



# Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

## Safety Zone Statement

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## Glossary of Acronyms

AfL	Agreement for Lease
APFP	Applications: Prescribed Forms and Procedures
BEIS	Department for Business, Energy and Industrial Strategy
DCO	Development Consent Order
DEL	Dudgeon Extension Limited
DEP	Dudgeon Offshore Wind Farm Extension Project
HVAC	High-Voltage Alternating Current
Km	Kilometre
MHWS	Mean High Water Springs
MW	Megawatts
NSIP	Nationally Significant Infrastructure Project
OREI	Offshore Renewable Energy Installations
OSP	Offshore Substation Platform
PINS	Planning Inspectorate
SEL	Scria Extension Limited
SEP	Sheringham Offshore Wind Farm Extension Project
TCE	The Crown Estate



## Glossary of Terms

APFP Regulations	Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations. 2009
Dudgeon Offshore Wind Farm Extension site	The Dudgeon Offshore Wind Farm Extension offshore lease area.
Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension site as well as all onshore and offshore infrastructure.
DCO	Development Consent Order: The means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP).
DCO Order Limits	The area subject to the application for development consent, including all permanent and temporary works for DEP and SEP.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.
Infield cables	Cables which link the wind turbines to the offshore substation platform(s).
Interlink cables	<p>Cables linking two separate project areas. This can be cables linking:</p> <ol style="list-style-type: none"> <li>1) DEP South and DEP North</li> <li>2) DEP South and SEP</li> <li>3) DEP North and SEP</li> </ol> <p>1 is relevant if DEP is constructed alone or first in a phased development.</p> <p>2 and 3 are relevant in an integrated construction.</p>
Landfall	The point at the coastline at which the offshore export cables are brought onshore and connected to the onshore export cables.
Offshore export cables	The cables which would bring electricity from the offshore substation platform(s) to the landfall. 220 – 230kV.
Offshore scoping area	An area that encompasses all planned offshore infrastructure, including landfall options at both Weybourne and Bacton, and allows sufficient room for receptor identification and environmental surveys. This



	has been refined following further site selection and consultation.
Offshore substation platform	A fixed structure located within the wind farm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Onshore cable corridor	The area between the landfall and the onshore substation sites, within which the onshore cable circuits will be installed along with other temporary works for construction.
Onshore export cables	The cables which would bring electricity from the landfall to the onshore substation. 220 – 230kV.
Onshore Substation	Compound containing electrical equipment to enable connection to the National Grid.
Study area	Area where potential impacts from the project could occur, as defined for each individual EIA topic.
Sheringham Shoal Offshore Wind Farm Extension site	Sheringham Shoal Offshore Wind Farm Extension lease area.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension site as well as all onshore and offshore infrastructure.
The Applicant	Equinor New Energy Limited.



## 8.2 SAFETY ZONE STATEMENT

### 8.2.1 Introduction

#### 8.2.1.1 Legislative context

1. This Safety Zone Statement has been prepared in accordance with Regulation 6(1)(b)(ii) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations') which requires the applicant for a Development Consent Order (DCO), for the construction of offshore generating stations, to provide a statement as to whether an application will be made for safety zones. This statement outlines the legislative requirements relating to an application for safety zones for Offshore Renewable Energy Installations (OREI), under Section 95 of the Energy Act 2004 (the '2004 Act'), the Applicant's approach and the scope of the works for which the DCO is being sought.

#### 8.2.1.1 Purpose of the document

2. The safety zone application will provide all of the information required by paragraph 3 of Schedule 16 to the 2004 Act and Regulation 3 of the Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007 (the '2007 Regulations'). In accordance with Section 95 of the 2004 Act, the application will be made to the Secretary of State for Business, Energy and Industrial Strategy ('BEIS') (the 'Secretary of State').
3. The safety zone application will be made once the final number and precise location the OREI have been determined, including the wind turbine and offshore substation platform(s). An application for safety zones is likely to be made during the end of 2026.

