

Docking Shoal Offshore
Wind Farm

Environmental Statement
Non-Technical Summary
December 2008

centrica
energy

Produced in association with

amec 

Docking Shoal
Offshore Wind Farm

“ The Docking Shoal Offshore
Wind Farm would play an
important role in reducing
carbon emissions... ”



Introduction

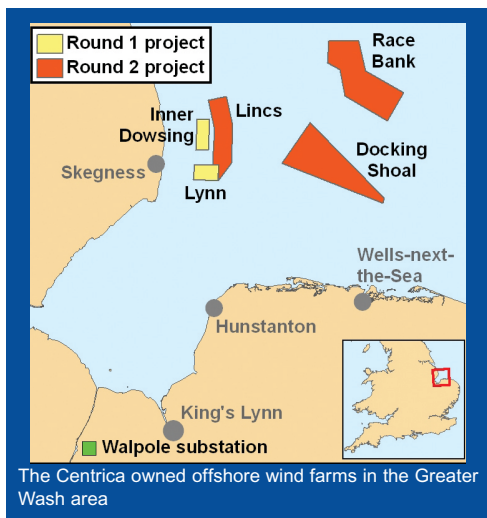
This document is a Non-Technical Summary (NTS) of the proposed Docking Shoal Offshore Wind Farm Environmental Statement (ES).

It aims to provide an overview of the key findings of the Environmental Impact Assessment (EIA) undertaken by Centrica as part of the consent application. The proposed Docking Shoal Offshore Wind Farm is approximately 14 kilometres (9 miles) off Wells-next-the-Sea on the north Norfolk coast and approximately 19.5 kilometres (12 miles) off Skegness on the Lincolnshire coast.

This NTS provides the project background, including a summary of the scientific studies undertaken and the assessment of the potential environmental effects of the development. For more detailed information you should refer to the main ES (see back page for further information).

The ES describes in detail the processes of site and cable route selection, design, construction, operation and decommissioning of the wind farm.

The ES assesses environmental impacts in relation to the existing biological, physical and human environments and identifies appropriate measures for mitigation and monitoring.



Docking Shoal
Offshore Wind Farm

“...add to the diverse energy mix required to meet present and future energy demands in a sustainable manner...”

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Construction of the Lynn Offshore Wind Farm, owned by Centrica

Centrica

Centrica (DSW) Ltd, which owns the proposed Docking Shoal Offshore Wind Farm project, is part of Centrica plc, better known to consumers in the UK through its British Gas and Scottish Gas businesses.

The proposed Docking Shoal site is located within the Greater Wash strategic area which is one of three areas designated by the UK Government in 2002 for further development of offshore wind farms. A Strategic Environmental Assessment (SEA) was carried out on this area on behalf of the Government in 2003.

Centrica owns two consented offshore wind farms in the Greater Wash strategic area - Lynn and Inner Dowsing - which are currently in construction. In January 2007, Centrica submitted an application to the Government for the Lincs Offshore Wind Farm, and is proposing a further development, Race Bank Offshore Wind Farm, both located within the Greater Wash strategic area.

Centrica is combining its own knowledge of the offshore energy industry with that of experienced wind farm developers AMEC and Renewable Energy Systems Ltd (RES) to develop these offshore wind farms.

The proposed Docking Shoal Offshore Wind Farm would have a total installed capacity of approximately 500 MW and would meet the domestic requirements of around 340,000 homes annually.

The Docking Shoal ES comprises four components: the Non-Technical Summary, Volume 1 (Offshore Works), Volume 2 (Onshore Works) and the associated Technical Appendices. The Offshore volume includes the Docking Shoal Offshore Wind Farm site and export cable route to mean high water springs (MHWS) (the high tide mark). The Onshore volume (which addressed three Centrica projects - Lincs, Docking Shoal and Race Bank) was submitted at the same time as the Lincs Offshore ES (January 2007), and covers the onshore cable route and substation which are shared by the three projects. Planning consent has been received for the onshore works associated with Docking Shoal under that application.

The Offshore volume for the proposed Race Bank Offshore Wind Farm is currently being prepared and a consent submission will be made for this site in the near future.

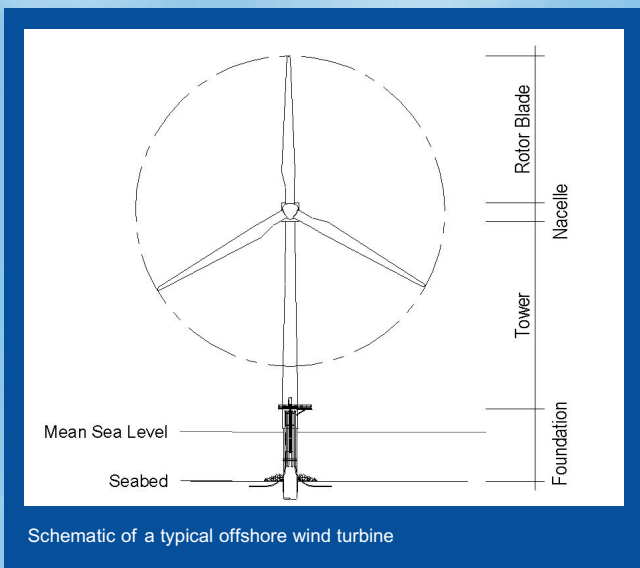
Project Details

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The proposed development is an offshore wind farm with approximately 500 MW installed generation capacity. At its closest points it is approximately 14 kilometres (9 miles) off Wells-next-the-Sea on the north Norfolk coast and 19.5 kilometres (12 miles) off Skegness on the Lincolnshire coast. The site covers an overall area of 75 square kilometres (29 square miles), orientated roughly east to west. The wind farm would be located in water depths ranging from 3 metres (10 feet) to 14 metres (46 feet) Chart Datum (CD). In addition to wind turbines and foundations, the development would have associated electrical infrastructure comprising subsea cables and two or three offshore substations. On land, the works would include buried cables, and an extension next to the existing substation at Walpole forming the connection to the National Grid.

