



# Hornsea Project Four: Additional Application Information

**PINS Document Reference: F1.2**  
**APFP Regulation: 6(1)(b)(ii)**

## **F1.2: Safety Zone Statement**

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Version A

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## Glossary

Term	Definition
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
EIA Directive	European Union Directive 85/337/EEC, as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC and then codified by <a href="#">Directive 2011/92/EU</a> of 13 December 2011 (as amended in 2014 by <a href="#">Directive 2014/52/EU</a> ).
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
Export cable corridor (ECC)	The specific corridor of seabed (seaward of Mean High Water Springs (MHWS)) and land (landward of MHWS) from the Hornsea Project Four array area to the Creyke Beck National Grid substation, within which the export cables will be located.
High Voltage Alternating Current (HVAC)	High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction.
High Voltage Direct Current (HVDC)	High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction.
Hornsea Project Four Offshore Wind Farm	The term covers all elements of the project (i.e. both the offshore and onshore). Hornsea Four infrastructure will include offshore generating stations (wind turbines), electrical export cables to landfall, and connection to the electricity transmission network. Hereafter referred to as Hornsea Four.
Landfall	The generic term applied to the entire landfall area between Mean Low Water Spring (MLWS) tide and the Transition Joint Bay (TJB) inclusive of all construction works, including the offshore and onshore ECC, intertidal working area and landfall compound. Where the offshore cables come ashore east of Fraisthorpe.
Orsted Hornsea Project Four Ltd.	The Applicant of proposed Hornsea Project Four offshore wind farm.
Planning Inspectorate (PINS)	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects (NSIPs).

## Acronyms

Acronym	Definition
APFP Regulations	Applications: Prescribed Forms and Procedures Regulations 2009
BEIS	Business, Energy and Industrial Strategy
DCO	Development Consent Order
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
MCA	Maritime and Coastguard Agency
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate

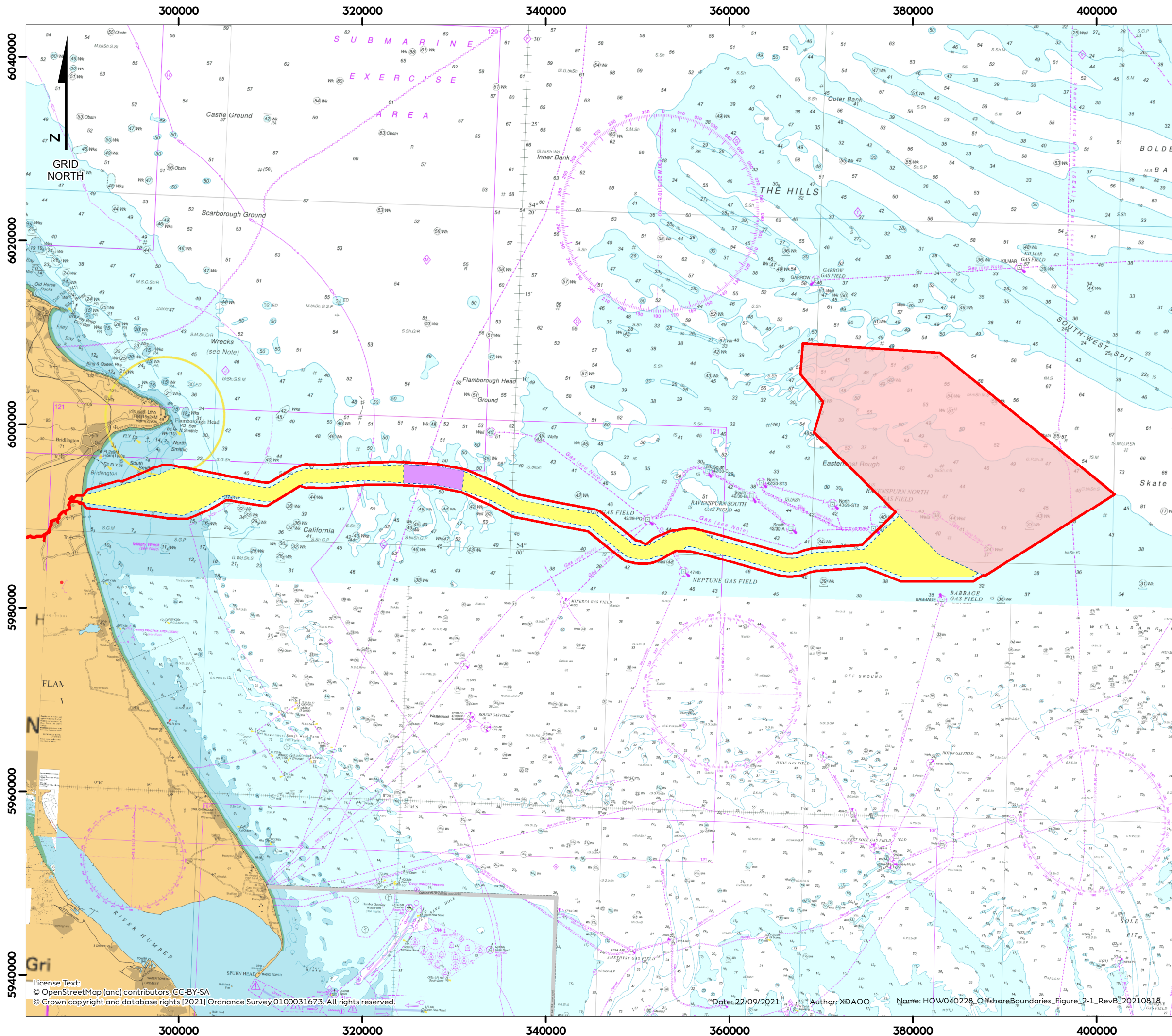
## 1 Introduction

- 1.1.1.1 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 an offshore generating station, 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 wind turbines and associated infrastructure, 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.
- 1.1.1.2 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) (Applications 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').
- 1.1.1.3 The safety zone application will be made once the final number and precise location of the wind turbines, offshore accommodation platform, offshore High Voltage Alternating Current (HVAC) substations, offshore High Voltage Direct Current (HVDC) converter substations and offshore HVAC booster stations have been determined. An application for safety zones is likely to be made during 2026.

## 2 Safety Zone Statement

- 2.1.1.1 Orsted Hornsea Project Four Limited (the 'Applicant') is proposing to develop the Hornsea Project Four Offshore Wind Farm (hereafter 'Hornsea Four'). Hornsea Four will be located approximately 69 km offshore the coast of the East Riding of Yorkshire in the Southern North Sea and will be the fourth project to be developed in the former Hornsea Zone.
- 2.1.1.2 Hornsea Four will consist of an offshore generating station(s) with a capacity of greater than 100 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 the Secretary of State for BEIS.
- 2.1.1.3 The Hornsea Four array area (i.e. the area in which the turbines are located) is approximately 468 km<sup>2</sup> and is located approximately 69 km due east off Flamborough Head, at its closest point and adjacent to Hornsea Project Two on the eastern boundary. (Figure 2.1).
- 2.1.1.4 Regulation 6(1)(b)(ii) of the APFP Regulations requires the applicant for a DCO for an offshore generating station, to provide a statement as to whether an application will be made for safety zones in respect of that offshore generating station.
- 2.1.1.5 The Applicant intends to apply for a safety zone of up to 500 m around infrastructure that is under construction (identified by the presence of vessels), including around each of the wind turbines, offshore accommodation platform, offshore HVAC collector substations, offshore HVDC converter substations and offshore HVAC booster stations.
- 2.1.1.6 Safety zones of 50 m may be sought for pre commissioned structures at which construction activity may be temporarily paused (and therefore the 500 m safety zone has lapsed as there is no longer a construction vessel on site), such as installed monopiles without transition pieces or where construction works are completed but the wind farm has not yet been commissioned. It is anticipated that the application will also request a safety zone of up to 500 m for works of major maintenance during the operational phase of the project. This is in order to ensure the safety of the wind turbines, offshore accommodation platform, offshore HVAC substations, offshore HVDC converter substations and offshore HVAC booster stations, the individuals working thereon, the wind farm related vessels and other vessels navigating in the area whilst works take place.

