

Celtic Sea Floating Wind Pre-Consent Surveys

A large floating wind turbine is the central focus, mounted on a yellow, square-shaped platform. The turbine's tower is white with a yellow section at the base. The blades are white and extend outwards. The platform is surrounded by a yellow railing. A small blue boat is positioned near the platform, creating a white wake in the dark blue water. The background shows a vast expanse of the ocean under a clear blue sky with some light clouds.

Technical update and Q&A, hosted by Celtic Sea Developer Alliance
1 February 2023

1. Image credit: BW Ideol & V.Joncheray

Welcome



Graham Moates

Development Services Programme Manager,
Marine



Jessica Campbell

Senior Strategic Consents Manager,
Marine



Thank you to our hosts



Celtic Sea
Developer Alliance



A unified voice and single point of contact for floating offshore wind developer interests, promoting the wider Celtic Sea ambition at every level.

Membership is open to any developer with an interest in the Celtic Sea.

If you would know more, then [visit the homepage](#) or contact CSDA@marineenergywales.co.uk

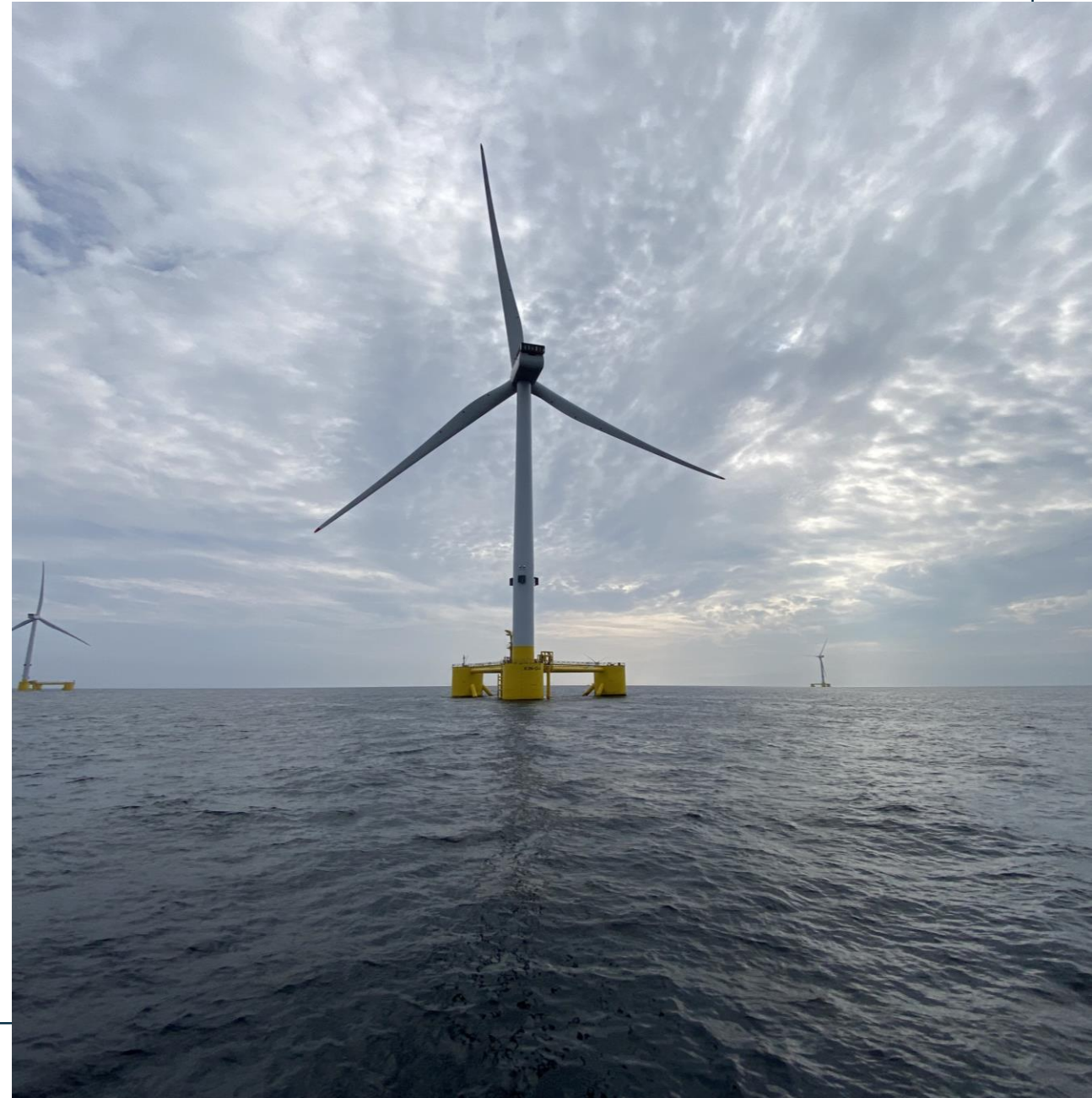
Today's purpose

To provide:

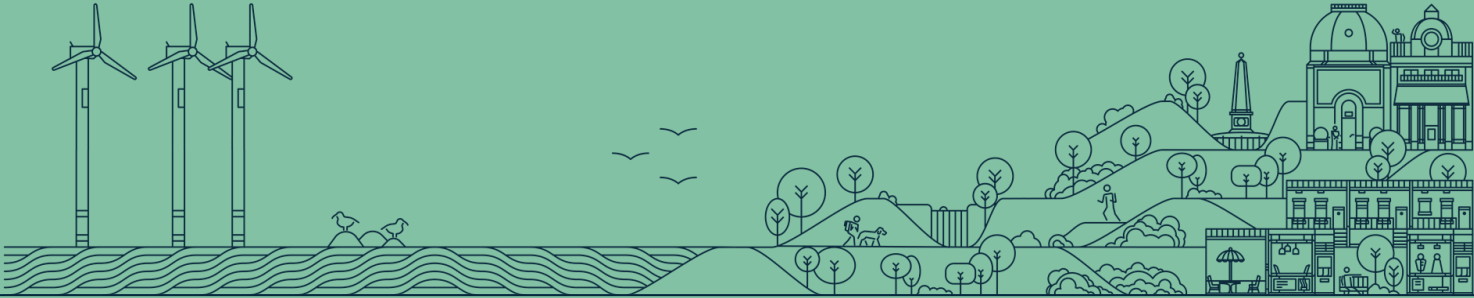
1. A technical update on The Crown Estate's plans for pre-consent surveys for the Celtic Sea floating wind leasing round.
2. A session for developer community Q&A and feedback, specific to the pre-consent surveys.

Submit your questions and feedback, visit:

