DOGGER BANK D WIND FARM

Statutory consultation

Webinar presentations July 2025

sse Renewables

equinor

www.doggerbankd.com

Contents

About Dogger Bank D

Dogger Bank D is a proposed new fourth phase of the Dogger Bank Wind Farm, the world's largest offshore wind farm in construction.

- Located in the North Sea around 210km off the northeast coast
- Announced in February 2023
- Up to 1.5GW
- 50/50 Joint venture SSE Renewables and Equinor
- Grid connection location at Birkhill Wood, confirmed in March 2024
- Enough to power the equivalent of up to 2.5 million homes* in the UK

The Array Area covers 262km²
in which the wind turbines are located

Located 210km from shore
at its closest point, off the northeast coast of England

Up to 113 wind turbines
with associated support structures and foundations fixed to the seabed

*Up to 2.5 million homes powered per annum based on mean domestic annual electricity consumption in Great Britain 2023, 3,301kWh per household; DESNZ 2024, assumed offshore wind load factor of 62.3%, DESNZ 2024 (Contracts for Difference Standard Terms Notice), and projected installed capacity of up to 1.5GW.

Why we need offshore wind

- Climate change caused by greenhouse gases, which have increased over the past 200 years, is a global issue affecting weather, nature, and health.
- To address this, the UK aims to balance the emissions we produce with those we reduce or remove, reaching net zero emissions by 2050. Offshore wind is a key part of this plan.
- Offshore wind can make a significant contribution to the UK Government's plans to fully decarbonise our power system.

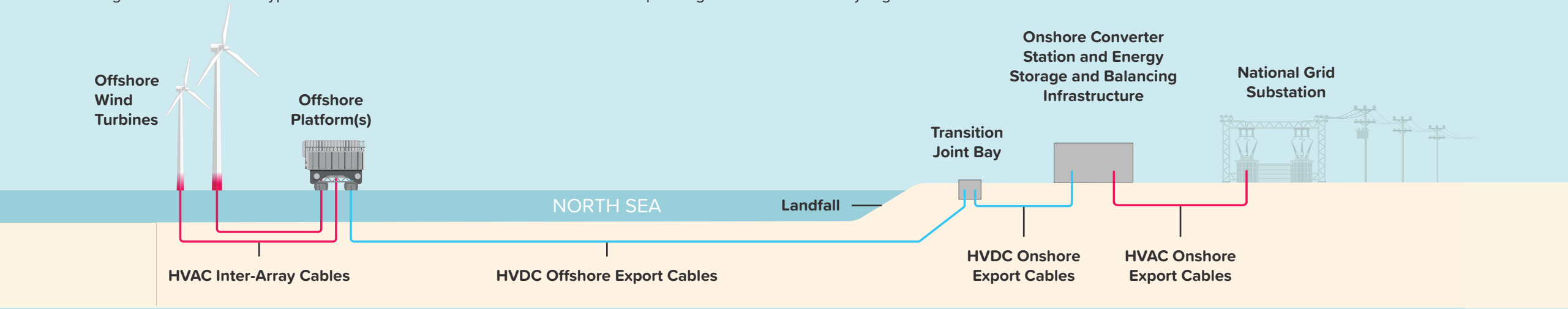
How energy will reach homes and businesses

A typical connection to the UK power grid

High Voltage Alternating Current (HVAC)

High Voltage Direct Current (HVDC)

The diagram below shows a typical connection of an offshore wind farm to the UK power grid and how electricity is generated and reaches homes and businesses.



How electricity from an offshore wind farm gets to homes and businesses

1 Wind turbines generate electricity

- Each turbine has blades that rotate when the wind blows, turning a rotor connected to a generator.
- The generator converts the kinetic energy of the spinning rotor into electrical energy.

2 Electricity is collected

- The electricity generated by each turbine is transferred via cables to an offshore substation.
- The offshore substation collects electricity from multiple turbines and converts the voltage to HVDC.

3 Transmission to shore

- High-voltage subsea cables carry the electricity from the offshore substation to shore to a landfall point.
- These cables are typically buried under the seabed to protect them from damage.

4 Underground onshore export cables

- The cables are buried underground with the land reinstated after construction.
- They reach the converter station where the electricity is converted back to HVAC so that it is suitable for integration into the national grid.

5 Connection to the substation

- The electricity is then transmitted from the converter station to a National Grid substation.
- Once integrated into the national grid, the electricity can be distributed to homes, businesses, and industries.

6 Grid integration and distribution

- Grid operators manage the distribution of electricity, ensuring a stable and reliable supply.
- The electricity generated by the offshore wind farm becomes part of the overall energy mix available to consumers.

The planning application process

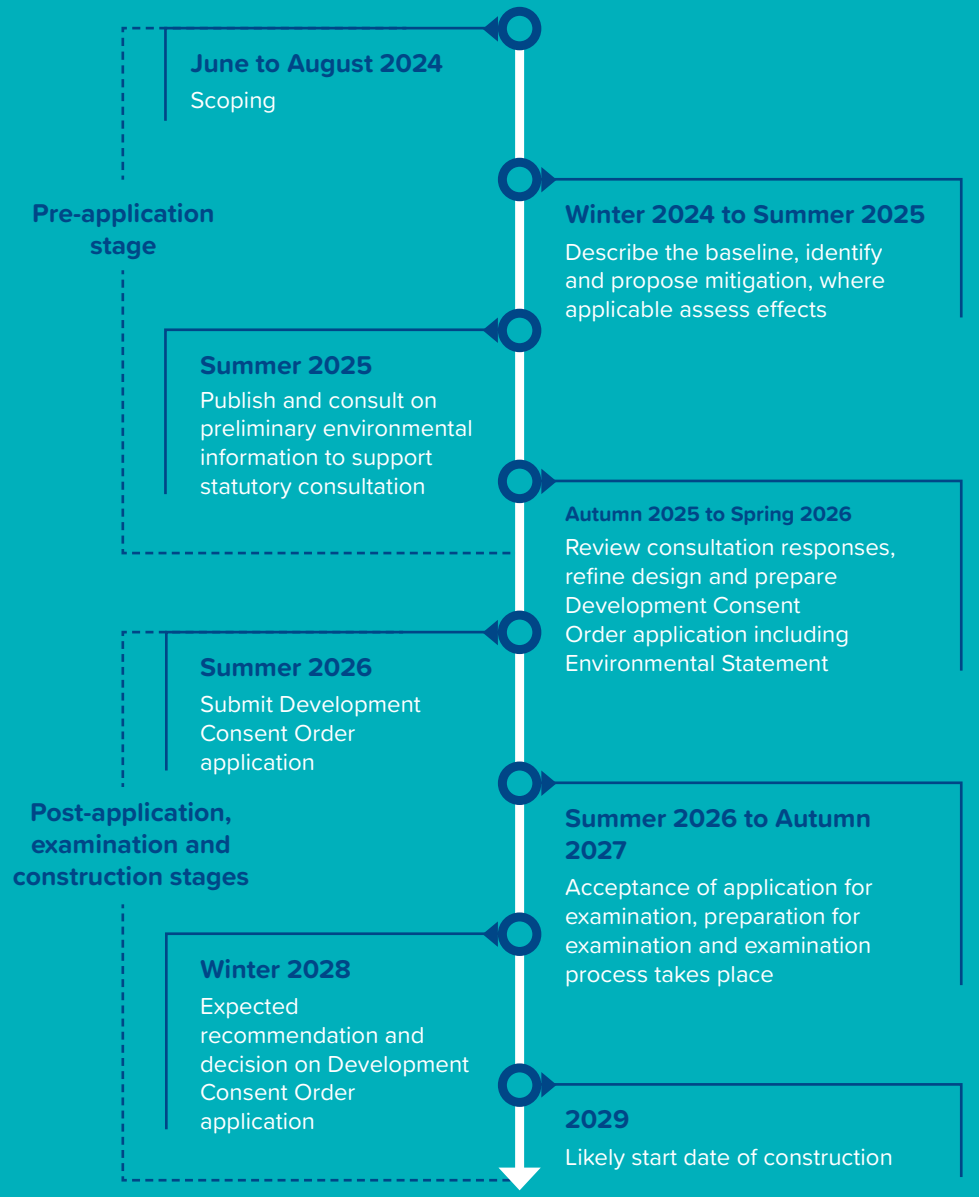
Dogger Bank D is a strategic national asset with over 100MW capacity, qualifying as a Nationally Significant Infrastructure Project (NSIP).

