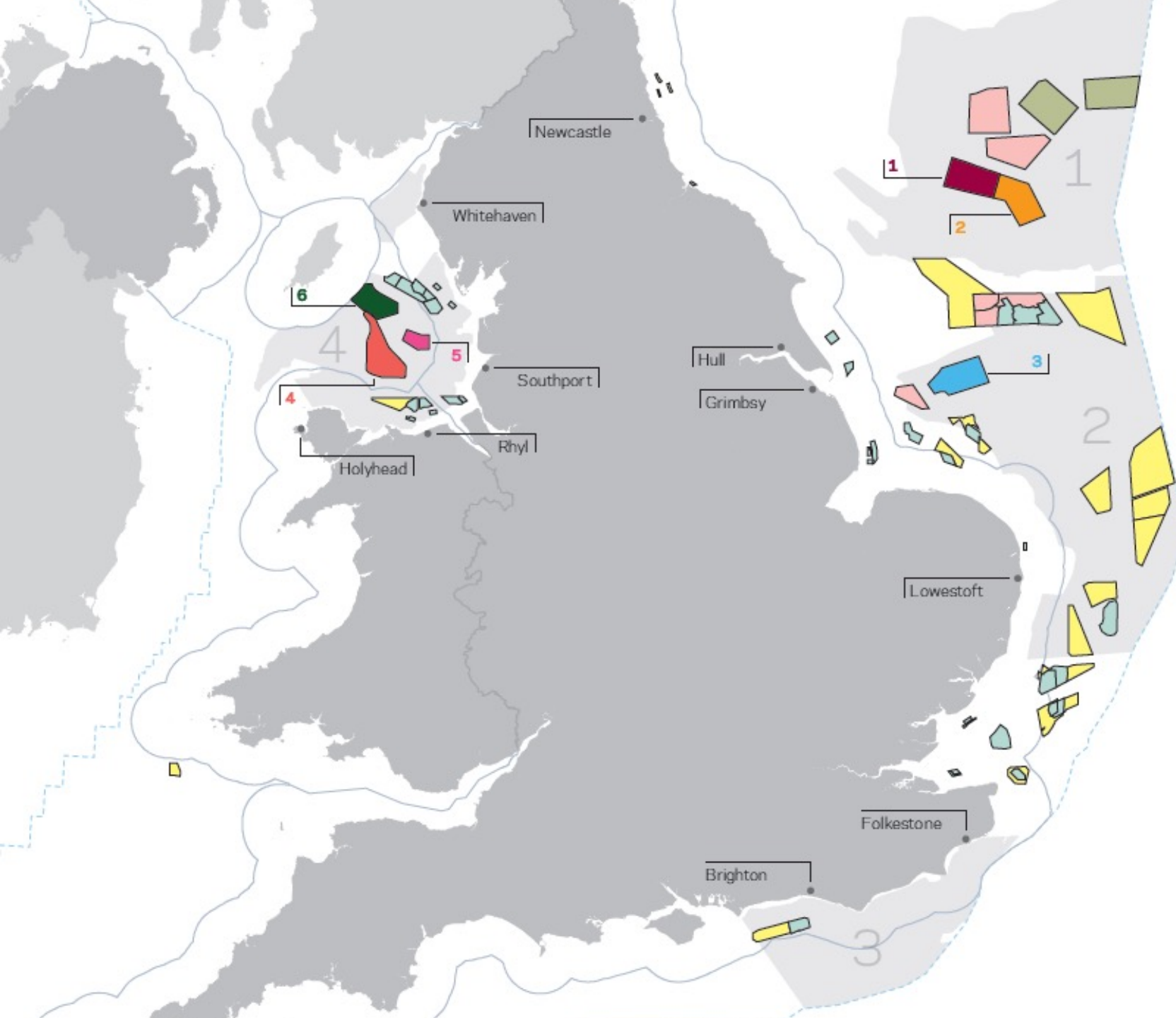
Up to 35GW of hydrogen

Balancing other seabed uses

- Protecting and enhancing the ecological value of the sea
- New cables and other nationally important infrastructure to support the digital economy
- Food and mineral resources and open shipping routes for trade

UK Offshore Wind Development Pipeline

April 2022



11 GW
FULLY COMMISSIONED

9 GW
COMMITTED*

23 GW
UNDER DEVELOPMENT/
PRE-PLANNING

37 GW
FUTURE LEASING
POTENTIAL

Up to 60 GW
FURTHER CAPACITY
REQUIRED TO MEET
2050 'HIGH' TARGET

* Projects under construction or that have government support on offer e.g. awarded a Contract for Difference OR taken FID

A busy space ...