- 2.1.1.7 In addition, the Applicant intends to apply for a safety zone of up to 500 m around each of the offshore accommodation platform during the operation and maintenance phase of Hornsea Four. This is in order to ensure the safety of the individuals on the platform, protect against electrical hazards and the danger of spillage in addition to ensuring the safety of operation and maintenance vessels and other vessels navigating in the area. Given that these safety zones would be required throughout the life of the project, an application would need to include a safety case.
- 2.1.1.8 It is expected that a safety zone of up to 500 m will be required during the decommissioning of offshore infrastructure. Prior to the end of life of Hornsea Four, consultation with BEIS and any other relevant bodies, e.g. the Marine Management Organisation (MMO), Trinity House and the Maritime and Coastguard Agency (MCA), would be carried out to determine whether a safety zone will be required for the decommissioning of Hornsea Four. A further safety zone application will be submitted for decommissioning works, if required, at the relevant time.

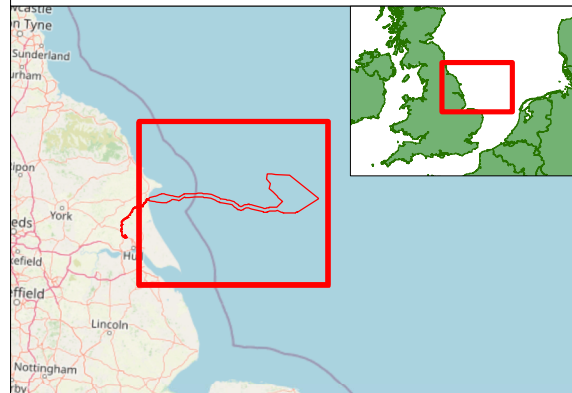


# Hornsea Four

## Figure 2.1

### Offshore DCO Order Limits

- Order Limits
- Array Area
- HVAC Booster Station Works Area
- Offshore Export Cable Corridor



Coordinate system: ETRS 1989 UTM Zone 31N  
 Scale@A3: 1:400,000

0 5 10 20 Kilometers

0 2.5 5 10 Nautical Miles

REV	REMARK	DATE
	First Issue for PEIR	22/05/2019
A	Updated following PEIR consultations, for DCO	06/07/2020
B	Reduced Array Area in northwest corner	18/08/2021

Offshore DCO Order Limits  
 Document no: HOW040228  
 Created by: XDAO  
 Checked by: JOHLE  
 Approved by: JULCA



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## 3 Scope of Hornsea Four Application

3.1.1.1 The Hornsea Four 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 reference number [C1.1](#)) and included below:

### Work No. 1:

- (a) An offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 180 wind turbine generators, each fixed to the seabed by one of monopile foundation, mono suction bucket foundation, gravity base foundation or jacket foundation;
- (b) One offshore accommodation platform fixed to the seabed within the area shown on the offshore works plan by one of monopile foundation, mono suction bucket foundation, gravity base foundation or jacket foundation, and which may be connected to each other or one of the offshore substations within Work No. 2 by a bridge link; and
- (c) A network of cables between the wind turbine generators, and between the wind turbine generators and Work No. 2, including one or more cable crossings.

### Work No. 2:

- (a) Up to six small offshore transformer substations each fixed to the seabed by one of monopile foundation, mono suction bucket foundation, gravity base foundation or jacket foundations, and which may be connected to each other or one of the offshore accommodation platform within Work No.1(b) by a bridge link; or
- (b) Up to three large offshore transformer substations each fixed to the seabed by one of monopile foundations, mono suction bucket foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base type 1 structures, or pontoon gravity base type 2 structures, and which may be connected to each other or one of the offshore accommodation platform within Work No.1(b) by a bridge link;
- (c) In the event that the mode of transmission is HVDC, either up to three either large HVDC converter substations or up to six small HVDC converter substations fixed to the seabed by one of monopile foundations, mono suction bucket foundations, jacket foundations, gravity base structures, box-type gravity base structures, pontoon gravity base type 1 structures, or pontoon gravity base type 2 structures;
- (d) A network of cables;
- (e) Up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MLWS including one or more cable crossings; and
- (f) Up to eight temporary horizontal directional drilling exit pits and associated cofferdams;

### Work No. 3:

- (a) Up to three offshore HVAC booster stations fixed to the seabed within the area shown on the offshore works plan by one of monopile foundations, mono suction bucket foundations, jacket foundations, gravity base structures, pontoon gravity base type 1 structures or pontoon gravity base type 2 structures; and

- (b) Up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MHWS including one or more cable crossings;

**Work No. 4** – a temporary work area associated with Work No.2 and Work No.3 for vessels to carry out anchoring and positioning alongside Work No.2 or Work No.3.