We will seek a Development Consent Order (DCO) to deliver the project.

The Planning Inspectorate will review the DCO, with a final decision by the Secretary of State.

A statutory consultation is underway as part of the formal DCO process under the Planning Act 2008.

Local feedback is vital to shaping the project.



Preliminary Environmental Information Report

- We are consulting on our Dogger Bank D proposals and have prepared a Preliminary Environmental Information Report (PEIR). The PEIR outlines our initial environmental study findings and impact assessments.
- We have identified various measures to avoid, reduce, or manage potential impacts, compiled into a Commitments Register. This includes mitigation, enhancement, and monitoring actions.
- Our studies and surveys cover key environmental topics for offshore, onshore, and project-wide areas, summarising potential impacts during construction, operation, and decommissioning, along with proposed mitigation measures.

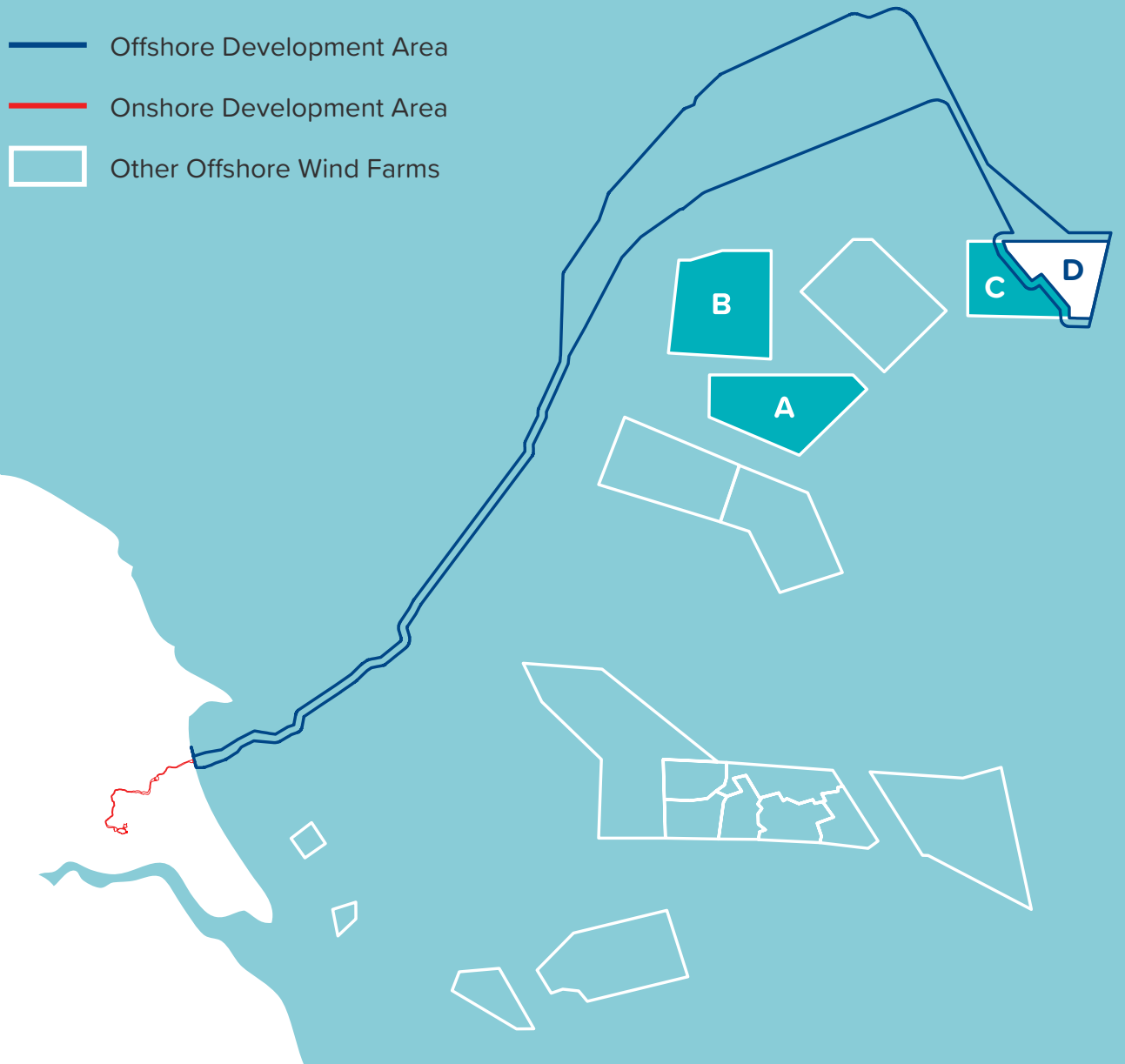
Preliminary Environmental Information Report