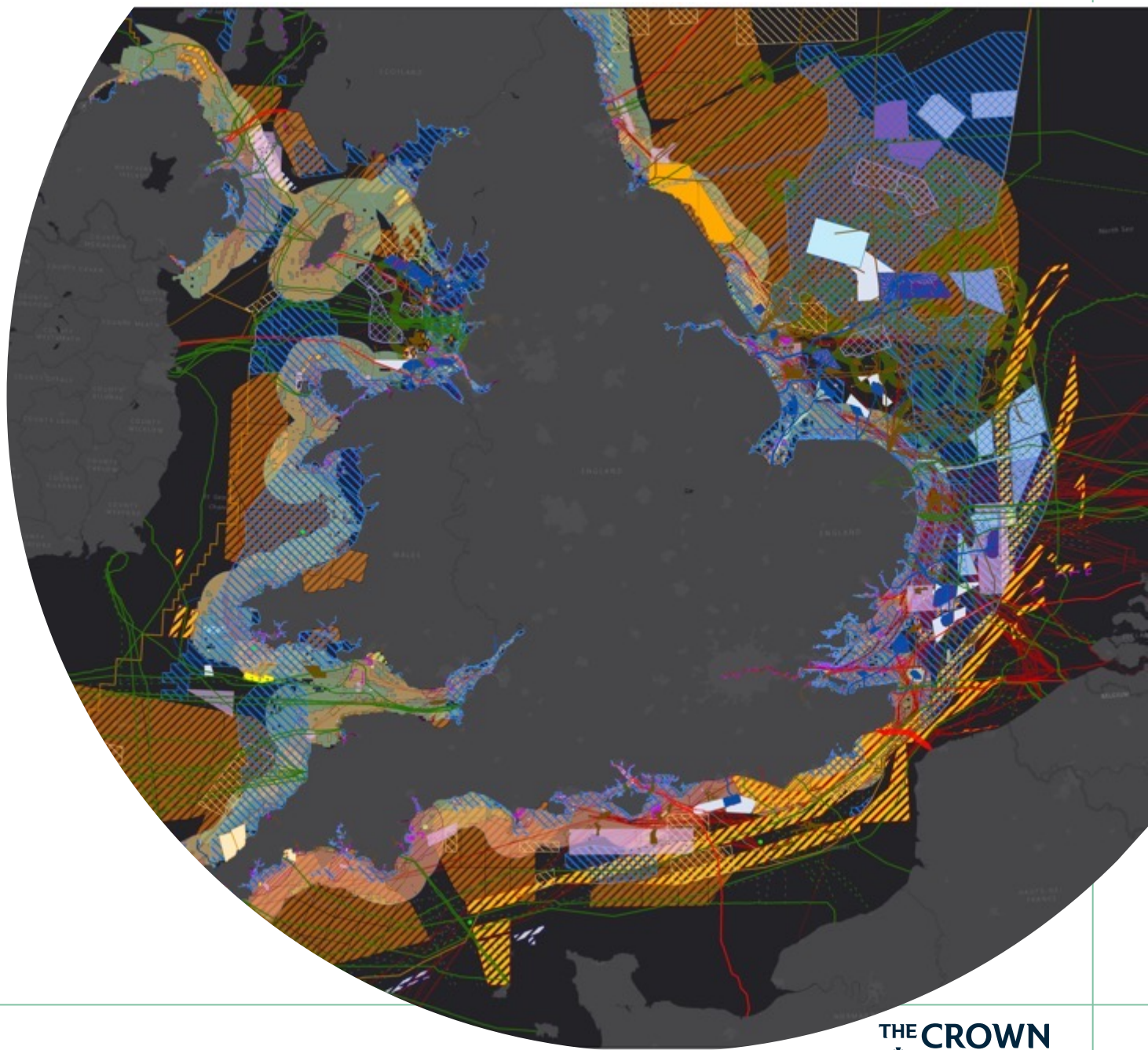
UK Marine Strategy seeks to achieve Good Environmental Status (GES) - 'ecologically diverse and dynamic seas which are clean, healthy and productive'