The exact details of wind turbine foundation design, wind turbine size, installation methodology, electrical design and cable route would be determined post consent during the detailed design phase.

The layout of the wind turbines would be designed to maximise the energy yield from the site. In order to meet the total maximum installed capacity of 500 MW, there would be between 83 and 166 three-bladed horizontal-axis wind turbines, depending on the generating capacity of the wind turbine chosen.



The wind turbine, nacelle and hub, complete with three blades, would be mounted on a cylindrical steel tower, which in turn would be supported by a foundation installed in the seabed. The maximum height above Mean High Water Springs (MHWS) to blade tip would be 180 metres (591 feet), the maximum hub height would be 110 metres (361 feet) with a minimum spacing between wind turbines of 630 metres (2,067 feet).

Electricity would be transmitted by up to four export cables, a distance of 49 kilometres (30 miles) to a landfall east of the River Nene on the southern shore of the Wash. The depth of cable burial would be dependent on the outcome of a Burial Protection Index (BPI) study. The BPI is an assessment of protection given to a cable as a function of soil type with consideration given to other user activities in the area and their associated risks. Cable burial would be achieved using ploughing, jetting or a combination of these methods.

Onshore cables would be buried from the landfall point to a new substation located directly adjacent to the existing substation at Walpole, Norfolk. Additional works at Walpole, required by National Grid in order to accommodate the connections for Lincs, Docking Shoal and Race Bank Offshore Wind Farms, have been considered in the Onshore volume of the ES.



The LBT1 remotely operated cable burial machine during operations on the Lynn and Inner Dowsing Offshore Wind Farms

The Crown Estate has awarded a lease for use of the site for 50 years. Onshore and offshore construction for the proposed Docking Shoal Offshore Wind Farm would take place over a period of three to four years. Some preparatory onshore works could take place at the time of the Lincs Offshore Wind Farm construction, subject to consent.

Regular servicing of wind turbines would take place throughout the operational life of the project. Decommissioning would include the removal of all offshore structures as necessary, to conform with regulations at the time of decommissioning.

UK Energy Policy - The Need for Renewable Energy

Current UK Government energy policy has as its central aim the development of a diverse, sustainable and secure supply of competitively priced energy. Fundamental to this is the need to reduce carbon dioxide emissions, with particular focus on developing renewable energy sources.

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At the time of writing, the UK Government has set a target to obtain 15 per cent of the UK's electricity from renewable sources by 2015 and an aspiration that, by 2020, the renewables share of the electricity supply will be increased to 20 per cent. Proposals under the Government's Renewable Energy Strategy, released for consultation in June 2008, outline the ambition for the UK to provide 15 per cent of its total energy used from renewable sources by 2020. In order to meet this target, it is estimated that 30 - 35 per cent of electricity would need to be generated from renewable sources with offshore wind accounting for 19 per cent of this target.

In December 2007, the Secretary of State for the then Department for Business, Enterprise and Regulatory Reform (BERR) (the Energy Group of BERR is now part of the newly-formed Department of Energy and Climate Change (DECC)) revealed the UK's seas would be opened up to a further 25 GW of offshore wind power by 2020. This would be in addition to the 8 GW already built or planned, totalling 33 GW. Current Government modelling suggests that 14 GW may be deployed by 2020, with the remaining 19 GW deployed by 2030.

In order to help meet these targets, an obligation has been placed on all energy suppliers, such as Centrica, to source an increasing share of the power they supply each year to customers from renewable sources.

The development of renewable energy is vital in meeting the Government's targets, and also provides security of energy supply and economic development benefits to the UK economy.

Consents

A number of regulatory consents are required for the construction and operation of the proposed Docking Shoal Offshore Wind Farm. The Department of Energy and Climate Change (DECC) and the Marine Environment Team of the Marine and Fisheries Agency (MFA) are both responsible for the consents process.

Centrica is applying for the following key consents for the proposed Docking Shoal Offshore Wind Farm:

- consent under Section 36 of the Electricity Act (1989) to construct and operate the offshore wind farm (ie wind turbines, offshore substations and inter-array cables)
- licence under Section 5 of the Food and Environment Protection Act (1985) to deposit materials on the seabed such as the wind turbine foundations and the buried cables
- consent under Section 34 of the Coast Protection Act (1949) in order to make provision for the safety of navigation in relation to the buried cables
- consent under Section 36 (and a Direction by the Secretary of State that deemed planning permission be granted under Section 90 (2) of the Town and Country Planning Act 1990) for the intertidal works between Mean Low Water Springs (MLWS) and Mean High Water Springs (MHWS)

In addition, safety zones around the wind turbines and offshore substations may be requested under the Energy Act (2004) to ensure the safety of individuals and vessels during construction and operation.