Upfront Chapters	Introduction Need for the Project Policy and Legislative Context Project Description Site Selection and Consideration of Alternatives Environmental Impact Assessment Methodology Consultation
Offshore Chapters	Marine Physical Processes Marine Water and Sediment Quality Benthic and Intertidal Ecology Fish and Shellfish Ecology Marine Mammals Offshore and Intertidal Ornithology Commercial Fisheries Shipping and Navigation Aviation, Radar and Military Offshore Archaeology and Cultural Heritage Other Marine Users
Onshore Chapters	Geology and Ground Conditions Air Quality and Dust Water Resources and Flood Risk Soils and Land Use Onshore Ecology and Ornithology Onshore Archaeology and Cultural Heritage Noise and Vibration Traffic and Transport Landscape and Visual Impacts
Project-wide Chapters	Major Accidents and Disasters Human Health Socio-Economics, Tourism and Recreation Climate Change
Other Documents	Outline Code of Construction Practice Outline Public Rights of Way Management Plan Outline Site Waste Management Plan Outline Construction Traffic Management Plan Outline Marine Mammal Mitigation Plan Outline Project Environmental Management Plan
Reports	Benthic Compensation – Roadmap and Evidence Benthic Measures of Equivalent Environmental Benefit – Roadmap and Evidence Guillemot and Razorbill Compensation – Roadmap and Evidence Kittiwake Compensation – Roadmap and Evidence Report to Inform Appropriate Assessment
Additional Application Information	Stage 1 Marine Conservation Zone Assessment Design Vision Draft Development Consent Order

Offshore

Offshore proposals

- Up to 113 turbines located 210 km offshore – not visible from land
- Turbines to be installed within a 262 km^2 array area
- Final turbine layout and cable route to be confirmed post-consent
- Detailed seabed surveys and UXO (unexploded ordnance) checks required
- Export cables to be buried where possible to protect them and reduce disruption to marine users
- Offshore construction supported by specialist vessels



Preliminary assessment of offshore impacts

Offshore and Intertidal Ornithology

Assessment Background

- Two years of site-specific aerial surveys were conducted to identify seabird species within the offshore array area
- Key species identified include puffin, guillemot, gannet, kittiwake, and various types of gull and diver.

Key Findings

- Potential direct impacts such as collision with the turbines.
- Potential for birds to be disturbed or displaced.
- Indirect effects, such as changes to habitats or prey availability.
- Potential for cumulative impacts with other developments for key seabird species.

Mitigation

- Height limits for turbine blade clearance (Commitment ID CO13).
- Implementation of a Vessel Traffic Management Plan to avoid key areas for birds (Commitment ID CO18).

Preliminary assessment of offshore impacts

Marine Mammals

Assessment Background

- Two years of site-specific aerial surveys, along with data from other offshore wind farms and regional information, identified the presence of harbour porpoise, bottlenose dolphin, common dolphin, white-beaked dolphin, minke whale, grey seal, and harbour seal.

Key Findings

- Physical or auditory injury from noise.
- Barrier disturbance at seal haul-out sites.
- Collision risks from vessels.
- Changes to prey resources and water quality.

Mitigation

- Development and implementation of a Marine Mammal Mitigation Protocol to reduce impacts from piling and, if necessary, unexploded ordnance clearance (Commitment ID CO22).
- Implementation of a Vessel Traffic Management Plan to minimise disturbance and the risk of collisions between marine mammals and vessels (Commitment ID CO18).

Preliminary assessment of offshore impacts

Fish and Shellfish Ecology

Assessment Background

- The assessment identified commercially important fish species such as haddock, whiting, plaice, herring, and sandeel.
- It also noted potential spawning and nursery grounds for herring and sandeel may be present.

Key Findings

- Temporary habitat loss and physical disturbance to the seabed.
- Temporary increased levels of suspended sediment.
- Potential release of previously buried contaminants within the offshore cable corridor.
- Underwater noise and vibration.
- Changes in fishing activity due to the Project.

Mitigation

- Minimise the use of cable protection (Commitment ID CO24).
- Use trenchless installation methods at landfall to avoid sensitive habitats of importance to spawning herring (Commitment ID CO23).
- Follow a Project Environmental Management Plan to prevent pollution (Commitment ID CO25).
- Apply a Marine Mammal Mitigation Protocol to manage noise impacts on sound-sensitive fish species (Commitment ID CO22).

Preliminary assessment of offshore impacts

Commercial Fisheries

Assessment Background

- The main species caught and landed in the study area include lobsters, brown crabs, king scallops, herring, and plaice, using various fishing methods such as pots, dredges, and trawls.

Key Findings

- Potential impacts of reducing or restricting access to established fishing grounds.
- Displacement of fishing activity to other areas, increasing pressure on nearby grounds.
- Economic effects, particularly for the UK potting fleet, which may need to relocate gear and could experience income loss.

Mitigation

- Appointment of a Fisheries Liaison Officer during construction (Commitment ID CO15).
- Development of a Fisheries Liaison and Coexistence Plan to work with affected fishing fleets (Commitment ID CO15).
- Burial of offshore export cables where possible, with cable protection used only where needed to reduce the risk of gear snagging (Commitment ID CO24).
- Additional safety measures, such as marking and lighting of offshore infrastructure, and clear communication, to minimise risks to other sea users (Commitment ID CO9).

Preliminary assessment of offshore impacts

Offshore Archaeology and Cultural Heritage

Assessment Background

- Marine geophysical surveys conducted in 2024, along with desk-based research, identified the presence of unexploded ordnance, wrecks, and debris of archaeological interest.
- The area includes various historical sites, such as ancient, maritime, and aviation-related sites, some of which may be buried under the seabed. However, no sites in the offshore area are legally protected.

Key Findings

- Potential disturbance or damage to underwater heritage sites from activities such as preparing the seabed, installing turbine foundations, laying cables, and cable installation at the landfall.
- Changes in water and sediment movement may affect buried historical sites, either exposing or burying them further.

Mitigation

- Use of archaeological exclusion zones to protect archaeological features (Commitment ID CO6).
- Micro-siting of infrastructure where possible to avoid sensitive areas (Commitment ID CO26).
- Implementation of a Protocol for Archaeological Discoveries to manage any unexpected finds during works (Commitment ID CO1).
- Development of an Offshore Written Scheme of Investigation to manage the implementation of mitigation measures (Commitment ID CO1).