#### 8.2.1.1 Brief Project Description and Description of Project Area

4. Equinor New Energy Ltd. on behalf of Scira Extension Ltd (SEL) and Dudgeon Extension Ltd (DEL) is promoting the development of the Sheringham Shoal Extension Project (SEP) and Dudgeon Extension Project (DEP) offshore wind farms (hereafter referred to as SEP and DEP) in the southern North Sea.
5. Whilst SEP and DEP will be the subject of a single DCO application, both projects are separate entities which makes it necessary to consider different development scenarios and cover the possibility that:
6. Both SEP and DEP are developed, either concurrently or sequentially ('together' scenarios, whereby either a separated or an integrated grid option could apply). One or the other (but not both) projects are developed ('in isolation' scenarios, whereby only a separated grid option would apply).
7. SEP and DEP will consist of an offshore generating station(s) with a capacity of greater than 100 megawatt (MW) and therefore is a Nationally Significant Infrastructure Project (NSIP), as defined by Section 15(3) of the Planning Act 2008, as amended. As such, there is a requirement to submit an application for a DCO to the Planning Inspectorate (PINS) to be decided by BEIS.



8. The closest point to the coast is 15.8 kilometres (km) from SEP and 26.5km from DEP (**Figure 1**). The array area in SEP covers approximately 97.0km<sup>2</sup> and the array areas in DEP cover approximately 114.75km<sup>2</sup>
9. SEP and DEP are located in the Greater Wash region of the southern North Sea, with the closest point to the coast being 13.6km from SEP and 24.8km from DEP (**Figure 1**). The offshore DCO boundary includes the SEP and DEP wind farm sites as defined by The Crown Estate (TCE) Agreement for Lease (AfL) areas. The DEP wind farm site is divided into two distinct areas: DEP North and DEP South. The offshore DCO boundary includes the offshore cable corridors that either connect the wind farm sites together (interlink cables) or connect the wind farms to the landfall (export cables).