75% of the offshore wind key resource area already 'used' – additional offshore wind and CCUS alone extends utilisation to 95%

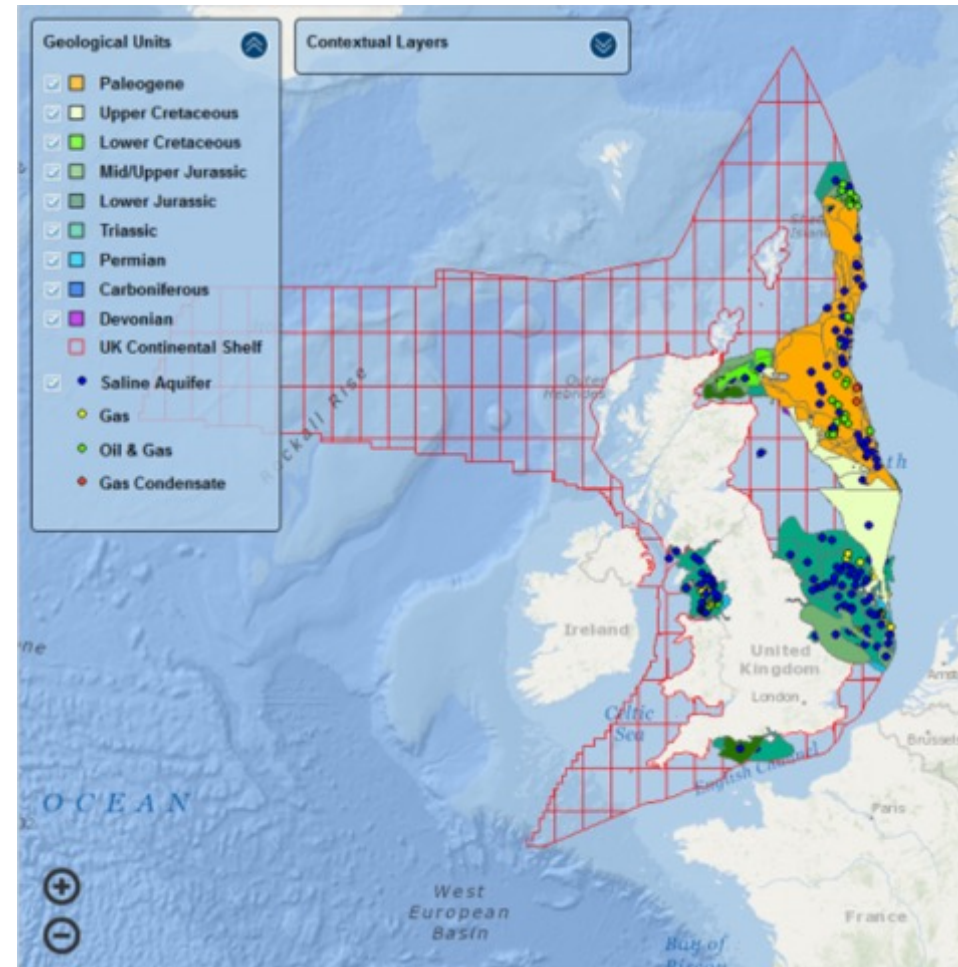
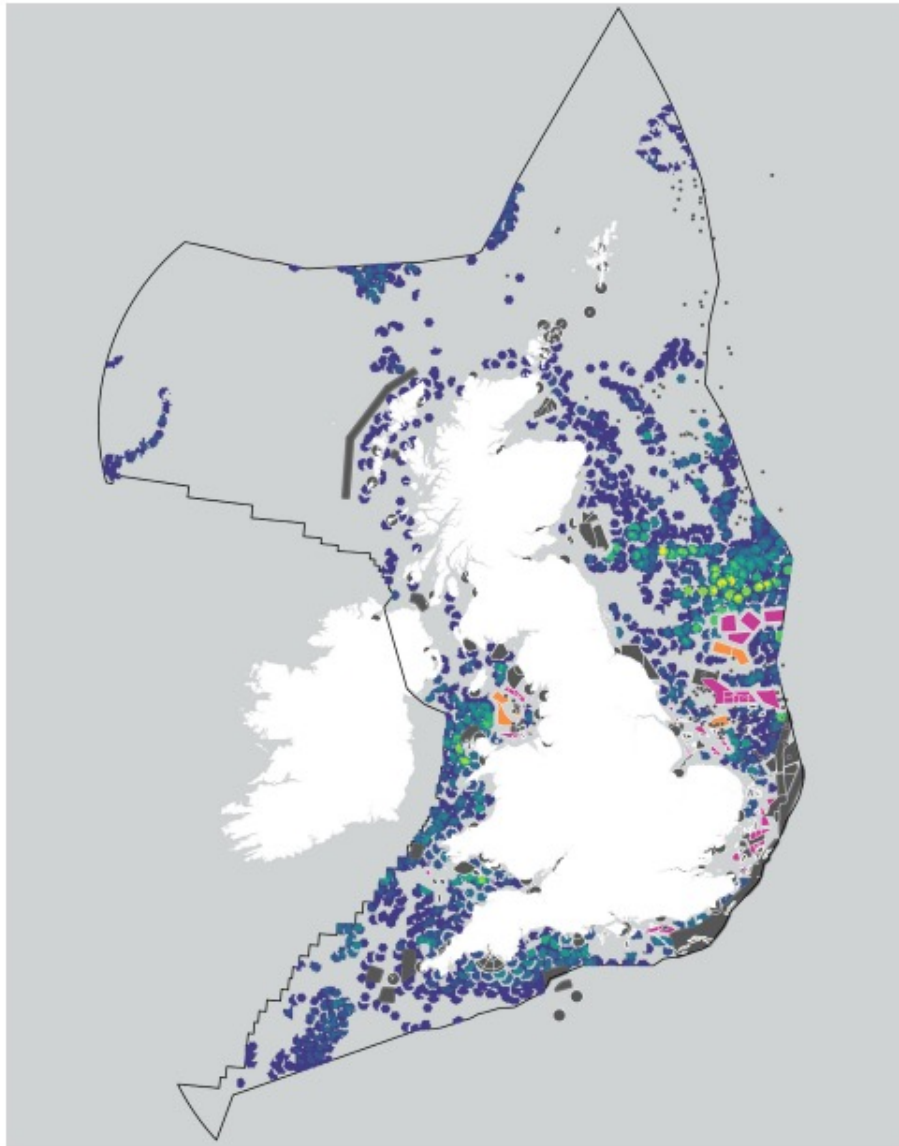
These demands must be balanced against other competing uses:

- Telecommunications and digital infrastructure
- Minerals extraction, oil and gas infrastructure, inc. pipelines
- Nationally important sectors such as fishing and shipping
- Environmental and ecological uses and natural habitats

Strategies for coordination, co-location and coexistence will be critical to navigating the spatial challenge ahead



Data & evidence – key resources



↑ Carbon capture store potential (CO₂ Stored)

← Offshore wind potential (Future offshore wind scenarios)

The programme brings together key stakeholders to gather and share evidence and data, and then use this enhanced evidence base to facilitate the growth of the offshore wind sector in a way that best protects and enhances the environment.

In collaboration with ...

- Centre for Environment, Fisheries and Aquaculture Science
- Crown Estate Scotland
- Department for the Economy, Northern Ireland
- Department of Agriculture, Environment and Rural Affairs, Northern Ireland
- Historic England
- Joint Nature Conservation Committee
- Marine Management Organisation
- Maritime and Coastguard Agency
- National Grid Electricity Systems Operator
- National Grid Transmission Owner
- Natural England
- Natural Resources Wales
- NatureScot
- Offshore Wind Industry Council / Pathways to Growth
- Office of Gas and Electricity Markets
- The Planning Inspectorate
- RenewableUK
- Royal Society for the Protection of Birds
- Scottish Government (Marine Scotland)
- Seabed User and Developer Group
- The Wildlife Trusts
- Trinity House
- Welsh Government