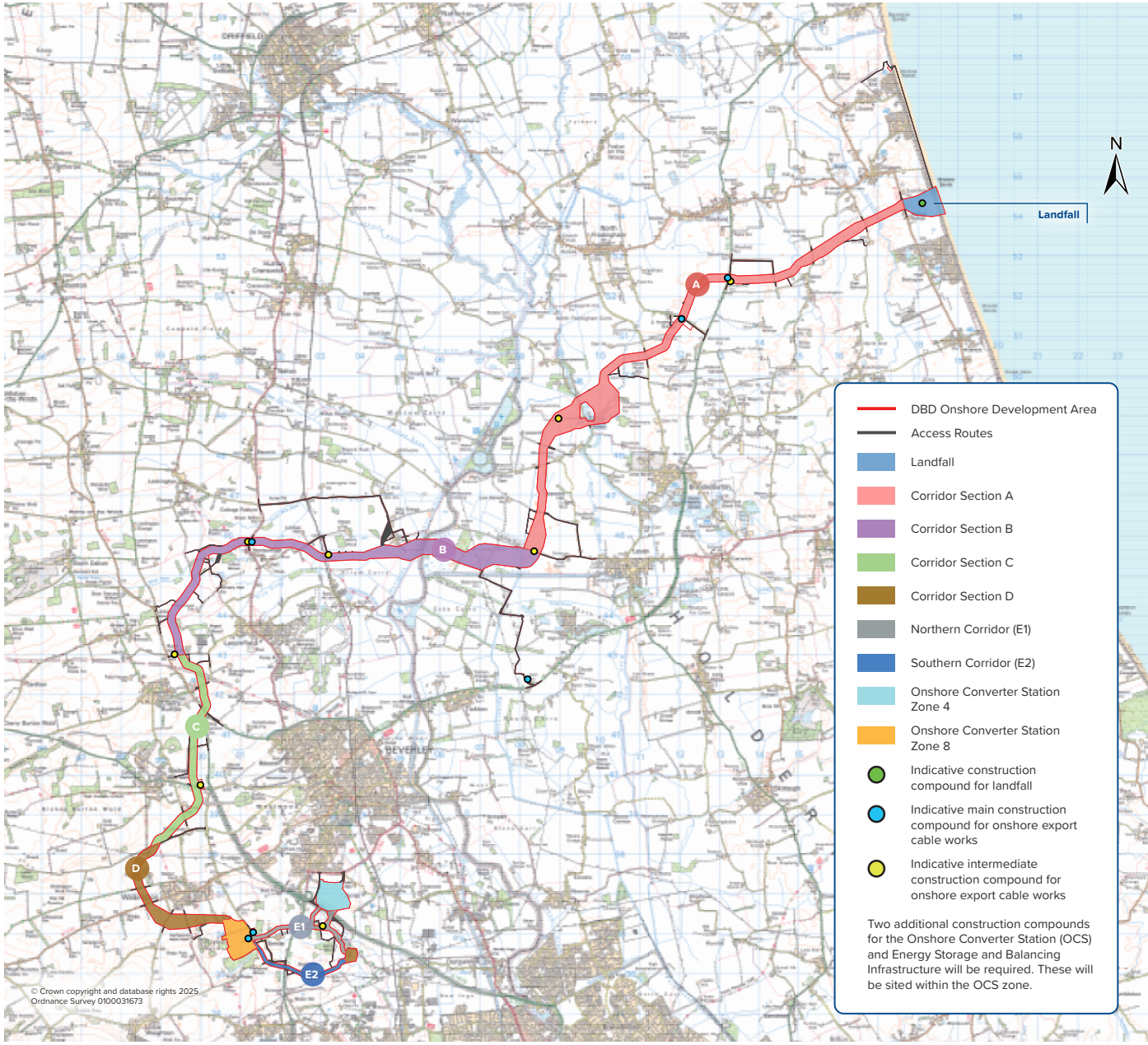
Other offshore topics that have been assessed are:

- Marine Physical Processes
- Benthic and Intertidal Ecology
- Marine Water and Sediment Quality
- Shipping and Navigation
- Aviation, Radar and Military
- Other Marine Users

Onshore

Onshore proposals

- Cables and other infrastructure are required to transmit the electricity generated at sea to the National Grid substation at Birkhill Wood in East Riding of Yorkshire. Cables will be installed underground for their entire length (up to Birkhill Wood) within a cable corridor up to 55km in length.
- The offshore export cables will reach the shore at a point on the East Yorkshire coast south-east of Skipsea, called the landfall.
- At the landfall, they will be joined to the onshore export cables which will run to an Onshore Converter Station and onto Birkhill Wood Substation.
- Note that this substation is being developed by National Grid Electricity Transmission and is not included in the Project.