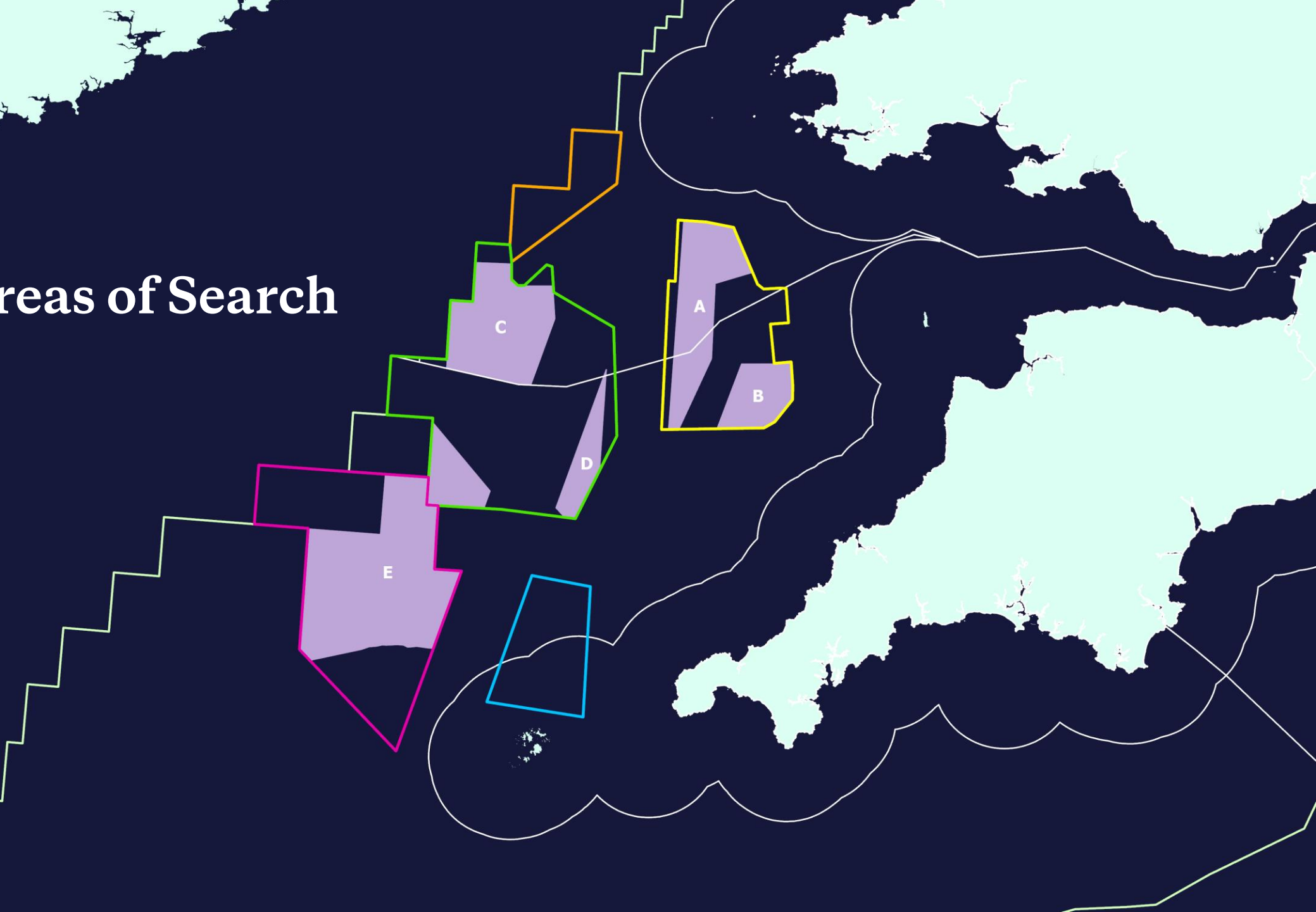
slido.com and enter **#3867747**



Background



Refined Areas of Search



Pre-Consent Surveys (PCS)



Survey programme aims

By investing in these surveys at an early stage and making the data freely available to successful bidders, The Crown Estate aims to:

- Accelerate the delivery of projects, making it easier for developers to take early decisions and manage development risk.
- Support future project-level Environmental Impact Assessments (EIAs) as part of the consenting process.





Quality assurance - overview

The Crown Estate have proactively engaged with a broad range of parties.





Quality assurance – technical advisors

Ongoing engagement with our technical advisors through the development of the Pre-Consent Surveys programme.

- Understanding the Celtic Sea seabed environment.
- Designing technical specifications and scoping survey parameters.
- Procurement evaluation and the appointment of competent contractors.
- Data and reporting review as part of quality assurance.



The Crown Estate have also completed engagement with over fifty developers to best understand pre-consent survey preferences and priorities.



Quality assurance – marine stakeholders

Engagement with key stakeholders on survey proposals and method statements through development of the Pre-Consent Surveys programme:



Compliance with best practice guidance and standards, e.g.:

- Natural England data acquisition guidelines
- [MEDIN](#) standards
- [Joint Cetacean Data Programme](#) data collection standards

Join up with existing surveys and projects, e.g.:

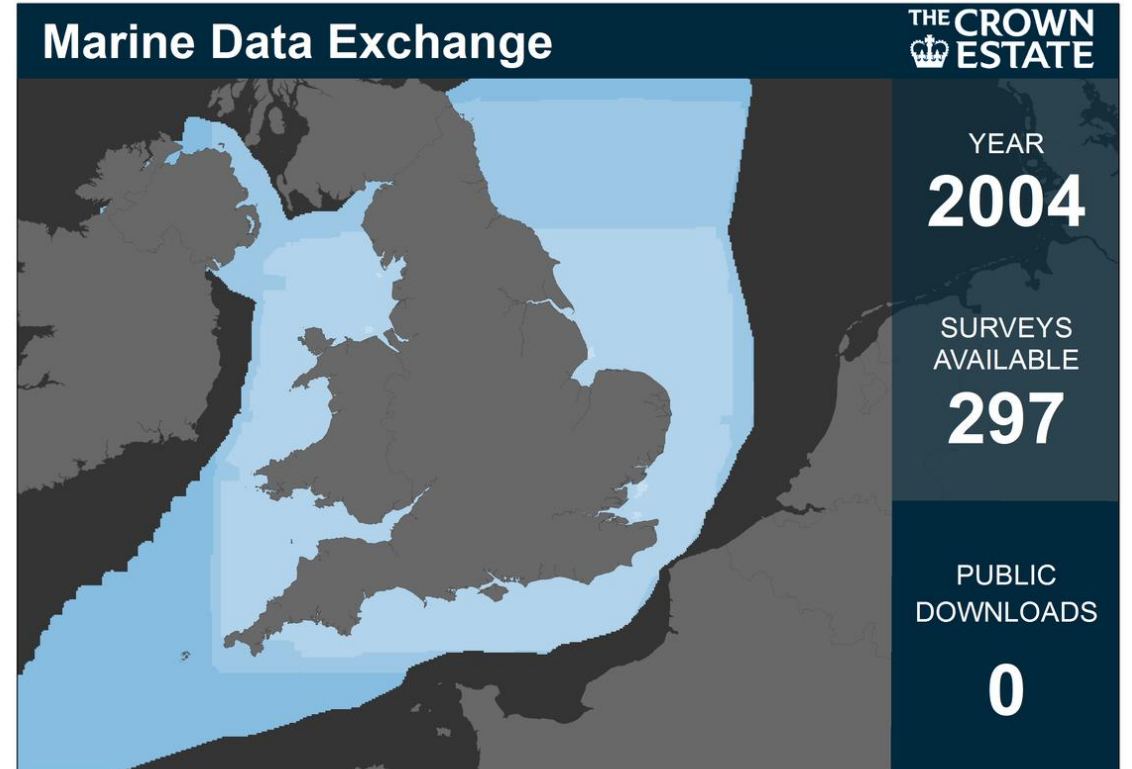
- [Celtic Sea Power](#) data campaigns
- [POSEIDON](#) (Planning Offshore Wind Strategic Environmental Impact Decisions) – Cefas and Natural England

Data sharing

Our principle and approach to marine data and evidence is to make it freely available as soon as it's reasonable to do so. However, we understand commercial sensitivities around pre-consent survey data.

Data will be shared via the [Marine Data Exchange](#), our bespoke data management system for handling industry survey data:

- Ability to handle commercially sensitive data – e.g. restricted access to developers securing Celtic Sea seabed rights.
- Long term – data to be made public domain, maximising its use and value.