Collaborative Workshop, December 2019– developing the “Needs Case”

Programme Themes

- **Spatial coordination and co-location**
- **Improve understanding of environmental impacts and benefits**
- **Compensatory measures**
- **Net environmental gain**

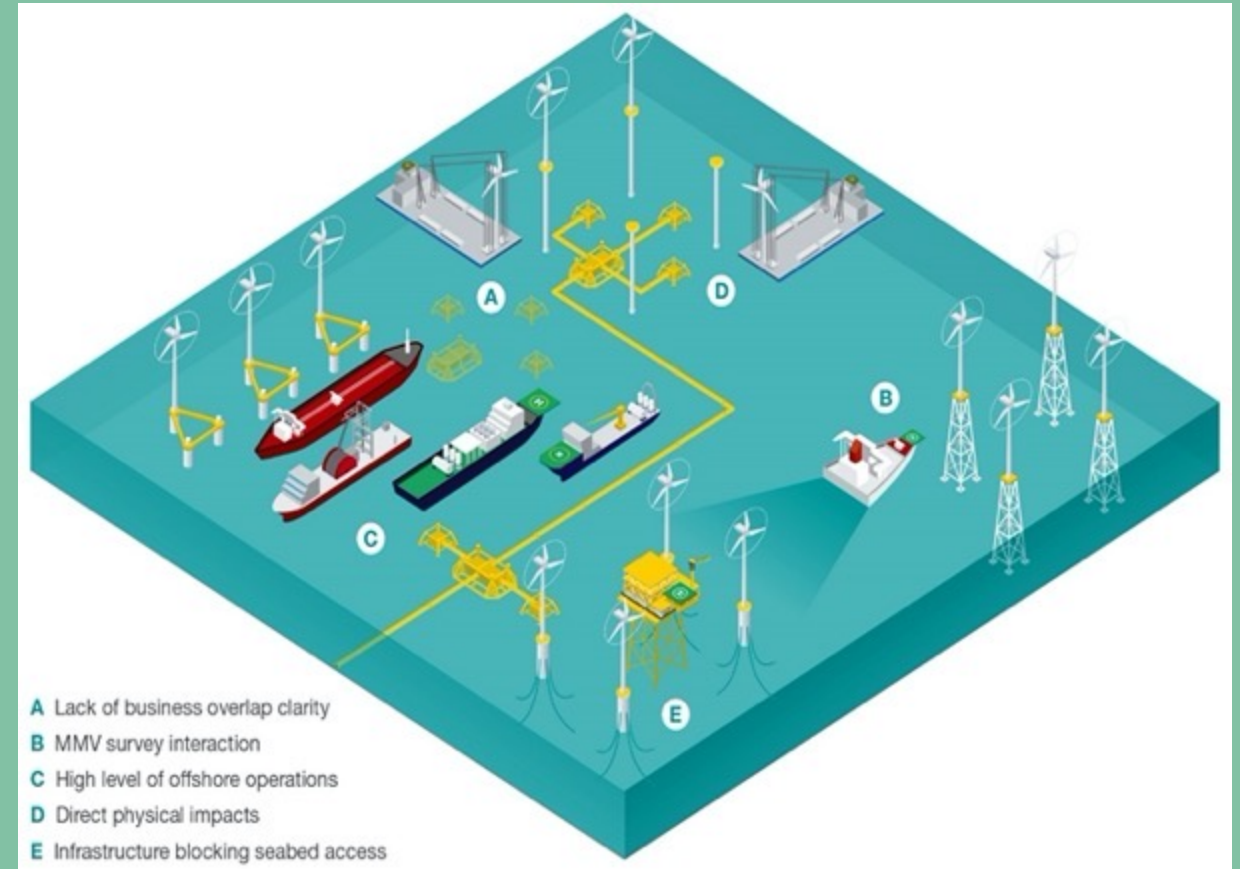
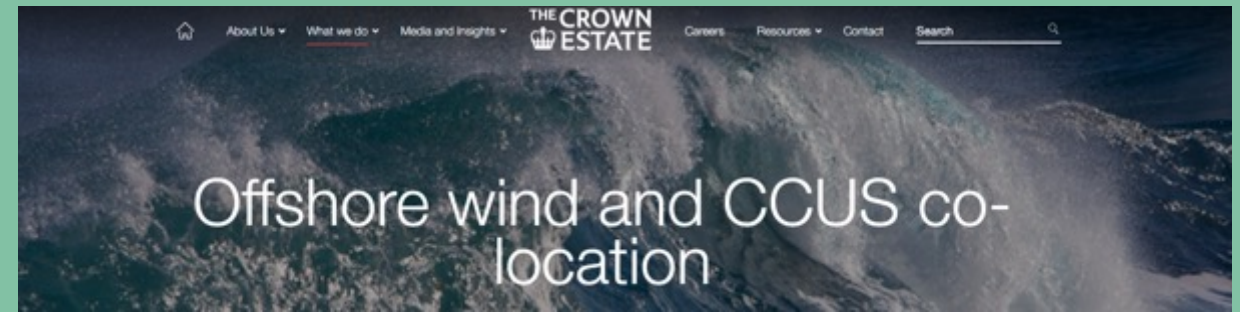
Co-location: CCUS/Offshore wind