In 2007, Centrica placed an application for consent under Section 57 of the Town and Country Planning Act (1990) for the onshore works associated with the proposed Docking Shoal Offshore Wind Farm. Planning permission has now been granted for these onshore works.

The Environmental Impact Assessment Process

The term 'Environmental Impact Assessment' (EIA) describes a process to be followed for certain types of development. Existing legislation requires that the proposed Docking Shoal project be subject to a full EIA to support planning and licence applications.

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The purpose of the EIA process is to provide adequate environmental information to enable decision-makers to understand the potential environmental effects of the project.

The EIA for the Docking Shoal Offshore Wind Farm has been undertaken by a number of specialists, including marine biologists, oceanographers, archaeologists, ornithologists and engineers.

The product of the EIA process is the Environmental Statement (ES). The ES identifies and assesses potential impacts associated with the construction, operation and decommissioning of the proposed development. For each potential impact, the ES considers the 'worst case'. This ensures that the development possibilities (eg foundation type and potential wind turbine locations) and environmental scenarios likely to cause the greatest environmental impact are taken into account for every aspect of the project. This process clearly defines the potential boundaries of the development and describes the maximum possible impact and helps define any mitigation measures that may be required.



The physical, biological and human environments were studied during the Environmental Impact Assessment process

Scoping and Consultation

In order to assist in identifying the environmental effects on which to focus the EIA and the methods of study used, a formal scoping exercise was undertaken in which Centrica sought views from more than 130 statutory and non-statutory organisations. Statutory consultees and key stakeholders have been consulted throughout the EIA process. Scoping and consultation have helped shape the proposal submitted. Further consultation with key stakeholders will be carried out by DECC on the content and findings of the ES.

Public Exhibitions

Details of the early proposals for the development of the Docking Shoal Offshore Wind Farm were initially publicised through the media and a series of exhibitions.

Public exhibitions were held in Skegness, King's Lynn and Hunstanton in 2005 and 2007 and an exhibition was held at Sutton Bridge in 2007.

Exhibitions also took place at 'Wash Week' events in Lincolnshire and north Norfolk during the summers of 2005, 2006, 2007 and 2008 and at the three day Skeg-X kite surfing championships in 2007 and 2008.

Shortly after the submission of the planning application for Docking Shoal further exhibitions will be held to give members of the public and interested organisations an opportunity to ask questions about the project and review the outcome of the various environmental studies.

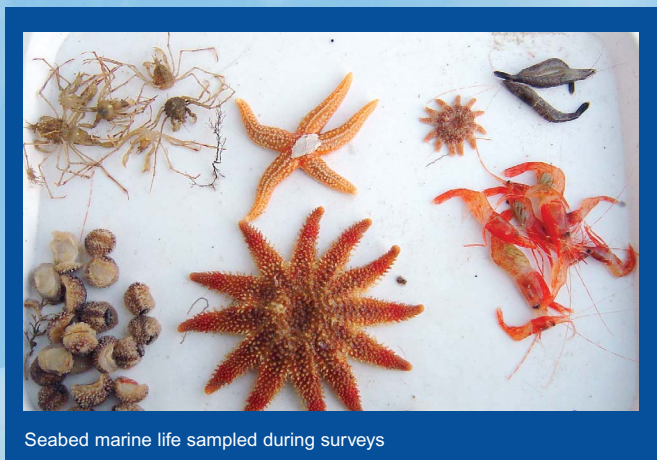


Kite surfing at Skegness, with MV Resolution during construction activities at the Lynn and Inner Dowsing Offshore Wind Farms

Data Collection and Surveys

As a result of the scoping exercise and consultation process, the following key surveys were undertaken on the proposed site and cable route as part of the offshore EIA process:

- geophysical surveys to understand the characteristics of the seabed
- marine biological surveys to look at the animals that live there
- aerial and boat-based bird and marine mammal surveys
- commercial and natural fish resource surveys
- marine traffic surveys
- intertidal bird and invertebrate surveys
- archaeological surveys of the seabed to the shoreline
- visual assessments of the landscape and seascape



Seabed marine life sampled during surveys

Site Selection and Consideration of Alternatives

Site Selection

A key part of the overall project to date has been the careful and detailed assessment of all potential locations for the proposed Docking Shoal Offshore Wind Farm site, the route of the export cables to shore and the onshore infrastructure. By considering several potential locations within the Greater Wash strategic area it was possible to eliminate areas where development would be technically difficult, might adversely affect the natural environment, or would impact other economic or social activities. The choice of site was initially based on criteria which included:

- results of surveys from the Greater Wash strategic area
- available wind resource
- water depth
- seabed obstructions and munitions
- geology
- construction limitations
- operation and maintenance requirements
- grid connection
- stakeholder consultations

Grid Connection

Considerations of transmission capacity, connection availability, technical limitations, environmental constraints and potential planning issues led to the selection of the Walpole substation as the proposed point of connection. This substation would provide sufficient connection capacity for Centrica's Lincs, Docking Shoal and Race Bank projects and would not require the installation of long distance overhead lines.

Docking Shoal
Offshore Wind Farm

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Indicative cable corridor from Docking Shoal Offshore Wind Farm site to the onshore substation

The Proposed Marine Export Cable Route

Due to the environmental sensitivity of the Wash estuary, the selection of an appropriate route for the marine export cables has been a major part of the overall site selection process.