Survey data streams

Consenting / Environmental

Metocean and
FLIDAR

Birds and
marine
mammals

Informational / Technical

Geophysical

Geotechnical

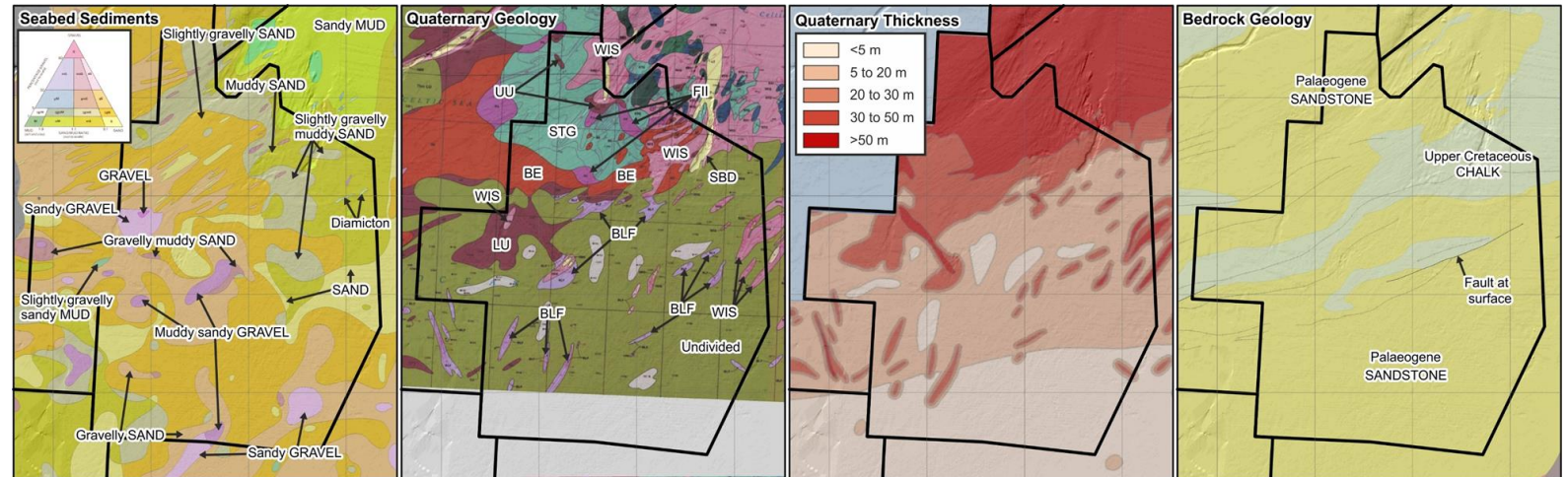
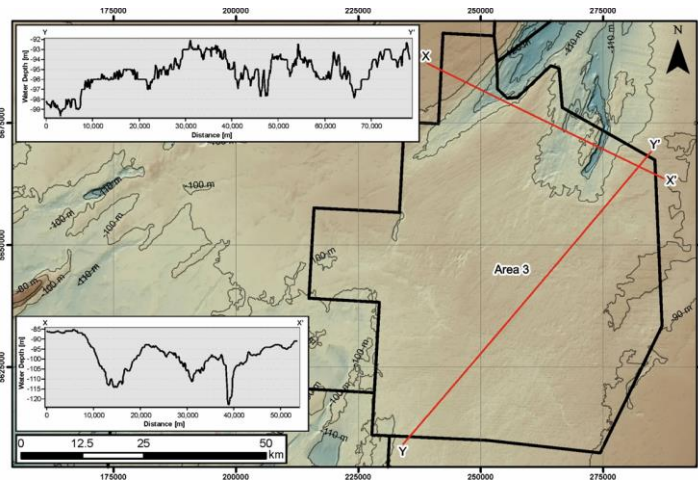
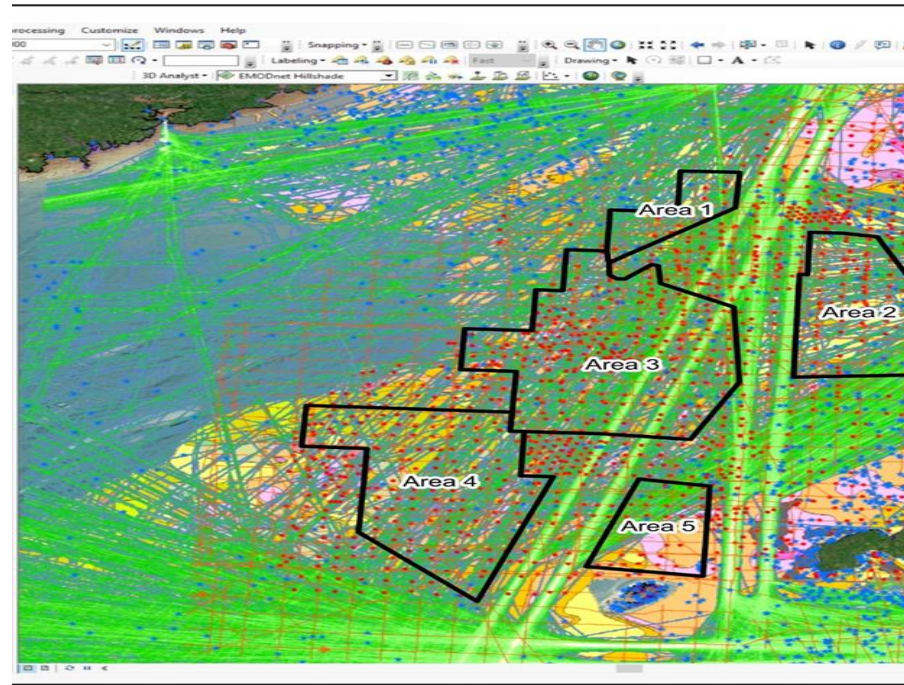
Acquire long lead datasets to support consenting and programme acceleration

Provide survey information to assist with de-risking early design
Inform developers on possible layout options and Project Development Area utilisation options

Celtic Sea data review

Publicly available geodata collated in an ArcGIS database for the Areas of Search.