**Work No. 5** – works consisting of:

- (a) Up to six cable circuits and associated electrical circuit ducts between Work No. 2 and Work No. 6;
- (b) Up to eight horizontal directional drilling exit pits, unless Work No. 2(f) is constructed; and
- (c) Up to eight horizontal directional drilling launch pits;

3.1.1.2 Offshore works relevant to the Safety Zone Statement are Work Nos. 1 to 3. All other offshore works are not relevant to the Safety Zone Statement.

## 4 Safety Zone Application

4.1.1.1 Regulation 3 of the 2007 Regulations and paragraph 3 of Schedule 16 to the 2004 Act require that the following information should be included within a written application for safety zones in respect of an offshore generating station:

- A map showing:
  - The place where the relevant renewable energy installation is to be, or is being, constructed, extended, operated or decommissioned; and
  - The waters in relation to which any declaration applied for will establish a safety zone;
- A description of the installation and its proposed or existing location and dimensions (including an explanation of how much of it is (or is expected to be) visible above the water line and how much below it), supported by drawings;
- A description of how the installation operates (or is to operate);
- A description of the location (or proposed location) of:
  - Any electric line used (or proposed to be used) for the conveyance of electricity to or from the installation;
  - Any connection to such an electric line;
  - A description of the location (or proposed location) of any offshore sub-station housing connection equipment;
  - Where the safety zone is sought in respect of more than one relevant renewable energy installation, the proposed or existing distances between such installations; and
  - Details of any navigational marking that has been specified for use with an installation of the description in question by a general lighthouse authority.
- Whether the safety zone relates to the construction, extension, operation or decommissioning of the relevant renewable energy installation;
- Whether the applicant seeks the declaration of a standard safety zone, or if not, what dimensions are sought for the zone;
- A description of those works or operations in respect of which the safety zone is being applied for and their estimated date and duration;
- Whether the applicant proposes that the area of the safety zone will vary and any factors or determinations by reference to which the applicant proposes that such variation may take place;
- Whether the safety zone relates to major maintenance works in respect of a relevant renewable energy installation which has become operational;
- A statement setting out what steps, if any, the applicant proposes to take to monitor vessels and activities within the safety zone;
- Except where the Secretary of State has notified the applicant that it is not required, an up to date shipping traffic survey for the waters comprising the safety zone; and
- An assessment of the extent to which navigation might be possible or should be restricted, and whether restrictions would cause navigational problems, within or near waters where the relevant renewable energy installation is to be, or is being,

constructed, extended, operated or decommissioned, as the case may be.

4.1.1.2 The Applicant's safety zone application will contain the information required by Regulation 3 of the 2007 Regulations and paragraph 3 of Schedule 16 to the 2004 Act. The application is intended to be for safety zones of:

- Up to a 500 m radius around each wind turbine, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter substation, offshore HVAC booster station and associated foundation structures whilst work is being performed as indicated by the presence of construction vessels; and
- Up to a 500 m radius around all major maintenance works being undertaken around the wind turbines, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter substations, offshore HVAC booster stations and associated foundation structures.

4.1.1.3 In addition, it is anticipated that the application will request safety zones of:

- Up to 500 m radius around each offshore accommodation platform during operation; and
- A 50 m radius around each wind turbine, offshore accommodation platform, offshore HVAC collector substation, offshore HVDC converter substation, offshore HVAC booster station and associated foundation structures installed, complete or incomplete but waiting to be commissioned as part of Hornsea Four.

4.1.1.4 "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.

4.1.1.5 Where a safety zone relates to a renewable energy installation, the appropriate decision maker for safety zones is the Secretary of State, who has delegated that function to BEIS. The safety zone application will therefore be made to BEIS, which may, if it is considered appropriate to do so, issue a notice declaring that such areas as are specified or described in the notice are to be safety zones.

4.1.1.6 Pursuant to section 95(2) of the 2004 Act, the purposes for which BEIS may consider it appropriate to issue such a notice are for the purposes of securing the safety of: the renewable energy installation or its construction, extension or decommissioning; other installations in the vicinity of the installation or the place where it is to be constructed or extended; individuals in or on the installation or other installations in that vicinity; or vessels in that vicinity or individuals on such vessels.

4.1.1.7 The safety zone application will be made to BEIS once the final number and precise location of the wind turbines, offshore accommodation platform, offshore HVAC substations, offshore HVDC converter substations and offshore HVAC booster stations has been determined and before construction works commence.