Initial consultation and detailed technical constraint studies led to the investigation of a cable corridor study area that included a substantial part of the main navigation channel within the Wash estuary. Early feedback from the port authorities indicated a preference for the cable route to be in the deeper region of the Wash where the seabed is more stable. These studies also took into consideration the numerous designations of the estuary, including its status as a Special Area of Conservation (SAC), a Special Protection Area (SPA), a Ramsar Site, a National Nature Reserve (NNR) and a Site of Special Scientific Interest (SSSI).

A route running from the north-east to the south-west of the estuary along the navigation channel, with a landfall location to the east of the River Nene, is proposed.

The final cable route for the Docking Shoal Offshore Wind Farm would be decided following detailed engineering design studies. Should additional areas of seabed be required these would be subject to detailed further survey and assessment, including consultation with key stakeholders.

Due to the environmental sensitivity of the saltmarsh habitat in the intertidal area, the export cable would be installed under the saltmarsh using a technique called horizontal directional drilling. This would avoid potential habitat loss and physical disturbance to this habitat. A cable route within the intertidal area has been selected that reaches shore at a point where the saltmarsh strip is sufficiently narrow to allow this technique to be used.

The Onshore Cable Route

The consented onshore cable route does not pass through any environmentally designated areas along the approximately 11 kilometre (7 mile) route. The land use along this route is mainly agricultural. Where the route encounters the A17 road, cable installation would be achieved by horizontal directional drilling beneath the road.

Assessment of Potential Effects

The potential environmental impacts associated with the Docking Shoal Offshore Wind Farm through each phase, from construction through to operation and decommissioning, are summarised below.

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Nature of the Impacts

As part of the EIA process, impact identification and assessment were carried out using standard procedures. For each impact, the magnitude of effect has been described along with the sensitivity of the resources that would be affected. The criteria used for assessment are given below:

- the spatial extent of effect (site-specific to national/international)
- the duration of effect (short-term or long-term)
- the scale of the effect (relative to background conditions)
- the recoverability of the receptor (high to none)
- the importance of the receptor (low to high)

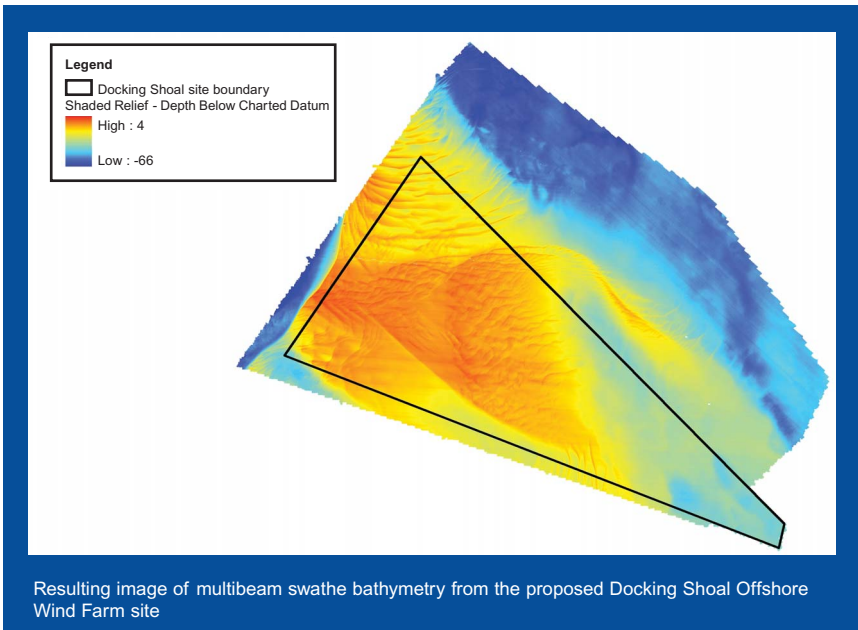
The combination of the magnitude of effect and sensitivity of a receptor has then been used to derive the significance of the impact, given as negligible, minor, moderate or major.

Where appropriate, mitigation measures have been suggested. The aim of these measures is to reduce any impact that may potentially arise.

Offshore Wind Farm and Export Cable Route: Potential Physical Effects

Coastal Processes

Coastal processes were studied by analysing historical charts, taking oceanographic measurements on site and modelling currents, waves and sediment movement in the region. The modelling specifically considered conditions pre-construction, during construction and during operation of the proposed wind farm.



During construction, the amount of sediment disturbed would be insignificant compared to background suspended sediment levels. Any change to currents and waves would be temporary and localised, and insignificant compared with natural variation.

During operation, the overall effects due to the wind farm would be minimal. Locally, within the site, the foundations would cause slightly lower currents in the wake of the structures, and slightly higher currents around the sides. Effects on waves would also be limited to within the wind farm site, with a slight decrease in significant wave height in the lee of the wind turbines. There would be minor changes to the sediment transport pathways within the site, but no change beyond it, so the sediment regime at the coast would remain the same. Scour is expected around the foundations, but this could be mitigated by using various types of scour protection.

As the extent of any effects is limited to within the wind farm site, no cumulative effects are predicted, and no impacts are expected at the Norfolk and Lincolnshire coasts.

Offshore Wind Farm and Export Cable Route: Potential Biological Effects

Marine Ecology

The animals living on and in the seabed were sampled by collecting grab samples and undertaking beam trawls over the proposed Docking Shoal site.