- Bathymetry
- Seabed sediments
- Pleistocene geology
- Bedrock geology
- Geotechnical data



Metocean and FLIDAR

Coverage

Up to four deployment areas subject to final Project Development Area (PDA) locations

- FLIDAR buoy with acoustic monitoring and water measurement sensors.
- Seabed acoustic doppler current profiler.
- Waverider buoy
- Passive acoustic monitoring sensor
- Suspended sediment measurement

Approach

- Three-monthly servicing.
- Spare systems allocated to The Crown Estate

Schedule

- Twelve months: from mid 2023 - mid 2024

Contract awarded to:



Birds and marine mammals

Information required

- Abundance and distribution of protected species that may be impacted by the construction, operation and eventual decommissioning of floating offshore windfarms

Ground Sample Distance (GSD) coverage

- 2.0 GSD data within PDAs
- 2.0 GSD across a regional area.

Approach

- Digital Aerial Surveys (DAS) - two years
- Vessel based flying height observations
- Works to be completed by The Crown Estate

Schedule

- Commence operations in Q2 2023

Contract: at contracting stage.



Birds and marine mammals – considerations and target species

Target species

- Protected by the Habitats Regulations within Marine Protected Areas (MPAs)
- Species of national and international importance
- Some species protected both inside and outside of MPAs

Considerations

- Impact of highly pathogenic avian influenza

Marine mammals

Priority species

- Harbour porpoise;
- Basking shark;
- Grey seal.

Other likely target species

- Short-beaked common dolphin;
- Minke whale;
- Bottlenose dolphin;
- Risso's dolphin.

Birds

Priority species

- Manx shearwater;
- European storm petrel;
- Northern gannet;
- Lesser black-backed gull.

Other likely target species

- Atlantic puffin;
- Guillemot;
- Razorbill;
- Black-legged kittiwake;
- Northern fulmar;
- Great black-backed gull.

Geophysical

Project Development Areas

- 250m line spacing
- Multibeam echosounder
- Side scan sonar: 0.5m target resolution
- Sub-bottom profiler
- 2D ultra high resolution seismic
- Magnetometer
- Ground truthing grabs

Included works

- Debris / pUXO* avoidance surveys

Schedule

- Commence operations in Q2 2023

Contract: procurement is ongoing



Geotechnical

Project Development Areas

- Seabed Cone Penetrometer Test (CPT)
- Vibro-coring, 5-6m BSF
- Thermal testing
- Factual reporting