Forum established in July 2021

Multi-lateral convening key public organisations and industry

Initial activity informed by CCUS & Offshore Wind Overlap Study:

- Spatial characterisation and planning
- Conformance and seismic data gathering
- Best practice for simultaneous operations
- Wider Marine planning stakeholder engagement
- Opportunities for sharing resources
- Corrosion and geomechanical modelling
- Development and operational alignment



Leasing: Floating Wind in the Celtic Sea

- Unlocking 4GW of Floating Wind in the Celtic Sea by 2035, powering over 4 million homes
- Leasing designed at a pace & scale to support supply chain and infrastructure development
- Taking a revised approach to spatial design & Habitats Regulation Assessment to help de-risk investment, minimise environment risk & streamline the development programme
- Working with the Electricity System Operator and others to support a coordinated grid solution for floating wind projects
- The leasing process could see seabed rights awarded by the end of 2023



In creating lasting and shared prosperity for the nation ...



Be a leader in supporting the UK towards a net zero carbon future



Help create thriving communities and renew urban centres in London and across the UK



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

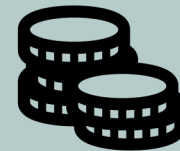
Within the **marine environment**, we seek to help the country optimise its economic, environmental and social potential, taking action in three distinct areas to help address the strategic challenges this presents



Building data & evidence

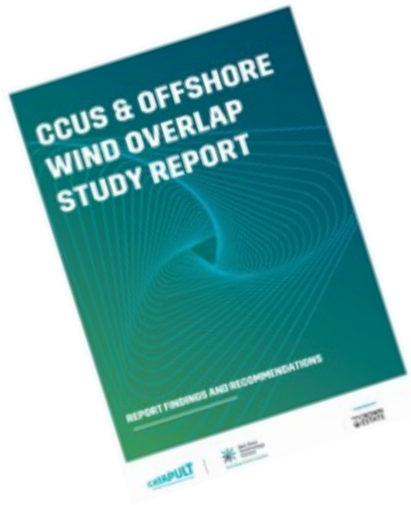


Develop new leasing and participation models



Investing to accelerate development

...To find out more:



1. The Crown Estate – Offshore Wind Leasing Round 4

<https://www.thecrownestate.co.uk/en-gb/what-we-do/on-the-seabed/offshore-wind-leasing-round-4/>

2. CCUS & Offshore Wind Colocation (inc Overlap Study)

[Offshore wind and CCUS co-location | Offshore wind and CCUS co-location \(thecrownestate.co.uk\)](#)

3. Offshore Wind Evidence and Change Programme

<https://www.thecrownestate.co.uk/en-gb/what-we-do/on-the-seabed/energy/offshore-wind-a-sustainable-future/>

4. Broad Horizons : A technical analysis of key resource areas for offshore wind

<https://www.thecrownestate.co.uk/media/3642/broad-horizons-offshore-wind-key-resource-area-summary-report.pdf>

5. Future Offshore Wind Scenarios

[FOWS \(futureoffshorewindscenarios.co.uk\)](https://futureoffshorewindscenarios.co.uk)