Most of the site is sand and gravelly sand with a few animals such as worms and shellfish. Pebbles and cobbles with a more diverse range of animals were found in the south-east corner of the site. Brown and pink shrimp and crabs were most common. Fish included sand goby, dragonet and flatfish, such as plaice and sole.



An image taken during seabed surveys on Docking Shoal

The addition of wind turbines and scour protection would remove some animals living in and on the seabed. However, the structures are expected to be rapidly colonised with species including mussels, crabs and starfish. During construction, increases in suspended sediment and deposition are predicted to be small and localised. Noise during construction is likely to cause fish to move away from piling locations, however, any disturbance would be short term.

Mitigation would include the use of 'soft-start', a slow build up of piling impact noise to enable animals to vacate the area during piling operations. Overall impacts are assessed as of **minor** significance.

Intertidal Ecology

The marine export cables would pass through the intertidal area of the Wash and therefore there would be potential impacts upon the species and habitats in these areas from the cable installation works. The ES reports that although effects upon the ecology of the intertidal area will arise, these will be temporary in duration and site-specific in extent, resulting in a **minor** impact.



The 'reef-building' Ross worm, *Sabellaria spinulosa*

Marine Mammals

The most common marine mammals in and around the proposed Docking Shoal site and cable route are the common seal, grey seal and harbour porpoise. During the construction phase, piling noise may lead to the displacement of certain marine mammals from the area. Studies of other wind farms show that mammals generally return within a few hours of piling ceasing. Studies have also shown that marine mammals continue to utilise wind farm sites once they are operational. Impacts have been assessed as **minor** overall.

Docking Shoal Offshore Wind Farm

Birds

A total of 52 species were recorded within the proposed Docking Shoal Offshore Wind Farm site during 39 boat-based surveys and 15 aerial surveys carried out in the study area over three years. From boat-based surveys, Sandwich tern, little gull and razorbill were estimated to occur in nationally important numbers with gannet, Arctic skua, lesser black-backed gull, kittiwake, common tern, Arctic tern and guillemot occurring in regionally important numbers.

Potential impacts on birds including disturbance and displacement effects by the wind farm and associated vessel traffic, and potential collision with wind turbines were studied. A range of impacts, many of which were either **negligible** or **minor**, were predicted. For the Sandwich tern, which has

been identified as the most sensitive species and which breeds in internationally important numbers in the National Nature Reserves at Scolt Head and Blakeney Point, a special research programme is ongoing.



Sandwich tern carrying prey, north Norfolk
© Martin Perrow

Nature Conservation of the Export Cable Route

The Wash is an area of international importance for nature conservation. An extensive programme of data collection has been undertaken to identify features of specific importance within all areas likely to be affected by the proposed export cable route. The cable route has been designed to avoid those areas of known ecological sensitivity and, through pre-construction surveys and further micro-siting, it is predicted that the potential for significant impacts on any ecologically sensitive features can be eliminated.

Offshore Wind Farm and Export Cable Route: Potential Human Effects

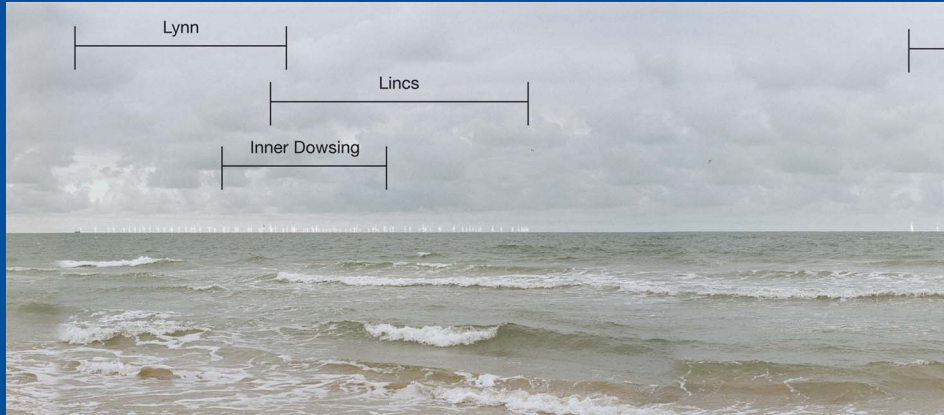
Seascape and Visual Character

Given the scale and extent of the proposed Docking Shoal Offshore Wind Farm, effects on the surrounding seascape and visual environment are unavoidable. Impacts have been minimised by siting the wind farm approximately 19.5 kilometres (12 miles) off the Lincolnshire coast and 14 kilometres (9 miles) from the north Norfolk coast in accordance with Government guidelines.