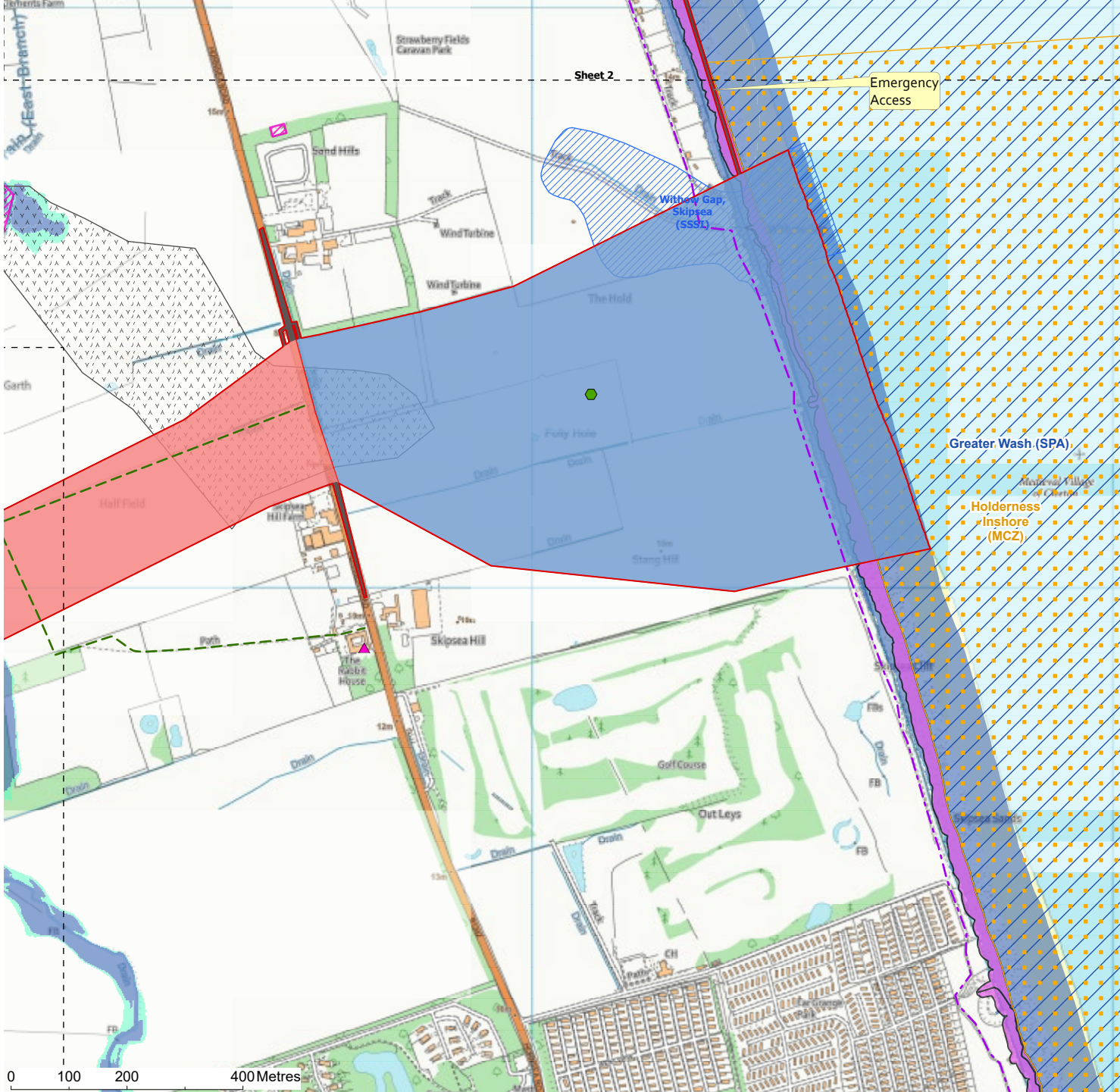
Landfall

Based on the planned schedule, landfall construction works are expected to take around three years, including one year for trenchless installation.

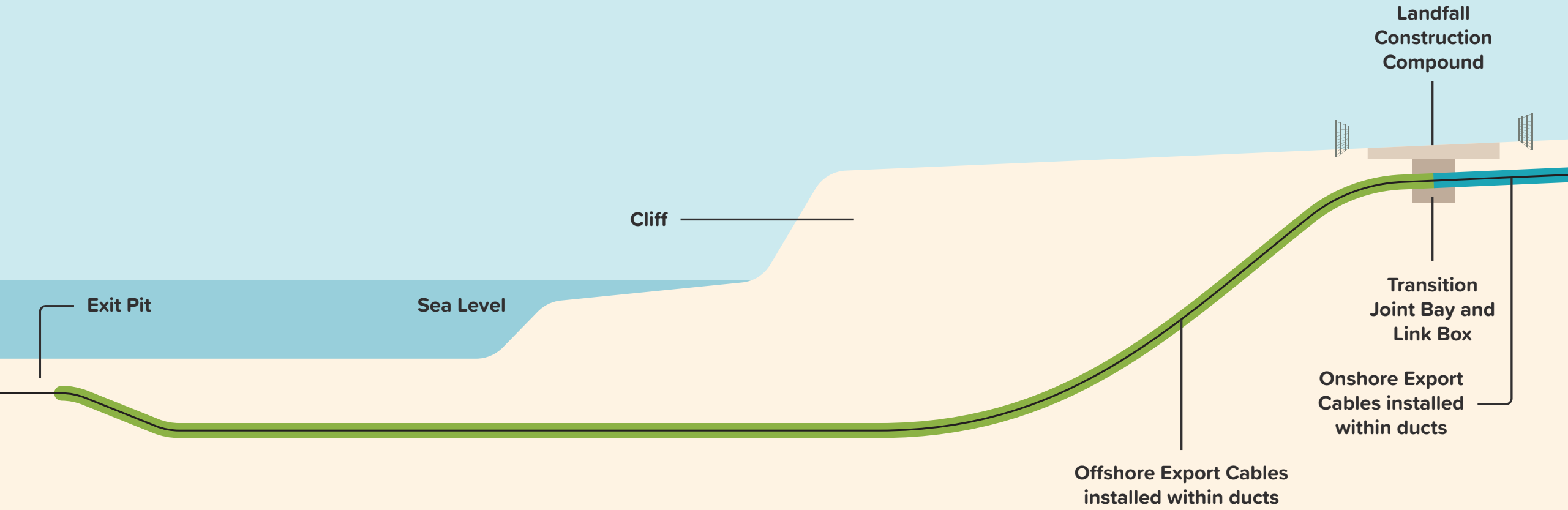
The beach will remain open during construction. Access to the beach would only be required in the event of an emergency.

The landfall installation will be routed beneath the cliff and beach, ensuring that the King Charles III England Coast Path National Trail (due to open August 2025) remains unaffected.

Because of the cliff height, coastal erosion rates, and environmental sensitivities at the landfall site, the cable ducts will be installed using trenchless techniques under the seabed and shoreline.



Landfall


Landfall Construction Compound
Cliff
Exit Pit
Sea Level
Transition Joint Bay and Link Box
Onshore Export Cables installed within ducts
Offshore Export Cables installed within ducts