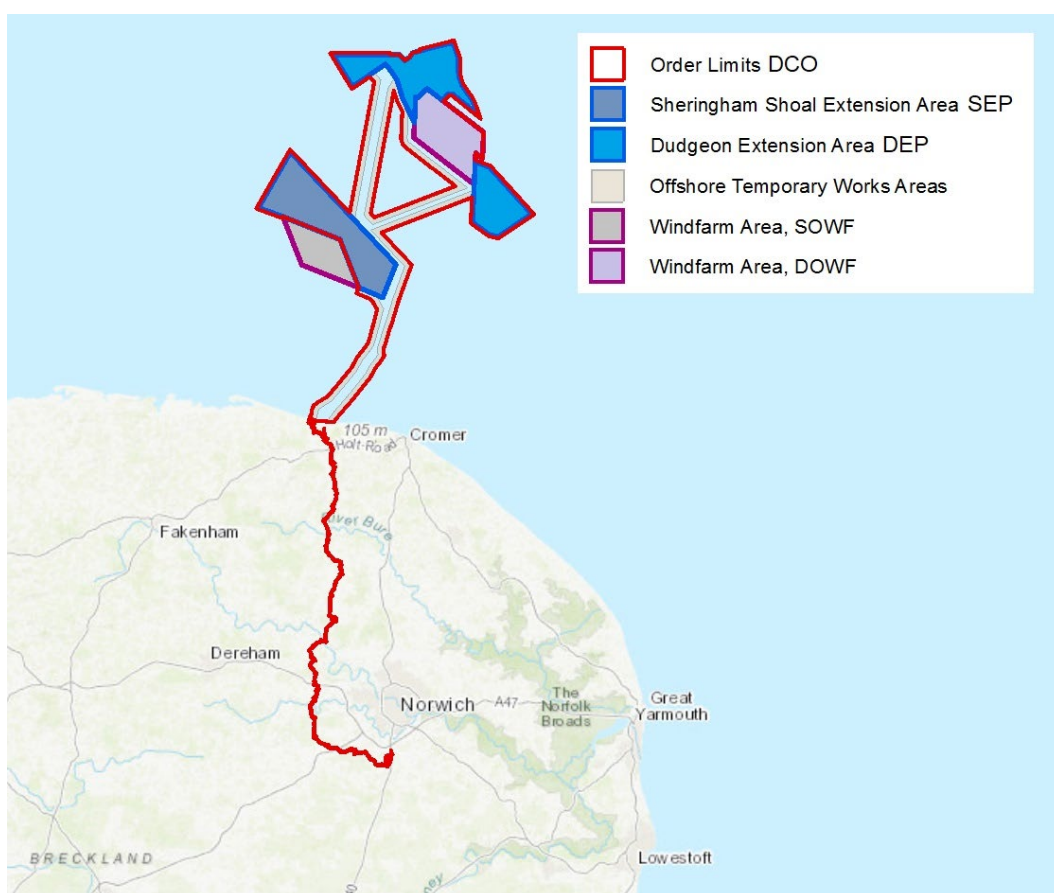


Figure 1 Project Area

10. The key offshore components comprise:
  - Wind turbines
  - Offshore substation platform/s (OSP)
  - Foundation structures for wind turbines and OSP/s
  - Infield cables
  - Interlink cables; and
  - Export cables from the wind farm site/s to the landfall



11. SEP and DEP will be connected to shore by offshore export cables installed to the landfall at Weybourne, on the north Norfolk coast. From there, the onshore export cables travel approximately 60km inland to a high voltage alternating current (HVAC) onshore substation near to the existing Norwich Main substation. The onshore substation will be constructed to accommodate the connection of both SEP and DEP to the transmission grid.

### 8.2.1 Scope of The Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects Application

12. The SEP and DEP's DCO seeks, among other things, consent for the following offshore works, as set out in Part 1 of Schedule 1 to the **Draft DCO** (document 3.1) and as included below:

#### **For offshore works at SEP**

Work No. 1 A— in the event of scenario 1, scenario 2, scenario 3 or scenario 4, an offshore wind turbine generating station with a gross electrical output capacity of more than 100 megawatts comprising up to 23 wind turbines each fixed to the seabed by piled monopile, suction bucket monopile, piled jacket, suction bucket jacket or gravity base structure foundations.

Work No. 2A—

(a) in the event of scenario 1, scenario 2, scenario 3 or scenario 4, a network of subsea cables between the wind turbines in Work No. 1A including cable protection and one or more cable crossings; and

(b) in the event of scenario 1, scenario 2 or scenario 3, a network of subsea cables between the wind turbines in Work No. 1A and the offshore substation platform in Work No. 2A including cable protection and one or more cable crossings; or

(c) in the event of scenario 4, a network of subsea cable circuits between the wind turbines in Work No. 1A and the integrated offshore substation platform in Work No. 3C including cable protection and one or more cable crossings;

#### **For associated development at SEP (within the meaning of section 115(2) of the 2008 Act) comprising:**

Work No. 3A— in the event of scenario 1, scenario 2 or scenario 3, an offshore substation platform fixed to the seabed by either piled jacket or suction bucket jacket or piled monopile foundations within the area shown on the works plans;

Work No. 4A— in the event of scenario 1, scenario 2 or scenario 3, HVAC subsea export cables between, Work No. 3A and Work No. 5A along routes within the area shown on the works plans including cable protection and one or more cable crossings;



Work No 5A—in the event of scenario 1, scenario 2 or scenario 3, HVAC subsea export cables between Work No. 4A and Work No. 7A along routes within the area shown on the works plans including cable protection and one or more cable crossings;

Work No. 6A— —in the event of scenario 1, scenario 2 or scenario 3, a temporary work area for vessels to carry out intrusive activities and non-intrusive activities alongside Work Nos. 1A, 2A, 3A, 4A and 5A;

Work No. 7A— in the event of scenario 1, scenario 2 or scenario 3, landfall connection works between Work No. 4A and Work No. 7A comprising of a cable circuit and ducts seaward of mean high water springs (MHWS).