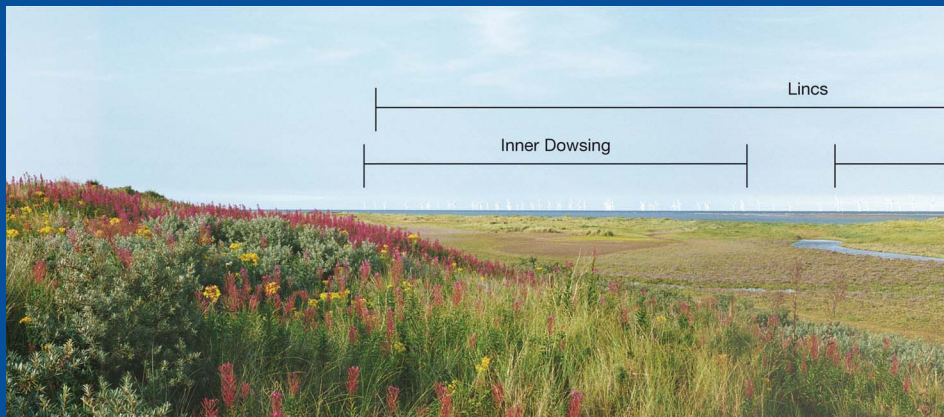
Views of the proposed Docking Shoal Offshore Wind Farm from the Lincolnshire coast are likely to be insignificant due to the distance from the shore and the presence of the wind turbines under construction at Lynn and Inner Dowsing Offshore Wind Farms.

From the north Norfolk coast, a **moderate** impact is predicted along the coast from Brancaster Bay to Blakeney. These effects would lessen considerably inland due to increasing distance and local screening effects from features such as hedgerows and buildings.

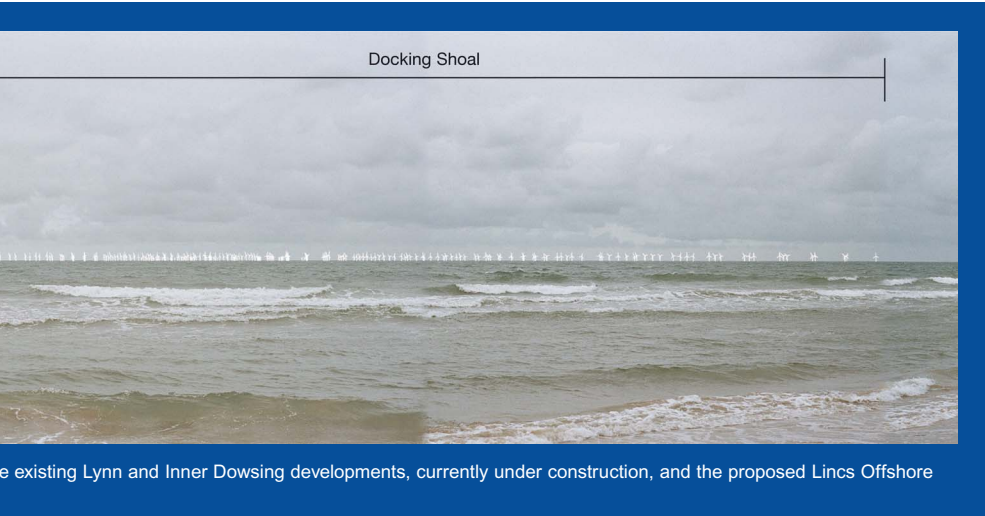
Docking Shoal Offshore Wind Farm



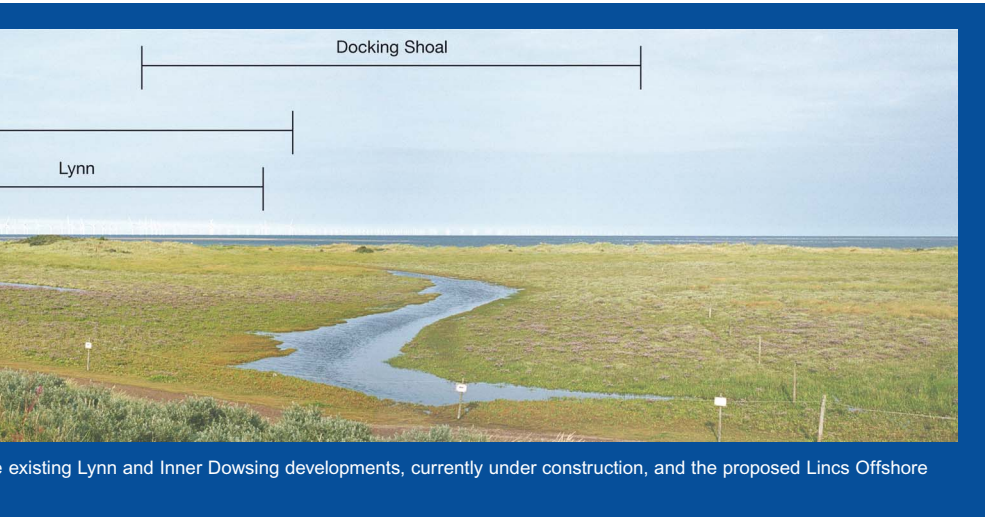
View of the proposed Docking Shoal Offshore Wind Farm from Brancaster Bay. This also shows the extent of the Wind Farm based on the maximum number of wind turbines



View of the proposed Docking Shoal Offshore Wind Farm from Gibraltar Point. This also shows the extent of the Wind Farm based on the maximum number of wind turbines



existing Lynn and Inner Dowsing developments, currently under construction, and the proposed Lincs Offshore

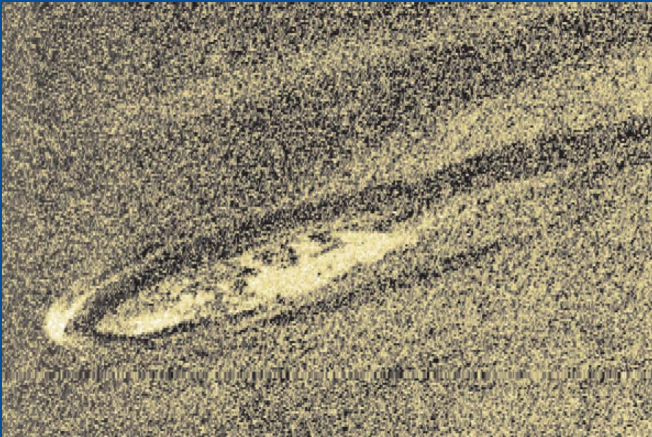


existing Lynn and Inner Dowsing developments, currently under construction, and the proposed Lincs Offshore

Cultural Heritage and Archaeology

The archaeological study looked at both the potential for buried landscapes, and more recent human artefacts, such as wrecks and aircraft, through a desk review and a detailed look at geophysical data collected for the site.