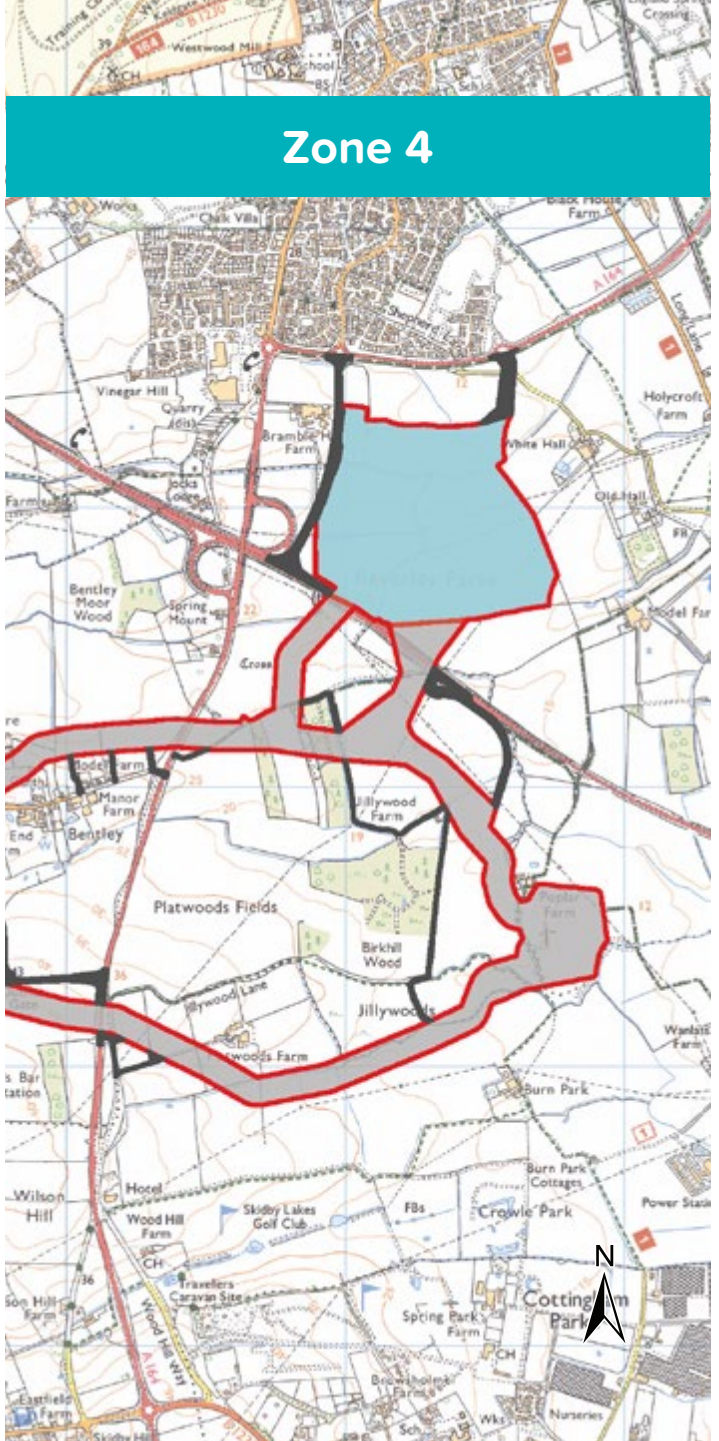
Zone options for a converter station

We have identified two options for siting the converter station.

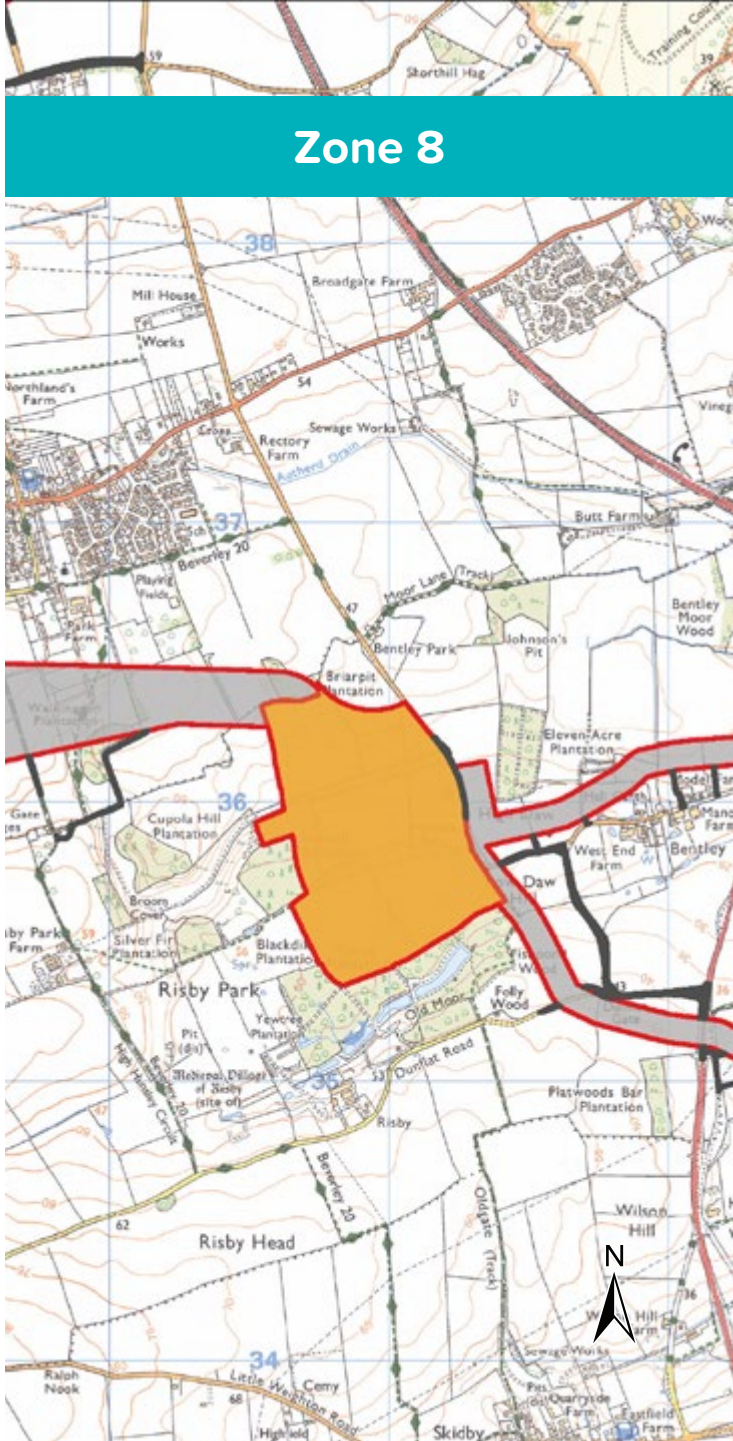
- **Zone 4** is located adjacent to the urban southern edge of Beverley. The site is influenced by the presence of existing energy infrastructure.
- **Zone 8** lies southeast of Walkington. The site sits between a valley to the north and higher ground to the south, offering potential to lower infrastructure into the landscape to help reduce its visibility.

Only one zone will be taken forward for development.

Zone 4



Zone 8



Design of the Onshore Converter Station

- Some aspects of the Onshore Converter Station design such as the shape and layout of the buildings, as well as the external materials and finishes, will need to be developed in collaboration with the equipment manufacturers.
- To ensure high-quality design outcomes, these elements will be subject to review by a Design Panel, which will provide expert, independent input as the detailed design progresses.
- This process helps to ensure the Onshore Converter Station integrates appropriately into its surroundings.

Energy Storage and Balancing Infrastructure

- To use the electricity generated by Dogger Bank D in the best possible way we are exploring ways to store excess energy during periods when the wind farm is generating a surplus of electricity in order to support the grid during times of peak demand.
- We are proposing to locate Energy Storage and Balancing Infrastructure (ESBI) on the same site (zone) as the Onshore Converter Station. This helps make the Project's power supply more reliable and resilient.
- The ESBI will be connected to the Onshore Converter Station by electrical cables and to the National Grid through underground export cables to Birkhill Wood Substation.