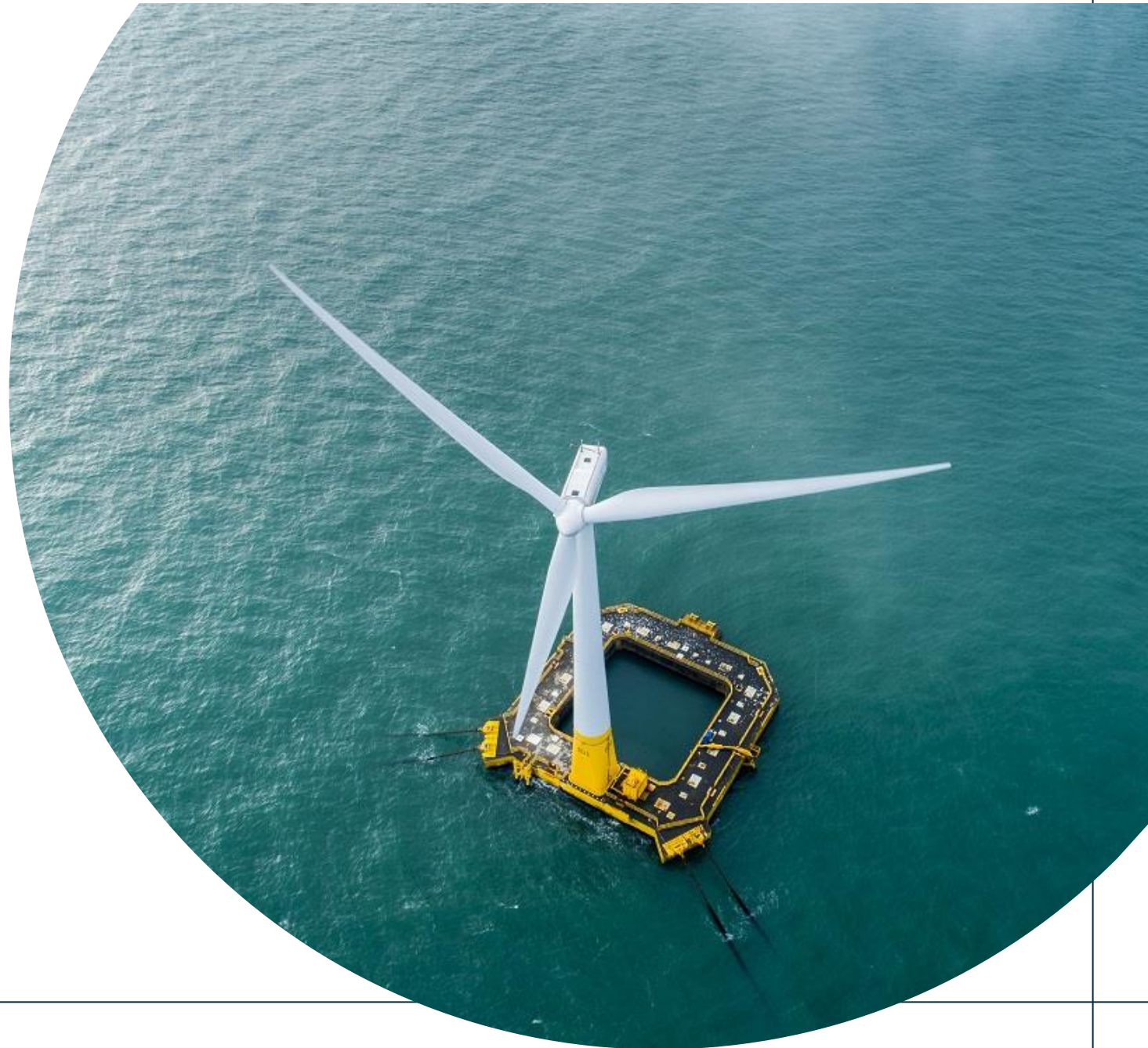
Other works in consideration

- Composite boreholes / API drilling
- Rotary coring
- Deep drive CPT

Schedule for PDA scope

- Commence operations in Q3 2023

Contract: procurement is ongoing



Summary scope of surveys

Important areas, including the geophysical properties of the seabed, wind, wave and current patterns, and marine wildlife.

Metocean

Up to four deployment areas subject to final PDA locations.

FLIDAR buoy with acoustic monitoring and water measurement sensors.

Seabed acoustic doppler current profilers.

Waverider buoy

Survey: Q2 2023 - Q2 2024

Status: contract awarded

Birds & marine mammals

Years 1 and 2 - aircraft campaign to provide EIA coverage of PDAs.

Plus: regional data acquisition in a wider area of the Celtic Sea.

Vessel-based bird flying height observations.

Options to adjust scope and specification subject to the ongoing impact of highly pathogenic avian influenza

Survey: Q2 2023 - Q2 2025

Status: at contracting stage

Geophysical

Geotechnical indicative PDA dataset at 250m line spacing.

Multibeam echosounder, side scan sonar, sub-bottom profiler, 2D ultra hi-res seismic, magnetometer.

Surveys required as part debris avoidance for the deployment of sensors and geotechnical sampling.

Survey: Q2 and Q3 2023

Status: procurement ongoing

Geotechnical

Seabed cone penetrometer tests

Vibro-coring

Survey: Q3 2023

Future potential for borehole sampling and associated sample lab testing

Status: procurement ongoing

Pre-Consent Surveys Q&A and your feedback

Please visit **slido.com** and
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Thank you for your interest

Further information from The Crown Estate

- [Dec 2022 Pre-Consent Surveys news release](#)
- [Floating wind landing page](#)
- [Open data portal](#)

Queries

- Regarding Pre-Consent Surveys, please contact offshor stakeholder@thecrownestate.co.uk
- Regarding the Celtic Sea Developer Alliance, please contact CSDA@marineenergywales.co.uk

Disclaimer

The content of and positions outlined in these slides and our presentation today reflect our current thinking and are provided for information only. The Crown Estate makes no representations in respect of and accepts no duty, liability or responsibility for the content of them.

Our thinking and the content of and the positions outlined in these slides, and our presentation today, may change in light of further feedback from you and other stakeholders, and as our thoughts and positions continue to mature. The information contained within this presentation relates to the potential leasing of new floating offshore wind projects in the Celtic Sea only.