There are two recorded wrecks within the proposed Docking Shoal site and nine within the cable route corridor, plus numerous 'anomalies' seen on the geophysical charts, some of which are likely to be wrecks or wreck debris. Archaeological features within the wind farm site and proposed cable corridor have been recommended for exclusion zones to ensure there are no impacts to potentially valuable sites. Further mitigation measures would be detailed within a Written Scheme of Investigation (WSI) that would be drawn up prior to construction through consultation with national and local heritage bodies.



An example of a side-scan survey image of an 'anomaly', possibly a wreck, measuring 17 x 12 metres, and 0.5 metres high

Shipping and Navigation

The original Docking Shoal site was adjusted to the current site in part to address navigational concerns. The site was moved slightly further to the south and east to increase the distance between its boundaries and the proposed Lincs and Race Bank Offshore Wind Farm sites. The move also increased the distance between the site and shipping routes to the north-east and west, in line with Maritime and Coastguard Agency (MCA) guidance. The site remains close to a minor shipping route to the south, but due to the low level of traffic along this route and the potential for ships to move further south the impacts are considered to be **minor**.

A risk assessment was undertaken which concluded that all navigational risks could be managed and therefore the impact on navigation did not result in any significant issues.

Commercial Fisheries

Fishing on Docking Shoal is limited to a small number of local potters and shrimping beam trawlers. In both cases the proposed wind farm area would not occupy primary fishing grounds.

For safety reasons, during construction there may be safety zones within the proposed Docking Shoal site. Vessel notification procedures, already established for the Lynn and Inner Dowsing developments, would be used to advise fishermen on the location of these zones.



A trawler engaged in commercial fishing activities off the east coast of England

During operation, evidence from other wind farms shows that fishing could continue. Even if fishermen elect not to fish in the site, the small loss of area and the limited number of vessels affected would result in a **minor** impact. Observation of vessels transiting through operational sites suggests that any increase in steaming time to other fishing grounds would be negligible. The route of the export cable avoids most of the Wash cockle and mussel beds with **negligible** to **minor** impacts predicted in this area during cable installation.

Docking Shoal Offshore Wind Farm

Other Marine Users

The use of the area for other marine activities was considered. These included aggregate dredging, pipelines and cables, oil and gas activity, aviation, recreational sailing, tourism, telecommunications, navigational dredging, disposal sites and munitions. No direct impacts were identified on other users. Good communication to coordinate shipping would be maintained throughout the project lifetime to ensure all users are fully aware of operations.



Sunrise over the North Sea

Socioeconomics

The project has the potential to generate similar positive economic effects for the region and for the UK to those from the Lynn and Inner Dowsing Offshore Wind Farms, currently under construction off the Lincolnshire coast near Skegness. The benefits of this development have so far included the use of local vessels to carry out surveys, having office and onshore support based at Skegness and Grimsby and an increase in local income associated with contractors and project employees living and working in the area during construction. In the longer-term, once the wind farm is constructed, benefits will accrue from the regional services and employment of operations and maintenance staff.

The development of wind farms could provide local education opportunities and may help to attract additional visitors with an environmental interest. On a national level, wind turbines and wind farms developed and constructed in the UK would help the establishment of a substantial new UK industry providing long-term jobs serving both the home and overseas markets.



Docking Shoal Offshore Wind Farm

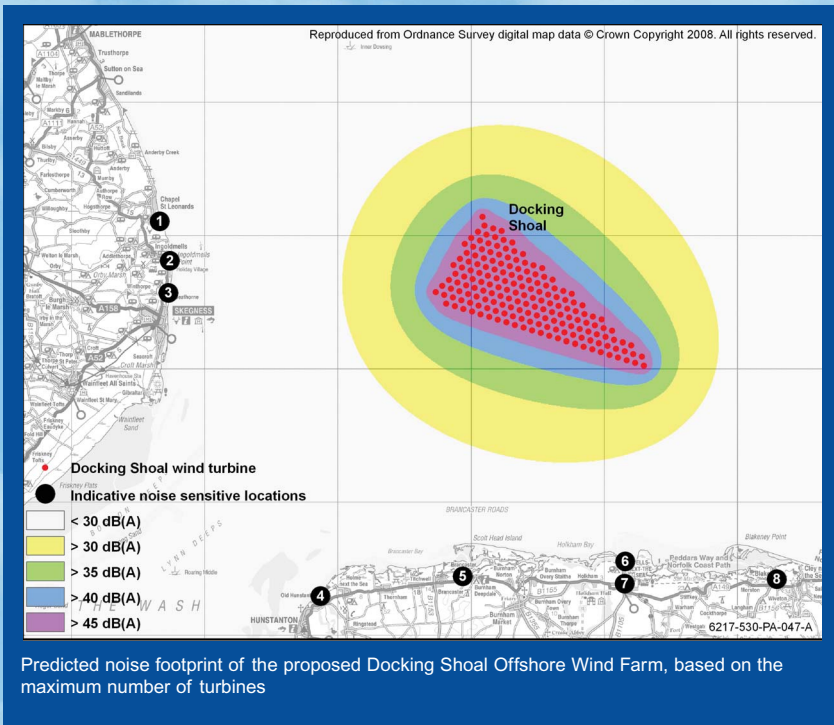
Electromagnetic Interference and Air Traffic Control