Preliminary assessment of onshore impacts

Traffic and Transport

Assessment Background

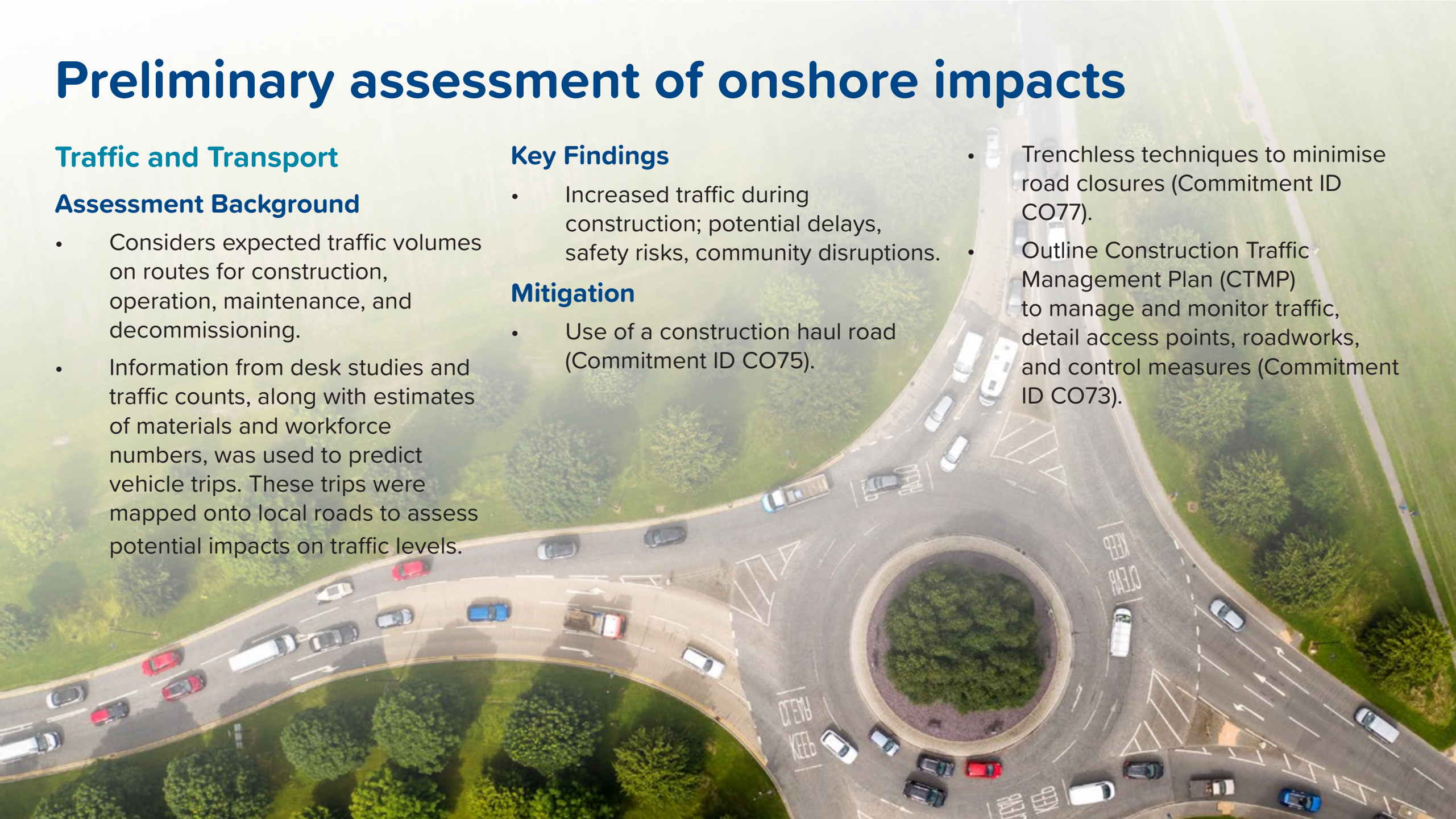
- Considers expected traffic volumes on routes for construction, operation, maintenance, and decommissioning.
- Information from desk studies and traffic counts, along with estimates of materials and workforce numbers, was used to predict vehicle trips. These trips were mapped onto local roads to assess potential impacts on traffic levels.

Key Findings

- Increased traffic during construction; potential delays, safety risks, community disruptions.

Mitigation

- Use of a construction haul road (Commitment ID CO75).
- Trenchless techniques to minimise road closures (Commitment ID CO77).
- Outline Construction Traffic Management Plan (CTMP) to manage and monitor traffic, detail access points, roadworks, and control measures (Commitment ID CO73).



Preliminary assessment of onshore impacts

Landscape and Visual Impacts

Assessment Background

- The assessment examined potential changes to the landscape, including physical elements, overall character, designations, and visual amenity.
- It also considered how the Project might affect local views and how it could interact with other nearby developments, identifying cumulative impacts from other relevant projects.

Key Findings

- The Onshore Converter Station and ESBI are likely to have noticeable effects on the local landscape within distances of approximately 1km. Cumulative impacts with other nearby developments are also expected.

Mitigation

- Bury all onshore cables underground (Commitment ID CO60)
- Restoration of disturbed land (Commitment ID CO100)
- Outline Code of Construction Practice (CoCP) includes measures to minimise visual disruption during construction (Commitment ID CO35)
- A Landscape Management Plan will be developed to set out how landscape elements affected by construction will be replanted and to identify measures to help screen the infrastructure within the existing landscape (Commitment ID CO65)
- A Design Vision will be developed to set out design principles for permanent onshore infrastructure (Commitment ID CO73).

Preliminary assessment of onshore impacts

Onshore Ecology and Ornithology

Assessment Background

- There are 53 designated ecological sites within 2km of the Onshore Development Area, including Local Wildlife Sites, Yorkshire Wildlife Trust Reserves, a Local Nature Reserve, SSSIs, and a Special Protection Area.
- Habitats are mainly agricultural with crops, hedgerows, modified grassland, and woodland.
- Preliminary surveys identified 10 Priority habitats and suitable habitats for protected species such as great crested newts, badgers, bats, otters, and birds.

Key Findings

- Potential temporary or long-term habitat loss and disturbance to ecological sites.
- Construction may cause noise, light, and other disruptions, potentially harming protected species or spreading invasive species.

Mitigation

- Implement Ecological Management Plan and Landscape Management Plan to restore habitats, replant trees, fence sensitive areas (Commitment IDs CO81, CO65).
- Arboricultural Method Statement to minimise impacts to trees (Commitment ID CO109).