**For offshore works at DEP**

Work No. 1B—in the event of scenario 1, scenario 2, scenario 3 or scenario 4, the offshore wind turbine generating station comprising up to 23 wind turbines each fixed to the seabed by piled monopile, suction bucket monopile, piled jacket, suction bucket jacket or gravity base structure foundations; and

**For associated development at DEP (within the meaning of section 115(2) of the 2008 Act) comprising:**

Work No. 2B—

(a) in the event of scenario 1, scenario 2, scenario 3 or scenario 4, a network of subsea cables between the wind turbines in Work No. 1B including cable protection and one or more cable crossings; and

(b) in the event of scenario 1, scenario 2 or scenario 3, a network of subsea cables between the wind turbines in Work No. 1B and Work No. 3B including cable protection and one or more cable crossings and;

associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising—

Work No. 3B— in the event of scenario 1, scenario 2 or scenario 3, an offshore substation platform fixed to the seabed by either piled jacket or suction bucket jacket foundations within the area shown on the works plans;

Work No. 4B— in the event of scenario 1, scenario 2 or scenario 3—

(a) interlink cables between DEP North and DEP South within the areas shown on the works plans; and

(b) HVAC subsea export cables between Work No. 3B and Work No. 5B along routes within the areas shown on the works plans including cable protection and one or more cable crossings;

Work No. 5B— in the event of scenario 1, scenario 2, or scenario 3, HVAC subsea export cables between, Work No. 4B and Work No. 7B along routes within the area shown on the works plans including cable protection and one or more cable crossings;



Work No. 6B— in the event of scenario 1, scenario 2 or scenario 3, a temporary work area for vessels to carry out intrusive activities alongside Work Nos. 1B, 2B, 3B, and 4B or in the event of scenario 4, alongside Work Nos: 1B, 2B, 3B, 4B and 5B;

Work No. 7B— in the event of scenario 1, scenario 2, scenario 3, landfall connection works between Work No. 5B and Work No. 8B comprising of a cable circuit and ducts seaward of MHWS within the area shown on the works plan;

### **Further Associated Development**

In connection with such Work Nos. 1A to 7A and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed by the environmental statement, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1A to 5A and 7A and the disposal of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits;
- (d) removal of static fishing equipment; and

## **8.2.1 Safety Zone Statement**

13. The Applicant intends to make an application for safety zones around the OREI in the event that consent is granted for SEP and DEP in order to ensure the safety of the wind farm infrastructure, individuals working thereon, construction vessels and other vessels navigating in the area whilst works take place.
14. The need for safety zones at SEP and DEP is set out in **Chapter 13 Shipping and Navigation** (document reference 6.1.13) and in **Appendix 13.1 Navigation Risk Assessment** (document reference 6.3.13.1).
15. For the construction phase, 500 m safety zones around construction activities are considered necessary. During the construction phase a 50 m safety zone may also be necessary around OREI where construction works have finished but there are some works ongoing, such as a wind turbine that is incomplete or in the process of being tested before commissioning.

16. The Applicant does not currently foresee any specific need for safety zones to be established around the OREI during the operational phase with the exception of during major maintenance activities. During major maintenance activities it is anticipated that a 500m safety zone would be necessary. Major maintenance works” is defined by Regulation 2 of the 2007 Regulations as works relating to any renewable energy installation which has become operational, requiring the attachment to, or anchoring next to, such an installation of a self-elevating platform, jack-up barge, crane barge or other maintenance vessel.
17. It is not anticipated that an application for safety zones would included any specific provisions for the decommissioning of SEP and DEP. The need for safety zones at that stage would be subject to appropriate risk assessment and consultation with the statutory authorities at that time. A further safety zone application will be submitted for the decommissioning works, if required, at the relevant time.
18. The safety zones that may be applied for are summarized in **Table 08-1** below.

Table 08-1: Safety zones that may be applied for

Potential safety zone	Details
Construction	Up to 500m around each wind turbine foundation or OSP whilst under construction.
Commissioning	Up to 50m around each wind turbine foundation or OSP where construction has finished but where some work may be ongoing e.g. a wind turbine that is incomplete or in the process of being tested before commissioning.
Major Maintenance	Up to 500m when major maintenance is in progress (use of jack-up vessel or similar).
Decommissioning	Up to 500m at the end of the working life of a wind turbine foundation or OSP when it is being decommissioned.