Consultation with the aviation and telecommunications industry has established that the Docking Shoal Offshore Wind Farm is not expected to have any adverse impact on communications, microwave links, TV or radio reception or civil aviation. There are ongoing discussions with The Ministry of Defence.

In Air Noise

The acoustic impact of the proposed Docking Shoal Offshore Wind Farm was assessed following the then Department of Trade and Industry best practice guidance. Only a **minor** adverse impact is predicted from piling activity during the construction of the wind farm owing to its distance from the shore. No other significant impacts are predicted onshore during the construction or operation of the wind farm.

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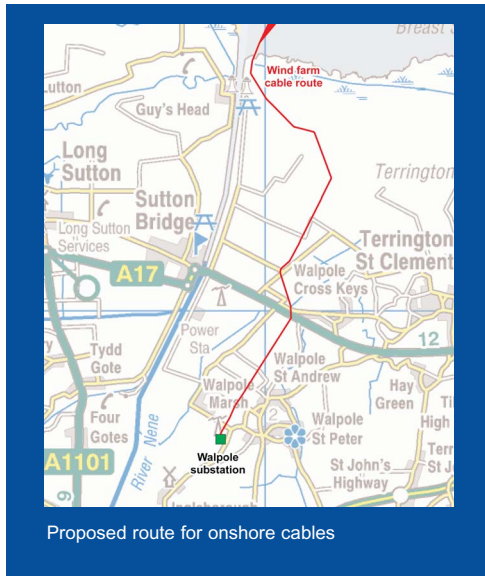
Onshore Works: Potential Effects

The proposed Docking Shoal Offshore Wind Farm requires electrical cables to conduct the electricity to a substation onshore where it is fed into the National Grid. The proposed 11 kilometre (7 mile) onshore cable route and extension of the existing substation at Walpole were assessed for their potential environmental impact in Volume 2 of the ES (Onshore Works).

Impacts on the following were addressed:

- hydrology, hydrogeology, geology and soils
- ecology and nature conservation
- landscape and visual character
- cultural heritage and archaeology
- socioeconomics and tourism
- transport and traffic
- in-air noise
- flood risk and coastal defences

Identified potential impacts are predicted to have no greater than a **minor** significance.



The Onshore ES was submitted at the same time as the Lincs ES (January 2007), and covers the onshore cable route and substation which are shared by the three projects. Planning consent has been received for the onshore works associated with Docking Shoal under that application.

Summary

The proposed Docking Shoal Offshore Wind Farm would play an important role in reducing carbon emissions, add to the diverse energy mix required to meet present and future energy demands in a sustainable manner and increase the security of energy supply to UK homes.

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The EIA, for both offshore and onshore elements of the project, has been completed in accordance with EU and UK regulations. Throughout the development process, Centrica has carried out detailed and extensive consultations with statutory and non-statutory bodies, interested parties and the public. It is not yet known how the project would be phased, what types of foundations would be used or the size of wind turbines that would be employed, therefore, all of the EIA assessments have addressed the scenario that would have the greatest potential effect on the environment.

Throughout pre-construction, construction, operation and decommissioning, all relevant consents would be obtained, and potential impacts would be minimised through the inclusion of appropriate and adequate mitigation measures.

“...increase the security of energy supply
to UK homes.”



Docking Shoal Offshore Wind Farm

Further Information

The Environmental Statement can be viewed during the statutory consultation period at the following locations:

Skegness Library, 23 Roman Bank, Skegness, Lincs PE25 2SA

King's Lynn Library, London Road, King's Lynn, Norfolk PE30 5EZ

Wells-next-the-Sea Library and Learning Centre, Station Road, Wells-next-the-Sea, Norfolk, NR23 1EA

King's Lynn and West Norfolk Borough Council, King's Court, Chapel Street, King's Lynn, Norfolk, PE30 1EX

South Holland District Council, Council Offices, Priory Road, Spalding, Lincolnshire, PE11 2XE

Boston Borough Council, Municipal Buildings, West Street, Boston, Lincs, PE21 8QR

Lincolnshire County Council, County Offices, Newland, Lincoln, LN1 1YL

Norfolk County Council, County Hall, Martineau Lane, Norwich, Norfolk, NR1 2DH

Requests for copies of the Environmental Statement (priced at £5 on CD and £250 for a hard copy), or additional copies of this Non-Technical Summary (free), should be made in writing to:

Centrica (DSW) Ltd
Centrica Energy
Millstream East
Maidenhead Road
Windsor
Berkshire
SL4 5GD

A version of the Non-Technical Summary is also available to download from the Docking Shoal project pages of the Centrica Energy website:
www.centricaenergy.com/renewables

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