Other onshore topics that have been assessed are:

- Geology and Ground Conditions
- Air Quality and Dust
- Archaeology and Cultural Heritage
- Water Resources and Flood Risk
- Soils and Land Use
- Noise and Vibration

Preliminary assessment of project-wide impacts

Climate Change

Assessment Background

- Focused on the Project's greenhouse gas emissions and its potential to reduce emissions.
- Evaluated how climate change might impact the Project and its resilience.

Key Findings

- The Project will produce some emissions during all phases, mainly from machinery and transport.
- Clean energy generated will significantly outweigh these emissions.
- Potential to avoid up to 102 million tonnes of carbon emissions.
- Significant contribution to the UK's net zero goals.

Mitigation

- Development of a Carbon Management Plan to minimise emissions at every stage (Commitment ID CO98).
- Design measures to ensure project resilience to future climate conditions, including managing risks from extreme weather.

Preliminary assessment of project-wide impacts

Human Health

Assessment Background

- Reviewed existing health data to understand community health near the Project.
- Examined potential health impacts through changes in access to open spaces, air quality, noise, transport and job opportunities.

Key Findings

- Changes to open spaces, leisure, and transport access.
- Opportunities for education, training, and local employment.
- Changes in air and water quality, noise, vibration and climate change.

Mitigation

- Protocol on workforce access to health and social services (Commitment ID CO68).
- Battery Safety Management Plan to address potential risks at the ESBI (Commitment ID CO79).
- Employment and Skills Plan to support local economic benefits and opportunities for vulnerable groups (Commitment ID CO67).

Other project-wide topics that have been assessed are:

- Socio-economics, tourism and recreation
- Major accidents and disasters

Look Forward

Enhancing the local environment

- Enhancement measures will be explored to maximise positive outcomes for both the environment and local communities.
- Where required under emerging regulatory requirements, the Project will develop a Biodiversity Net Gain Strategy to deliver at least 10% BNG.
- In addition, we will develop an Outline Ecological Management Plan and Outline Landscape Management Plan which will set out in more detail how we will create and improve local habitats to encourage biodiversity.
- We would greatly welcome feedback through the consultation particularly on what you value most about the local environment and any ideas you may have for how it could be improved or enhanced.

Kittiwake

Jobs, skills and investment

We aim to be an integral player in, and to fully contribute to, the social and economic development of the communities in which we operate.

A detailed Employment and Skills Plan will be submitted as part of the DCO application, setting out how the Project aims to maximise socio-economic benefits.

This plan will focus on working with the supply chain to create opportunities for UK suppliers and workers, ensuring local communities benefit from Dogger Bank D. We will support job creation in the area by offering skilled employment opportunities in construction, operation, and maintenance, as well as providing training and apprenticeships to develop the workforce for future renewable energy projects.

What happens next

- We will carefully read and analyse all feedback received and take it into account as we continue to refine our proposals.
- We will publish a Consultation Report with the DCO application which will include feedback from the statutory consultation and how it has helped shape the proposals.
- We intend to submit our application in 2026. Once submitted, if the application is accepted for examination, there will be an examination period lasting several months. During this time, interested parties will be able to register and take part in the process.
- The decision decision on whether to grant development consent will be made by the Secretary of State.

Development Consent Order Process

Submission

Planning Inspectorate have **28 days** to accept the application.

Pre-examination

Stakeholders and the public have **3 months** to register interest.

Examination

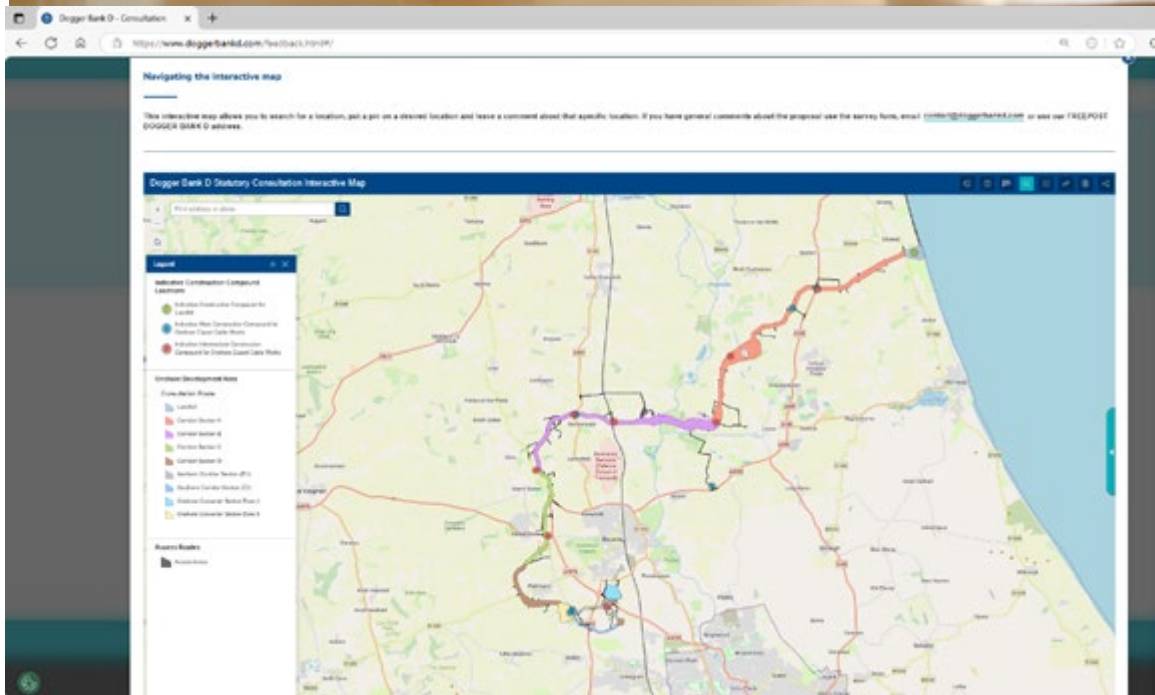
6 months examination in which interested parties can submit written representations and speak at a hearing.

Decision

Planning Inspectorate has 3 months to make a recommendation. The Secretary of State will make a decision.

Ways to take part

- Access the consultation materials online at www.doggerbankd.com or at one of seven deposit locations.
- Call freephone 0800 254 5029 to request materials.
- Visit www.doggerbankd.com to explore our interactive map. Find out which parts of the proposals are near you, see where public rights of way may be affected, and leave comments on specific locations.
- Email contact@doggerbankd.com.



Submit feedback by 11:59pm on 5 August 2025

Time for Questions